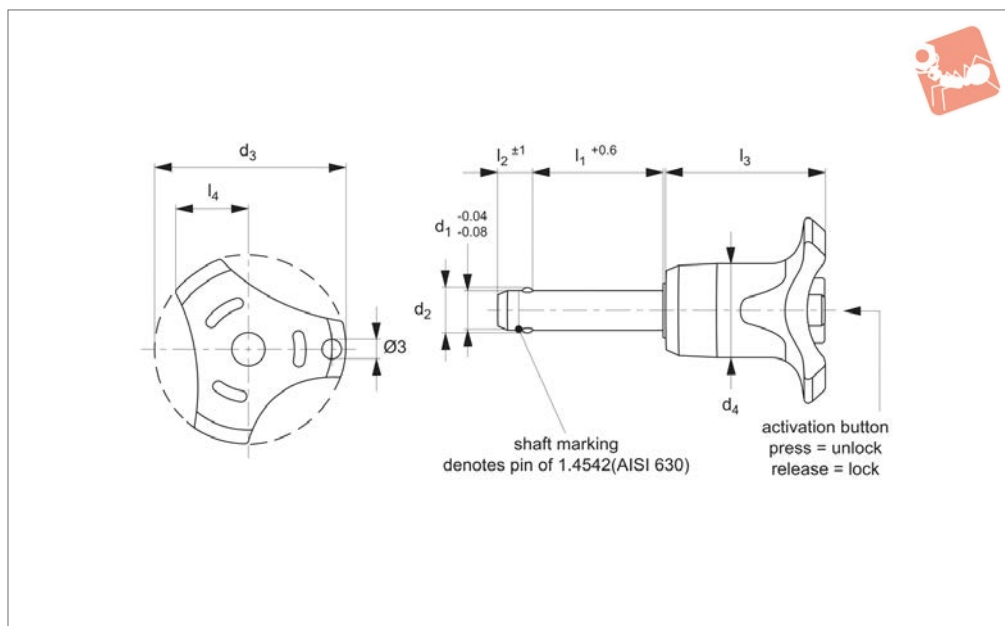


Ball Lock Pins - Single Acting - Black

self-locking - stainless steel 1.4542 (AISI 630)

Ball Lock Pins & Quick Release



33060.BK

BALL LOCK PINS & QUICK RELEASE PINS

Material

Pin: stainless steel 1,4542 (AISI 630), precipitation hardened, blast finish.
(marked at end of shaft to denote 1.4542 material).
Ball: stainless steel 1.3541
Spring: stainless steel.
Handle: thermoplastic PA 6.
Available colours: grey/orange, grey/blue, grey/grey, black/black.

Technical Notes

Pressing = unlocking.
Releasing = locking.
Temperature resistance -30°C to +80°C.
For quick fastening and locking of frequently repeated connections.

Tips

For lanyards & retaining cables see part no.33250. Easy install locating bushes

available see part no.33248.

Important Notes

Extreme load capacity due to high material grade.

*Shearing resistance similar to DIN 50141.
Also available in stainless grade 1.4305 (AISI 303), see part no.33080.

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33060.W0812	5	10	5.5	33.2	14.5	6.0	26.7	10.8	5	24	15
33060.W0813	5	15	5.5	33.2	14.5	6.0	26.7	10.8	5	24	15
33060.W0814	5	20	5.5	33.2	14.5	6.0	26.7	10.8	5	24	16
33060.W0815	5	25	5.5	33.2	14.5	6.0	26.7	10.8	5	24	17
33060.W0816	5	30	5.5	33.2	14.5	6.0	26.7	10.8	5	24	18
33060.W0817	6	60	7.0	33.2	14.5	7.0	26.7	10.8	6	21	26
33060.W0818	6	70	7.0	33.2	14.5	7.0	26.7	10.8	6	21	28
33060.W0819	6	80	7.0	33.2	14.5	7.0	26.7	10.8	6	21	30
33060.W0805	5	35	5.5	33.2	14.5	6.0	26.7	10.8	5	14	19
33060.W0806	5	40	5.5	33.2	14.5	6.0	26.7	10.8	5	14	20
33060.W0807	5	45	5.5	33.2	14.5	6.0	26.7	10.8	5	14	21
33060.W0808	5	50	5.5	33.2	14.5	6.0	26.7	10.8	5	14	23
33060.W0809	5	60	5.5	33.2	14.5	6.0	26.7	10.8	5	14	24
33060.W0810	5	70	5.5	33.2	14.5	6.0	26.7	10.8	5	14	18
33060.W0811	5	80	5.5	33.2	14.5	6.0	26.7	10.8	5	14	19
33060.W0821	8	100	9.6	39.2	18.4	8.2	33.3	13.4	8	38	54
33060.W0822	6	10	7.0	33.2	14.5	7.0	26.7	10.8	6	35	16
33060.W0823	6	15	7.0	33.2	14.5	7.0	26.7	10.8	6	35	17
33060.W0824	6	20	7.0	33.2	14.5	7.0	26.7	10.8	6	35	18
33060.W0825	6	25	7.0	33.2	14.5	7.0	26.7	10.8	6	35	19
33060.W0826	6	30	7.0	33.2	14.5	7.0	26.7	10.8	6	35	20
33060.W0827	6	35	7.0	33.2	14.5	7.0	26.7	10.8	6	35	21
33060.W0828	6	40	7.0	33.2	14.5	7.0	26.7	10.8	6	35	22
33060.W0829	6	45	7.0	33.2	14.5	7.0	26.7	10.8	6	35	23
33060.W0830	6	50	7.0	33.2	14.5	7.0	26.7	10.8	6	35	24
33060.W0831	8	90	9.6	39.2	18.4	8.2	33.3	13.4	8	38	36

Ball Lock Pins & Quick Release

Ball Lock Pins - Single Acting - Black self-locking - stainless steel 1.4542 (AISI 630)



BALL LOCK PINS & QUICK RELEASE PINS

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33060.W0832	8	10	9.6	39.2	18.4	8.2	33.3	13.4	8	38	38
33060.W0833	8	15	9.6	39.2	18.4	8.2	33.3	13.4	8	38	58
33060.W0834	8	20	9.6	39.2	19.3	8.2	33.3	13.4	8	63	40
33060.W0835	8	25	9.6	39.2	19.3	8.2	33.3	13.4	8	63	40
33060.W0836	8	30	9.6	39.2	19.3	8.2	33.3	13.4	8	63	44
33060.W0837	8	35	9.6	39.2	19.3	8.2	33.3	13.4	8	63	44
33060.W0838	8	40	9.6	39.2	19.3	8.2	33.3	13.4	8	63	47
33060.W0839	8	45	9.6	39.2	19.3	8.2	33.3	13.4	8	63	47
33060.W0840	8	50	9.6	39.2	19.3	8.2	33.3	13.4	8	63	47
33060.W0841	8	60	9.6	39.2	18.4	8.2	33.3	13.4	8	38	62
33060.W0842	8	70	9.6	39.2	18.4	8.2	33.3	13.4	8	38	65
33060.W0843	8	80	9.6	39.2	18.4	8.2	33.3	13.4	8	38	69
33060.W0844	10	20	12.0	39.2	19.3	9.6	33.3	13.4	10	100	47
33060.W0845	10	25	12.0	39.2	19.3	9.6	33.3	13.4	10	100	49
33060.W0846	10	30	12.0	39.2	19.3	9.6	33.3	13.4	10	100	53
33060.W0847	10	35	12.0	39.2	19.3	9.6	33.3	13.4	10	100	55
33060.W0848	10	40	12.0	39.2	19.3	9.6	33.3	13.4	10	100	58
33060.W0849	10	45	12.0	39.2	19.3	9.6	33.3	13.4	10	100	61
33060.W0850	10	50	12.0	39.2	19.3	9.6	33.3	13.4	10	100	61
33060.W0851	10	15	12.0	39.2	18.4	9.6	33.3	13.4	10	60	86
33060.W0852	10	60	12.0	39.2	19.3	9.6	33.3	13.4	10	100	70
33060.W0853	10	70	12.0	39.2	18.4	9.6	33.3	13.4	10	60	91
33060.W0854	10	80	12.0	39.2	18.4	9.6	33.3	13.4	10	60	97
33060.W0855	10	90	12.0	39.2	18.4	9.6	33.3	13.4	10	60	103
33060.W0856	10	100	12.0	39.2	18.4	9.6	33.3	13.4	10	60	109
33060.W0857	10	110	12.0	39.2	18.4	9.6	33.3	13.4	10	60	115
33060.W0858	10	120	12.0	39.2	18.4	9.6	33.3	13.4	10	60	53
33060.W0864	12	20	14.5	47.6	25.2	10.6	39.7	16.7	12	87	156
33060.W0865	10	25	12.0	39.2	19.3	9.6	33.3	13.4	10	100	70
33060.W0866	12	30	14.5	47.6	26.3	10.6	39.7	16.7	12	144	100
33060.W0867	12	35	14.5	47.6	26.3	10.6	39.7	16.7	12	144	105
33060.W0868	12	40	14.5	47.6	26.3	10.6	39.7	16.7	12	144	105
33060.W0869	12	45	14.5	47.6	26.3	10.6	39.7	16.7	12	144	113
33060.W0870	12	50	14.5	47.6	26.3	10.6	39.7	16.7	12	144	117
33060.W0872	12	60	14.5	47.6	26.3	10.6	39.7	16.7	12	144	126
33060.W0874	12	70	14.5	47.6	26.3	10.6	39.7	16.7	12	144	134
33060.W0876	12	80	14.5	47.6	26.3	10.6	39.7	16.7	12	144	143
33060.W0877	12	90	14.5	47.6	25.2	10.6	39.7	16.7	12	87	165
33060.W0878	12	100	14.5	47.6	25.2	10.6	39.7	16.7	12	87	173
33060.W0879	12	110	14.5	47.6	25.2	10.6	39.7	16.7	12	87	182
33060.W0880	12	120	14.5	47.6	25.2	10.6	39.7	16.7	12	87	96
33060.W0886	16	30	19.0	47.6	26.3	14.0	39.7	16.7	16	257	132
33060.W0887	16	35	19.0	47.6	26.3	14.0	39.7	16.7	16	257	140
33060.W0888	16	40	19.0	47.6	26.3	14.0	39.7	16.7	16	257	148
33060.W0889	16	45	19.0	47.6	26.3	14.0	39.7	16.7	16	257	155
33060.W0890	16	45	19.0	47.6	26.3	14.0	39.7	16.7	16	257	155
33060.W0892	16	60	19.0	47.6	26.3	14.0	39.7	16.7	16	257	178
33060.W0894	16	70	19.0	47.6	26.3	14.0	39.7	16.7	16	257	194
33060.W0896	16	80	19.0	47.6	26.3	14.0	39.7	16.7	16	257	208
33060.W0897	16	90	19.0	47.6	25.2	14.0	39.7	16.7	16	155	234
33060.W0898	16	10	19.0	47.6	25.2	14.0	39.7	16.7	16	155	251
33060.W0899	16	110	19.0	47.6	25.2	14.0	39.7	16.7	16	155	266
33060.W0900	16	120	19.0	47.6	25.2	14.0	39.7	16.7	16	155	281
33060.W0901	16	130	19.0	47.6	25.2	14.0	39.7	16.7	16	155	297
33060.W0902	16	140	19.0	47.6	25.2	14.0	39.7	16.7	16	155	313
33060.W0903	16	150	19.0	47.6	25.2	14.0	39.7	16.7	16	155	328
33060.W0904	20	60	25.0	57.1	35.4	20.5	50.7	21.5	20	403	343
33060.W0905	20	50	25.0	57.1	33.8	20.5	50.7	21.5	20	403	329
33060.W0906	20	70	25.0	57.1	33.8	20.5	50.7	21.5	20	403	377
33060.W0907	20	90	25.0	57.1	33.8	20.5	50.7	21.5	20	403	426
33060.W0908	20	80	25.0	57.1	35.4	20.5	50.7	21.5	20	403	392
33060.W0912	20	100	25.0	57.1	35.4	20.5	50.7	21.5	20	403	440
33060.W0913	20	110	25.0	57.1	33.8	20.5	50.7	21.5	20	403	474
33060.W0916	20	120	25.0	57.1	33.8	20.5	50.7	21.5	20	403	488
33060.W0917	20	130	25.0	57.1	33.8	20.5	50.7	21.5	20	403	523
33060.W0918	20	140	25.0	57.1	33.8	20.5	50.7	21.5	20	403	546
33060.W0919	20	150	25.0	57.1	33.8	20.5	50.7	21.5	20	403	571



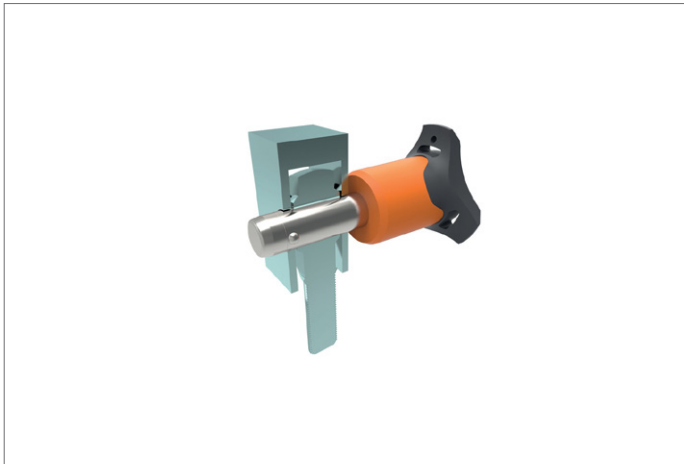
Ball Lock Pins - Single Acting - Black

self-locking - stainless steel 1.4542 (AISI 630)

Ball Lock Pins & Quick Release



Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33060.W0921	25	50	30.8	57.1	33.8	22.0	50.7	21.5	25	631	415
33060.W0922	25	60	30.8	57.1	33.8	22.0	50.7	21.5	25	631	453
33060.W0923	25	70	30.8	57.1	33.8	22.0	50.7	21.5	25	631	490
33060.W0924	25	80	30.8	57.1	33.8	22.0	50.7	21.5	25	631	528
33060.W0925	25	90	30.8	57.1	33.8	22.0	50.7	21.5	25	631	565
33060.W0926	25	100	30.8	57.1	33.8	22.0	50.7	21.5	25	631	603
33060.W0927	25	110	30.8	57.1	33.8	22.0	50.7	21.5	25	631	640
33060.W0928	25	120	30.8	57.1	33.8	22.0	50.7	21.5	25	631	678
33060.W0929	25	130	30.8	57.1	33.8	22.0	50.7	21.5	25	631	715
33060.W0930	25	140	30.8	57.1	33.8	22.0	50.7	21.5	25	631	753
33060.W0931	25	150	30.8	57.1	33.8	22.0	50.7	21.5	25	631	790



BALL LOCK PINS & QUICK RELEASE PINS

Ball Lock Pins & Quick Release

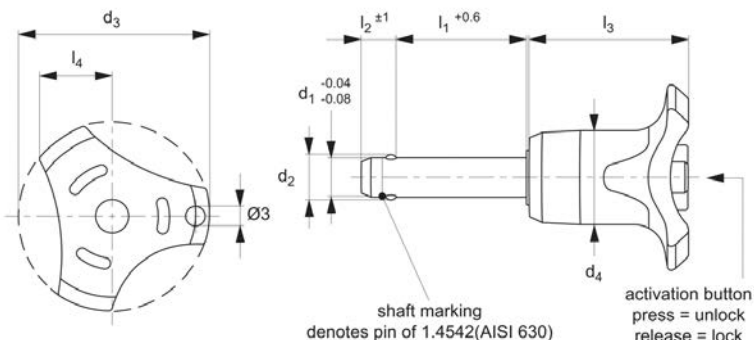
Ball Lock Pins - Single Acting - Blue self-locking - stainless steel 1.4542 (AISI 630)



BALL LOCK PINS & QUICK RELEASE PINS



33060.BU



Material

Pin: stainless steel 1,4542 (AISI 630), precipitation hardened, blast finish. (marked at end of shaft to denote 1.4542 material).
Ball: stainless steel 1.3541
Spring: stainless steel.
Handle: thermoplastic PA 6.
Available colours: grey/orange, grey/blue, grey/grey, black/black.

Technical Notes

Pressing = unlocking.
Releasing = locking.
Temperature resistance -30°C to +80°C.
For quick fastening and locking of frequently repeated connections.

Tips

For lanyards & retaining cables see part no.33250. Easy install locating bushes

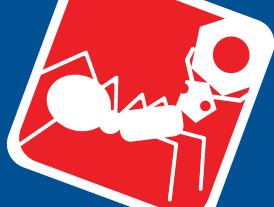
available see part no.33248.

Important Notes

Extreme load capacity due to high material grade.

*Shearing resistance similar to DIN 50141. Also available in stainless grade 1.4305 (AISI 303), see part no.33080.

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33060.W0432	5	10	5.5	33.2	14.5	6.0	26.7	10.8	5	24	15
33060.W0433	5	15	5.5	33.2	14.5	6.0	26.7	10.8	5	24	15
33060.W0434	5	20	5.5	33.2	14.5	6.0	26.7	10.8	5	24	16
33060.W0435	5	25	5.5	33.2	14.5	6.0	26.7	10.8	5	24	17
33060.W0436	5	30	5.5	33.2	14.5	6.0	26.7	10.8	5	24	18
33060.W0437	6	60	7.0	33.2	14.5	7.0	26.7	10.8	6	21	26
33060.W0438	6	70	7.0	33.2	14.5	7.0	26.7	10.8	6	21	28
33060.W0439	6	80	7.0	33.2	14.5	7.0	26.7	10.8	6	21	30
33060.W0425	5	35	5.5	33.2	14.5	6.0	26.7	10.8	5	14	19
33060.W0426	5	40	5.5	33.2	14.5	6.0	26.7	10.8	5	14	20
33060.W0427	5	45	5.5	33.2	14.5	6.0	26.7	10.8	5	14	21
33060.W0428	5	50	5.5	33.2	14.5	6.0	26.7	10.8	5	14	23
33060.W0429	5	60	5.5	33.2	14.5	6.0	26.7	10.8	5	14	24
33060.W0430	5	70	5.5	33.2	14.5	6.0	26.7	10.8	5	14	18
33060.W0431	5	80	5.5	33.2	14.5	6.0	26.7	10.8	5	14	19
33060.W0441	8	100	9.6	39.2	18.4	8.2	33.3	10.813.4	8	38	54
33060.W0442	6	10	7.0	33.2	14.5	7.0	26.7	10.8	6	35	16
33060.W0443	6	15	7.0	33.2	14.5	7.0	26.7	10.8	6	35	17
33060.W0444	6	20	7.0	33.2	14.5	7.0	26.7	10.8	6	35	18
33060.W0445	6	25	7.0	33.2	14.5	7.0	26.7	10.8	6	35	19
33060.W0446	6	30	7.0	33.2	14.5	7.0	26.7	10.8	6	35	20
33060.W0447	6	35	7.0	33.2	14.5	7.0	26.7	10.8	6	35	21
33060.W0448	6	40	7.0	33.2	14.5	7.0	26.7	10.8	6	35	22
33060.W0449	6	45	7.0	33.2	14.5	7.0	26.7	10.8	6	35	23
33060.W0450	6	50	7.0	33.2	14.5	7.0	26.7	10.8	6	35	24
33060.W0451	8	90	9.6	39.2	18.4	8.2	33.3	13.4	8	38	36



Ball Lock Pins - Single Acting - Blue

self-locking - stainless steel 1.4542 (AISI 630)

Ball Lock Pins & Quick Release

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33060.W0452	8	10	9.6	39.2	18.4	8.2	33.3	13.4	8	38	24
33060.W0453	8	15	9.6	39.2	18.4	8.2	33.3	13.4	8	38	58
33060.W0454	8	20	9.6	39.2	19.3	8.2	33.3	13.4	8	63	40
33060.W0455	8	25	9.6	39.2	19.3	8.2	33.3	13.4	8	63	42
33060.W0456	8	30	9.6	39.2	19.3	8.2	33.3	13.4	8	63	44
33060.W0457	8	35	9.6	39.2	19.3	8.2	33.3	13.4	8	63	46
33060.W0458	8	40	9.6	39.2	19.3	8.2	33.3	13.4	8	63	47
33060.W0459	8	45	9.6	39.2	19.3	8.2	33.3	13.4	8	63	49
33060.W0460	8	50	9.6	39.2	18.4	8.2	33.3	13.4	8	63	51
33060.W0461	8	60	9.6	39.2	18.4	8.2	33.3	13.4	8	38	62
33060.W0462	8	70	9.6	39.2	18.4	8.2	33.3	13.4	8	38	65
33060.W0463	8	80	9.6	39.2	18.4	8.2	33.3	13.4	8	38	69
33060.W0464	10	20	12.0	39.2	19.3	9.6	33.3	13.4	10	100	47
33060.W0465	10	25	12.0	39.2	19.3	9.6	33.3	13.4	10	100	49
33060.W0466	10	30	12.0	39.2	19.3	9.6	33.3	13.4	10	100	53
33060.W0467	10	35	12.0	39.2	19.3	9.6	33.3	13.4	10	100	55
33060.W0468	10	40	12.0	39.2	19.3	9.6	33.3	13.4	10	100	58
33060.W0469	10	45	12.0	39.2	19.3	9.6	33.3	13.4	10	100	61
33060.W0470	10	50	12.0	39.2	19.3	9.6	33.3	13.4	10	100	64
33060.W0471	10	15	12.0	39.2	18.4	9.6	33.3	13.4	10	60	86
33060.W0472	10	60	12.0	39.2	19.3	9.6	33.3	13.4	10	100	70
33060.W0473	10	70	12.0	39.2	18.4	9.6	33.3	13.4	10	60	91
33060.W0474	10	80	12.0	39.2	18.4	9.6	33.3	13.4	10	60	97
33060.W0475	10	90	12.0	39.2	18.4	9.6	33.3	13.4	10	60	103
33060.W0476	10	100	12.0	39.2	18.4	9.6	33.3	13.4	10	60	109
33060.W0477	10	110	12.0	39.2	18.4	9.6	33.3	13.4	10	60	115
33060.W0478	10	120	12.0	39.2	18.4	9.6	33.3	13.4	10	60	53
33060.W0484	12	20	14.5	47.6	25.2	10.6	39.7	16.7	12	87	156
33060.W0485	12	25	14.5	47.6	26.3	10.6	39.7	16.7	12	144	96
33060.W0486	12	30	14.5	47.6	26.3	10.6	39.7	16.7	12	144	100
33060.W0487	12	35	14.5	47.6	26.3	10.6	39.7	16.7	12	144	105
33060.W0488	12	40	14.5	47.6	26.3	10.6	39.7	16.7	12	144	109
33060.W0489	12	45	14.5	47.6	26.3	10.6	39.7	16.7	12	144	113
33060.W0490	12	50	14.5	47.6	26.3	10.6	39.7	16.7	12	144	117
33060.W0492	12	60	14.5	47.6	26.3	10.6	39.7	16.7	12	144	126
33060.W0494	12	70	14.5	47.6	26.3	10.6	39.7	16.7	12	144	134
33060.W0496	12	80	14.5	47.6	26.3	10.6	39.7	16.7	12	144	143
33060.W0497	12	90	14.5	47.6	25.2	10.6	39.7	16.7	12	87	165
33060.W0498	12	100	14.5	47.6	25.2	10.6	39.7	16.7	12	87	173
33060.W0499	12	110	14.5	47.6	25.2	10.6	39.7	16.7	12	87	182
33060.W0500	12	120	14.5	47.6	25.2	10.6	39.7	16.7	12	87	96
33060.W0506	16	30	19.0	47.6	26.3	14.0	39.7	16.7	16	257	132
33060.W0507	16	35	19.0	47.6	26.3	14.0	39.7	16.7	16	257	140
33060.W0508	16	40	19.0	47.6	26.3	14.0	39.7	16.7	16	257	148
33060.W0509	16	45	19.0	47.6	26.3	14.0	39.7	16.7	16	257	155
33060.W0510	16	50	19.0	47.6	26.3	14.0	39.7	16.7	16	257	168
33060.W0512	16	60	19.0	47.6	26.3	14.0	39.7	16.7	16	257	178
33060.W0514	16	70	19.0	47.6	26.3	14.0	39.7	16.7	16	257	194
33060.W0516	16	80	19.0	47.6	26.3	14.0	39.7	16.7	16	257	208
33060.W0517	16	90	19.0	47.6	25.2	14.0	39.7	16.7	16	155	234
33060.W0518	16	100	19.0	47.6	25.2	14.0	39.7	16.7	16	155	251
33060.W0519	16	110	19.0	47.6	25.2	14.0	39.7	16.7	16	155	266
33060.W0520	16	120	19.0	47.6	25.2	14.0	39.7	16.7	16	155	281
33060.W0521	16	130	19.0	47.6	25.2	14.0	39.7	16.7	16	155	297
33060.W0522	16	140	19.0	47.6	25.2	14.0	39.7	16.7	16	155	313
33060.W0523	16	150	19.0	47.6	25.2	14.0	39.7	16.7	16	155	328
33060.W0531	20	50	25.0	57.1	33.8	20.5	50.7	21.5	20	403	329
33060.W0532	20	60	25.0	57.1	35.4	20.5	50.7	21.5	20	403	343
33060.W0533	20	70	25.0	57.1	33.8	20.5	50.7	21.5	20	403	377
33060.W0536	20	80	25.0	57.1	35.4	20.5	50.7	21.5	20	403	392
33060.W0537	20	90	25.0	57.1	33.8	20.5	50.7	21.5	20	403	426
33060.W0540	20	100	25.0	57.1	35.4	20.5	50.7	21.5	20	403	440
33060.W0541	20	110	25.0	57.1	33.8	20.5	50.7	21.5	20	403	474
33060.W0544	20	120	25.0	57.1	33.8	20.5	50.7	21.5	20	403	488
33060.W0545	20	130	25.0	57.1	33.8	20.5	50.7	21.5	20	403	523
33060.W0546	20	140	25.0	57.1	33.8	20.5	50.7	21.5	20	403	546
33060.W0547	20	150	25.0	57.1	33.8	20.5	50.7	21.5	20	403	571

Ball Lock Pins & Quick Release

Ball Lock Pins - Single Acting - Blue

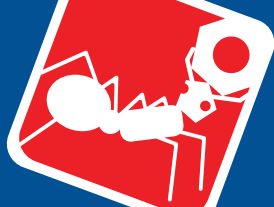
self-locking - stainless steel 1.4542 (AISI 630)



BALL LOCK PINS & QUICK RELEASE PINS

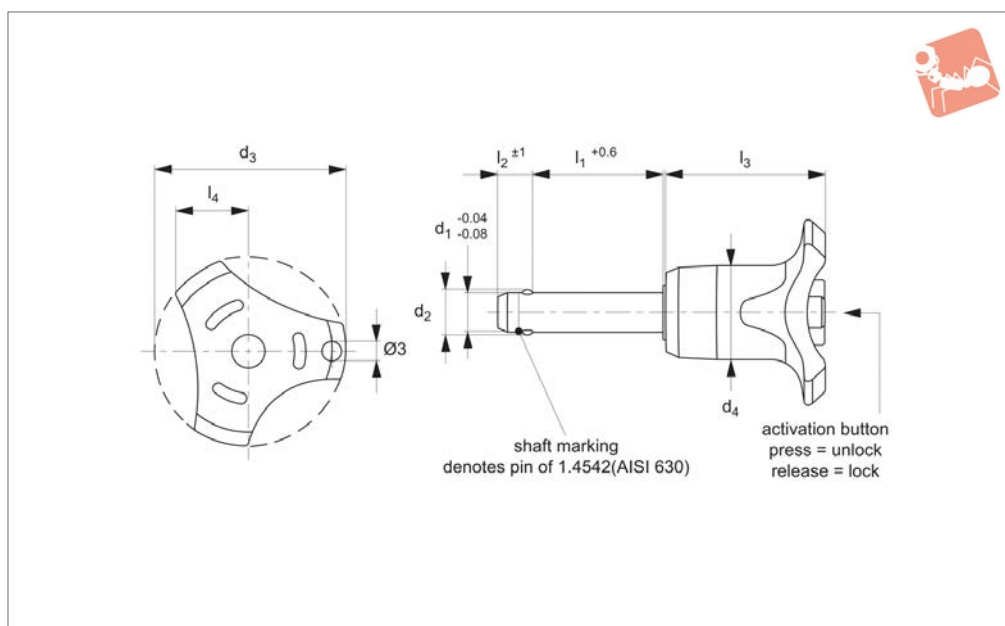
Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33060.W0549	25	50	30.8	57.1	33.8	22.0	50.7	21.5	25	631	415
33060.W0550	25	60	30.8	57.1	33.8	22.0	50.7	21.5	25	631	453
33060.W0551	25	70	30.8	57.1	33.8	22.0	50.7	21.5	25	631	490
33060.W0552	25	80	30.8	57.1	33.8	22.0	50.7	21.5	25	631	528
33060.W0553	25	90	30.8	57.1	33.8	22.0	50.7	21.5	25	631	565
33060.W0554	25	100	30.8	57.1	33.8	22.0	50.7	21.5	25	631	603
33060.W0555	25	110	30.8	57.1	33.8	22.0	50.7	21.5	25	631	640
33060.W0556	25	120	30.8	57.1	33.8	22.0	50.7	21.5	25	631	678
33060.W0557	25	130	30.8	57.1	33.8	22.0	50.7	21.5	25	631	715
33060.W0558	25	140	30.8	57.1	33.8	22.0	50.7	21.5	25	631	753
33060.W0559	25	150	30.8	57.1	33.8	22.0	50.7	21.5	25	631	790





Ball Lock Pins - Single Acting - Grey self-locking - stainless steel 1.4542 (AISI 630)

Ball Lock Pins & Quick Release



33060.GR

BALL LOCK PINS & QUICK RELEASE PINS

Material

Pin: stainless steel 1,4542 (AISI 630),
precipitation hardened, blast finish.
(marked at end of shaft to denote 1.4542
material).

Ball: stainless steel 1.3541

Spring: stainless steel.

Handle: thermoplastic PA 6.

Available colours: grey/orange, grey/blue,
grey/grey, black/black.

Technical Notes

Pressing = unlocking.

Releasing = locking.

Temperature resistance -30°C to +80°C.

For quick fastening and locking of
frequently repeated connections.

Tips

For lanyards & retaining cables see part
no.33250. Easy install locating bushes

available see part no.33248.

Important Notes

**Extreme load capacity due to high mate-
rial grade.**

*Shearing resistance similar to DIN 50141.

Also available in stainless grade 1.4305

(AISI 303), see part no.33080.

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33060.W0292	5	10	5.5	33.2	14.5	6.0	26.7	10.8	5	24	15
33060.W0293	5	15	5.5	33.2	14.5	6.0	26.7	10.8	5	24	15
33060.W0294	5	20	5.5	33.2	14.5	6.0	26.7	10.8	5	24	16
33060.W0295	5	25	5.5	33.2	14.5	6.0	26.7	10.8	5	24	17
33060.W0296	5	30	5.5	33.2	14.5	6.0	26.7	10.8	5	24	18
33060.W0297	6	60	7.0	33.2	14.5	7.0	26.7	10.8	6	21	26
33060.W0298	6	70	7.0	33.2	14.5	7.0	26.7	10.8	6	21	28
33060.W0299	6	80	7.0	33.2	14.5	7.0	26.7	10.8	6	21	30
33060.W0285	5	35	5.5	33.3	14.5	6.0	26.7	10.8	5	14	19
33060.W0286	5	40	5.5	33.4	14.5	6.0	26.7	10.8	5	14	20
33060.W0287	5	45	5.5	33.5	14.5	6.0	26.7	10.8	5	14	21
33060.W0288	5	50	5.5	33.6	14.5	6.0	26.7	10.8	5	14	23
33060.W0289	5	60	5.5	33.7	14.5	6.0	26.7	10.8	5	14	24
33060.W0290	5	70	5.5	33.8	14.5	6.0	26.7	10.8	5	14	18
33060.W0291	5	80	5.5	33.9	14.5	6.0	26.7	10.8	5	14	19
33060.W0301	8	100	9.6	39.2	18.4	8.2	33.3	13.4	8	38	54
33060.W0302	6	10	7.0	33.2	14.5	7.0	26.7	10.8	6	35	16
33060.W0303	6	15	7.0	33.2	14.5	7.0	26.7	10.8	6	35	17
33060.W0304	6	20	7.0	33.2	14.5	7.0	26.7	10.8	6	35	18
33060.W0305	6	25	7.0	33.2	14.5	7.0	26.7	10.8	6	35	19
33060.W0306	6	30	7.0	33.2	14.5	7.0	26.7	10.8	6	35	20
33060.W0307	6	35	7.0	33.2	14.5	7.0	26.7	10.8	6	35	21
33060.W0308	6	40	7.0	33.2	14.5	7.0	26.7	10.8	6	35	22
33060.W0309	6	45	7.0	33.2	14.5	7.0	26.7	10.8	6	35	23
33060.W0310	6	50	7.0	33.2	14.5	7.0	26.7	10.8	6	35	24
33060.W0311	8	90	7.0	39.2	18.4	8.2	33.3	13.4	8	38	36

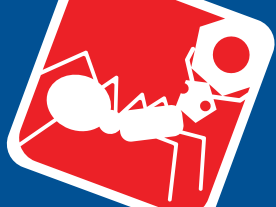
Ball Lock Pins & Quick Release

Ball Lock Pins - Single Acting - Grey self-locking - stainless steel 1.4542 (AISI 630)



BALL LOCK PINS & QUICK RELEASE PINS

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33060.W0312	8	10	9.6	39.2	18.5	8.2	33.3	13.4	8	38	38
33060.W0313	8	15	9.6	39.2	18.5	8.2	33.3	13.4	8	38	58
33060.W0314	8	20	9.6	39.2	19.3	8.2	33.3	13.4	8	63	40
33060.W0315	8	25	9.6	39.2	19.3	8.2	33.3	13.4	8	63	42
33060.W0316	8	30	9.6	39.2	19.3	8.2	33.3	13.4	8	63	44
33060.W0317	8	35	9.6	39.2	19.3	8.2	33.3	13.4	8	63	46
33060.W0318	8	40	9.6	39.2	19.3	8.2	33.3	13.4	8	63	47
33060.W0319	8	45	9.6	39.2	19.3	8.2	33.3	13.4	8	63	49
33060.W0320	8	50	9.6	39.2	19.3	8.2	33.3	13.4	8	63	51
33060.W0321	8	50	9.6	39.2	19.3	8.2	33.3	13.4	8	63	51
33060.W0322	8	50	9.6	39.2	19.3	8.2	33.3	13.4	8	63	51
33060.W0323	8	80	9.6	39.2	18.4	8.2	33.3	13.4	8	38	69
33060.W0324	10	20	12.0	39.2	19.3	9.6	33.3	13.4	10	100	47
33060.W0325	10	25	12.0	39.2	19.3	9.6	33.3	13.4	10	100	49
33060.W0326	10	30	12.0	39.2	19.3	9.6	33.3	13.4	10	100	53
33060.W0327	10	35	12.0	39.2	19.3	9.6	33.3	13.4	10	100	55
33060.W0328	10	40	12.0	39.2	19.3	9.6	33.3	13.4	10	100	58
33060.W0329	10	45	12.0	39.2	19.3	9.6	33.3	13.4	10	100	61
33060.W0330	10	50	12.0	39.2	19.3	9.6	33.3	13.4	10	100	64
33060.W0331	10	15	12.0	39.2	18.4	9.6	33.3	13.4	10	60	86
33060.W0332	10	60	12.0	39.2	19.3	9.6	33.3	13.4	10	100	70
33060.W0333	10	91	12.0	39.2	18.4	9.6	33.3	13.4	10	60	70
33060.W0334	10	80	12.0	39.2	18.4	9.6	33.3	13.4	10	60	97
33060.W0335	10	90	12.0	39.2	18.4	9.6	33.3	13.4	10	60	103
33060.W0336	10	100	12.0	39.2	18.4	9.6	33.3	13.4	10	60	109
33060.W0337	10	110	12.0	39.2	18.4	9.6	33.3	13.4	10	60	115
33060.W0338	10	120	12.0	39.2	18.4	9.6	33.3	13.4	10	60	53
33060.W0339	12	20	14.5	47.6	25.2	10.6	39.7	16.7	12	87	156
33060.W0344	12	20	14.5	47.6	26.3	10.6	39.7	16.7	12	87	156
33060.W0345	12	25	14.5	47.6	26.3	10.6	39.7	16.7	12	144	96
33060.W0346	12	30	14.5	47.6	26.3	10.6	39.7	16.7	12	144	100
33060.W0347	12	35	14.5	47.6	26.3	10.6	39.7	16.7	12	144	105
33060.W0348	12	40	14.5	47.6	26.3	10.6	39.7	16.7	12	144	109
33060.W0349	12	45	14.5	47.6	26.3	10.6	39.7	16.7	12	144	113
33060.W0350	12	50	14.5	47.6	26.3	10.6	39.7	16.7	12	144	117
33060.W0352	12	60	14.5	47.6	26.3	10.6	39.7	16.7	12	144	126
33060.W0354	12	70	14.5	47.6	26.3	10.6	39.7	16.7	12	144	134
33060.W0356	12	80	14.5	47.6	26.3	10.6	39.7	16.7	12	144	143
33060.W0357	12	90	14.5	47.6	25.2	10.6	39.7	16.7	12	87	165
33060.W0358	12	100	14.5	47.6	25.2	10.6	39.7	16.7	12	87	173
33060.W0359	12	110	14.5	47.6	25.2	10.6	39.7	16.7	12	87	182
33060.W0360	12	120	14.5	47.6	25.2	10.6	39.7	16.7	12	87	96
33060.W0366	16	30	19.0	47.6	26.3	14.0	39.7	16.7	16	257	132
33060.W0367	16	35	19.0	47.6	26.3	14.0	39.7	16.7	16	257	140
33060.W0368	16	40	19.0	47.6	26.3	14.0	39.7	16.7	16	257	148
33060.W0369	16	45	19.0	47.6	26.3	14.0	39.7	16.7	16	257	155
33060.W0370	16	50	19.0	47.6	26.3	14.0	39.7	16.7	16	257	168
33060.W0372	16	60	19.0	47.6	26.3	14.0	39.7	16.7	16	257	178
33060.W0374	16	70	19.0	47.6	26.3	14.0	39.7	16.7	16	257	194
33060.W0376	16	80	19.0	47.6	26.3	14.0	39.7	16.7	16	257	208
33060.W0377	16	90	19.0	47.6	25.2	14.0	39.7	16.7	16	155	234
33060.W0378	16	100	19.0	47.6	25.2	14.0	39.7	16.7	16	155	251
33060.W0379	16	110	19.0	47.6	25.2	14.0	39.7	16.7	16	155	266
33060.W0380	16	120	19.0	47.6	25.2	14.0	39.7	16.7	16	155	281
33060.W0381	16	130	19.0	47.6	25.2	14.0	39.7	16.7	16	155	297
33060.W0382	16	140	19.0	47.6	25.2	14.0	39.7	16.7	16	155	313
33060.W0383	16	150	19.0	47.6	25.2	14.0	39.7	16.7	16	155	328
33060.W0391	20	50	25.0	57.1	33.8	20.5	50.7	21.5	20	403	329
33060.W0392	20	60	25.0	57.1	35.4	20.5	50.7	21.5	20	403	343
33060.W0393	20	90	25.0	57.1	33.8	20.5	50.7	21.5	20	403	377
33060.W0396	20	80	25.0	57.1	35.4	20.5	50.7	21.5	20	403	392
33060.W0397	20	90	25.0	57.1	33.8	20.5	50.7	21.5	20	403	426
33060.W0400	20	100	25.0	57.1	35.4	20.5	50.7	21.5	20	403	440
33060.W0401	20	110	25.0	57.1	33.8	20.5	50.7	21.5	20	403	474
33060.W0404	20	120	25.0	57.1	35.4	20.5	50.7	21.5	20	403	488
33060.W0405	20	130	25.0	57.1	33.8	20.5	50.7	21.5	20	403	523
33060.W0406	20	140	25.0	57.1	33.8	20.5	50.7	21.5	20	403	546



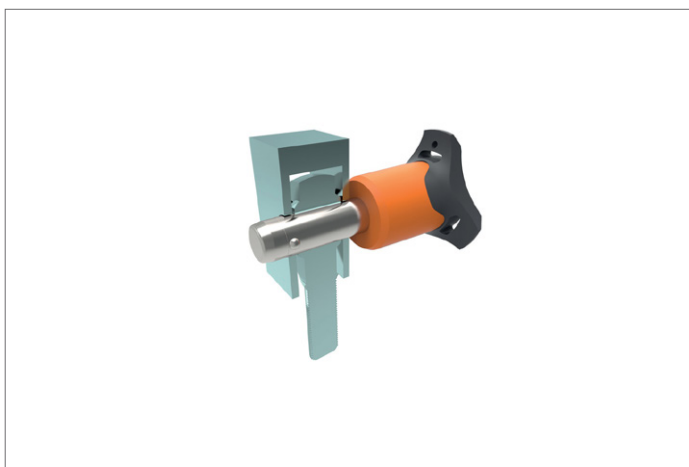
Ball Lock Pins - Single Acting - Grey

self-locking - stainless steel 1.4542 (AISI 630)

Ball Lock Pins & Quick Release

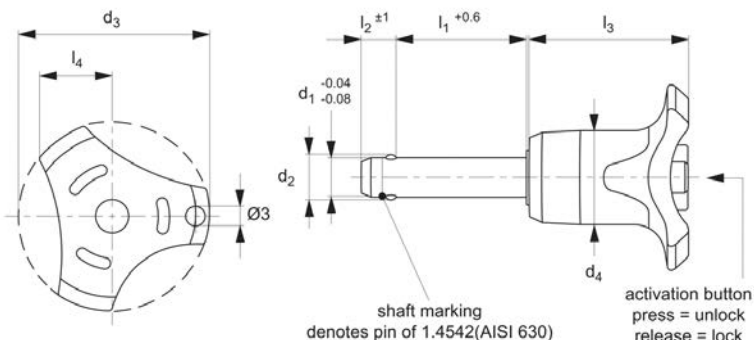


Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33060.W0407	20	150	25.0	57.1	33.8	20.5	50.7	21.5	20	403	571
33060.W0409	25	50	30.8	57.1	33.8	22.0	50.7	21.5	25	631	415
33060.W0410	25	60	30.8	57.1	33.8	22.0	50.7	21.5	25	631	453
33060.W0411	25	70	30.8	57.1	33.8	22.0	50.7	21.5	25	631	490
33060.W0412	25	80	30.8	57.1	33.8	22.0	50.7	21.5	25	631	528
33060.W0413	25	90	30.8	57.1	33.8	22.0	50.7	21.5	25	631	565
33060.W0414	25	100	30.8	57.1	33.8	22.0	50.7	21.5	25	631	603
33060.W0415	25	110	30.8	57.1	33.8	22.0	50.7	21.5	25	631	640
33060.W0416	25	120	30.8	57.1	33.8	22.0	50.7	21.5	25	631	678
33060.W0417	25	130	30.8	57.1	33.8	22.0	50.7	21.5	25	631	715
33060.W0418	25	140	30.8	57.1	33.8	22.0	50.7	21.5	25	631	753
33060.W0419	25	150	30.8	57.1	33.8	22.0	50.7	21.5	25	631	790





33060.0R



Material

Pin: stainless steel 1,4542 (AISI 630), precipitation hardened, blast finish. (marked at end of shaft to denote 1.4542 material).
 Ball: stainless steel 1.3541
 Spring: stainless steel.
 Handle: thermoplastic PA 6.
 Available colours: grey/orange, grey/blue, grey/grey, black/black.

Technical Notes

Pressing = unlocking.
 Releasing = locking.
 Temperature resistance -30°C to +80°C.
 For quick fastening and locking of frequently repeated connections.

Tips

For lanyards & retaining cables see part no.33250. Easy install locating bushes

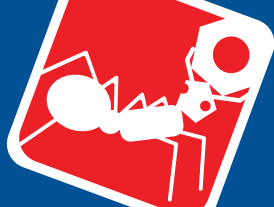
available see part no.33248.

Important Notes

Extreme load capacity due to high material grade.

*Shearing resistance similar to DIN 50141. Also available in stainless grade 1.4305 (AISI 303), see part no.33080.

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33060.W0152	5	10	5.5	33.2	14.5	6.0	26.7	10.8	5	24	15
33060.W0153	5	15	5.5	33.2	14.5	6.0	26.7	10.8	5	24	15
33060.W0154	5	20	5.5	33.2	14.5	6.0	26.7	10.8	5	24	16
33060.W0155	5	25	5.5	33.2	14.5	6.0	26.7	10.8	5	24	17
33060.W0156	5	30	5.5	33.2	14.5	6.0	26.7	10.8	5	24	18
33060.W0157	6	60	7.0	33.2	14.5	7.0	26.7	10.8	6	21	26
33060.W0158	6	70	7.0	33.2	14.5	7.0	26.7	10.8	6	21	28
33060.W0159	6	80	7.0	33.2	14.5	7.0	26.7	10.8	6	21	30
33060.W0145	5	35	5.5	33.2	14.5	6.0	26.7	10.8	5	14	19
33060.W0146	5	40	5.5	33.2	14.5	6.0	26.7	10.8	5	14	20
33060.W0147	5	45	5.5	33.2	14.5	6.0	26.7	10.8	5	14	21
33060.W0148	5	50	5.5	33.2	14.5	6.0	26.7	10.8	5	14	23
33060.W0149	5	60	5.5	33.2	14.5	6.0	26.7	10.8	5	14	24
33060.W0150	5	70	5.5	33.2	14.5	6.0	26.7	10.8	5	14	18
33060.W0151	5	80	5.5	33.2	14.5	6.0	26.7	10.8	5	14	19
33060.W0161	8	100	9.6	39.2	18.4	8.2	33.3	13.4	8	38	54
33060.W0162	6	10	7.0	33.2	14.5	7.0	26.7	10.8	6	35	16
33060.W0163	6	15	7.0	33.2	14.5	7.0	26.7	10.8	6	35	17
33060.W0164	6	20	7.0	33.2	14.5	7.0	26.7	10.8	6	35	18
33060.W0165	6	25	7.0	33.2	14.5	7.0	26.7	10.8	6	35	19
33060.W0166	6	30	7.0	33.2	14.5	7.0	26.7	10.8	6	35	20
33060.W0167	6	35	7.0	33.2	14.5	7.0	26.7	10.8	6	35	21
33060.W0168	6	40	7.0	33.2	14.5	7.0	26.7	10.8	6	35	22
33060.W0169	6	45	7.0	33.2	14.5	7.0	26.7	10.8	6	35	23
33060.W0170	6	50	7.0	33.2	14.5	7.0	26.7	10.8	6	35	24
33060.W0171	8	90	9.6	39.2	18.4	8.2	33.3	13.4	8	38	36



Ball Lock Pins - Single Acting - Orange

self-locking - stainless steel 1.4542 (AISI 630)

Ball Lock Pins & Quick Release

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33060.W0172	8	10	9.6	39.2	18.4	8.2	33.3	13.4	8	38	38
33060.W0173	8	15	9.6	39.2	18.4	8.2	33.3	13.4	8	38	58
33060.W0174	8	20	9.6	39.2	19.3	8.2	33.3	13.4	8	63	40
33060.W0175	8	25	9.6	39.2	19.3	8.2	33.3	13.4	8	63	42
33060.W0176	8	30	9.6	39.2	19.3	8.2	33.3	13.4	8	63	44
33060.W0177	8	35	9.6	39.2	19.3	8.2	33.3	13.4	8	63	46
33060.W0178	8	40	9.6	39.2	19.3	8.2	33.3	13.4	8	63	47
33060.W0179	8	45	9.6	39.2	19.3	8.2	33.3	13.4	8	63	49
33060.W0180	8	50	9.6	39.2	19.3	8.2	33.3	13.4	8	63	51
33060.W0181	8	60	9.6	39.2	18.4	8.2	33.3	13.4	8	38	62
33060.W0182	8	70	9.6	39.2	18.4	8.2	33.3	13.4	8	38	65
33060.W0183	8	80	9.6	39.2	18.4	8.2	33.3	13.4	8	38	69
33060.W0184	10	20	12.0	39.2	19.3	9.6	33.3	13.4	10	100	47
33060.W0185	10	25	12.0	39.2	19.3	9.6	33.3	13.4	10	100	49
33060.W0186	10	30	12.0	39.2	19.3	9.6	33.3	13.4	10	100	53
33060.W0187	10	35	12.0	39.2	19.3	9.6	33.3	13.4	10	100	55
33060.W0188	10	40	12.0	39.2	19.3	9.6	33.3	13.4	10	100	58
33060.W0189	10	45	12.0	39.2	19.3	9.6	33.3	13.4	10	100	61
33060.W0190	10	50	12.0	39.2	19.3	9.6	33.3	13.4	10	100	64
33060.W0191	10	15	12.0	39.2	18.4	9.6	33.3	13.4	10	60	86
33060.W0192	10	60	12.0	39.2	19.3	9.6	33.3	13.4	10	100	70
33060.W0193	10	70	12.0	39.2	18.4	9.6	33.3	13.4	10	60	70
33060.W0194	10	80	12.0	39.2	18.4	9.6	33.3	13.4	10	60	97
33060.W0195	10	90	12.0	39.2	18.4	9.6	33.3	13.4	10	60	103
33060.W0196	10	100	12.0	39.2	18.4	9.6	33.3	13.4	10	60	109
33060.W0197	10	110	12.0	39.2	18.4	9.6	33.3	13.4	10	60	115
33060.W0198	10	120	12.0	39.2	18.4	9.6	33.3	13.4	10	60	53
33060.W0204	12	20	14.5	47.6	25.2	10.6	39.7	16.7	12	87	156
33060.W0205	12	25	14.5	47.6	26.3	10.6	39.7	16.7	12	144	96
33060.W0206	12	30	14.5	47.6	26.3	10.6	39.7	16.7	12	144	100
33060.W0207	12	35	14.5	47.6	26.3	10.6	39.7	16.7	12	144	105
33060.W0208	12	40	14.5	47.6	26.3	10.6	39.7	16.7	12	144	109
33060.W0209	12	45	14.5	47.6	26.3	10.6	39.7	16.7	12	144	113
33060.W0210	12	50	14.5	47.6	26.3	10.6	39.7	16.7	12	144	117
33060.W0212	12	60	14.5	47.6	26.3	10.6	39.7	16.7	12	144	126
33060.W0214	12	70	14.5	47.6	26.3	10.6	39.7	16.7	12	144	134
33060.W0216	12	80	14.5	47.6	26.3	10.6	39.7	16.7	12	144	143
33060.W0217	12	90	14.5	47.6	25.2	10.6	39.7	16.7	12	87	165
33060.W0218	12	100	14.5	47.6	25.2	10.6	39.7	16.7	12	87	173
33060.W0219	12	110	14.5	47.6	25.2	10.6	39.7	16.7	12	87	182
33060.W0220	12	120	14.5	47.6	25.2	10.6	39.7	16.7	12	87	177
33060.W0226	16	30	19.0	47.6	26.3	14.0	39.7	16.7	16	257	132
33060.W0227	16	35	19.0	47.6	26.3	14.0	39.7	16.7	16	257	140
33060.W0228	16	40	19.0	47.6	26.3	14.0	39.7	16.7	16	257	148
33060.W0229	16	45	19.0	47.6	26.3	14.0	39.7	16.7	16	257	155
33060.W0230	16	50	19.0	47.6	26.3	14.0	39.7	16.7	16	257	168
33060.W0232	16	60	19.0	47.6	26.3	14.0	39.7	16.7	16	257	178
33060.W0234	16	70	19.0	47.6	26.3	14.0	39.7	16.7	16	257	194
33060.W0236	16	80	19.0	47.6	26.3	14.0	39.7	16.7	16	257	208
33060.W0237	16	90	19.0	47.6	25.2	14.0	39.7	16.7	16	155	234
33060.W0238	16	100	19.0	47.6	25.2	14.0	39.7	16.7	16	155	151
33060.W0239	16	110	19.0	47.6	25.2	14.0	39.7	16.7	16	155	266
33060.W0240	16	120	19.0	47.6	25.2	14.0	39.7	16.7	16	155	281
33060.W0241	16	130	19.0	47.6	25.2	14.0	39.7	16.7	16	155	297
33060.W0242	16	140	19.0	47.6	25.2	14.0	39.7	16.7	16	155	313
33060.W0243	16	150	19.0	47.6	25.2	14.0	39.7	16.7	16	155	328
33060.W0251	20	50	25.0	57.1	33.8	20.5	50.7	21.5	20	403	329
33060.W0252	20	60	25.0	57.1	35.4	20.5	50.7	21.5	20	403	343
33060.W0253	20	70	25.0	57.1	33.8	20.5	50.7	21.5	20	403	377
33060.W0256	20	80	25.0	57.1	35.4	20.5	50.7	21.5	20	403	392
33060.W0257	20	90	25.0	57.1	33.8	20.5	50.7	21.5	20	403	426
33060.W0260	20	100	25.0	57.1	35.4	20.5	50.7	21.5	20	403	440
33060.W0261	20	110	25.0	57.1	33.5	20.5	50.7	21.5	20	403	474
33060.W0264	20	120	25.0	57.1	35.4	20.5	50.7	21.5	20	403	488
33060.W0265	20	130	25.0	57.1	33.8	20.5	50.7	21.5	20	403	523
33060.W0266	20	140	25.0	57.1	33.8	20.5	50.7	21.5	20	403	546
33060.W0267	20	150	25.0	57.1	33.8	20.5	50.7	21.5	20	403	571

Ball Lock Pins & Quick Release

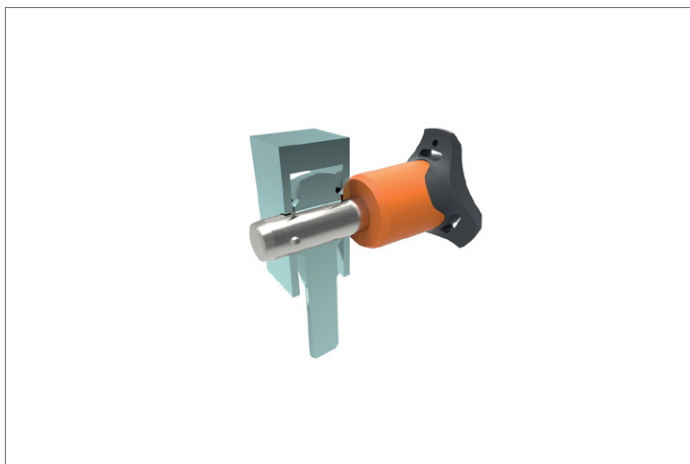
Ball Lock Pins - Single Acting - Orange

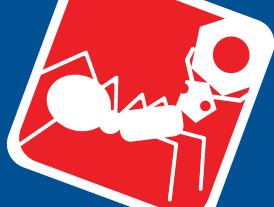
self-locking - stainless steel 1.4542 (AISI 630)



BALL LOCK PINS & QUICK RELEASE PINS

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33060.W0269	25	50	30.8	57.1	33.8	22.0	50.7	21.5	25	631	415
33060.W0270	25	60	30.8	57.1	33.8	22.0	50.7	21.5	25	631	453
33060.W0271	25	70	30.8	57.1	33.8	22.0	50.7	21.5	25	631	490
33060.W0272	25	80	30.8	57.1	33.8	22.0	50.7	21.5	25	631	528
33060.W0273	25	90	30.8	57.1	33.8	22.0	50.7	21.5	25	631	565
33060.W0274	25	100	30.8	57.1	33.8	22.0	50.7	21.5	25	631	603
33060.W0275	25	110	30.8	57.1	33.8	22.0	50.7	21.5	25	631	640
33060.W0276	25	120	30.8	57.1	33.8	22.0	50.7	21.5	25	631	678
33060.W0277	25	130	30.8	57.1	33.8	22.0	50.7	21.5	25	631	715
33060.W0278	25	140	30.8	57.1	33.8	22.0	50.7	21.5	25	631	753
33060.W0279	25	150	30.8	57.1	33.8	22.0	50.7	21.5	25	631	790

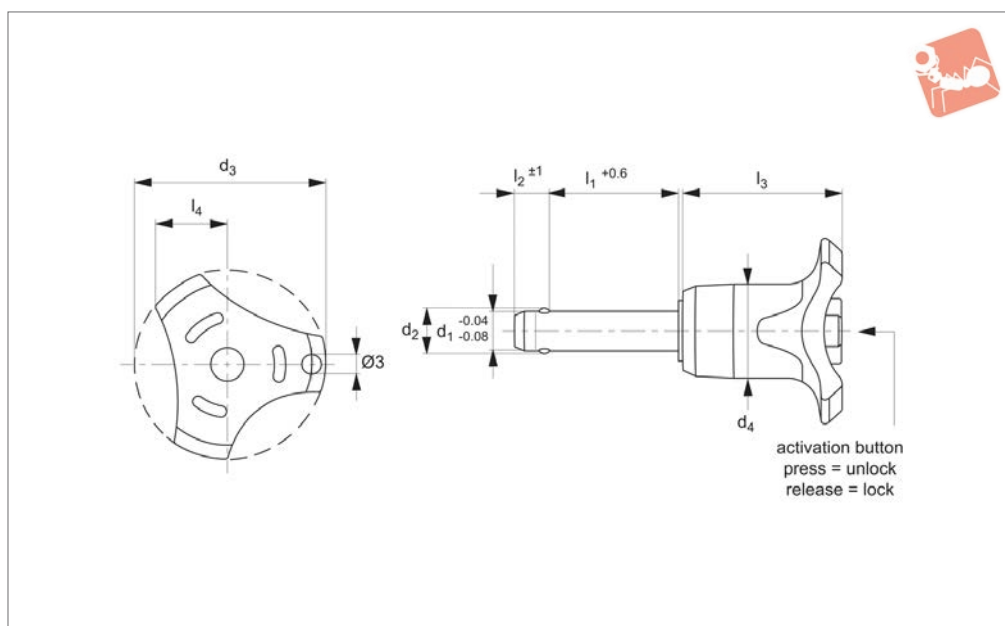




Ball Lock Pins - Single Acting - Black

self-locking - stainless steel 1.4305 (AISI 303)

Ball Lock Pins & Quick Release



33080.BK

BALL LOCK PINS & QUICK RELEASE PINS

Material

Pin: stainless steel 1.4542 (AISI 630)
Ball: stainless steel 1.3541
Spring: stainless steel.
Handle: thermoplastic PA 6.
Available colours: grey/orange, grey/blue, grey/grey.

Technical Notes

Pressing = unlocking.

Releasing = locking.

Temperature resistance -30°C to +80°C.
For quick fastening and locking of frequently repeated connections.

Tips

For lanyards & retaining cables see part no.33250-33261. Easy install locating bushes available see part no.33248 + 33246.

Important Notes

*Shearing resistance similar to DIN 50141.
Also available in stainless grade 1.4542 (AISI 630) for higher shear forces, see part no.33060.

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33080.W0812	5	10	5.5	33.2	14.5	6.0	26.7	10.8	5	14	15
33080.W0813	5	15	5.5	33.2	14.5	6.0	26.7	10.8	5	14	15
33080.W0814	5	20	5.5	33.2	14.5	6.0	26.7	10.8	5	14	16
33080.W0815	5	20	5.5	33.2	14.5	6.0	26.7	10.8	5	14	16
33080.W0816	5	30	5.5	33.2	14.5	6.0	26.7	10.8	5	14	18
33080.W0817	6	60	7.0	33.2	14.5	7.0	26.7	10.8	6	21	26
33080.W0818	6	70	7.0	33.2	14.5	7.0	26.7	10.8	6	21	28
33080.W0819	6	80	7.0	33.2	14.5	7.0	26.7	10.8	6	21	30
33080.W0832	8	10	9.6	39.2	18.4	8.2	33.3	13.4	8	38	38
33080.W0833	8	15	9.6	39.2	18.4	8.2	33.3	13.4	8	38	58
33080.W0805	5	35	5.5	33.2	14.5	6.0	26.7	10.8	5	14	19
33080.W0806	5	40	5.5	33.2	14.5	6.0	26.7	10.8	5	14	20
33080.W0807	5	45	5.5	33.2	14.5	6.0	26.7	10.8	5	14	21
33080.W0808	5	50	5.5	33.2	14.5	6.0	26.7	10.8	5	14	23
33080.W0809	5	60	5.5	33.2	14.5	6.0	26.7	10.8	5	14	24
33080.W0810	5	70	5.5	33.2	14.5	6.0	26.7	10.8	5	14	18
33080.W0811	5	80	5.5	33.2	14.5	6.0	26.7	10.8	5	14	19
33080.W0822	6	10	7.0	33.2	14.5	7.0	26.7	10.8	6	21	16
33080.W0823	6	15	7.0	33.2	14.5	7.0	26.7	10.8	6	21	17
33080.W0824	6	20	7.0	33.2	14.5	7.0	26.7	10.8	6	21	18
33080.W0825	6	25	7.0	33.2	14.5	7.0	26.7	10.8	6	21	19
33080.W0826	6	30	7.0	33.2	14.5	7.0	26.7	10.8	6	21	20
33080.W0827	6	35	7.0	33.2	14.5	7.0	26.7	10.8	6	21	21
33080.W0828	6	35	7.0	33.2	14.5	7.0	26.7	10.8	6	21	21
33080.W0829	6	45	7.0	33.2	14.5	7.0	26.7	10.8	6	21	23
33080.W0830	6	50	7.0	33.2	14.5	7.0	26.7	10.8	6	21	24
33080.W0834	8	20	9.6	39.2	19.3	8.2	33.3	13.4	8	38	40

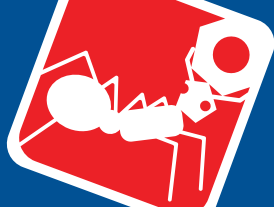
Ball Lock Pins & Quick Release

Ball Lock Pins - Single Acting - Black self-locking - stainless steel 1.4305 (AISI 303)



BALL LOCK PINS & QUICK RELEASE PINS

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33080.W0835	8	25	9.6	39.2	19.3	8.2	33.3	13.4	8	38	42
33080.W0836	8	30	9.6	39.2	19.3	8.2	33.3	13.4	8	38	44
33080.W0837	8	35	9.6	39.2	19.3	8.2	33.3	13.4	8	38	46
33080.W0838	8	40	9.6	39.2	19.3	8.2	33.3	13.4	8	38	47
33080.W0839	8	45	9.6	39.2	19.3	8.2	33.3	13.4	8	38	49
33080.W0840	8	50	9.6	39.2	19.3	8.2	33.3	13.4	8	38	51
33080.W0841	8	60	9.6	39.2	18.4	8.2	33.3	13.4	8	38	62
33080.W0842	8	70	9.6	39.2	18.4	8.2	33.3	13.4	8	38	65
33080.W0843	8	80	9.6	39.2	18.4	8.2	33.3	13.4	8	38	69
33080.W0831	8	90	9.6	39.2	18.4	8.2	33.3	13.4	8	38	36
33080.W0821	8	100	9.6	39.2	18.4	8.2	33.3	13.4	8	38	54
33080.W0851	10	15	12.0	39.2	18.4	9.6	33.3	13.4	10	60	86
33080.W0844	10	20	12.0	39.2	19.3	9.6	33.3	13.4	10	60	47
33080.W0845	10	25	12.0	39.2	19.3	9.6	33.3	13.4	10	60	49
33080.W0846	10	30	12.0	39.2	19.3	9.6	33.3	13.4	10	60	53
33080.W0847	10	35	12.0	39.2	19.3	9.6	33.3	13.4	10	60	55
33080.W0848	10	40	12.0	39.2	19.3	9.6	33.3	13.4	10	60	58
33080.W0849	10	45	12.0	39.2	19.3	9.6	33.3	13.4	10	60	61
33080.W0850	10	50	12.0	39.2	19.3	9.6	33.3	13.4	10	60	64
33080.W0852	10	60	12.0	39.2	19.3	9.6	33.3	13.4	10	60	70
33080.W0853	10	70	12.0	39.2	18.4	9.6	33.3	13.4	10	60	91
33080.W0854	10	80	12.0	39.2	18.4	9.6	33.3	13.4	10	60	97
33080.W0855	10	90	12.0	39.2	18.4	9.6	33.3	13.4	10	60	103
33080.W0856	10	100	12.0	39.2	18.4	9.6	33.3	13.4	10	60	109
33080.W0857	10	110	12.0	39.2	18.4	9.6	33.3	13.4	10	60	115
33080.W0858	10	120	12.0	39.2	18.4	9.6	33.3	13.4	10	60	53
33080.W0864	12	20	14.5	47.6	25.2	10.6	39.7	16.7	12	87	156
33080.W0866	12	30	14.5	47.6	25.2	10.6	39.7	16.7	12	87	100
33080.W0865	12	25	14.5	47.6	26.3	10.6	39.7	16.7	12	87	96
33080.W0867	12	35	14.5	47.6	26.3	10.6	39.7	16.7	12	87	105
33080.W0868	12	40	14.5	47.6	26.3	10.6	39.7	16.7	12	87	109
33080.W0869	12	45	14.5	47.6	26.3	10.6	39.7	16.7	12	87	113
33080.W0870	12	50	14.5	47.6	26.3	10.6	39.7	16.7	12	87	117
33080.W0872	12	60	14.5	47.6	26.3	10.6	39.7	16.7	12	87	126
33080.W0874	12	70	14.5	47.6	26.3	10.6	39.7	16.7	12	87	134
33080.W0876	12	80	14.5	47.6	26.3	10.6	39.7	16.7	12	87	143
33080.W0877	12	90	14.5	47.6	25.2	10.6	39.7	16.7	12	87	165
33080.W0878	12	100	14.5	47.6	25.2	10.6	39.7	16.7	12	87	173
33080.W0879	12	110	14.5	47.6	25.2	10.6	39.7	16.7	12	87	182
33080.W0880	12	120	14.5	47.6	25.2	10.6	39.7	16.7	12	87	96
33080.W0886	16	30	19.0	47.6	26.3	14.0	39.7	16.7	16	155	132
33080.W0887	16	35	19.0	47.6	26.3	14.0	39.7	16.7	16	155	140
33080.W0888	16	40	19.0	47.6	26.3	14.0	39.7	16.7	16	155	148
33080.W0889	16	45	19.0	47.6	26.3	14.0	39.7	16.7	16	155	155
33080.W0890	16	50	19.0	47.6	26.3	14.0	39.7	16.7	16	155	168
33080.W0892	16	60	19.0	47.6	26.3	14.0	39.7	16.7	16	155	178
33080.W0894	16	70	19.0	47.6	26.3	14.0	39.7	16.7	16	155	194
33080.W0896	16	80	19.0	47.6	26.3	14.0	39.7	16.7	16	155	208
33080.W0897	16	90	19.0	47.6	25.2	14.0	39.7	16.7	16	155	234
33080.W0898	16	100	19.0	47.6	25.2	14.0	39.7	16.7	16	155	251
33080.W0899	16	110	19.0	47.6	25.2	14.0	39.7	16.7	16	155	266
33080.W0900	16	120	19.0	47.6	25.2	14.0	39.7	16.7	16	155	281
33080.W0901	16	130	19.0	47.6	25.2	14.0	39.7	16.7	16	155	297
33080.W0902	16	140	19.0	47.6	25.2	14.0	39.7	16.7	16	155	313
33080.W0903	16	150	19.0	47.6	25.2	14.0	39.7	16.7	16	155	328
33080.W0905	20	50	25.0	57.1	33.8	20.5	50.7	21.5	20	244	329
33080.W0906	20	70	25.0	57.1	33.8	20.5	50.7	21.5	20	244	377
33080.W0909	20	90	25.0	57.1	33.8	20.5	50.7	21.5	20	244	426
33080.W0913	20	110	25.0	57.1	33.8	20.5	50.7	21.5	20	244	474
33080.W0904	20	60	25.0	57.1	35.4	20.5	50.7	21.5	20	244	343
33080.W0908	20	80	25.0	57.1	35.4	20.5	50.7	21.5	20	244	392
33080.W0912	20	100	25.0	57.1	35.4	20.5	50.7	21.5	20	244	440
33080.W0916	20	120	25.0	57.1	35.4	20.5	50.7	21.5	20	244	488
33080.W0917	20	130	25.0	57.1	33.8	20.5	50.7	21.5	20	244	523
33080.W0918	20	140	25.0	57.1	33.8	20.5	50.7	21.5	20	244	546
33080.W0919	20	150	25.0	57.1	33.8	20.5	50.7	21.5	20	244	571
33080.W0921	25	50	30.8	57.1	33.8	22.0	50.7	21.5	25	386	415

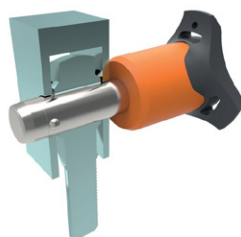


Ball Lock Pins - Single Acting - Black

self-locking - stainless steel 1.4305 (AISI 303)

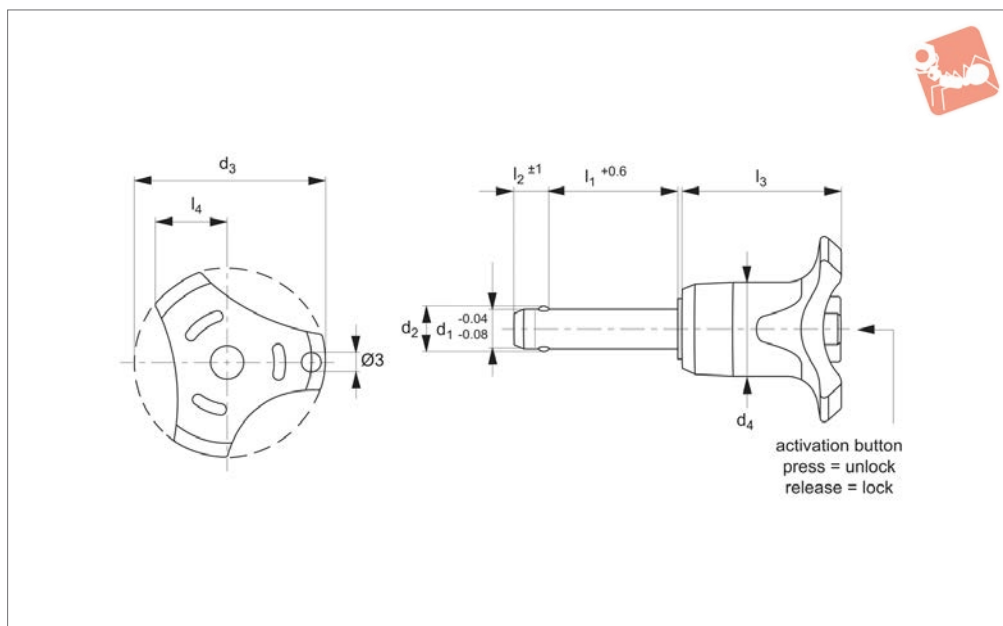
Ball Lock Pins & Quick Release

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33080.W0922	25	60	30.8	57.1	33.8	22.0	50.7	21.5	25	386	453
33080.W0923	25	70	30.8	57.1	33.8	22.0	50.7	21.5	25	386	490
33080.W0924	25	80	30.8	57.1	33.8	22.0	50.7	21.5	25	386	528
33080.W0925	25	90	30.8	57.1	33.8	22.0	50.7	21.5	25	386	565
33080.W0926	25	100	30.8	57.1	33.8	22.0	50.7	21.5	25	386	603
33080.W0927	25	110	30.8	57.1	33.8	22.0	50.7	21.5	25	386	640
33080.W0928	25	120	30.8	57.1	33.8	22.0	50.7	21.5	25	386	690
33080.W0929	25	130	30.8	57.1	33.8	22.0	50.7	21.5	25	386	715
33080.W0930	25	140	30.8	57.1	33.8	22.0	50.7	21.5	25	386	753
33080.W0931	25	150	30.8	57.1	33.8	22.0	50.7	21.5	25	386	790





33080.BU



Material

Pin: stainless steel 1.4542 (AISI 630)
 Ball: stainless steel 1.3541
 Spring: stainless steel.
 Handle: thermoplastic PA 6.
 Available colours: grey/orange, grey/blue, grey/grey.

Technical Notes

Pressing = unlocking.

Releasing = locking.

Temperature resistance -30°C to +80°C.
 For quick fastening and locking of frequently repeated connections.

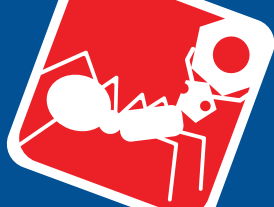
Tips

For lanyards & retaining cables see part no.33250-33261. Easy install locating bushes available see part no.33248 + 33246.

Important Notes

*Shearing resistance similar to DIN 50141.
 Also available in stainless grade 1.4542 (AISI 630) for higher shear forces, see part no.33060.

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33080.W0432	5	10	5.5	33.2	14.5	6.0	26.7	10.8	5	14	15
33080.W0433	5	15	5.5	33.2	14.5	6.0	26.7	10.8	5	14	15
33080.W0434	5	20	5.5	33.2	14.5	6.0	26.7	10.8	5	14	16
33080.W0435	5	25	5.5	33.2	14.5	6.0	26.7	10.8	5	14	17
33080.W0436	5	30	5.5	33.2	14.5	6.0	26.7	10.8	5	14	18
33080.W0437	6	60	7.0	33.2	14.5	7.0	26.7	10.8	6	21	26
33080.W0438	6	70	7.0	33.2	14.5	7.0	26.7	10.8	6	21	28
33080.W0439	6	80	7.0	33.2	14.5	7.0	26.7	10.8	6	21	30
33080.W0425	5	35	5.5	33.2	14.5	6.0	26.7	10.8	5	14	19
33080.W0426	5	40	5.5	33.2	14.5	6.0	26.7	10.8	5	14	20
33080.W0427	5	45	5.5	33.2	14.5	6.0	26.7	10.8	5	14	21
33080.W0428	5	50	5.5	33.2	14.5	6.0	26.7	10.8	5	14	23
33080.W0429	5	60	5.5	33.2	14.5	6.0	26.7	10.8	5	14	24
33080.W0430	5	70	5.5	33.2	14.5	6.0	26.7	10.8	5	14	18
33080.W0431	5	80	5.5	33.2	14.5	6.0	26.7	10.8	5	14	19
33080.W0442	6	10	7.0	33.2	14.5	7.0	26.7	10.8	6	21	16
33080.W0443	6	15	7.0	33.2	14.5	7.0	26.7	10.8	6	21	17
33080.W0444	6	20	7.0	33.2	14.5	7.0	26.7	10.8	6	21	18
33080.W0445	6	25	7.0	33.2	14.5	7.0	26.7	10.8	6	21	19
33080.W0446	6	30	7.0	33.2	14.5	7.0	26.7	10.8	6	21	20
33080.W0447	6	35	7.0	33.2	14.5	7.0	26.7	10.8	6	21	21
33080.W0448	6	40	7.0	33.2	14.5	7.0	26.7	10.8	6	21	22
33080.W0449	6	45	7.0	33.2	14.5	7.0	26.7	10.8	6	21	23
33080.W0450	6	50	7.0	33.2	14.5	7.0	26.7	10.8	6	21	24
33080.W0452	8	10	9.6	39.2	18.4	8.2	33.3	13.4	8	38	38
33080.W0453	8	15	9.6	39.2	18.4	8.2	33.3	13.4	8	38	58
33080.W0454	8	20	9.6	39.2	19.3	8.2	33.3	13.4	8	38	40



Ball Lock Pins - Single Acting - Blue

self-locking - stainless steel 1.4305 (AISI 303)

Ball Lock Pins & Quick Release

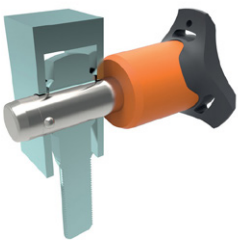
Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33080.W0455	8	25	9.6	39.2	19.3	8.2	33.3	13.4	8	38	42
33080.W0456	8	30	9.6	39.2	19.3	8.2	33.3	13.4	8	38	44
33080.W0457	8	35	9.6	39.2	19.3	8.2	33.3	13.4	8	38	46
33080.W0458	8	40	9.6	39.2	19.3	8.2	33.3	13.4	8	38	47
33080.W0459	8	45	9.6	39.2	19.3	8.2	33.3	13.4	8	38	49
33080.W0460	8	50	9.6	39.2	19.3	8.2	33.3	13.4	8	38	51
33080.W0461	8	60	9.6	39.2	18.4	8.2	33.3	13.4	8	38	62
33080.W0462	8	70	9.6	39.2	18.4	8.2	33.3	13.4	8	38	65
33080.W0463	8	80	9.6	39.2	18.4	8.2	33.3	13.4	8	38	69
33080.W0451	8	90	9.6	39.2	18.4	8.2	33.3	13.4	8	38	36
33080.W0441	8	100	9.6	39.2	18.4	8.2	33.3	13.4	8	38	54
33080.W0464	10	20	12.0	39.2	19.3	9.6	33.3	13.4	10	60	47
33080.W0465	10	25	12.0	39.2	19.3	9.6	33.3	13.4	10	60	49
33080.W0466	10	30	12.0	39.2	19.3	9.6	33.3	13.4	10	60	53
33080.W0467	10	35	12.0	39.2	19.3	9.6	33.3	13.4	10	60	55
33080.W0468	10	40	12.0	39.2	19.3	9.6	33.3	13.4	10	60	58
33080.W0469	10	45	12.0	39.2	19.3	9.6	33.3	13.4	10	60	61
33080.W0470	10	50	12.0	39.2	19.3	9.6	33.3	13.4	10	60	64
33080.W0471	10	15	12.0	39.2	18.4	9.6	33.3	13.4	10	60	86
33080.W0473	10	70	12.0	39.2	18.4	9.6	33.3	13.4	10	60	91
33080.W0474	10	80	12.0	39.2	18.4	9.6	33.3	13.4	10	60	97
33080.W0475	10	90	12.0	39.2	18.4	9.6	33.3	13.4	10	60	103
33080.W0476	10	100	12.0	39.2	18.4	9.6	33.3	13.4	10	60	109
33080.W0477	10	110	12.0	39.2	18.4	9.6	33.3	13.4	10	60	115
33080.W0478	10	120	12.0	39.2	18.4	9.6	33.3	13.4	10	60	53
33080.W0484	12	20	14.5	47.0	25.2	10.6	39.7	16.7	12	87	156
33080.W0472	10	60	12.0	39.2	19.3	9.6	33.3	13.4	10	60	70
33080.W0485	12	25	14.5	47.6	26.3	10.6	39.7	16.7	12	87	96
33080.W0486	12	30	14.5	47.6	26.3	10.6	39.7	16.7	12	87	100
33080.W0487	12	35	14.5	47.6	26.3	10.6	39.7	16.7	12	87	105
33080.W0488	12	40	14.5	47.6	26.3	10.6	39.7	16.7	12	87	109
33080.W0489	12	45	14.5	47.6	26.3	10.6	39.7	16.7	12	87	113
33080.W0490	12	50	14.5	47.6	26.3	10.6	39.7	16.7	12	87	117
33080.W0492	12	60	14.5	47.6	26.3	10.6	39.7	16.7	12	87	126
33080.W0494	12	70	14.5	47.6	26.3	10.6	39.7	16.7	12	87	134
33080.W0496	12	80	14.5	47.6	26.3	10.6	39.7	16.7	12	87	143
33080.W0497	12	90	14.5	47.6	25.2	10.6	39.7	16.7	12	87	165
33080.W0498	12	100	14.5	47.6	25.2	10.6	39.7	16.7	12	87	173
33080.W0499	12	110	14.5	47.6	25.2	10.6	39.7	16.7	12	87	182
33080.W0500	12	120	14.5	47.6	25.2	10.6	39.7	16.7	12	87	96
33080.W0506	16	30	19.0	47.6	26.3	14.0	39.7	16.7	16	155	132
33080.W0507	16	35	19.0	47.6	26.3	14.0	39.7	16.7	16	155	140
33080.W0508	16	40	19.0	47.6	26.3	14.0	39.7	16.7	16	155	148
33080.W0509	16	45	19.0	47.6	26.3	14.0	39.7	16.7	16	155	155
33080.W0510	16	50	19.0	47.6	26.3	14.0	39.7	16.7	16	155	168
33080.W0512	16	60	19.0	47.6	26.3	14.0	39.7	16.7	16	155	178
33080.W0514	16	70	19.0	47.6	26.3	14.0	39.7	16.7	16	155	194
33080.W0516	16	80	19.0	47.6	26.3	14.0	39.7	16.7	16	155	208
33080.W0517	16	90	19.0	47.6	25.2	14.0	39.7	16.7	16	155	234
33080.W0518	16	100	19.0	47.6	25.2	14.0	39.7	16.7	16	155	251
33080.W0519	16	110	19.0	47.6	25.2	14.0	39.7	16.7	16	155	266
33080.W0520	16	120	19.0	47.6	25.2	14.0	39.7	16.7	16	155	281
33080.W0521	16	130	19.0	47.6	25.2	14.0	39.7	16.7	16	155	297
33080.W0522	16	140	19.0	47.6	25.2	14.0	39.7	16.7	16	155	313
33080.W0523	16	150	19.0	47.6	25.2	14.0	39.7	16.7	16	155	328
33080.W0531	20	50	25.0	57.1	33.8	20.5	50.7	21.5	20	244	329
33080.W0533	20	70	25.0	57.1	33.8	20.5	50.7	21.5	20	244	377
33080.W0537	20	90	25.0	57.1	33.8	20.5	50.7	21.5	20	244	426
33080.W0532	20	60	25.0	57.1	35.4	20.5	50.7	21.5	20	244	343
33080.W0536	20	80	25.0	57.1	35.4	20.5	50.7	21.5	20	244	392
33080.W0540	20	100	25.0	57.1	35.4	20.5	50.7	21.5	20	244	440
33080.W0544	20	120	25.0	57.1	35.4	20.5	50.7	21.5	20	244	488
33080.W0545	20	130	25.0	57.1	33.8	20.5	50.7	21.5	20	244	523
33080.W0546	20	140	25.0	57.1	33.8	20.5	50.7	21.5	20	244	546
33080.W0547	20	150	25.0	57.1	33.8	20.5	50.7	21.5	20	244	571
33080.W0549	25	50	30.8	57.1	33.8	22.0	50.7	21.5	25	386	415
33080.W0550	25	60	30.8	57.1	33.8	22.0	50.7	21.5	25	386	453

Ball Lock Pins & Quick Release

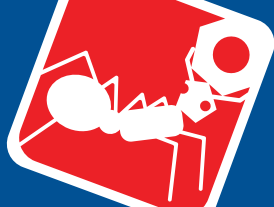
Ball Lock Pins - Single Acting - Blue
self-locking - stainless steel 1.4305 (AISI 303)



Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33080.W0551	25	70	30.8	57.1	33.8	22.0	50.7	21.5	25	386	490
33080.W0552	25	80	30.8	57.1	33.8	22.0	50.7	21.5	25	386	528
33080.W0553	25	90	30.8	57.1	33.8	22.0	50.7	21.5	25	386	565
33080.W0554	25	100	30.8	57.1	33.8	22.0	50.7	21.5	25	386	603
33080.W0556	25	120	30.8	57.1	33.8	22.0	50.7	21.5	25	386	690
33080.W0557	25	130	30.8	57.1	33.8	22.0	50.7	21.5	25	386	715
33080.W0558	25	140	30.8	57.1	33.8	22.0	50.7	21.5	25	386	753
33080.W0559	25	150	30.8	57.1	33.8	22.0	50.7	21.5	25	386	790

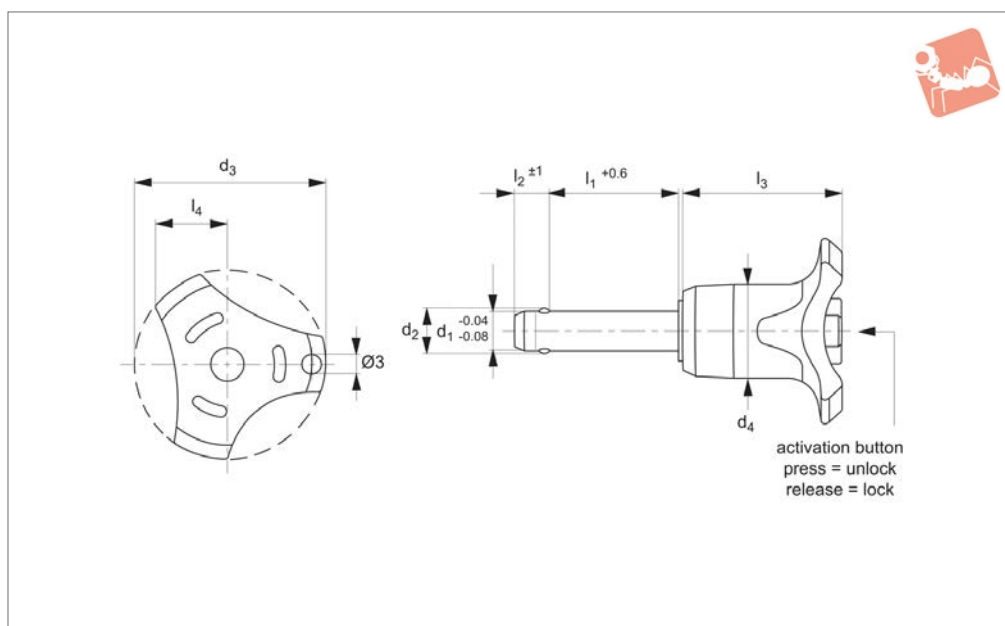


BALL LOCK PINS & QUICK RELEASE PINS



Ball Lock Pins - Single Acting - Grey self-locking - stainless steel 1.4305 (AISI 303)

Ball Lock Pins & Quick Release



33080.GR

BALL LOCK PINS & QUICK RELEASE PINS

Material

Pin: stainless steel 1.4542 (AISI 630)
Ball: stainless steel 1.3541
Spring: stainless steel.
Handle: thermoplastic PA 6.
Available colours: grey/orange, grey/blue, grey/grey.

Technical Notes

Pressing = unlocking.

Releasing = locking.

Temperature resistance -30°C to +80°C.
For quick fastening and locking of frequently repeated connections.

Tips

For lanyards & retaining cables see part no.33250-33261. Easy install locating bushes available see part no.33248 + 33246.

Important Notes

*Shearing resistance similar to DIN 50141.
Also available in stainless grade 1.4542 (AISI 630) for higher shear forces, see part no.33060.

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33080.W0292	5	10	5.5	33.2	14.5	6.0	26.7	10.8	5	14	15
33080.W0293	5	15	5.5	33.2	14.5	6.0	26.7	10.8	5	14	15
33080.W0294	5	20	5.5	33.2	14.5	6.0	26.7	10.8	5	14	16
33080.W0295	5	25	5.5	33.2	14.5	6.0	26.7	10.8	5	14	17
33080.W0296	5	30	5.5	33.2	14.5	6.0	26.7	10.8	5	14	18
33080.W0297	6	60	7.0	33.2	14.5	7.0	26.7	10.8	6	21	26
33080.W0298	6	70	7.0	33.2	14.5	7.0	26.7	10.8	6	21	28
33080.W0299	6	80	7.0	33.2	14.5	7.0	26.7	10.8	6	21	30
33080.W0285	5	35	5.5	33.2	14.5	6.0	26.7	10.8	5	14	19
33080.W0286	5	40	5.5	33.2	14.5	6.0	26.7	10.8	5	14	20
33080.W0287	5	45	5.5	33.2	14.5	6.0	26.7	10.8	5	14	21
33080.W0288	5	50	5.5	33.2	14.5	6.0	26.7	10.8	5	14	23
33080.W0289	5	60	5.5	33.2	14.5	6.0	26.7	10.8	5	14	24
33080.W0290	5	70	5.5	33.2	14.5	6.0	26.7	10.8	5	14	18
33080.W0291	5	80	5.5	33.2	14.5	6.0	26.7	10.8	5	14	19
33080.W0302	6	10	7.0	33.2	14.5	7.0	26.7	10.8	6	21	16
33080.W0301	8	100	9.6	39.2	18.4	8.2	33.3	13.4	8	38	54
33080.W0303	6	15	7.0	33.2	14.5	7.0	26.7	10.8	6	21	17
33080.W0304	6	20	7.0	33.2	14.5	7.0	26.7	10.8	6	21	18
33080.W0305	6	25	7.0	33.2	14.5	7.0	26.7	10.8	6	21	19
33080.W0306	6	30	7.0	33.2	14.5	7.0	26.7	10.8	6	21	20
33080.W0307	6	35	7.0	33.2	14.5	7.0	26.7	10.8	6	21	21
33080.W0308	6	40	7.0	33.2	14.5	7.0	26.7	10.8	6	21	22
33080.W0309	6	45	7.0	33.2	14.5	7.0	26.7	10.8	6	21	23
33080.W0310	6	50	7.0	33.2	14.5	7.0	26.7	10.8	6	21	24
33080.W0311	8	90	9.6	39.2	18.4	8.2	33.3	13.4	8	38	36
33080.W0312	8	10	9.6	39.2	18.4	8.2	33.3	13.4	8	38	38

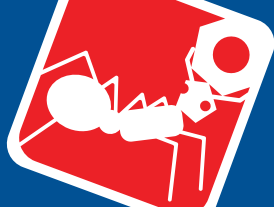
Ball Lock Pins & Quick Release

Ball Lock Pins - Single Acting - Grey self-locking - stainless steel 1.4305 (AISI 303)



BALL LOCK PINS & QUICK RELEASE PINS

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33080.W0313	8	15	9.6	39.2	18.4	8.2	33.3	13.4	8	38	58
33080.W0314	8	20	9.6	39.2	19.3	8.2	33.3	13.4	8	38	40
33080.W0315	8	25	9.6	39.2	19.3	8.2	33.3	13.4	8	38	42
33080.W0316	8	30	9.6	39.2	19.3	8.2	33.3	13.4	8	38	44
33080.W0317	8	35	9.6	39.2	19.3	8.2	33.3	13.4	8	38	46
33080.W0318	8	40	9.6	39.2	19.3	8.2	33.3	13.4	8	38	47
33080.W0319	8	45	9.6	39.2	19.3	8.2	33.3	13.4	8	38	49
33080.W0320	8	50	9.6	39.2	19.3	8.2	33.3	13.4	8	38	51
33080.W0321	8	60	9.6	39.2	18.4	8.2	33.3	13.4	8	38	62
33080.W0322	8	70	9.6	39.2	18.4	8.2	33.3	13.4	8	38	65
33080.W0323	8	80	9.6	39.2	18.4	8.2	33.3	13.4	8	38	69
33080.W0324	10	20	12.0	39.2	19.3	9.6	33.3	13.4	10	60	47
33080.W0325	10	25	12.0	39.2	19.3	9.6	33.3	13.4	10	60	49
33080.W0326	10	30	12.0	39.2	19.3	9.6	33.3	13.4	10	60	53
33080.W0327	10	35	12.0	39.2	19.3	9.6	33.3	13.4	10	60	55
33080.W0328	10	40	12.0	39.2	19.3	9.6	33.3	13.4	10	60	58
33080.W0329	10	45	12.0	39.2	19.3	9.6	33.3	13.4	10	60	61
33080.W0330	10	50	12.0	39.2	19.3	9.6	33.3	13.4	10	60	64
33080.W0331	10	15	12.0	39.2	18.4	9.6	33.3	13.4	10	60	86
33080.W0332	10	60	12.0	39.2	19.3	9.6	33.3	13.4	10	60	70
33080.W0333	10	70	12.0	39.2	18.4	9.6	33.3	13.4	10	60	91
33080.W0334	10	80	12.0	39.2	18.4	9.6	33.3	13.4	10	60	97
33080.W0335	10	90	12.0	39.2	18.4	9.6	33.3	13.4	10	60	103
33080.W0336	10	100	12.0	39.2	18.4	9.6	33.3	13.4	10	60	109
33080.W0337	10	110	12.0	39.2	18.4	9.6	33.3	13.4	10	60	115
33080.W0338	10	120	12.0	39.2	18.4	9.6	33.3	13.4	10	60	53
33080.W0344	12	20	14.5	47.6	25.2	10.6	39.7	16.7	12	87	156
33080.W0345	12	25	14.5	47.6	26.3	10.6	39.7	16.7	12	87	96
33080.W0346	12	30	14.5	47.6	26.3	10.6	39.7	16.7	12	87	100
33080.W0347	12	35	14.5	47.6	26.3	10.6	39.7	16.7	12	87	105
33080.W0348	12	40	14.5	47.6	26.3	10.6	39.7	16.7	12	87	109
33080.W0349	12	45	14.5	47.6	26.3	10.6	39.7	16.7	12	87	113
33080.W0350	12	50	14.5	47.6	26.3	10.6	39.7	16.7	12	87	117
33080.W0352	12	60	14.5	47.6	26.3	10.6	39.7	16.7	12	87	126
33080.W0354	12	70	14.5	47.6	26.3	10.6	39.7	16.7	12	87	134
33080.W0356	12	80	14.5	47.6	26.3	10.6	39.7	16.7	12	87	143
33080.W0357	12	90	14.5	47.6	25.2	10.6	39.7	16.7	12	87	165
33080.W0358	12	100	14.5	47.6	25.2	10.6	39.7	16.7	12	87	173
33080.W0359	12	110	14.5	47.6	25.2	10.6	39.7	16.7	12	87	182
33080.W0360	12	120	14.5	47.6	25.2	10.6	39.7	16.7	12	87	96
33080.W0366	16	30	19.0	47.6	26.3	14.0	39.7	16.7	16	155	132
33080.W0367	16	35	19.0	47.6	26.3	14.0	39.7	16.7	16	155	140
33080.W0368	16	40	19.0	47.6	26.3	14.0	39.7	16.7	16	155	148
33080.W0369	16	45	19.0	47.6	26.3	14.0	39.7	16.7	16	155	155
33080.W0370	16	50	19.0	47.6	26.3	14.0	39.7	16.7	16	155	168
33080.W0372	16	60	19.0	47.6	26.3	14.0	39.7	16.7	16	155	178
33080.W0374	16	70	19.0	47.6	26.3	14.0	39.7	16.7	16	155	194
33080.W0376	16	80	19.0	47.6	26.3	14.0	39.7	16.7	16	155	208
33080.W0377	16	90	19.0	47.6	25.2	14.0	39.7	16.7	16	155	234
33080.W0378	16	100	19.0	47.6	25.2	14.0	39.7	16.7	16	155	251
33080.W0379	16	110	19.0	47.6	25.2	14.0	39.7	16.7	16	155	266
33080.W0380	16	120	19.0	47.6	25.2	14.0	39.7	16.7	16	155	281
33080.W0381	16	130	19.0	47.6	25.2	14.0	39.7	16.7	16	155	297
33080.W0382	16	140	19.0	47.6	25.2	14.0	39.7	16.7	16	155	313
33080.W0383	16	150	19.0	47.6	25.2	14.0	39.7	16.7	16	155	328
33080.W0391	20	50	25.0	57.1	33.8	20.5	50.7	21.5	20	244	329
33080.W0392	20	60	25.0	57.1	35.4	20.5	50.7	21.5	20	244	343
33080.W0393	20	70	25.0	57.1	33.8	20.5	50.7	21.5	20	244	377
33080.W0397	20	90	25.0	57.1	33.8	20.5	50.7	21.5	20	244	426
33080.W0401	20	110	25.0	57.1	33.8	20.5	50.7	21.5	20	244	474
33080.W0396	20	80	25.0	57.1	35.4	20.5	50.7	21.5	20	244	392
33080.W0400	20	100	25.0	57.1	35.4	20.5	50.7	21.5	20	244	440
33080.W0404	20	120	25.0	57.1	33.8	20.5	50.7	21.5	20	244	488
33080.W0406	20	130	25.0	57.1	33.8	20.5	50.7	21.5	20	244	523
33080.W0407	20	150	25.0	57.1	33.8	20.5	50.7	21.5	20	244	571
33080.W0409	25	50	30.8	57.1	33.8	22.0	50.7	21.5	25	286	415
33080.W0410	25	60	30.8	57.1	33.8	22.0	50.7	21.5	25	286	453

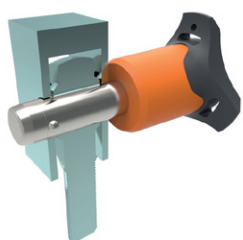


Ball Lock Pins - Single Acting - Grey

self-locking - stainless steel 1.4305 (AISI 303)

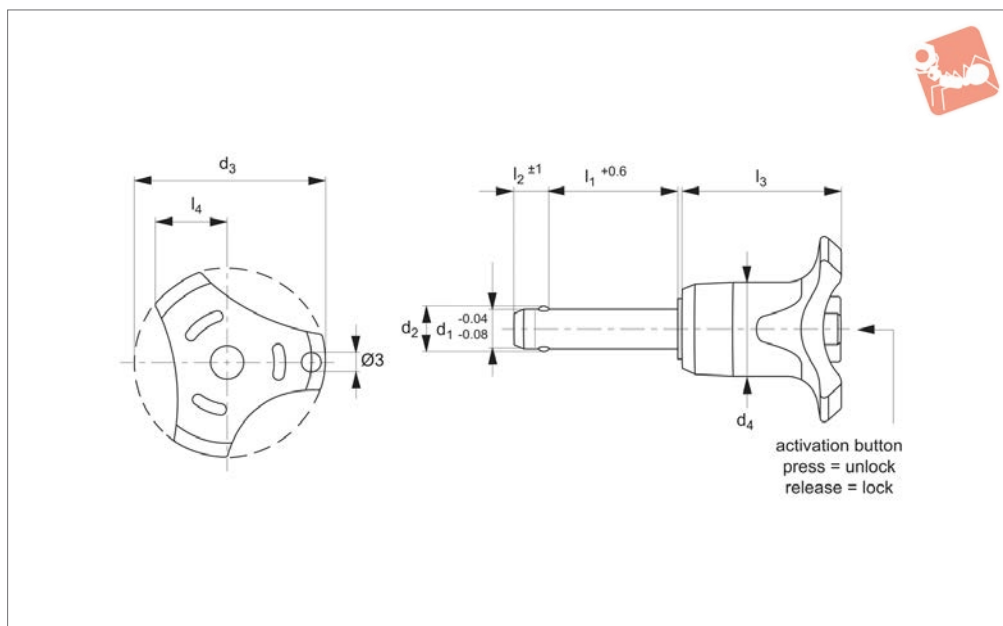
Ball Lock Pins & Quick Release

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33080.W0411	25	70	30.8	57.1	33.8	22.0	50.7	21.5	25	286	490
33080.W0412	25	80	30.8	57.1	33.8	22.0	50.7	21.5	25	286	528
33080.W0413	25	90	30.8	57.1	33.8	22.0	50.7	21.5	25	286	565
33080.W0414	25	100	30.8	57.1	33.8	22.0	50.7	21.5	25	286	603
33080.W0415	25	110	30.8	57.1	33.8	22.0	50.7	21.5	25	286	640
33080.W0416	25	120	30.8	57.1	33.8	22.0	50.7	21.5	25	286	690
33080.W0417	25	130	30.8	57.1	33.8	22.0	50.7	21.5	25	286	715
33080.W0418	25	140	30.8	57.1	33.8	22.0	50.7	21.5	25	286	753
33080.W0419	25	150	30.8	57.1	33.8	22.0	50.7	21.5	25	286	790





33080.0R



Material

Pin: stainless steel 1,4542 (AISI 630)

Ball: stainless steel 1.3541

Spring: stainless steel.

Handle: thermoplastic PA 6.

Available colours: grey/orange, grey/blue, grey/grey.

Technical Notes

Pressing = unlocking.

Releasing = locking.

Temperature resistance -30°C to +80°C.

For quick fastening and locking of frequently repeated connections.

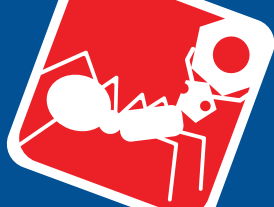
Tips

For lanyards & retaining cables see part no.33250-33261. Easy install locating bushes available see part no.33248 + 33246.

Important Notes

*Shearing resistance similar to DIN 50141. Also available in stainless grade 1.4542 (AISI 630) for higher shear forces, see part no.33060.

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33080.W0152	5	10	5.5	33.2	14.5	6.0	26.7	10.8	5	14	15
33080.W0153	5	15	5.5	33.2	14.5	6.0	26.7	10.8	5	14	15
33080.W0154	5	20	5.5	33.2	14.5	6.0	26.7	10.8	5	14	16
33080.W0155	5	25	5.5	33.2	14.5	6.0	26.7	10.8	5	14	17
33080.W0156	5	30	5.5	33.2	14.5	6.0	26.7	10.8	5	14	18
33080.W0157	6	60	7.0	33.2	14.5	7.0	26.7	10.8	6	21	26
33080.W0158	6	70	7.0	33.2	14.5	7.0	26.7	10.8	6	21	28
33080.W0159	6	80	7.0	33.2	14.5	7.0	26.7	10.8	6	21	30
33080.W0145	5	35	5.5	33.2	14.5	6.0	26.7	10.8	5	14	19
33080.W0146	5	40	5.5	33.2	14.5	6.0	26.7	10.8	5	14	20
33080.W0147	5	45	5.5	33.2	14.5	6.0	26.7	10.8	5	14	21
33080.W0148	5	50	5.5	33.2	14.5	6.0	26.7	10.8	5	14	23
33080.W0149	5	60	5.5	33.2	14.5	6.0	26.7	10.8	5	14	24
33080.W0150	5	70	5.5	33.2	14.5	6.0	26.7	10.8	5	14	18
33080.W0151	5	80	5.5	33.2	14.5	6.0	26.7	10.8	5	14	19
33080.W0161	8	100	9.6	39.2	18.4	8.2	33.3	13.4	8	38	54
33080.W0162	6	10	7.0	33.2	14.5	7.0	26.7	10.8	6	21	16
33080.W0163	6	15	7.0	33.2	14.5	7.0	26.7	10.8	6	21	17
33080.W0164	6	20	7.0	33.2	14.5	7.0	26.7	10.8	6	21	18
33080.W0165	6	25	7.0	33.2	14.5	7.0	26.7	10.8	6	21	19
33080.W0166	6	30	7.0	33.2	14.5	7.0	26.7	10.8	6	21	20
33080.W0167	6	35	7.0	33.2	14.5	7.0	26.7	10.8	6	21	21
33080.W0168	6	40	7.0	33.2	14.5	7.0	26.7	10.8	6	21	22
33080.W0169	6	45	7.0	33.2	14.5	7.0	26.7	10.8	6	21	23
33080.W0170	6	50	7.0	33.2	14.5	7.0	26.7	10.8	6	21	24
33080.W0171	8	90	9.6	39.2	18.4	8.2	33.3	13.4	8	38	36
33080.W0172	8	10	9.6	39.2	18.4	8.2	33.3	13.4	8	38	38



Ball Lock Pins - Single Acting - Orange

self-locking - stainless steel 1.4305 (AISI 303)

Ball Lock Pins & Quick Release

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33080.W0173	8	15	9.6	39.2	18.4	8.2	33.3	13.4	8	38	58
33080.W0174	8	20	9.6	39.2	19.3	8.2	33.3	13.4	8	38	40
33080.W0175	8	25	9.6	39.2	19.3	8.2	33.3	13.4	8	38	42
33080.W0176	8	30	9.6	39.2	19.3	8.2	33.3	13.4	8	38	44
33080.W0177	8	35	9.6	39.2	19.3	8.2	33.3	13.4	8	38	46
33080.W0178	8	40	9.6	39.2	19.3	8.2	33.3	13.4	8	38	47
33080.W0179	8	45	9.6	39.2	19.3	8.2	33.3	13.4	8	38	49
33080.W0180	8	50	9.6	39.2	19.3	8.2	33.3	13.4	8	38	51
33080.W0181	8	60	9.6	39.2	19.3	8.2	33.3	13.4	8	38	62
33080.W0182	8	70	9.6	39.2	19.3	8.2	33.3	13.4	8	38	65
33080.W0183	8	80	9.6	39.2	18.4	8.2	33.3	13.4	8	38	69
33080.W0184	10	20	12.0	39.2	19.3	9.6	33.3	13.4	10	60	47
33080.W0185	10	25	12.0	39.2	19.3	9.6	33.3	13.4	10	60	49
33080.W0186	10	30	12.0	39.2	19.3	9.6	33.3	13.4	10	60	53
33080.W0187	10	35	12.0	39.2	19.3	9.6	33.3	13.4	10	60	55
33080.W0188	10	40	12.0	39.2	19.3	9.6	33.3	13.4	10	60	58
33080.W0189	10	45	12.0	39.2	19.3	9.6	33.3	13.4	10	60	61
33080.W0190	10	50	12.0	39.2	19.3	9.6	33.3	13.4	10	60	64
33080.W0191	10	15	12.0	39.2	18.4	9.6	33.3	13.4	10	60	86
33080.W0192	10	60	12.0	39.2	19.3	9.6	33.3	13.4	10	60	70
33080.W0193	10	70	12.0	39.2	18.4	9.6	33.3	13.4	10	60	91
33080.W0195	10	90	12.0	39.2	18.4	9.6	33.3	13.4	10	60	103
33080.W0194	10	80	12.0	39.2	18.4	9.6	33.3	13.4	10	60	97
33080.W0196	10	100	12.0	39.2	18.4	9.6	33.3	13.4	10	60	109
33080.W0197	10	110	12.0	39.2	18.4	9.6	33.3	13.4	10	60	115
33080.W0198	10	120	12.0	39.2	18.4	9.6	33.3	13.4	10	60	53
33080.W0204	12	20	14.5	47.6	25.2	10.6	39.7	16.7	12	87	156
33080.W0205	12	25	14.5	47.6	26.3	10.6	39.7	16.7	12	87	96
33080.W0206	12	30	14.5	47.6	26.3	10.6	39.7	16.7	12	87	100
33080.W0207	12	35	14.5	47.6	26.3	10.6	39.7	16.7	12	87	105
33080.W0208	12	40	14.5	47.6	26.3	10.6	39.7	16.7	12	87	109
33080.W0209	12	45	14.5	47.6	26.3	10.6	39.7	16.7	12	87	113
33080.W0210	12	50	14.5	47.6	26.3	10.6	39.7	16.7	12	87	117
33080.W0212	12	60	14.5	47.6	26.3	10.6	39.7	16.7	12	87	126
33080.W0214	12	70	14.5	47.6	26.3	10.6	39.7	16.7	12	87	134
33080.W0216	12	80	14.5	47.6	26.3	10.6	39.7	16.7	12	87	143
33080.W0217	12	90	14.5	47.6	25.2	10.6	39.7	16.7	12	87	165
33080.W0218	12	100	14.5	47.6	25.2	10.6	39.7	16.7	12	87	173
33080.W0219	12	110	14.5	47.6	25.2	10.6	39.7	16.7	12	87	182
33080.W0220	12	120	14.5	47.6	25.2	10.6	39.7	16.7	12	87	177
33080.W0226	16	30	19.0	47.6	26.3	14.0	39.7	16.7	16	155	132
33080.W0227	16	35	19.0	47.6	26.3	14.0	39.7	16.7	16	155	140
33080.W0228	16	40	19.0	47.6	26.3	14.0	39.7	16.7	16	155	148
33080.W0229	16	45	19.0	47.6	26.3	14.0	39.7	16.7	16	155	155
33080.W0230	16	50	19.0	47.6	26.3	14.0	39.7	16.7	16	155	168
33080.W0232	16	60	19.0	47.6	26.3	14.0	39.7	16.7	16	155	178
33080.W0234	16	70	19.0	47.6	26.3	14.0	39.7	16.7	16	155	194
33080.W0236	16	80	19.0	47.6	26.3	14.0	39.7	16.7	16	155	208
33080.W0237	16	90	19.0	47.6	25.2	14.0	39.7	16.7	16	155	234
33080.W0238	16	100	19.0	47.6	25.2	14.0	39.7	16.7	16	155	251
33080.W0239	16	110	19.0	47.6	25.2	14.0	39.7	16.7	16	155	266
33080.W0240	16	120	19.0	47.6	25.2	14.0	39.7	16.7	16	155	281
33080.W0241	16	130	19.0	47.6	25.2	14.0	39.7	16.7	16	155	297
33080.W0242	16	140	19.0	47.6	25.2	14.0	39.7	16.7	16	155	313
33080.W0243	16	150	19.0	47.6	25.2	14.0	39.7	16.7	16	155	328
33080.W0251	20	50	25.0	57.1	33.8	20.5	50.7	21.5	20	244	329
33080.W0252	20	60	25.0	57.1	35.4	20.5	50.7	21.5	20	244	343
33080.W0253	20	70	25.0	57.1	33.8	20.5	50.7	21.5	20	244	377
33080.W0256	20	80	25.0	57.1	35.4	20.5	50.7	21.5	20	244	392
33080.W0257	20	90	25.0	57.1	33.8	20.5	50.7	21.5	20	244	426
33080.W0260	20	100	25.0	57.1	35.4	20.5	50.7	21.5	20	244	440
33080.W0261	20	110	25.0	57.1	33.8	20.5	50.7	21.5	20	244	474
33080.W0264	20	120	25.0	57.1	35.4	20.5	50.7	21.5	20	244	488
33080.W0265	20	130	25.0	57.1	33.8	20.5	50.7	21.5	20	244	523
33080.W0266	20	140	25.0	57.1	33.8	20.5	50.7	21.5	20	244	546
33080.W0267	20	150	25.0	57.1	33.8	20.5	50.7	21.5	20	244	571
33080.W0269	25	50	30.8	57.1	33.8	22.0	50.7	21.5	25	386	415

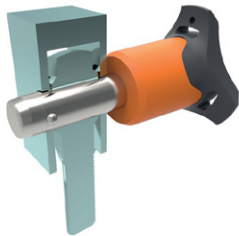
Ball Lock Pins & Quick Release

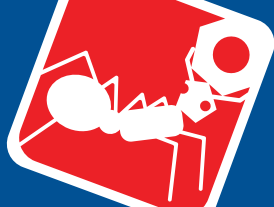
Ball Lock Pins - Single Acting - Orange

self-locking - stainless steel 1.4305 (AISI 303)



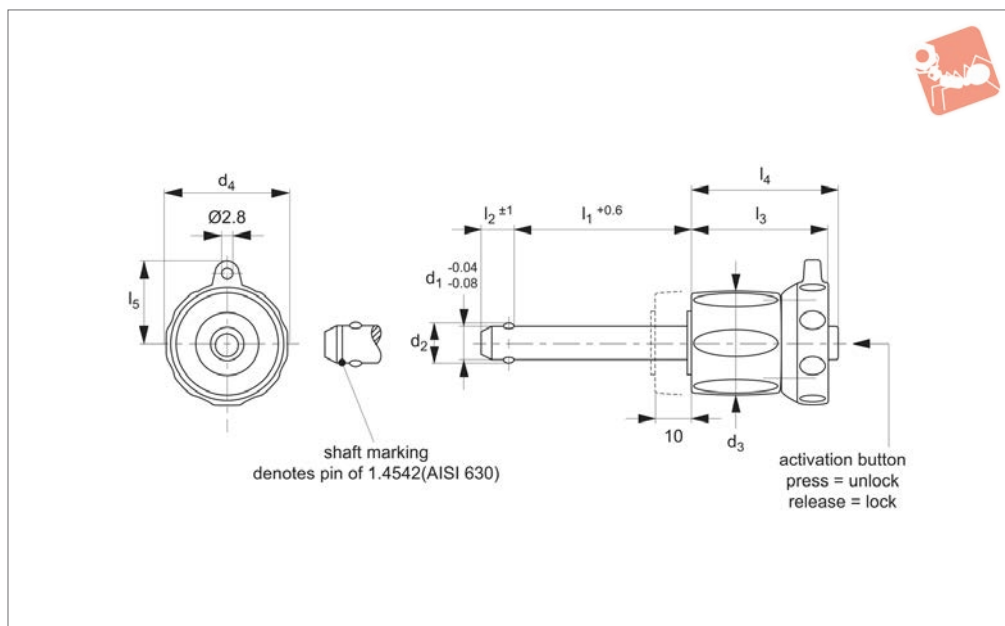
Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33080.W0270	25	60	30.8	57.1	33.8	22.0	50.7	21.5	25	386	453
33080.W0271	25	70	30.8	57.1	33.8	22.0	50.7	21.5	25	386	490
33080.W0272	25	80	30.8	57.1	33.8	22.0	50.7	21.5	25	386	528
33080.W0273	25	90	30.8	57.1	33.8	22.0	50.7	21.5	25	386	565
33080.W0274	25	100	30.8	57.1	33.8	22.0	50.7	21.5	25	386	603
33080.W0275	25	110	30.8	57.1	33.8	22.0	50.7	21.5	25	386	640
33080.W0276	25	120	30.8	57.1	33.8	22.0	50.7	21.5	25	386	690
33080.W0277	25	130	30.8	57.1	33.8	22.0	50.7	21.5	25	386	715
33080.W0278	25	140	30.8	57.1	33.8	22.0	50.7	21.5	25	386	753
33080.W0279	25	150	30.8	57.1	33.8	22.0	50.7	21.5	25	386	790





Ball Lock Pins - Single Acting self-locking - adj. length - stainless 1.4305

Ball Lock Pins & Quick Release



33104.1

BALL LOCK PINS & QUICK RELEASE PINS

Material

Pin: stainless steel 1.4305 (AISI 303).
Ball: stainless steel 1.3541
Spring: stainless steel.
Adj. Grip: thermoplastic, grey/black.

Technical Notes

Pressing = unlocking.
Releasing = locking.

Unique design; adj.grip offers up to 10mm of clamping stroke on pin length l_1 after installation.

Temperature resistance -30°C to +80°C.
For quick fastening and locking of frequently repeated connections, with additional clamping capacity of up to 10mm stroke.

Tips

For lanyards & retaining cables see part no.33250. Easy install locating bushes available see part no.33248.

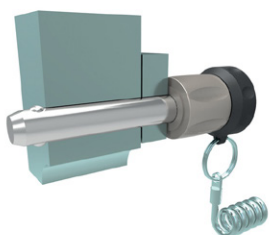
Important Notes

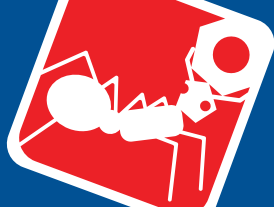
*Shearing resistance similar to DIN 50141.

Order No.	d_1	l_1	Material	d_2	d_3	d_4	l_2	l_3	l_4	l_5	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33104.W0192	5	0 - 10	Stainless 1.4305	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	14	24
33104.W0193	5	5 - 15	Stainless 1.4305	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	14	25
33104.W0194	5	10 - 20	Stainless 1.4305	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	14	26
33104.W0195	5	15 - 25	Stainless 1.4305	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	14	27
33104.W0196	5	20 - 30	Stainless 1.4305	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	14	27
33104.W0202	6	0 - 10	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	25
33104.W0203	6	5 - 15	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	26
33104.W0204	6	10 - 20	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	27
33104.W0205	6	15 - 25	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	28
33104.W0206	6	20 - 30	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	29
33104.W0207	6	25 - 35	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	30
33104.W0208	6	30 - 40	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	31
33104.W0209	6	35 - 45	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	32
33104.W0210	6	40 - 50	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	33
33104.W0214	8	10 - 20	Stainless 1.4305	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	38	57
33104.W0215	8	15 - 25	Stainless 1.4305	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	38	58
33104.W0216	8	20 - 30	Stainless 1.4305	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	38	60
33104.W0217	8	25 - 35	Stainless 1.4305	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	38	62
33104.W0218	8	30 - 40	Stainless 1.4305	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	38	64
33104.W0219	8	35 - 45	Stainless 1.4305	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	38	66
33104.W0220	8	40 - 50	Stainless 1.4305	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	38	68
33104.W0224	10	10 - 20	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	63
33104.W0225	10	15 - 25	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	66
33104.W0226	10	20 - 30	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	69
33104.W0227	10	25 - 35	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	72
33104.W0228	10	30 - 40	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	75
33104.W0229	10	35 - 45	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	78
33104.W0230	10	40 - 50	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	81



Order No.	d ₁	l ₁	Material	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	l ₅	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33104.W0232	10	50 - 60	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	87
33104.W0235	12	15 - 25	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	123
33104.W0236	12	20 - 30	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	127
33104.W0237	12	25 - 35	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	131
33104.W0238	12	30 - 40	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	135
33104.W0239	12	35 - 45	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	140
33104.W0240	12	40 - 50	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	144
33104.W0242	12	50 - 60	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	152
33104.W0244	12	60 - 70	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	161
33104.W0246	12	70 - 80	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	169
33104.W0256	16	20 - 30	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	159
33104.W0257	16	25 - 35	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	166
33104.W0258	16	30 - 40	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	174
33104.W0259	16	35 - 45	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	182
33104.W0260	16	40 - 50	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	189
33104.W0262	16	50 - 60	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	205
33104.W0264	16	60 - 70	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	220
33104.W0266	16	70 - 80	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	235

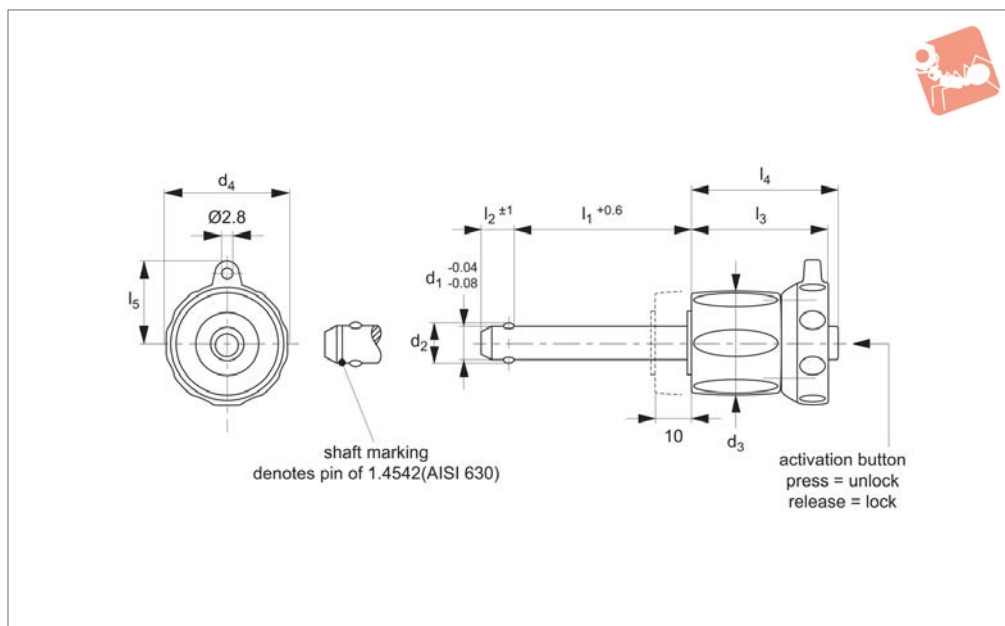




Ball Lock Pins - Single Acting

self-locking - adj. length - stainless 1.4542

Ball Lock Pins & Quick Release



33104.2

BALL LOCK PINS & QUICK RELEASE PINS

Material

Pin: stainless steel 1.4542 (AISI 630), precipitation hardened, blast finish. Offering extreme load capacity. (Marked at end of shaft to denote 1.4542 material).
Ball: stainless steel 1.3541
Spring: stainless steel.
Adj. Grip: thermoplastic, grey/black.

Technical Notes

Pressing = unlocking.

Releasing = locking.

Unique design; adj.grip offers up to 10mm of clamping stroke on pin length l_1 after installation.

Temperature resistance -30°C to +80°C.
For quick fastening and locking of frequently repeated connections, with additional clamping capacity of up to 10mm stroke.

Tips

For lanyards & retaining cables see part no.33250. Easy install locating bushes available see part no.33248.

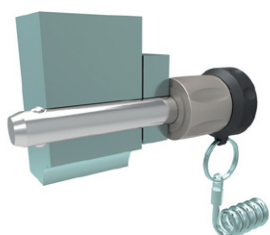
Important Notes

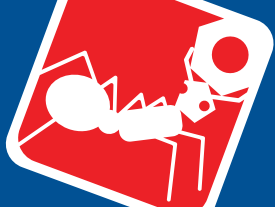
*Shearing resistance similar to DIN 50141.

Order No.	d_1	l_1	Material	d_2	d_3	d_4	l_2	l_3	l_4	l_5	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33104.W0392	5	0 - 10	Stainless 1.4542	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	24	24
33104.W0393	5	5 - 15	Stainless 1.4542	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	24	25
33104.W0394	5	10 - 20	Stainless 1.4542	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	24	26
33104.W0395	5	15 - 25	Stainless 1.4542	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	24	27
33104.W0396	5	20 - 30	Stainless 1.4542	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	24	27
33104.W0402	6	0 - 10	Stainless 1.4542	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	35	25
33104.W0403	6	5 - 15	Stainless 1.4542	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	35	26
33104.W0404	6	10 - 20	Stainless 1.4542	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	35	27
33104.W0405	6	15 - 25	Stainless 1.4542	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	35	28
33104.W0406	6	20 - 30	Stainless 1.4542	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	35	29
33104.W0407	6	25 - 35	Stainless 1.4542	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	35	30
33104.W0408	6	30 - 40	Stainless 1.4542	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	35	31
33104.W0409	6	35 - 45	Stainless 1.4542	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	35	32
33104.W0410	6	40 - 50	Stainless 1.4542	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	35	33
33104.W0414	8	10 - 20	Stainless 1.4542	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	63	57
33104.W0415	8	15 - 25	Stainless 1.4542	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	63	58
33104.W0416	8	20 - 30	Stainless 1.4542	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	63	60
33104.W0417	8	25 - 35	Stainless 1.4542	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	63	62
33104.W0418	8	30 - 40	Stainless 1.4542	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	63	64
33104.W0419	8	35 - 45	Stainless 1.4542	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	63	66
33104.W0420	8	40 - 50	Stainless 1.4542	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	63	68
33104.W0424	10	10 - 20	Stainless 1.4542	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	100	63
33104.W0425	10	15 - 25	Stainless 1.4542	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	100	66
33104.W0426	10	20 - 30	Stainless 1.4542	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	100	69
33104.W0427	10	25 - 35	Stainless 1.4542	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	100	72



Order No.	d ₁	l ₁	Material	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	l ₅	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
33104.W0428	10	30 - 40	Stainless 1.4542	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	100	75
33104.W0429	10	35 - 45	Stainless 1.4542	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	100	78
33104.W0430	10	40 - 50	Stainless 1.4542	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	100	81
33104.W0432	10	50 - 60	Stainless 1.4542	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	100	87
33104.W0435	12	15 - 25	Stainless 1.4542	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	144	123
33104.W0436	12	20 - 30	Stainless 1.4542	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	144	127
33104.W0437	12	25 - 35	Stainless 1.4542	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	144	131
33104.W0438	12	30 - 40	Stainless 1.4542	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	144	135
33104.W0439	12	35 - 45	Stainless 1.4542	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	144	140
33104.W0440	12	40 - 50	Stainless 1.4542	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	144	144
33104.W0442	12	50 - 60	Stainless 1.4542	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	144	152
33104.W0444	12	60 - 70	Stainless 1.4542	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	144	161
33104.W0446	12	70 - 80	Stainless 1.4542	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	144	169
33104.W0456	16	20 - 30	Stainless 1.4542	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	257	159
33104.W0457	16	25 - 35	Stainless 1.4542	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	257	166
33104.W0458	16	30 - 40	Stainless 1.4542	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	257	174
33104.W0459	16	35 - 45	Stainless 1.4542	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	257	182
33104.W0460	16	40 - 50	Stainless 1.4542	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	257	189
33104.W0462	16	50 - 60	Stainless 1.4542	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	257	205
33104.W0464	16	60 - 70	Stainless 1.4542	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	257	220
33104.W0466	16	70 - 80	Stainless 1.4542	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	257	235





Wixroyd Ball Lock Pins

applications

33060 - 33250
Positioning Elements

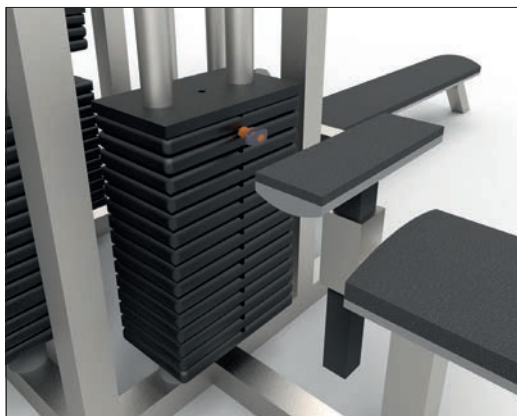


Sound Rigging Systems

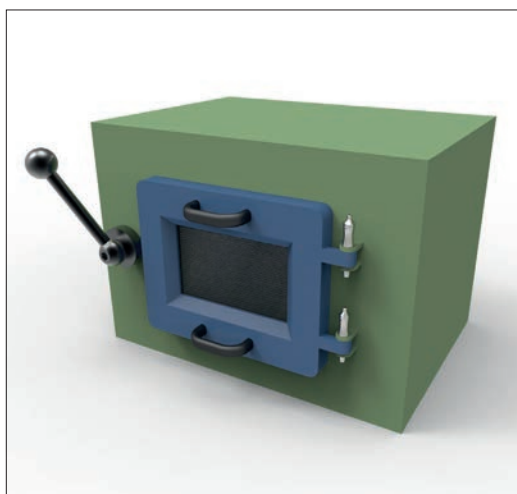
Ball lock pins on a sound rigging system. Offering secure fixing with high shear forces and easy fitting for operators at heights.

In addition full black powder coating of grip and actuation button eliminates glare from other stage lighting.

BALL LOCK PINS & QUICK RELEASE PINS



Gym Equipment



Scientific and Medical



Pin Material

1.4305 (AISI 303) - shear force approx.
60% of higher material version 1.4542

1.4542 (AISI 630) - identified by the ridge
on the pin

CRES 17-4PH (AMS 5643) aviation standard



Handle Style



Plastic tri-star



T-handled, metal



L-handled, metal



Mushroom, metal



Single piece metal,
contoured



Special plastic
self-spring



Adjustable grip
length, plastic



Key ring



Safety, metal



Mushroom Type
B aviation

Type R aviation

Lanyards and
Locating Bushes

Stainless wire -
(coated) -
2 x key ring



Stainless wire -
Key ring and
fixing loop



Plastic -
2 x cable tie



Steel wire -
(coated) -
2 x key ring



Stainless bead
chain -
2 x key ring



Locating
bushes

Actuation



Press = unlock
Release = lock
(standard)



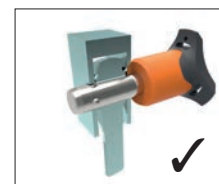
Press = unlock and position
Release = lock and
simultaneous clamp



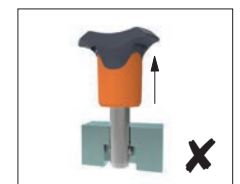
Simple spring loaded balls
"pullout pin"

Important Note

**Important Note: Ball lock pins are
not suited to lifting applications!**
For quick release lifting pins,
see part 33400.



Shear force



Lifting force

Special Variations

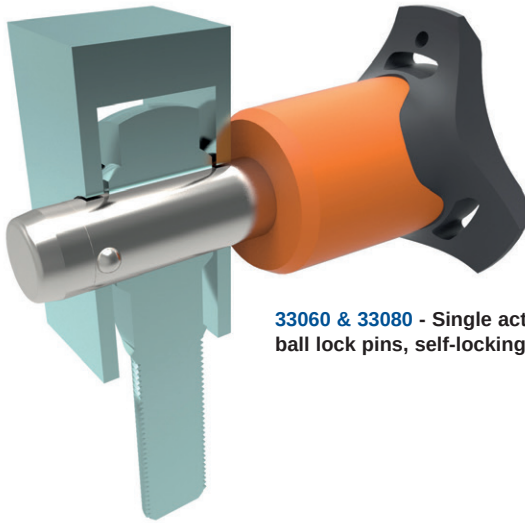


Variations on our standard designs
are possible, please contact our
sales team for technical assistance.
Quick production on specials can
be as little as 3 weeks.



Applications

- Positioning.
- Lifting.
- Locking.
- Indexing.
- Joining.



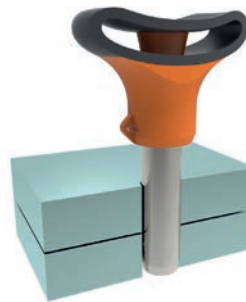
33060 & 33080 - Single acting ball lock pins, self-locking.



33194 - Single acting ball lock pins, self locking, simple finish.



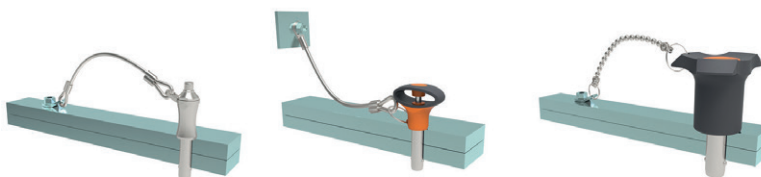
33140 - Socket pins, non-locking, spring loaded balls.



33100 - Single acting ball lock pin, self locking.



33180 - Clamping pins, with span compensation, self-locking.



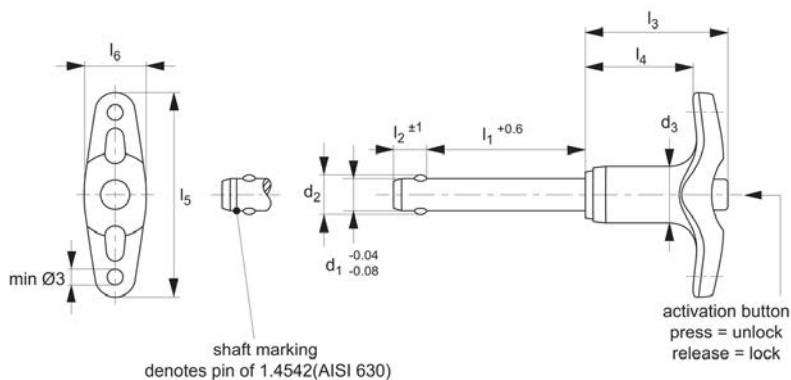
33250 & 33270 - Lanyards.



33220 - Ball lock pins, single acting - L-handle



33200.1



Material

Pin: stainless steel 1.4305 (AISI 303).
Ball: stainless steel 1.3541
Handle: aluminium, black (similar to RAL 9005)
Spring: stainless Steel.

Technical Notes

Pressing = unlocking.

Releasing = locking.

Temperature range -30°C to +150°C.

For quick fastening and locking frequently repeated connections.

Tips

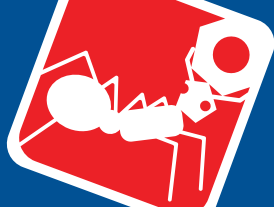
For lanyards & retaining cables see part no.33250-33261. Easy install locating bushes available see part no.33248 +

33246.

Important Notes

*Shearing resistance similar to DIN 50141.

Order No.	Material	d_1	l_1	d_2	d_3	l_2	l_3	l_4	l_5	l_6	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33200.W0007	Stainless 1.4305	5	45	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	25
33200.W0008	Stainless 1.4305	5	50	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	26
33200.W0009	Stainless 1.4305	5	60	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	27
33200.W0010	Stainless 1.4305	5	70	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	29
33200.W0011	Stainless 1.4305	5	80	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	30
33200.W0012	Stainless 1.4305	5	10	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	19
33200.W0013	Stainless 1.4305	5	15	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	20
33200.W0014	Stainless 1.4305	5	20	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	20
33200.W0015	Stainless 1.4305	5	25	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	21
33200.W0016	Stainless 1.4305	5	30	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	22
33200.W0017	Stainless 1.4305	5	35	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	24
33200.W0018	Stainless 1.4305	5	40	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	14	24
33200.W0019	Stainless 1.4305	6	60	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	31
33200.W0020	Stainless 1.4305	6	70	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	33
33200.W0021	Stainless 1.4305	6	80	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	35
33200.W0022	Stainless 1.4305	6	10	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	20
33200.W0023	Stainless 1.4305	6	15	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	21
33200.W0024	Stainless 1.4305	6	20	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	22
33200.W0025	Stainless 1.4305	6	25	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	23
33200.W0026	Stainless 1.4305	6	30	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	24
33200.W0027	Stainless 1.4305	6	35	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	25
33200.W0028	Stainless 1.4305	6	40	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	26
33200.W0029	Stainless 1.4305	6	45	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	27
33200.W0030	Stainless 1.4305	6	50	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	21	28
33200.W0031	Stainless 1.4305	8	60	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	52
33200.W0032	Stainless 1.4305	8	10	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	33
33200.W0033	Stainless 1.4305	8	15	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	35



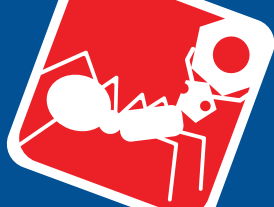
Ball Lock Pins - Single Acting - T- self-locking - stainless 1.4305

Ball Lock Pins & Quick Release

Order No.	Material	d ₁	l ₁	d ₂	d ₃	l ₂	l ₃	l ₄	l ₅	l ₆	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33200.W0034	Stainless 1.4305	8	20	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	37
33200.W0035	Stainless 1.4305	8	25	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	39
33200.W0036	Stainless 1.4305	8	30	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	41
33200.W0037	Stainless 1.4305	8	35	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	43
33200.W0038	Stainless 1.4305	8	40	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	44
33200.W0039	Stainless 1.4305	8	45	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	46
33200.W0040	Stainless 1.4305	8	50	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	48
33200.W0041	Stainless 1.4305	8	70	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	56
33200.W0042	Stainless 1.4305	8	80	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	60
33200.W0043	Stainless 1.4305	8	90	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	63
33200.W0044	Stainless 1.4305	10	20	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	44
33200.W0045	Stainless 1.4305	10	25	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	47
33200.W0046	Stainless 1.4305	10	30	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	49
33200.W0047	Stainless 1.4305	10	35	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	52
33200.W0048	Stainless 1.4305	10	40	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	55
33200.W0049	Stainless 1.4305	10	45	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	58
33200.W0050	Stainless 1.4305	10	50	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	61
33200.W0051	Stainless 1.4305	8	100	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	38	67
33200.W0052	Stainless 1.4305	10	60	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	67
33200.W0053	Stainless 1.4305	10	70	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	73
33200.W0054	Stainless 1.4305	10	80	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	79
33200.W0055	Stainless 1.4305	10	90	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	85
33200.W0056	Stainless 1.4305	10	100	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	91
33200.W0057	Stainless 1.4305	10	110	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	97
33200.W0058	Stainless 1.4305	10	120	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	103
33200.W0059	Stainless 1.4305	10	15	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	60	40
33200.W0060	Stainless 1.4305	12	90	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	127
33200.W0061	Stainless 1.4305	12	100	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	136
33200.W0062	Stainless 1.4305	12	110	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	144
33200.W0063	Stainless 1.4305	12	120	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	153
33200.W0064	Stainless 1.4305	12	20	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	68
33200.W0065	Stainless 1.4305	12	25	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	73
33200.W0066	Stainless 1.4305	12	30	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	77
33200.W0067	Stainless 1.4305	12	35	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	81
33200.W0068	Stainless 1.4305	12	40	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	86
33200.W0069	Stainless 1.4305	12	45	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	90
33200.W0070	Stainless 1.4305	12	50	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	94
33200.W0071	Stainless 1.4305	16	30	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	150
33200.W0072	Stainless 1.4305	12	60	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	103
33200.W0073	Stainless 1.4305	16	35	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	157
33200.W0074	Stainless 1.4305	12	70	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	111
33200.W0075	Stainless 1.4305	16	40	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	165
33200.W0076	Stainless 1.4305	12	80	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	87	119
33200.W0077	Stainless 1.4305	16	45	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	173
33200.W0078	Stainless 1.4305	16	50	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	180
33200.W0079	Stainless 1.4305	16	60	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	196
33200.W0080	Stainless 1.4305	16	70	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	211
33200.W0081	Stainless 1.4305	16	80	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	226
33200.W0082	Stainless 1.4305	16	90	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	242
33200.W0083	Stainless 1.4305	16	100	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	257
33200.W0084	Stainless 1.4305	16	110	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	272
33200.W0085	Stainless 1.4305	16	120	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	288
33200.W0086	Stainless 1.4305	16	130	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	303
33200.W0087	Stainless 1.4305	16	140	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	319
33200.W0088	Stainless 1.4305	16	150	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	155	334
33200.W0089	Stainless 1.4305	20	50	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	244	241
33200.W0090	Stainless 1.4305	20	60	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	244	265
33200.W0091	Stainless 1.4305	20	70	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	244	289
33200.W0092	Stainless 1.4305	20	80	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	244	313
33200.W0093	Stainless 1.4305	20	90	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	244	337
33200.W0094	Stainless 1.4305	20	100	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	244	361
33200.W0095	Stainless 1.4305	20	110	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	244	385
33200.W0096	Stainless 1.4305	20	120	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	244	409
33200.W0097	Stainless 1.4305	20	130	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	244	433
33200.W0098	Stainless 1.4305	20	140	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	244	457
33200.W0099	Stainless 1.4305	20	150	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	244	481

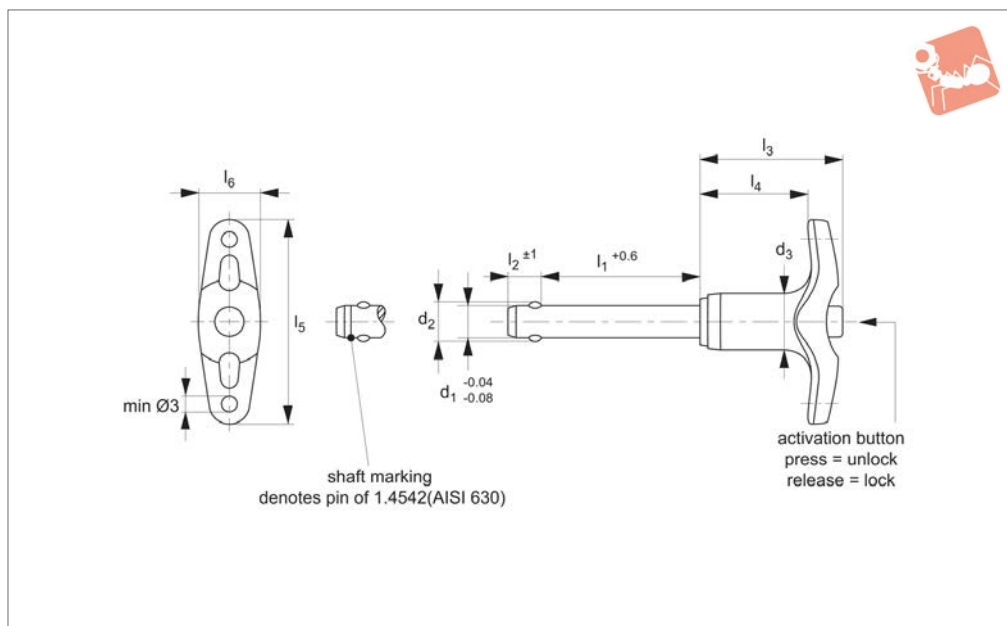


Order No.	Material	d ₁	l ₁	d ₂	d ₃	l ₂	l ₃	l ₄	l ₅	l ₆	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33200.W0100	Stainless 1.4305	25	50	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	386	447
33200.W0101	Stainless 1.4305	25	60	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	386	484
33200.W0102	Stainless 1.4305	25	70	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	386	522
33200.W0103	Stainless 1.4305	25	80	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	386	560
33200.W0104	Stainless 1.4305	25	90	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	386	598
33200.W0105	Stainless 1.4305	25	100	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	386	636
33200.W0106	Stainless 1.4305	25	110	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	386	674
33200.W0107	Stainless 1.4305	25	120	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	386	712
33200.W0108	Stainless 1.4305	25	130	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	386	750
33200.W0109	Stainless 1.4305	25	140	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	386	788
33200.W0110	Stainless 1.4305	25	150	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	386	825



Ball Lock Pins - Single Acting - T- self-locking - stainless 1.4542

Ball Lock Pins & Quick Release



33200.2

BALL LOCK PINS & QUICK RELEASE PINS

Material

Pin: stainless steel 1.4542 (AISI 630).
Precipitation hardened, blast finish. Offering extreme load capacity. (Marked at end of shaft to denote 1.4542 material).
Ball: stainless steel 1.3541
Handle: aluminium, black (RAL9003).
Spring: stainless steel.

Technical Notes

Pressing = unlocking.
Releasing = locking.
Temperature range -30°C to +150°C.
For quick fastening and locking frequently repeated connections.

Tips

For lanyards & retaining cables see part no.33250-33261. Easy install locating bushes available see part no.33248 + 33246.

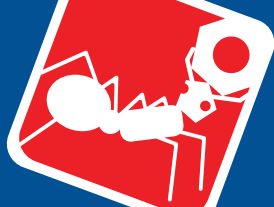
Important Notes

*Shearing resistance similar to DIN 50141.

Order No.	Material	d ₁	l ₁	d ₂	d ₃	l ₂	l ₃	l ₄	l ₅	l ₆	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33200.W0307	Stainless 1.4542	5	45	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	25
33200.W0308	Stainless 1.4542	5	50	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	26
33200.W0309	Stainless 1.4542	5	60	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	27
33200.W0310	Stainless 1.4542	5	70	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	29
33200.W0311	Stainless 1.4542	5	80	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	30
33200.W0312	Stainless 1.4542	5	10	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	19
33200.W0313	Stainless 1.4542	5	15	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	20
33200.W0314	Stainless 1.4542	5	20	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	20
33200.W0315	Stainless 1.4542	5	25	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	21
33200.W0316	Stainless 1.4542	5	30	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	22
33200.W0317	Stainless 1.4542	5	35	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	24
33200.W0318	Stainless 1.4542	5	40	5,5	11,8	6,0	31,6	24,1	45,2	12,7	5	24	24
33200.W0319	Stainless 1.4542	6	60	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	31
33200.W0320	Stainless 1.4542	6	70	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	33
33200.W0321	Stainless 1.4542	6	80	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	35
33200.W0322	Stainless 1.4542	6	10	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	20
33200.W0323	Stainless 1.4542	6	15	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	21
33200.W0324	Stainless 1.4542	6	20	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	22
33200.W0325	Stainless 1.4542	6	25	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	23
33200.W0326	Stainless 1.4542	6	30	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	24
33200.W0327	Stainless 1.4542	6	35	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	25
33200.W0328	Stainless 1.4542	6	40	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	26
33200.W0329	Stainless 1.4542	6	45	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	27
33200.W0330	Stainless 1.4542	6	50	7,0	11,8	7,0	31,6	24,1	45,2	12,7	6	35	28
33200.W0331	Stainless 1.4542	8	60	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	52
33200.W0332	Stainless 1.4542	8	10	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	33
33200.W0333	Stainless 1.4542	8	15	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	35
33200.W0334	Stainless 1.4542	8	20	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	37



Order No.	Material	d ₁	l ₁	d ₂	d ₃	l ₂	l ₃	l ₄	l ₅	l ₆	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33200.W0335	Stainless 1.4542	8	25	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	39
33200.W0336	Stainless 1.4542	8	30	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	41
33200.W0337	Stainless 1.4542	8	35	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	43
33200.W0338	Stainless 1.4542	8	40	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	44
33200.W0339	Stainless 1.4542	8	45	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	46
33200.W0340	Stainless 1.4542	8	50	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	48
33200.W0341	Stainless 1.4542	8	70	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	56
33200.W0342	Stainless 1.4542	8	80	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	60
33200.W0343	Stainless 1.4542	8	90	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	63
33200.W0344	Stainless 1.4542	10	20	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	44
33200.W0345	Stainless 1.4542	10	25	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	47
33200.W0346	Stainless 1.4542	10	30	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	49
33200.W0347	Stainless 1.4542	10	35	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	52
33200.W0348	Stainless 1.4542	10	40	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	55
33200.W0349	Stainless 1.4542	10	45	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	58
33200.W0350	Stainless 1.4542	10	50	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	61
33200.W0351	Stainless 1.4542	8	100	9,5	14,7	8,2	35,8	26,9	51,5	15,8	8	63	67
33200.W0352	Stainless 1.4542	10	60	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	67
33200.W0353	Stainless 1.4542	10	70	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	73
33200.W0354	Stainless 1.4542	10	80	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	79
33200.W0355	Stainless 1.4542	10	90	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	85
33200.W0356	Stainless 1.4542	10	100	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	91
33200.W0357	Stainless 1.4542	10	110	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	97
33200.W0358	Stainless 1.4542	10	120	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	103
33200.W0359	Stainless 1.4542	10	15	12,0	14,7	9,6	35,8	26,9	51,5	15,8	10	100	40
33200.W0360	Stainless 1.4542	12	90	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	127
33200.W0361	Stainless 1.4542	12	100	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	136
33200.W0362	Stainless 1.4542	12	110	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	144
33200.W0363	Stainless 1.4542	12	120	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	153
33200.W0364	Stainless 1.4542	12	20	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	68
33200.W0365	Stainless 1.4542	12	25	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	73
33200.W0366	Stainless 1.4542	12	30	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	77
33200.W0367	Stainless 1.4542	12	35	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	81
33200.W0368	Stainless 1.4542	12	40	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	86
33200.W0369	Stainless 1.4542	12	45	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	90
33200.W0370	Stainless 1.4542	12	50	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	94
33200.W0371	Stainless 1.4542	16	30	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	150
33200.W0372	Stainless 1.4542	12	60	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	103
33200.W0373	Stainless 1.4542	16	35	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	157
33200.W0374	Stainless 1.4542	12	70	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	111
33200.W0375	Stainless 1.4542	16	40	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	165
33200.W0376	Stainless 1.4542	12	80	14,5	18,2	10,6	35,1	25,3	59,1	20,2	12	144	119
33200.W0377	Stainless 1.4542	16	45	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	173
33200.W0378	Stainless 1.4542	16	50	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	180
33200.W0379	Stainless 1.4542	16	60	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	196
33200.W0380	Stainless 1.4542	16	70	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	211
33200.W0381	Stainless 1.4542	16	80	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	226
33200.W0382	Stainless 1.4542	16	90	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	242
33200.W0383	Stainless 1.4542	16	100	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	257
33200.W0384	Stainless 1.4542	16	110	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	272
33200.W0385	Stainless 1.4542	16	120	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	288
33200.W0386	Stainless 1.4542	16	130	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	303
33200.W0387	Stainless 1.4542	16	140	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	319
33200.W0388	Stainless 1.4542	16	150	19,0	23,4	14,0	42,2	29,8	74,8	24,7	16	257	334
33200.W0389	Stainless 1.4542	20	50	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	403	241
33200.W0391	Stainless 1.4542	20	70	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	403	289
33200.W0392	Stainless 1.4542	20	80	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	403	313
33200.W0393	Stainless 1.4542	20	90	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	403	337
33200.W0394	Stainless 1.4542	20	100	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	403	361
33200.W0395	Stainless 1.4542	20	110	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	403	385
33200.W0396	Stainless 1.4542	20	120	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	403	409
33200.W0397	Stainless 1.4542	20	130	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	403	433
33200.W0398	Stainless 1.4542	20	140	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	403	457
33200.W0399	Stainless 1.4542	20	150	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	403	481
33200.W3019	Stainless 1.4542	25	140	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	631	788
33200.W3090	Stainless 1.4542	20	60	24,8	23,4	17,0	43,1	29,8	74,8	24,7	20	403	265



Ball Lock Pins - Single Acting - T- self-locking - stainless 1.4542

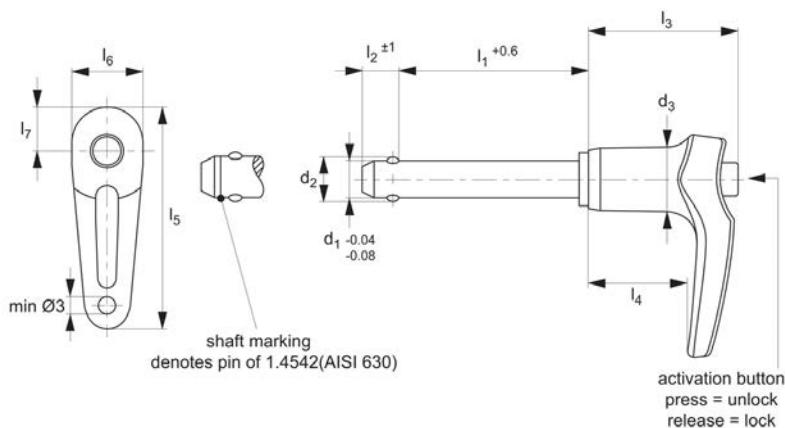
Ball Lock Pins & Quick Release

Order No.	Material	d ₁	l ₁	d ₂	d ₃	l ₂	l ₃	l ₄	l ₅	l ₆	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33200.W3100	Stainless 1.4542	25	50	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	631	447
33200.W3101	Stainless 1.4542	25	60	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	631	484
33200.W3102	Stainless 1.4542	25	70	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	631	522
33200.W3103	Stainless 1.4542	25	80	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	631	560
33200.W3104	Stainless 1.4542	25	90	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	631	598
33200.W3105	Stainless 1.4542	25	100	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	631	636
33200.W3106	Stainless 1.4542	25	110	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	631	674
33200.W3107	Stainless 1.4542	25	120	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	631	712
33200.W3108	Stainless 1.4542	25	130	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	631	750
33200.W3110	Stainless 1.4542	25	150	31,0	30,4	22,0	54,8	37,5	88,7	33,2	25	631	825

BALL LOCK PINS & QUICK RELEASE PINS



33220.1



Material

Pin: stainless steel 1.4305 (AISI 303).
Ball: stainless steel 1.3541
Spring: stainless steel

Releasing = locking.

Temperature resistance -30°C to +150°C.
For quick fastening and locking of
frequently repeated connections.

33250. Easy install locating bushes
available see part no. 33248.

Important Notes

*Shearing resistance similar to DIN 50141.

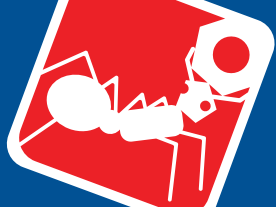
Technical Notes

Pressing = unlocking.

Tips

For lanyards & retaining cables see aprt no.

Order No.	Material	d_1	l_1	d_2	d_3	l_2	l_3	l_4	l_5	l_6	l_7	Location hole dia.	Shearing resistance kN	Weight g
33220.W0112	Stainless 1.4305	5	10	5.5	11.8	6.0	31.6	21.9	43.8	12.6	8.5	5	14	20
33220.W0113	Stainless 1.4305	5	15	5.5	11.8	6.0	31.6	21.9	43.8	12.6	8.5	5	14	21
33220.W0114	Stainless 1.4305	5	20	5.5	11.8	6.0	31.6	21.9	43.8	12.6	8.5	5	14	21
33220.W0115	Stainless 1.4305	5	25	5.5	11.8	6.0	31.6	21.9	43.8	12.6	8.5	5	14	22
33220.W0116	Stainless 1.4305	5	30	5.5	11.8	6.0	31.6	21.9	43.8	12.6	8.5	5	14	23
33220.W0122	Stainless 1.4305	6	10	7.0	11.8	7.0	31.6	21.9	43.8	12.6	8.5	6	21	21
33220.W0123	Stainless 1.4305	6	15	7.0	11.8	7.0	31.6	21.9	43.8	12.6	8.5	6	21	22
33220.W0124	Stainless 1.4305	6	20	7.0	11.8	7.0	31.6	21.9	43.8	12.6	8.5	6	21	23
33220.W0125	Stainless 1.4305	6	25	7.0	11.8	7.0	31.6	21.9	43.8	12.6	8.5	6	21	24
33220.W0126	Stainless 1.4305	6	30	7.0	11.8	7.0	31.6	21.9	43.8	12.6	8.5	6	21	25
33220.W0127	Stainless 1.4305	6	35	7.0	11.8	7.0	31.6	21.9	43.8	12.6	8.5	6	21	26
33220.W0128	Stainless 1.4305	6	40	7.0	11.8	7.0	31.6	21.9	43.8	12.6	8.5	6	21	27
33220.W0129	Stainless 1.4305	6	45	7.0	11.8	7.0	31.6	21.9	43.8	12.6	8.5	6	21	28
33220.W0130	Stainless 1.4305	6	50	7.0	11.8	7.0	31.6	21.9	43.8	12.6	8.5	6	21	29
33220.W0134	Stainless 1.4305	8	20	9.5	14.7	8.2	35.8	24.4	49.7	15.8	9.9	8	38	37



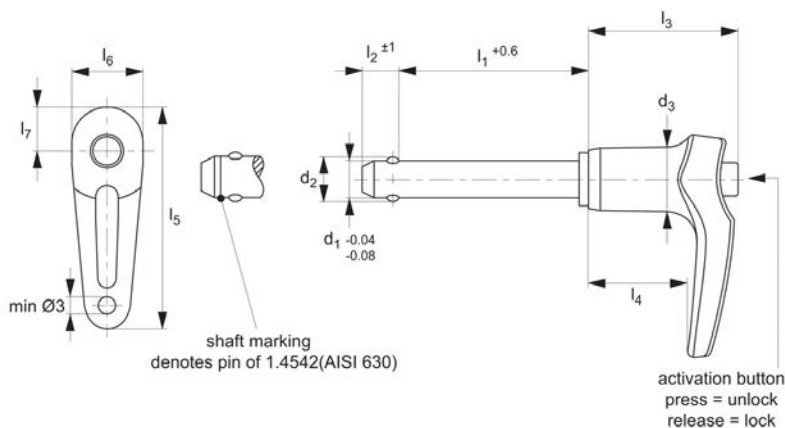
Ball Lock Pins - Single Acting - L- self-locking - stainless 1.4305

Ball Lock Pins & Quick Release

Order No.	Material	d ₁	l ₁	d ₂	d ₃	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇	Location hole dia.	Shearing resistance kN	Weight g
33220.W0135	Stainless 1.4305	8	25	9.5	14.7	8.2	35.8	24.4	49.7	15.8	9.9	8	38	39
33220.W0136	Stainless 1.4305	8	30	9.5	14.7	8.2	35.8	24.4	49.7	15.8	9.9	8	38	41
33220.W0137	Stainless 1.4305	8	35	9.5	14.7	8.2	35.8	24.4	49.7	15.8	9.9	8	38	43
33220.W0138	Stainless 1.4305	8	40	9.5	14.7	8.2	35.8	24.4	49.7	15.8	9.9	8	38	45
33220.W0139	Stainless 1.4305	8	45	9.5	14.7	8.2	35.8	24.4	49.7	15.8	9.9	8	38	46
33220.W0140	Stainless 1.4305	8	50	9.5	14.7	8.2	35.8	24.4	49.7	15.8	9.9	8	38	48
33220.W0144	Stainless 1.4305	10	20	12.0	14.7	9.6	35.8	24.4	49.7	15.8	9.9	10	60	44
33220.W0145	Stainless 1.4305	10	25	12.0	14.7	9.6	35.8	24.4	49.7	15.8	9.9	10	60	47
33220.W0146	Stainless 1.4305	10	30	12.0	14.7	9.6	35.8	24.4	49.7	15.8	9.9	10	60	50
33220.W0147	Stainless 1.4305	10	35	12.0	14.7	9.6	35.8	24.4	49.7	15.8	9.9	10	60	53
33220.W0148	Stainless 1.4305	10	40	12.0	14.7	9.6	35.8	24.4	49.7	15.8	9.9	10	60	56
33220.W0149	Stainless 1.4305	10	45	12.0	14.7	9.6	35.8	24.4	49.7	15.8	9.9	10	60	58
33220.W0150	Stainless 1.4305	10	50	12.0	14.7	9.6	35.8	24.4	49.7	15.8	9.9	10	60	62
33220.W0152	Stainless 1.4305	10	60	12.0	14.7	9.6	35.8	24.4	49.7	15.8	9.9	10	60	67
33220.W0165	Stainless 1.4305	12	25	14.5	18.2	10.6	35.1	22.7	57.1	20.2	12.6	12	87	73
33220.W0166	Stainless 1.4305	12	30	14.5	18.2	10.6	35.1	22.7	57.1	20.2	12.6	12	87	77
33220.W0167	Stainless 1.4305	12	35	14.5	18.2	10.6	35.1	22.7	57.1	20.2	12.6	12	87	82
33220.W0168	Stainless 1.4305	12	40	14.5	18.2	10.6	35.1	22.7	57.1	20.2	12.6	12	87	86
33220.W0169	Stainless 1.4305	12	45	14.5	18.2	10.6	35.1	22.7	57.1	20.2	12.6	12	87	90
33220.W0170	Stainless 1.4305	12	50	14.5	18.2	10.6	35.1	22.7	57.1	20.2	12.6	12	87	94
33220.W0172	Stainless 1.4305	12	60	14.5	18.2	10.6	35.1	22.7	57.1	20.2	12.6	12	87	103
33220.W0174	Stainless 1.4305	12	70	14.5	18.2	10.6	35.1	22.7	57.1	20.2	12.6	12	87	111
33220.W0176	Stainless 1.4305	12	80	14.5	18.2	10.6	35.1	22.7	57.1	20.2	12.6	12	87	120



33220.2



Material

Pin: stainless steel 1.4542 (AISI 630).
Precipitation hardened, blast finish. Offering extreme load capacity. (Marked at end of shaft to denote 1.4542 material).
Ball: stainless steel 1.3541
Handle: aluminium, black (RAL9003).
Spring: stainless steel.

Technical Notes

Pressing = unlocking.
Releasing = locking.
Temperature resistance -30°C to +150°C.
For quick fastening and locking of frequently repeated connections.

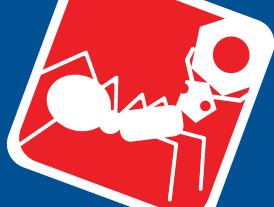
Tips

For lanyards & retaining cables see aprt no. 33250. Easy install locating bushes available see part no. 33248.

Important Notes

*Shearing resistance similar to DIN 50141.

Order No.	Material	d ₁	l ₁	d ₂	d ₃	Weight g
33220.W0312	Stainless 1.4542	5	10	5.5	11.8	20
33220.W0313	Stainless 1.4542	5	15	5.5	11.8	21
33220.W0314	Stainless 1.4542	5	20	5.5	11.8	21
33220.W0315	Stainless 1.4542	5	25	5.5	11.8	22
33220.W0316	Stainless 1.4542	5	30	5.5	11.8	23
33220.W0322	Stainless 1.4542	6	10	7.0	11.8	21
33220.W0323	Stainless 1.4542	6	15	7.0	11.8	22
33220.W0324	Stainless 1.4542	6	20	7.0	11.8	23
33220.W0325	Stainless 1.4542	6	25	7.0	11.8	24
33220.W0326	Stainless 1.4542	6	30	7.0	11.8	25
33220.W0327	Stainless 1.4542	6	35	7.0	11.8	26
33220.W0328	Stainless 1.4542	6	40	7.0	11.8	27
33220.W0329	Stainless 1.4542	6	45	7.0	11.8	28
33220.W0330	Stainless 1.4542	6	50	7.0	11.8	29
33220.W0334	Stainless 1.4542	8	20	9.5	14.7	37
33220.W0335	Stainless 1.4542	8	25	9.5	14.7	39
33220.W0336	Stainless 1.4542	8	30	9.5	14.7	41
33220.W0337	Stainless 1.4542	8	35	9.5	14.7	43
33220.W0338	Stainless 1.4542	8	40	9.5	14.7	45
33220.W0339	Stainless 1.4542	8	45	9.5	14.7	46
33220.W0340	Stainless 1.4542	8	50	9.5	14.7	48
33220.W0344	Stainless 1.4542	10	20	12.0	14.7	44
33220.W0345	Stainless 1.4542	10	25	12.0	14.7	47
33220.W0346	Stainless 1.4542	10	30	12.0	14.7	50
33220.W0347	Stainless 1.4542	10	35	12.0	14.7	53
33220.W0348	Stainless 1.4542	10	40	12.0	14.7	56
33220.W0349	Stainless 1.4542	10	45	12.0	14.7	58
33220.W0350	Stainless 1.4542	10	50	12.0	14.7	62
33220.W0352	Stainless 1.4542	10	60	12.0	14.7	67



Ball Lock Pins - Single Acting - L- self-locking - stainless 1.4542

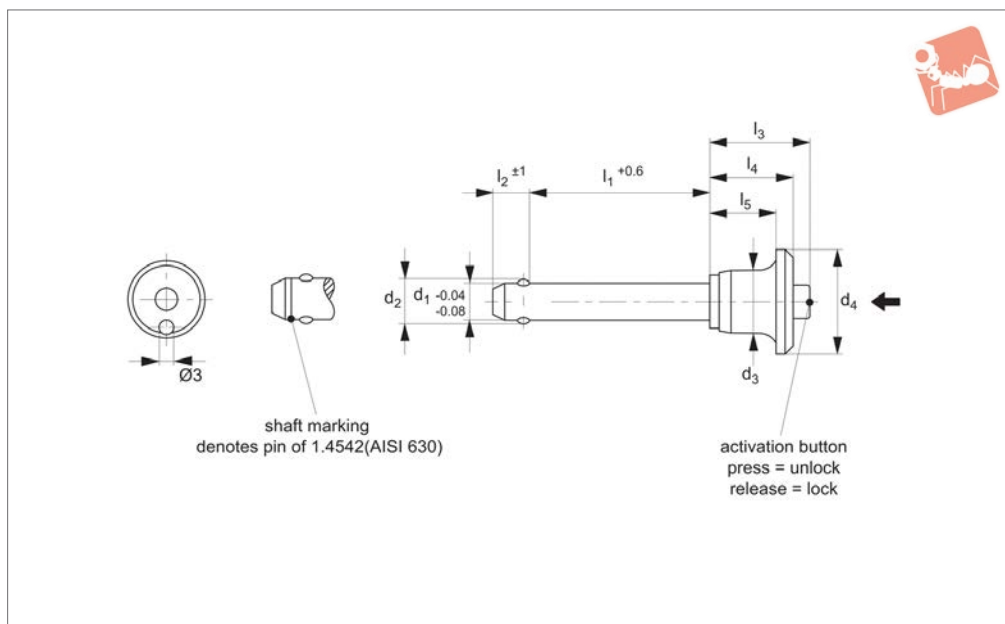
Ball Lock Pins & Quick Release

Order No.	Material	d ₁	l ₁	d ₂	d ₃	Weight g
33220.W0365	Stainless 1.4542	12	25	14.5	18.2	73
33220.W0366	Stainless 1.4542	12	30	14.5	18.2	77
33220.W0367	Stainless 1.4542	12	35	14.5	18.2	82
33220.W0368	Stainless 1.4542	12	40	14.5	18.2	86
33220.W0369	Stainless 1.4542	12	45	14.5	18.2	90
33220.W0370	Stainless 1.4542	12	50	14.5	18.2	94
33220.W0372	Stainless 1.4542	12	60	14.5	18.2	103
33220.W0374	Stainless 1.4542	12	70	14.5	18.2	111
33220.W0376	Stainless 1.4542	12	80	14.5	18.2	120

Order No.	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇	Location hole dia. tol. H11	Shearing resistance kN
33220.W0312	6.0	31.6	21.9	43.8	12.6	8.5	5	24
33220.W0313	6.0	31.6	21.9	43.8	12.6	8.5	5	24
33220.W0314	6.0	31.6	21.9	43.8	12.6	8.5	5	24
33220.W0315	6.0	31.6	21.9	43.8	12.6	8.5	5	24
33220.W0316	6.0	31.6	21.9	43.8	12.6	8.5	5	24
33220.W0322	7.0	31.6	21.9	43.8	12.6	8.5	6	35
33220.W0323	7.0	31.6	21.9	43.8	12.6	8.5	6	35
33220.W0324	7.0	31.6	21.9	43.8	12.6	8.5	6	35
33220.W0325	7.0	31.6	21.9	43.8	12.6	8.5	6	35
33220.W0326	7.0	31.6	21.9	43.8	12.6	8.5	6	35
33220.W0327	7.0	31.6	21.9	43.8	12.6	8.5	6	35
33220.W0328	7.0	31.6	21.9	43.8	12.6	8.5	6	35
33220.W0329	7.0	31.6	21.9	43.8	12.6	8.5	6	35
33220.W0330	7.0	31.6	21.9	43.8	12.6	8.5	6	35
33220.W0334	8.2	35.8	24.4	49.7	15.8	9.9	8	63
33220.W0335	8.2	35.8	24.4	49.7	15.8	9.9	8	63
33220.W0336	8.2	35.8	24.4	49.7	15.8	9.9	8	63
33220.W0337	8.2	35.8	24.4	49.7	15.8	9.9	8	63
33220.W0338	8.2	35.8	24.4	49.7	15.8	9.9	8	63
33220.W0339	8.2	35.8	24.4	49.7	15.8	9.9	8	63
33220.W0340	8.2	35.8	24.4	49.7	15.8	9.9	8	63
33220.W0344	9.6	35.8	24.4	49.7	15.8	9.9	10	100
33220.W0345	9.6	35.8	24.4	49.7	15.8	9.9	10	100
33220.W0346	9.6	35.8	24.4	49.7	15.8	9.9	10	100
33220.W0347	9.6	35.8	24.4	49.7	15.8	9.9	10	100
33220.W0348	9.6	35.8	24.4	49.7	15.8	9.9	10	100
33220.W0349	9.6	35.8	24.4	49.7	15.8	9.9	10	100
33220.W0350	9.6	35.8	24.4	49.7	15.8	9.9	10	100
33220.W0352	9.6	35.8	24.4	49.7	15.8	9.9	10	100
33220.W0365	10.6	35.1	22.7	57.1	20.2	12.6	12	144
33220.W0366	10.6	35.1	22.7	57.1	20.2	12.6	12	144
33220.W0367	10.6	35.1	22.7	57.1	20.2	12.6	12	144
33220.W0368	10.6	35.1	22.7	57.1	20.2	12.6	12	144
33220.W0369	10.6	35.1	22.7	57.1	20.2	12.6	12	144
33220.W0370	10.6	35.1	22.7	57.1	20.2	12.6	12	144
33220.W0372	10.6	35.1	22.7	57.1	20.2	12.6	12	144
33220.W0374	10.6	35.1	22.7	57.1	20.2	12.6	12	144
33220.W0376	10.6	35.1	22.7	57.1	20.2	12.6	12	144



33224.1



Material

Pin: Stainless steel 1.4305 (AISI 303).
Ball: stainless steel 1.3541
Spring: stainless steel.
Handle: aluminium, black (RAL9003).

Releasing = locking.

Temperature resistance -30°C to +150°C
For quick fastening and locking of frequently repeated connections.

available see part no. 33248.

Important Notes

*Shearing resistance similar to DIN 50141.

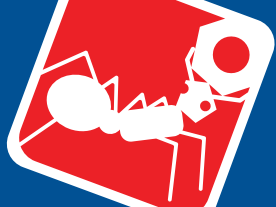
Technical Notes

Pressing = unlocking.

Tips

For lanyards & retaining cables see part no. 33250. Easy install locating bushes

Order No.	Stainless type	d_1	d_2	d_3	d_4	l_1	l_2	l_3	l_4	l_5	Location hole	Shearing resistance, double kN	Weight g
33224.W0085	Stainless 1.4305	16	19.0	23.4	40	120	14.0	42.2	34.5	28.5	16	155	283
33224.W0212	Stainless 1.4305	5	5.5	11.3	20	10	6.0	20.7	17.6	14.6	5	14	12
33224.W0213	Stainless 1.4305	5	5.5	11.3	20	15	6.0	20.7	17.6	14.6	5	14	12
33224.W0214	Stainless 1.4305	5	5.5	11.3	20	20	6.0	20.7	17.6	14.6	5	14	13
33224.W0215	Stainless 1.4305	5	5.5	11.3	20	25	6.0	20.7	17.6	14.6	5	14	14
33224.W0216	Stainless 1.4305	5	5.5	11.3	20	30	6.0	20.7	17.6	14.6	5	14	15
33224.W0221	Stainless 1.4305	6	7.0	11.3	20	80	7.0	20.7	17.6	14.6	6	21	27
33224.W0222	Stainless 1.4305	6	7.0	11.3	20	10	7.0	20.7	17.6	14.6	6	21	13
33224.W0223	Stainless 1.4305	6	7.0	11.3	20	15	7.0	20.7	17.6	14.6	6	21	14
33224.W0224	Stainless 1.4305	6	7.0	11.3	20	20	7.0	20.7	17.6	14.6	6	21	15
33224.W0225	Stainless 1.4305	6	7.0	11.3	20	25	7.0	20.7	17.6	14.6	6	21	16
33224.W0226	Stainless 1.4305	6	7.0	11.3	20	30	7.0	20.7	17.6	14.6	6	21	17
33224.W0227	Stainless 1.4305	6	7.0	11.3	20	35	7.0	20.7	17.6	14.6	6	21	18
33224.W0228	Stainless 1.4305	6	7.0	11.3	20	40	7.0	20.7	17.6	14.6	6	21	19
33224.W0229	Stainless 1.4305	6	7.0	11.3	20	45	7.0	20.7	17.6	14.6	6	21	20
33224.W0230	Stainless 1.4305	6	7.0	11.3	20	50	7.0	20.7	17.6	14.6	6	21	21
33224.W0234	Stainless 1.4305	8	9.5	14.1	25	20	8.2	27.3	22.6	18.6	8	38	28
33224.W0235	Stainless 1.4305	8	9.5	14.1	25	25	8.2	27.3	22.6	18.6	8	38	30
33224.W0236	Stainless 1.4305	8	9.5	14.1	25	30	8.2	27.3	22.6	18.6	8	38	32
33224.W0237	Stainless 1.4305	8	9.5	14.1	25	35	8.2	27.3	22.6	18.6	8	38	34
33224.W0238	Stainless 1.4305	8	9.5	14.1	25	40	8.2	27.3	22.6	18.6	8	38	36
33224.W0239	Stainless 1.4305	8	9.5	14.1	25	45	8.2	27.3	22.6	18.6	8	38	38
33224.W0240	Stainless 1.4305	8	9.5	14.1	25	50	8.2	27.3	22.6	18.6	8	38	40
33224.W0244	Stainless 1.4305	10	12.0	14.1	25	20	9.6	27.3	22.6	18.6	10	60	35
33224.W0245	Stainless 1.4305	10	12.0	14.1	25	25	9.6	27.3	22.6	18.6	10	60	38
33224.W0246	Stainless 1.4305	10	12.0	14.1	25	30	9.6	27.3	22.6	18.6	10	60	40
33224.W0247	Stainless 1.4305	10	12.0	14.1	25	35	9.6	27.3	22.6	18.6	10	60	44
33224.W0248	Stainless 1.4305	10	12.0	14.1	25	40	9.6	27.3	22.6	18.6	10	60	47
33224.W0249	Stainless 1.4305	10	12.0	14.1	25	45	9.6	27.3	22.6	18.6	10	60	50
33224.W0250	Stainless 1.4305	10	12.0	14.1	25	50	9.6	27.3	22.6	18.6	10	60	53



Ball Lock Pins - Mushroom Handle

single acting - self-locking - stainless 1.4305

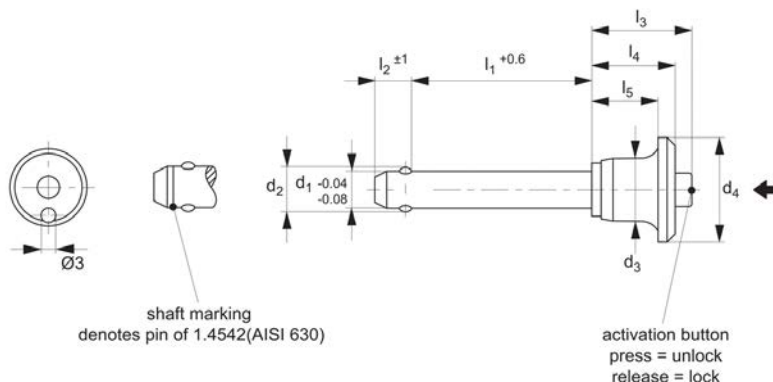
Ball Lock Pins & Quick Release

Order No.	Stainless type	d ₁	d ₂	d ₃	d ₄	l ₁	l ₂	l ₃	l ₄	l ₅	Location hole	Shearing resistance, double kN	Weight g
33224.W0252	Stainless 1.4305	10	12.0	14.1	25	60	9.6	27.3	22.6	18.6	10	60	59
33224.W0265	Stainless 1.4305	12	14.5	17.7	35	25	10.6	33.2	27.3	22.3	12	87	69
33224.W0266	Stainless 1.4305	12	14.5	17.7	35	30	10.6	33.2	27.3	22.3	12	87	73
33224.W0267	Stainless 1.4305	12	14.5	17.7	35	35	10.6	33.2	27.3	22.3	12	87	78
33224.W0268	Stainless 1.4305	12	14.5	17.7	35	40	10.6	33.2	27.3	22.3	12	87	82
33224.W0269	Stainless 1.4305	12	14.5	17.7	35	45	10.6	33.2	27.3	22.3	12	87	86
33224.W0270	Stainless 1.4305	12	14.5	17.7	35	50	10.6	33.2	27.3	22.3	12	87	90
33224.W0272	Stainless 1.4305	12	14.5	17.7	35	60	10.6	33.2	27.3	22.3	12	87	99
33224.W0274	Stainless 1.4305	12	14.5	17.7	35	70	10.6	33.2	27.3	22.3	12	87	108
33224.W0276	Stainless 1.4305	12	14.5	17.7	35	80	10.6	33.2	27.3	22.3	12	87	116
33224.W0303	Stainless 1.4305	25	31.0	30.4	50	80	22.0	54.8	43.5	36.5	25	386	547
33224.W0304	Stainless 1.4305	25	31.0	30.4	50	90	22.0	54.8	43.5	36.5	25	386	585
33224.W0306	Stainless 1.4305	25	31.0	30.4	50	110	22.0	54.8	43.5	36.5	25	386	660





33224.2



Material

Pin: Stainless steel 1.4542 (AISI 630), precipitation hardened, blast finish. Offering extreme load capacity. (Marked at end of shaft to denote 1.4542 material).
Ball: stainless steel 1.3541
Spring: stainless steel.
Handle: aluminium, black (RAL9003).

Technical Notes

Pressing = unlocking.
Releasing = locking.
Temperature resistance -30°C to +150°C
For quick fastening and locking of frequently repeated connections.

Tips

For lanyards & retaining cables see part no. 33250. Easy install locating bushes available see part no. 33248.

Important Notes

*Shearing resistance similar to DIN 50141.

Order No.	Stainless type	d ₁	d ₂	d ₃	d ₄	l ₁	l ₂	l ₃	l ₄	l ₅	Location hole	Shearing resistance, double kN	Weight g
33224.W0512	Stainless 1.4542	5	5.5	11.3	20	10	6.0	20.7	17.6	14.6	5	24	12
33224.W0513	Stainless 1.4542	5	5.5	11.3	20	15	6.0	20.7	17.6	14.6	5	24	12
33224.W0514	Stainless 1.4542	5	5.5	11.3	20	20	6.0	20.7	17.6	14.6	5	24	13
33224.W0515	Stainless 1.4542	5	5.5	11.3	20	25	6.0	20.7	17.6	14.6	5	24	14
33224.W0516	Stainless 1.4542	5	5.5	11.3	20	30	6.0	20.7	17.6	14.6	5	24	15
33224.W0522	Stainless 1.4542	6	7.0	11.3	20	10	7.0	20.7	17.6	14.6	6	35	13
33224.W0523	Stainless 1.4542	6	7.0	11.3	20	15	7.0	20.7	17.6	14.6	6	35	14
33224.W0524	Stainless 1.4542	6	7.0	11.3	20	20	7.0	20.7	17.6	14.6	6	35	15
33224.W0525	Stainless 1.4542	6	7.0	11.3	20	25	7.0	20.7	17.6	14.6	6	35	16
33224.W0526	Stainless 1.4542	6	7.0	11.3	20	30	7.0	20.7	17.6	14.6	6	35	17
33224.W0527	Stainless 1.4542	6	7.0	11.3	20	35	7.0	20.7	17.6	14.6	6	35	18
33224.W0528	Stainless 1.4542	6	7.0	11.3	20	40	7.0	20.7	17.6	14.6	6	35	19
33224.W0529	Stainless 1.4542	6	7.0	11.3	20	45	7.0	20.7	17.6	14.6	6	35	20
33224.W0530	Stainless 1.4542	6	7.0	11.3	20	50	7.0	20.7	17.6	14.6	6	35	21
33224.W0531	Stainless 1.4542	8	9.5	14.1	25	60	8.2	27.3	22.6	18.6	8	63	44
33224.W0534	Stainless 1.4542	8	9.5	14.1	25	20	8.2	27.3	22.6	18.6	8	63	28
33224.W0535	Stainless 1.4542	8	9.5	14.1	25	25	8.2	27.3	22.6	18.6	8	63	30
33224.W0536	Stainless 1.4542	8	9.5	14.1	25	30	8.2	27.3	22.6	18.6	8	63	32
33224.W0537	Stainless 1.4542	8	9.5	14.1	25	35	8.2	27.3	22.6	18.6	8	63	34
33224.W0538	Stainless 1.4542	8	9.5	14.1	25	40	8.2	27.3	22.6	18.6	8	63	36
33224.W0539	Stainless 1.4542	8	9.5	14.1	25	45	8.2	27.3	22.6	18.6	8	63	38
33224.W0540	Stainless 1.4542	8	9.5	14.1	25	50	8.2	27.3	22.6	18.6	8	63	40
33224.W0544	Stainless 1.4542	10	12.0	14.1	25	20	9.6	27.3	22.6	18.6	10	100	35
33224.W0545	Stainless 1.4542	10	12.0	14.1	25	25	9.6	27.3	22.6	18.6	10	100	38
33224.W0546	Stainless 1.4542	10	12.0	14.1	25	30	9.6	27.3	22.6	18.6	10	100	40
33224.W0547	Stainless 1.4542	10	12.0	14.1	25	35	9.6	27.3	22.6	18.6	10	100	44
33224.W0548	Stainless 1.4542	10	12.0	14.1	25	40	9.6	27.3	22.6	18.6	10	100	47
33224.W0549	Stainless 1.4542	10	12.0	14.1	25	45	9.6	27.3	22.6	18.6	10	100	50
33224.W0550	Stainless 1.4542	10	12.0	14.1	25	50	9.6	27.3	22.6	18.6	10	100	53



Ball Lock Pins - Mushroom Handle

single acting - self-locking - stainless 1.4542

Ball Lock Pins & Quick Release

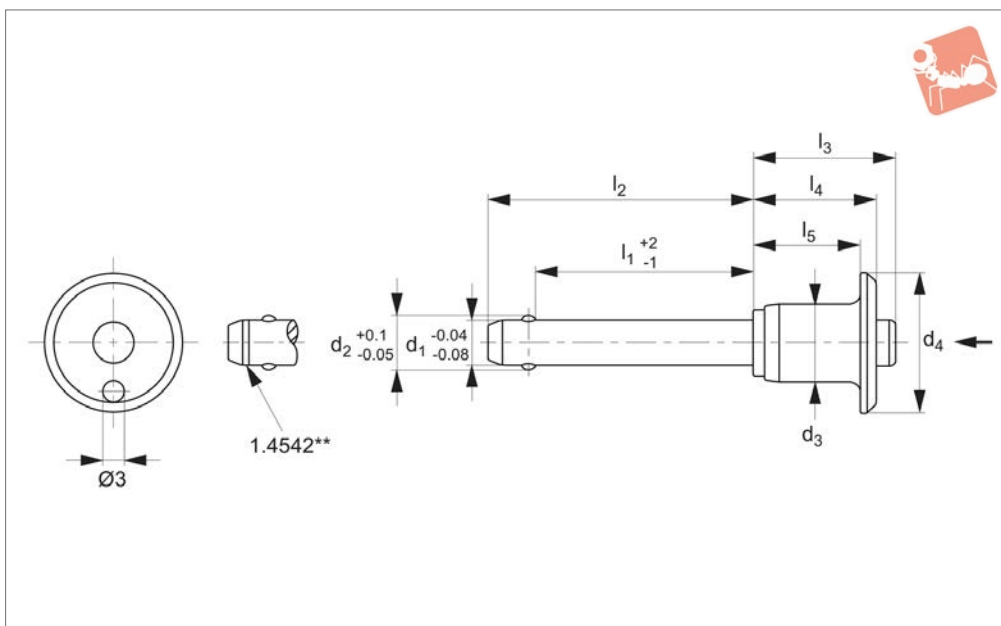


Order No.	Stainless type	d ₁	d ₂	d ₃	d ₄	l ₁	l ₂	l ₃	l ₄	l ₅	Location hole	Shearing resistance, double kN	Weight g
33224.W0552	Stainless 1.4542	10	12.0	14.1	25	60	9.6	27.3	22.6	18.6	10	100	59
33224.W0565	Stainless 1.4542	12	14.5	17.7	35	25	10.6	33.2	27.3	22.3	12	144	69
33224.W0566	Stainless 1.4542	12	14.5	17.7	35	30	10.6	33.2	27.3	22.3	12	144	73
33224.W0567	Stainless 1.4542	12	14.5	17.7	35	35	10.6	33.2	27.3	22.3	12	144	78
33224.W0568	Stainless 1.4542	12	14.5	17.7	35	40	10.6	33.2	27.3	22.3	12	144	82
33224.W0569	Stainless 1.4542	12	14.5	17.7	35	45	10.6	33.2	27.3	22.3	12	144	86
33224.W0570	Stainless 1.4542	12	14.5	17.7	35	50	10.6	33.2	27.3	22.3	12	144	90
33224.W0572	Stainless 1.4542	12	14.5	17.7	35	60	10.6	33.2	27.3	22.3	12	144	99
33224.W0574	Stainless 1.4542	12	14.5	17.7	35	70	10.6	33.2	27.3	22.3	12	144	108
33224.W0576	Stainless 1.4542	12	14.5	17.7	35	80	10.6	33.2	27.3	22.3	12	144	116
33224.W0590	Stainless 1.4542	20	24.8	23.4	40	60	17.0	43.1	34.5	28.5	20	403	261





33230



Material

Type One

Pin: Stainless steel 1.4305 (AISI 303).

Type Two

Pin: Stainless steel 1.4542 (AISI 630), precipitation hardened.

Both

Handle: Aluminium, black.

Button: Stainless steel, yellow.

Spring: Stainless steel.

Technical Notes

Not suitable for lifting loads.

Corrosion resistant.

Press button = unlocking.

Release button = clamping.

For securing in blind holes H_{11} . Tempera-

ture range -30 to 150°C.

Quick fastening, adjusting and locking of frequently repeated connections.

Tips

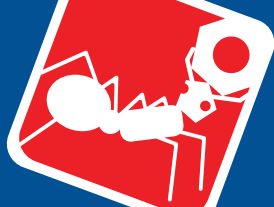
Used with:

33250: Lanyards & retaining cables

Important Notes

*Shearing resistance similar to DIN 50141.

Order No.	d ₁	Type	d ₂	d ₃	d ₄	Weight g
33230.W0022	6	Type One Stainless 1.4305	6.2	11.3	20	13
33230.W0122	6	Type Two Stainless 1.4542	6.2	11.3	20	13
33230.W0024	6	Type One Stainless 1.4305	6.2	11.3	20	15
33230.W0124	6	Type Two Stainless 1.4542	6.2	11.3	20	15
33230.W0028	6	Type One Stainless 1.4305	6.2	11.3	20	19
33230.W0128	6	Type Two Stainless 1.4542	6.2	11.3	20	19
33230.W0032	6	Type One Stainless 1.4305	6.2	11.3	20	23
33230.W0132	6	Type Two Stainless 1.4542	6.2	11.3	20	23
33230.W0042	8	Type One Stainless 1.4305	8.3	14.1	25	25
33230.W0142	8	Type Two Stainless 1.4542	8.3	14.1	25	25
33230.W0044	8	Type One Stainless 1.4305	8.3	14.1	25	28
33230.W0144	8	Type Two Stainless 1.4542	8.3	14.1	25	28
33230.W0048	8	Type One Stainless 1.4305	8.3	14.1	25	36
33230.W0148	8	Type Two Stainless 1.4542	8.3	14.1	25	36
33230.W0052	8	Type One Stainless 1.4305	8.3	14.1	25	43
33230.W0152	8	Type Two Stainless 1.4542	8.3	14.1	25	43
33230.W0056	8	Type One Stainless 1.4305	8.3	14.1	25	51
33230.W0156	8	Type Two Stainless 1.4542	8.3	14.1	25	51
33230.W0062	10	Type One Stainless 1.4305	10.3	14.1	25	35
33230.W0162	10	Type Two Stainless 1.4542	10.3	14.1	25	35
33230.W0066	10	Type One Stainless 1.4305	10.3	14.1	25	47
33230.W0166	10	Type Two Stainless 1.4542	10.3	14.1	25	47
33230.W0070	10	Type One Stainless 1.4305	10.3	14.1	25	58
33230.W0170	10	Type Two Stainless 1.4542	10.3	14.1	25	58
33230.W0072	10	Type One Stainless 1.4305	10.3	14.1	25	70
33230.W0172	10	Type Two Stainless 1.4542	10.3	14.1	25	70
33230.W0074	10	Type One Stainless 1.4305	10.3	14.1	25	83
33230.W0174	10	Type Two Stainless 1.4542	10.3	14.1	25	83



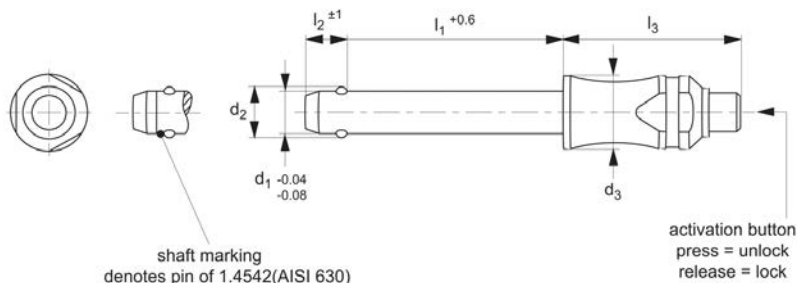
Clamp Lock Pins - Single Acting button handle - stainless steel

Ball Lock Pins & Quick Release

Order No.	l ₁	l ₂	l ₃	l ₄	Location hole dia. tol. H11	Shearing resistance, double (1.4305)	Shearing resistance, double (1.4542)
						kN min.	kN min.
33230.W0022	10	17.4	17.6	20.7	6	21	35
33230.W0122	10	17.4	17.6	20.7	6	21	35
33230.W0024	20	27.4	17.6	20.7	6	21	35
33230.W0124	20	27.4	17.6	20.7	6	21	35
33230.W0028	40	47.4	17.6	20.7	6	21	35
33230.W0128	40	47.4	17.6	20.7	6	21	35
33230.W0032	60	67.4	17.6	20.7	6	21	35
33230.W0132	60	67.4	17.6	20.7	6	21	35
33230.W0042	10	18.6	22.6	27.3	8	38	63
33230.W0142	10	18.6	22.6	27.3	8	38	63
33230.W0044	20	28.6	22.6	27.3	8	38	63
33230.W0144	20	28.6	22.6	27.3	8	38	63
33230.W0048	40	48.6	22.6	27.3	8	38	63
33230.W0148	40	48.6	22.6	27.3	8	38	63
33230.W0052	60	68.6	22.6	27.3	8	38	63
33230.W0152	60	68.6	22.6	27.3	8	38	63
33230.W0056	80	88.6	22.6	27.3	8	38	63
33230.W0156	80	88.6	22.6	27.3	8	38	63
33230.W0062	20	30.0	22.6	27.3	10	60	100
33230.W0162	20	30.0	22.6	27.3	10	60	100
33230.W0066	40	50.0	22.6	27.3	10	60	100
33230.W0166	40	50.0	22.6	27.3	10	60	100
33230.W0070	60	70.0	22.6	27.3	10	60	100
33230.W0170	60	70.0	22.6	27.3	10	60	100
33230.W0072	80	100.0	22.6	27.3	10	60	100
33230.W0172	80	100.0	22.6	27.3	10	60	100
33230.W0074	100	120.0	22.6	27.3	10	60	100
33230.W0174	100	120.0	22.6	27.3	10	60	100



33194.1



Material

Pin: stainless steel 1.4305 (AISI 303).
Spring: stainless steel.

Technical Notes

Pressing = unlocking.
Releasing = locking.
Single piece contoured design for limited space applications.

Temperature resistance up to 250°C.
For quick fastening and locking of frequently repeated connections.
For suitable lanyards see part no. 33250.
W0970 and .W0974 only. Easy install
locating bushes available see part no. 33248.

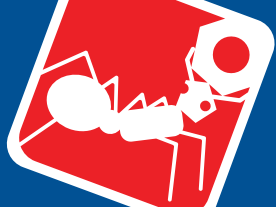
Tips

Single piece design, no danger of parts coming away from pin - ideal for applications with F.O.B (Foreign Object Body) issues.

Important Notes

*Shearing resistance similar to DIN 50141.

Order No.	Material	d_1	d_2	d_3	l_1	l_2	l_3	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33194.W0007	Stainless 1.4305	5	5.5	10	45	6.0	26.2	5	14	15
33194.W0008	Stainless 1.4305	5	5.5	10	50	6.0	26.2	5	14	16
33194.W0009	Stainless 1.4305	5	5.5	10	60	6.0	26.2	5	14	17
33194.W0010	Stainless 1.4305	5	5.5	10	70	6.0	26.2	5	14	19
33194.W0011	Stainless 1.4305	5	5.5	10	80	6.0	26.2	5	14	20
33194.W0012	Stainless 1.4305	5	5.5	10	10	6.0	26.2	5	14	10
33194.W0013	Stainless 1.4305	5	5.5	10	15	6.0	26.2	5	14	11
33194.W0014	Stainless 1.4305	5	5.5	10	20	6.0	26.2	5	14	12
33194.W0015	Stainless 1.4305	5	5.5	10	25	6.0	26.2	5	14	13
33194.W0016	Stainless 1.4305	5	5.5	10	30	6.0	26.2	5	14	13
33194.W0017	Stainless 1.4305	5	5.5	10	35	6.0	26.2	5	14	14
33194.W0018	Stainless 1.4305	5	5.5	10	40	6.0	26.2	5	14	15
33194.W0019	Stainless 1.4305	6	7.0	10	60	7.0	26.2	6	21	21
33194.W0020	Stainless 1.4305	6	7.0	10	70	7.0	26.2	6	21	21
33194.W0021	Stainless 1.4305	6	7.0	10	80	7.0	26.2	6	21	25
33194.W0022	Stainless 1.4305	6	7.0	10	10	7.0	26.2	6	21	11
33194.W0023	Stainless 1.4305	6	7.0	10	15	7.0	26.2	6	21	12
33194.W0024	Stainless 1.4305	6	7.0	10	20	7.0	26.2	6	21	13
33194.W0025	Stainless 1.4305	6	7.0	10	25	7.0	26.2	6	21	14
33194.W0026	Stainless 1.4305	6	7.0	10	30	7.0	26.2	6	21	15
33194.W0027	Stainless 1.4305	6	7.0	10	35	7.0	26.2	6	21	16
33194.W0028	Stainless 1.4305	6	7.0	10	40	7.0	26.2	6	21	17
33194.W0029	Stainless 1.4305	6	7.0	10	45	7.0	26.2	6	21	18
33194.W0030	Stainless 1.4305	6	7.0	10	50	7.0	26.2	6	21	19
33194.W0031	Stainless 1.4305	8	9.6	14	60	8.2	33.1	8	38	47
33194.W0032	Stainless 1.4305	8	9.6	14	10	8.2	33.1	8	38	29
33194.W0033	Stainless 1.4305	8	9.6	14	15	8.2	33.1	8	38	31
33194.W0034	Stainless 1.4305	8	9.6	14	20	8.2	33.1	8	38	33



Ball Lock Pins - Contoured Handle

self-locking - single acting - stainless 1.4305

Ball Lock Pins & Quick Release

Order No.	Material	d ₁	d ₂	d ₃	l ₁	l ₂	l ₃	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33194.W0035	Stainless 1.4305	8	9.6	14	25	8.2	33.1	8	38	34
33194.W0036	Stainless 1.4305	8	9.6	14	30	8.2	33.1	8	38	36
33194.W0037	Stainless 1.4305	8	9.6	14	35	8.2	33.1	8	38	38
33194.W0038	Stainless 1.4305	8	9.6	14	40	8.2	33.1	8	38	40
33194.W0039	Stainless 1.4305	8	9.6	14	45	8.2	33.1	8	38	42
33194.W0040	Stainless 1.4305	8	9.6	14	50	8.2	33.1	8	38	44
33194.W0041	Stainless 1.4305	8	9.6	14	70	8.2	33.1	8	38	51
33194.W0042	Stainless 1.4305	8	9.6	14	80	8.2	33.1	8	38	55
33194.W0043	Stainless 1.4305	8	9.6	14	90	8.2	33.1	8	38	58
33194.W0044	Stainless 1.4305	10	12.0	14	20	9.6	33.1	10	60	39
33194.W0045	Stainless 1.4305	10	12.0	14	25	9.6	33.1	10	60	42
33194.W0046	Stainless 1.4305	10	12.0	14	30	9.6	33.1	10	60	45
33194.W0047	Stainless 1.4305	10	12.0	14	35	9.6	33.1	10	60	48
33194.W0048	Stainless 1.4305	10	12.0	14	40	9.6	33.1	10	60	51
33194.W0049	Stainless 1.4305	10	12.0	14	45	9.6	33.1	10	60	54
33194.W0050	Stainless 1.4305	10	12.0	14	50	9.6	33.1	10	60	57
33194.W0051	Stainless 1.4305	8	9.6	14	100	8.2	33.1	8	38	62
33194.W0052	Stainless 1.4305	10	12.0	14	60	9.6	33.1	10	60	63
33194.W0053	Stainless 1.4305	10	12.0	14	70	9.6	33.1	10	60	69
33194.W0054	Stainless 1.4305	10	12.0	14	80	9.6	33.1	10	60	74
33194.W0055	Stainless 1.4305	10	12.0	14	90	9.6	33.1	10	60	80
33194.W0056	Stainless 1.4305	10	12.0	14	100	9.6	33.1	10	60	86
33194.W0057	Stainless 1.4305	10	12.0	14	110	9.6	33.1	10	60	92
33194.W0058	Stainless 1.4305	10	12.0	14	120	9.6	33.1	10	60	98
33194.W0059	Stainless 1.4305	10	12.0	14	15	9.6	33.1	10	60	36
33194.W0060	Stainless 1.4305	12	14.5	20	90	10.6	39.5	12	87	139
33194.W0061	Stainless 1.4305	12	14.5	20	100	10.6	39.5	12	87	148
33194.W0062	Stainless 1.4305	12	14.5	20	110	10.6	39.5	12	87	157
33194.W0063	Stainless 1.4305	12	14.5	20	120	10.6	39.5	12	87	165
33194.W0064	Stainless 1.4305	12	14.5	20	20	10.6	39.5	12	87	98
33194.W0065	Stainless 1.4305	12	14.5	20	25	10.6	39.5	12	87	84
33194.W0066	Stainless 1.4305	12	14.5	20	30	10.6	39.5	12	87	88
33194.W0067	Stainless 1.4305	12	14.5	20	35	10.6	39.5	12	87	92
33194.W0068	Stainless 1.4305	12	14.5	20	40	10.6	39.5	12	87	96
33194.W0069	Stainless 1.4305	12	14.5	20	45	10.6	39.5	12	87	101
33194.W0070	Stainless 1.4305	12	14.5	20	50	10.6	39.5	12	87	105
33194.W0072	Stainless 1.4305	12	14.5	20	60	10.6	39.5	12	87	113
33194.W0074	Stainless 1.4305	12	14.5	20	70	10.6	39.5	12	87	122
33194.W0076	Stainless 1.4305	12	14.5	20	80	10.6	39.5	12	87	130
33194.W0086	Stainless 1.4305	16	19.0	20	30	14.0	39.5	16	155	120
33194.W0087	Stainless 1.4305	16	19.0	20	35	14.0	39.5	16	155	127
33194.W0088	Stainless 1.4305	16	19.0	20	40	14.0	39.5	16	155	135
33194.W0089	Stainless 1.4305	16	19.0	20	45	14.0	39.5	16	155	143
33194.W0090	Stainless 1.4305	16	19.0	20	50	14.0	39.5	16	155	150
33194.W0092	Stainless 1.4305	16	19.0	20	60	14.0	39.5	16	155	166
33194.W0094	Stainless 1.4305	16	19.0	20	70	14.0	39.5	16	155	181
33194.W0096	Stainless 1.4305	16	19.0	20	80	14.0	39.5	16	155	196
33194.W0097	Stainless 1.4305	16	19.0	20	90	14.0	39.5	16	155	216
33194.W0098	Stainless 1.4305	16	19.0	20	100	14.0	39.5	16	155	233
33194.W0099	Stainless 1.4305	16	19.0	20	110	14.0	39.5	16	155	248
33194.W0100	Stainless 1.4305	16	19.0	20	120	14.0	39.5	16	155	263
33194.W0101	Stainless 1.4305	16	19.0	20	130	14.0	39.5	16	155	279
33194.W0102	Stainless 1.4305	16	19.0	20	140	14.0	39.5	16	155	295
33194.W0103	Stainless 1.4305	16	19.0	20	150	14.0	39.5	16	155	310
33194.W0111	Stainless 1.4305	20	25.0	28	50	20.5	49.9	20	244	303
33194.W0112	Stainless 1.4305	20	25.0	28	60	20.5	49.9	20	244	322
33194.W0116	Stainless 1.4305	20	25.0	28	80	20.5	49.9	20	244	370
33194.W0117	Stainless 1.4305	20	25.0	28	90	20.5	49.9	20	244	400
33194.W0120	Stainless 1.4305	20	25.0	28	100	20.5	49.9	20	244	414
33194.W0124	Stainless 1.4305	20	25.0	28	120	20.5	49.9	20	244	466
33194.W0125	Stainless 1.4305	20	25.0	28	130	20.5	49.9	20	244	497
33194.W0126	Stainless 1.4305	20	25.0	28	140	20.5	49.9	20	244	520
33194.W0127	Stainless 1.4305	20	25.0	28	150	20.5	49.9	20	244	545
33194.W0129	Stainless 1.4305	25	30.8	28	50	22.0	49.9	25	386	466
33194.W0130	Stainless 1.4305	25	30.8	28	60	22.0	49.9	25	386	432
33194.W0131	Stainless 1.4305	20	30.8	28	70	22.0	49.9	25	386	470
33194.W0132	Stainless 1.4305	25	30.8	28	810	22.0	49.9	25	386	507

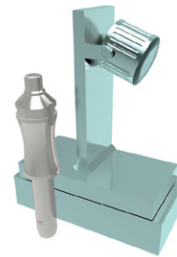
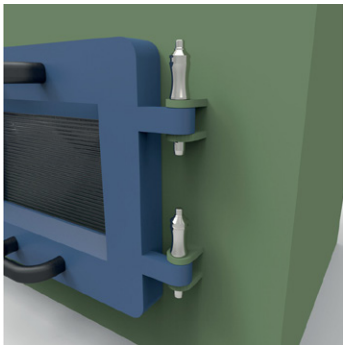
Ball Lock Pins & Quick Release

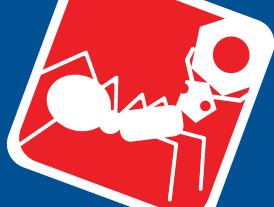
Ball Lock Pins - Contoured Handle self-locking - single acting - stainless 1.4305



BALL LOCK PINS & QUICK RELEASE PINS

Order No.	Material	d ₁	d ₂	d ₃	l ₁	l ₂	l ₃	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33194.W0133	Stainless 1.4305	25	30.8	28	90	22.0	49.9	25	386	545
33194.W0134	Stainless 1.4305	25	30.8	28	100	22.0	49.9	25	386	582
33194.W0135	Stainless 1.4305	25	30.8	28	110	22.0	49.9	25	386	620
33194.W0136	Stainless 1.4305	25	30.8	28	120	22.0	49.9	25	386	657
33194.W0137	Stainless 1.4305	25	30.8	28	130	22.0	49.9	25	386	695
33194.W0138	Stainless 1.4305	25	30.8	28	140	22.0	49.9	25	386	732
33194.W0139	Stainless 1.4305	25	30.8	28	150	22.0	49.9	25	386	770

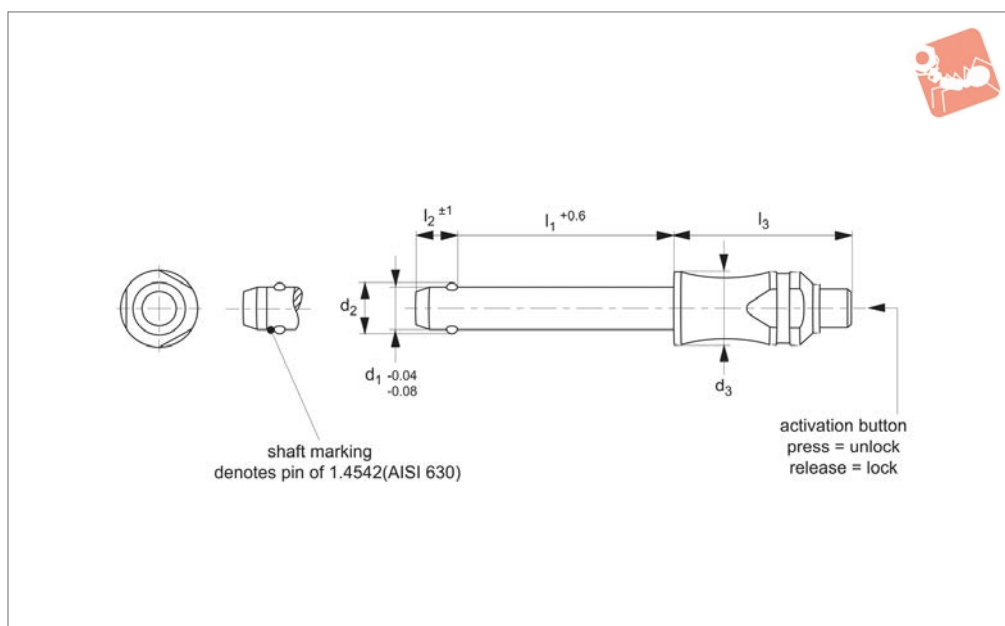




Ball Lock Pins - Contoured Handle

self-locking - single acting - stainless 1.4542

Ball Lock Pins & Quick Release



33194.2

BALL LOCK PINS & QUICK RELEASE PINS

Material

Pin: stainless steel 1.4542 (AISI 630), precipitation-hardened, blast finish. Offering extreme load capacity (marked at end of shaft to denote 1.4542 material). End of shaft marked for material type 1.4542.
Spring: stainless steel.

Technical Notes

Pressing = unlocking.

Releasing = locking.

Single piece contoured design for limited space applications.
Temperature resistance up to 250°C.
For quick fastening and locking of frequently repeated connections.
For suitable lanyards see part no. 33250.
W0970 and .W0974 only. Easy install
locating bushes available see part no. 33248.

Tips

Single piece design, no danger of parts coming away from pin - ideal for applications with F.O.B (Foreign Object Body) issues.

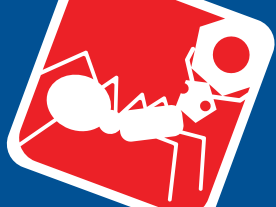
Important Notes

*Shearing resistance similar to DIN 50141.

Order No.	Material	d ₁	d ₂	d ₃	l ₁	l ₂	l ₃	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33194.W0307	Stainless 1.4542	5	5.5	10	45	6.0	26.2	5	24	15
33194.W0308	Stainless 1.4542	5	5.5	10	50	6.0	26.2	5	24	16
33194.W0309	Stainless 1.4542	5	5.5	10	60	6.0	26.2	5	24	17
33194.W0310	Stainless 1.4542	5	5.5	10	70	6.0	26.2	5	24	20
33194.W0311	Stainless 1.4542	5	5.5	10	80	6.0	26.2	5	24	20
33194.W0312	Stainless 1.4542	5	5.5	10	10	6.0	26.2	5	24	10
33194.W0313	Stainless 1.4542	5	5.5	10	15	6.0	26.2	5	24	11
33194.W0314	Stainless 1.4542	5	5.5	10	20	6.0	26.2	5	24	12
33194.W0315	Stainless 1.4542	5	5.5	10	25	6.0	26.2	5	24	13
33194.W0316	Stainless 1.4542	5	5.5	10	30	6.0	26.2	5	24	13
33194.W0317	Stainless 1.4542	5	5.5	10	35	6.0	26.2	5	24	14
33194.W0318	Stainless 1.4542	5	5.5	10	40	6.0	26.2	5	24	15
33194.W0319	Stainless 1.4542	6	7.0	10	60	7.0	26.2	6	35	21
33194.W0320	Stainless 1.4542	6	7.0	10	70	7.0	26.2	6	35	23
33194.W0321	Stainless 1.4542	6	7.0	10	70	7.0	26.2	6	35	25
33194.W0322	Stainless 1.4542	6	7.0	10	10	7.0	26.2	6	35	11
33194.W0323	Stainless 1.4542	6	7.0	10	15	7.0	26.2	6	35	12
33194.W0324	Stainless 1.4542	6	7.0	10	20	7.0	26.2	6	35	13
33194.W0325	Stainless 1.4542	6	7.0	10	25	7.0	26.2	6	35	14
33194.W0326	Stainless 1.4542	6	7.0	10	30	7.0	26.2	6	35	15
33194.W0327	Stainless 1.4542	6	7.0	10	35	7.0	26.2	6	35	16
33194.W0328	Stainless 1.4542	6	7.0	10	40	7.0	26.2	6	35	17
33194.W0329	Stainless 1.4542	6	7.0	10	45	7.0	26.2	6	35	18
33194.W0330	Stainless 1.4542	6	7.0	10	50	7.0	26.2	6	35	19
33194.W0331	Stainless 1.4542	8	9.6	14	60	8.2	33.1	8	63	47



Order No.	Material	d ₁	d ₂	d ₃	l ₁	l ₂	l ₃	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33194.W0332	Stainless 1.4542	8	9.6	14	10	8.2	33.1	8	63	29
33194.W0333	Stainless 1.4542	8	9.6	14	15	8.2	33.1	8	63	31
33194.W0334	Stainless 1.4542	8	9.6	14	20	8.2	33.1	8	63	33
33194.W0335	Stainless 1.4542	8	9.6	14	25	8.2	33.1	8	63	34
33194.W0336	Stainless 1.4542	8	9.6	14	30	8.2	33.1	8	63	36
33194.W0337	Stainless 1.4542	8	9.6	14	35	8.2	33.1	8	63	38
33194.W0338	Stainless 1.4542	8	9.6	14	40	8.2	33.1	8	63	40
33194.W0339	Stainless 1.4542	8	9.6	14	45	8.2	33.1	8	63	42
33194.W0340	Stainless 1.4542	8	9.6	14	50	8.2	33.1	8	63	44
33194.W0341	Stainless 1.4542	8	9.6	14	70	8.2	33.1	8	63	51
33194.W0342	Stainless 1.4542	8	9.6	14	80	8.2	33.1	8	63	55
33194.W0343	Stainless 1.4542	8	9.6	14	90	8.2	33.1	8	63	58
33194.W0344	Stainless 1.4542	10	12.0	14	20	9.6	33.1	10	100	39
33194.W0345	Stainless 1.4542	10	12.0	14	25	9.6	33.1	10	100	42
33194.W0346	Stainless 1.4542	10	12.0	14	30	9.6	33.1	10	100	45
33194.W0347	Stainless 1.4542	10	12.0	14	35	9.6	33.1	10	100	48
33194.W0348	Stainless 1.4542	10	12.0	14	40	9.6	33.1	10	100	51
33194.W0349	Stainless 1.4542	10	12.0	14	45	9.6	33.1	10	100	54
33194.W0350	Stainless 1.4542	10	12.0	14	50	9.6	33.1	10	100	57
33194.W0351	Stainless 1.4542	8	9.6	14	100	8.2	33.1	8	63	62
33194.W0352	Stainless 1.4542	10	12.0	14	60	9.6	33.1	10	100	63
33194.W0353	Stainless 1.4542	10	12.0	14	70	9.6	33.1	10	100	69
33194.W0354	Stainless 1.4542	10	12.0	14	80	9.6	33.1	10	100	74
33194.W0355	Stainless 1.4542	10	12.0	14	90	9.6	33.1	10	100	80
33194.W0356	Stainless 1.4542	10	12.0	14	100	9.6	33.1	10	100	86
33194.W0357	Stainless 1.4542	10	12.0	14	110	9.6	33.1	10	60	92
33194.W0358	Stainless 1.4542	10	12.0	14	120	9.6	33.1	10	100	98
33194.W0359	Stainless 1.4542	10	12.0	14	15	9.6	33.1	10	100	36
33194.W0360	Stainless 1.4542	12	14.5	20	90	10.6	39.5	12	144	139
33194.W0361	Stainless 1.4542	12	14.5	20	100	10.6	39.5	12	144	148
33194.W0362	Stainless 1.4542	12	14.5	20	110	10.6	39.5	12	144	157
33194.W0363	Stainless 1.4542	12	14.5	20	120	10.6	39.5	12	144	165
33194.W0364	Stainless 1.4542	12	14.5	20	20	10.6	39.5	12	144	80
33194.W0365	Stainless 1.4542	12	14.5	20	25	10.6	39.5	12	144	84
33194.W0366	Stainless 1.4542	12	14.5	20	30	10.6	39.5	12	144	88
33194.W0367	Stainless 1.4542	12	14.5	20	35	10.6	39.5	12	144	92
33194.W0368	Stainless 1.4542	12	14.5	20	40	10.6	39.5	12	144	96
33194.W0369	Stainless 1.4542	12	14.5	20	45	10.6	39.5	12	144	101
33194.W0370	Stainless 1.4542	12	14.5	20	50	10.6	39.5	12	144	105
33194.W0372	Stainless 1.4542	12	14.5	20	60	10.6	39.5	12	144	113
33194.W0374	Stainless 1.4542	12	14.5	20	70	10.6	39.5	12	144	122
33194.W0376	Stainless 1.4542	12	14.5	20	80	10.6	39.5	12	144	130
33194.W0386	Stainless 1.4542	16	19.0	20	30	14.0	39.5	16	257	120
33194.W0387	Stainless 1.4542	16	19.0	20	35	14.0	39.5	16	257	127
33194.W0388	Stainless 1.4542	16	19.0	20	40	14.0	39.5	16	257	135
33194.W0389	Stainless 1.4542	16	19.0	20	45	14.0	39.5	16	257	143
33194.W0390	Stainless 1.4542	16	19.0	20	50	14.0	39.5	16	257	150
33194.W0392	Stainless 1.4542	16	19.0	20	60	14.0	39.5	16	257	166
33194.W0394	Stainless 1.4542	16	19.0	20	70	14.0	39.5	16	257	181
33194.W0396	Stainless 1.4542	16	19.0	20	80	14.0	39.5	16	257	196
33194.W0397	Stainless 1.4542	16	19.0	20	90	14.0	39.5	16	257	216
33194.W0398	Stainless 1.4542	16	19.0	20	100	14.0	39.5	16	257	233
33194.W0399	Stainless 1.4542	16	19.0	20	110	14.0	39.5	16	257	248
33194.W0411	Stainless 1.4542	20	25.0	28	50	20.0	49.9	16	403	303
33194.W0412	Stainless 1.4542	20	25.0	28	60	20.5	49.9	20	403	322
33194.W0416	Stainless 1.4542	20	25.0	28	80	20.5	49.9	20	403	370
33194.W0417	Stainless 1.4542	20	25.0	28	90	20.5	49.9	20	403	400
33194.W0420	Stainless 1.4542	20	25.0	28	100	20.5	49.9	20	403	414
33194.W0424	Stainless 1.4542	20	25.0	28	120	20.5	49.9	20	403	466
33194.W0425	Stainless 1.4542	20	25.0	28	130	20.5	49.9	20	403	497
33194.W0426	Stainless 1.4542	20	25.0	28	140	20.5	49.9	20	403	520
33194.W0427	Stainless 1.4542	20	25.0	28	150	20.5	49.9	20	403	545
33194.W0429	Stainless 1.4542	25	30.8	28	50	22.0	49.9	25	631	395
33194.W0430	Stainless 1.4542	25	30.8	28	60	22.0	49.9	25	631	396
33194.W0431	Stainless 1.4542	25	30.8	28	70	22	49.9	25	631	396
33194.W0432	Stainless 1.4542	25	30.8	28	80	22.0	49.9	25	631	507
33194.W0433	Stainless 1.4542	25	30.8	28	90	22.0	49.9	25	631	545

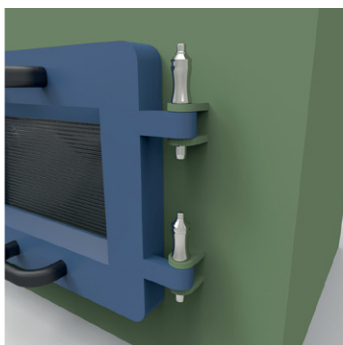


Ball Lock Pins - Contoured Handle

self-locking - single acting - stainless 1.4542

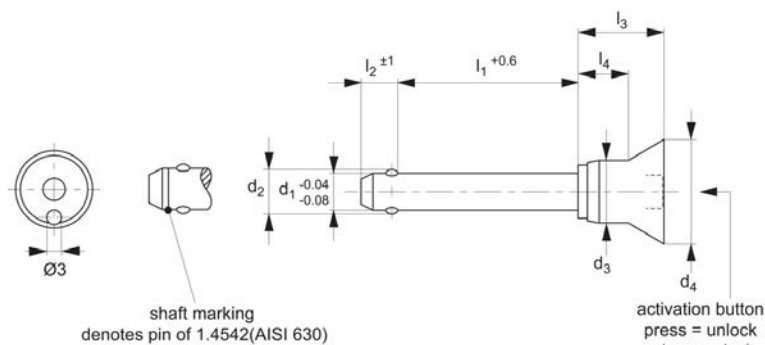
Ball Lock Pins & Quick Release

Order No.	Material	d ₁	d ₂	d ₃	l ₁	l ₂	l ₃	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33194.W0434	Stainless 1.4542	25	30.8	28	100	22.0	49.9	25	631	582
33194.W0435	Stainless 1.4542	25	30.8	28	110	22.0	49.9	25	631	620
33194.W0436	Stainless 1.4542	25	30.8	28	120	22.0	49.9	25	631	657
33194.W0438	Stainless 1.4542	25	30.8	28	140	22.0	49.9	25	631	732
33194.W0439	Stainless 1.4542	25	30.8	28	150	22.0	49.9	25	631	770
33194.W3100	Stainless 1.4542	16	19.0	20	120	14.0	39.5	16	257	263
33194.W3101	Stainless 1.4542	16	19.0	20	130	14.0	39.5	16	257	279
33194.W3102	Stainless 1.4542	16	19.0	20	140	14.0	39.5	16	257	295
33194.W3103	Stainless 1.4542	16	19.0	20	150	14.0	39.5	16	257	310





33226.1



Material

Pin: Stainless steel 1.4305 (AISI 303).

Ball: stainless steel 1.3541

Spring: stainless steel.

Handle: stainless steel.

Technical Notes

Pressing = unlocking.

Releasing = locking.

Handle shape protects against accidental actuation of ball lock pin.

Temperature resistant up to 250°C

For quick fastening and locking of frequently repeated connections.

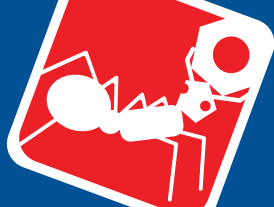
Tips

For lanyards & retaining cables see part no. 33250. Easy install locating bushes available see part no. 33248.

Important Notes

*Shearing resistance similar to DIN 50141.

Order No.	Material	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Location hole dia.	Shearing resistance, double kN	Weight g
33226.W1012	Stainless 1.4305	5	10	5.5	10.3	20	6.0	21.0	11.6	5	14	18
33226.W1013	Stainless 1.4305	5	15	5.5	10.3	20	6.0	21.0	11.6	5	14	19
33226.W1014	Stainless 1.4305	5	20	5.5	10.3	20	6.0	21.0	11.6	5	14	20
33226.W1015	Stainless 1.4305	5	25	5.5	10.3	20	6.0	21.0	11.6	5	14	21
33226.W1016	Stainless 1.4305	5	30	5.5	10.3	20	6.0	21.0	11.6	5	14	21
33226.W1022	Stainless 1.4305	6	10	7.0	10.3	20	7.0	21.0	11.6	6	21	19
33226.W1023	Stainless 1.4305	6	15	7.0	10.3	20	7.0	21.0	11.6	6	21	20
33226.W1024	Stainless 1.4305	6	20	7.0	10.3	20	7.0	21.0	11.6	6	21	22
33226.W1025	Stainless 1.4305	6	25	7.0	10.3	20	7.0	21.0	11.6	6	21	23
33226.W1026	Stainless 1.4305	6	30	7.0	10.3	20	7.0	21.0	11.6	6	21	24
33226.W1027	Stainless 1.4305	6	35	7.0	10.3	20	7.0	21.0	11.6	6	21	25
33226.W1028	Stainless 1.4305	6	40	7.0	10.3	20	7.0	21.0	11.6	6	21	26
33226.W1029	Stainless 1.4305	6	45	7.0	10.3	20	7.0	21.0	11.6	6	21	27
33226.W1030	Stainless 1.4305	6	50	7.0	10.3	20	7.0	21.0	11.6	6	21	28
33226.W1034	Stainless 1.4305	8	20	9.5	13.3	24	8.2	27.5	17.4	8	38	40
33226.W1035	Stainless 1.4305	8	25	9.5	13.3	24	8.2	27.5	17.4	8	38	41
33226.W1036	Stainless 1.4305	8	30	9.5	13.3	24	8.2	27.5	17.4	8	38	43
33226.W1037	Stainless 1.4305	8	35	9.5	13.3	24	8.2	27.5	17.4	8	38	45
33226.W1038	Stainless 1.4305	8	40	9.5	13.3	24	8.2	27.5	17.4	8	38	47
33226.W1039	Stainless 1.4305	8	45	9.5	13.3	24	8.2	27.5	17.4	8	38	49
33226.W1040	Stainless 1.4305	8	50	9.5	13.3	24	8.2	27.5	17.4	8	38	51
33226.W1044	Stainless 1.4305	10	20	12.0	13.3	24	9.6	27.5	17.4	10	60	46
33226.W1045	Stainless 1.4305	10	25	12.0	13.3	24	9.6	27.5	17.4	10	60	49
33226.W1046	Stainless 1.4305	10	30	12.0	13.3	24	9.6	27.5	17.4	10	60	52
33226.W1047	Stainless 1.4305	10	35	12.0	13.3	24	9.6	27.5	17.4	10	60	5
33226.W1048	Stainless 1.4305	10	40	12.0	13.3	24	9.6	27.5	17.4	10	60	58
33226.W1049	Stainless 1.4305	10	45	12.0	13.3	24	9.6	27.5	17.4	10	60	61
33226.W1050	Stainless 1.4305	10	50	12.0	13.3	24	9.6	27.5	17.4	10	60	64
33226.W1052	Stainless 1.4305	10	60	12.0	13.3	24	9.6	27.5	17.4	10	60	70
33226.W1065	Stainless 1.4305	12	25	14.5	16.5	28	10.6	33.5	23.1	12	87	77



Ball Lock Pins - Single Acting - Safety

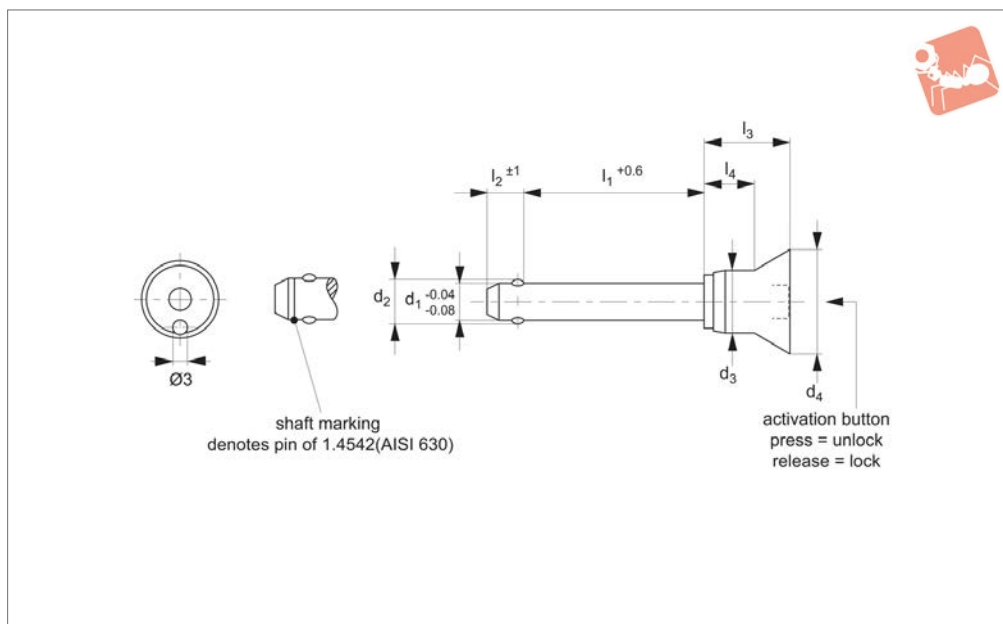
self-locking - stainless 1.4305

Ball Lock Pins & Quick Release

Order No.	Material	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Location hole dia.	Shearing resistance, double kN	Weight g
33226.W1066	Stainless 1.4305	12	30	14.5	16.5	28	10.6	33.5	23.1	12	87	82
33226.W1067	Stainless 1.4305	12	35	14.5	16.5	28	10.6	33.5	23.1	12	87	86
33226.W1068	Stainless 1.4305	12	40	14.5	16.5	28	10.6	33.5	23.1	12	87	90
33226.W1069	Stainless 1.4305	12	45	14.5	16.5	28	10.6	33.5	23.1	12	87	94
33226.W1070	Stainless 1.4305	12	50	14.5	16.5	28	10.6	33.5	23.1	12	87	99
33226.W1072	Stainless 1.4305	12	60	14.5	16.5	28	10.6	33.5	23.1	12	87	107
33226.W1074	Stainless 1.4305	12	70	14.5	16.5	28	10.6	33.5	23.1	12	87	116
33226.W1076	Stainless 1.4305	12	80	14.5	16.5	28	10.6	33.5	23.1	12	87	124



33226.2



Material

Pin: Stainless steel 1.4542 (AISI 630), precipitation hardened, blast finish. Offering extreme load capacity. (Marked at end of shaft to denote 1.4542 material).
Ball: stainless steel 1.3541
Spring: stainless steel.
Handle: stainless steel.

Technical Notes

Pressing = unlocking.

Releasing = locking.

Handle shape protects against accidental actuation of ball lock pin.
Temperature resistant up to 250°C
For quick fastening and locking of frequently repeated connections.

Tips

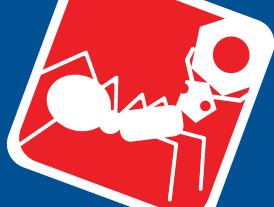
For lanyards & retaining cables see part no. 33250. Easy install locating bushes

available see part no. 33248.

Important Notes

*Shearing resistance similar to DIN 50141.

Order No.	Material	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Location hole dia.	Shearing resistance, double kN	Weight g
33226.W1512	Stainless 1.4542	5	10	5.5	10.3	20	6.0	21.0	11.6	5	24	18
33226.W1513	Stainless 1.4542	5	15	5.5	10.3	20	6.0	21.0	11.6	5	24	19
33226.W1514	Stainless 1.4542	5	20	5.5	10.3	20	6.0	21.0	11.6	5	24	20
33226.W1515	Stainless 1.4542	5	25	5.5	10.3	20	6.0	21.0	11.6	5	24	21
33226.W1516	Stainless 1.4542	5	30	5.5	10.3	20	6.0	21.0	11.6	5	24	21
33226.W1522	Stainless 1.4542	6	10	7.0	10.3	20	7.0	21.0	11.6	6	35	19
33226.W1523	Stainless 1.4542	6	15	7.0	10.3	20	7.0	21.0	11.6	6	35	20
33226.W1524	Stainless 1.4542	6	20	7.0	10.3	20	7.0	21.0	11.6	6	35	22
33226.W1525	Stainless 1.4542	6	25	7.0	10.3	20	7.0	21.0	11.6	6	35	23
33226.W1526	Stainless 1.4542	6	30	7.0	10.3	20	7.0	21.0	11.6	6	35	24
33226.W1527	Stainless 1.4542	6	35	7.0	10.3	20	7.0	21.0	11.6	6	35	25
33226.W1528	Stainless 1.4542	6	40	7.0	10.3	20	7.0	21.0	11.6	6	35	26
33226.W1529	Stainless 1.4542	6	45	7.0	10.3	20	7.0	21.0	11.6	6	35	27
33226.W1530	Stainless 1.4542	6	50	7.0	10.3	20	7.0	21.0	11.6	6	35	28
33226.W1534	Stainless 1.4542	8	20	9.5	13.3	24	8.2	27.5	17.4	8	63	40
33226.W1535	Stainless 1.4542	8	25	9.5	13.3	24	8.2	27.5	17.4	8	63	41
33226.W1536	Stainless 1.4542	8	30	9.5	13.3	24	8.2	27.5	17.4	8	63	43
33226.W1537	Stainless 1.4542	8	35	9.5	13.3	24	8.2	27.5	17.4	8	63	45
33226.W1538	Stainless 1.4542	8	40	9.5	13.3	24	8.2	27.5	17.4	8	63	47
33226.W1539	Stainless 1.4542	8	45	9.5	13.3	24	8.2	27.5	17.4	8	63	49
33226.W1540	Stainless 1.4542	8	50	9.5	13.3	24	8.2	27.5	17.4	8	63	51
33226.W1544	Stainless 1.4542	10	20	12.0	13.3	24	9.6	27.5	17.4	10	100	46
33226.W1545	Stainless 1.4542	10	25	12.0	13.3	24	9.6	27.5	17.4	10	100	49
33226.W1546	Stainless 1.4542	10	30	12.0	13.3	24	9.6	27.5	17.4	10	100	52
33226.W1547	Stainless 1.4542	10	35	12.0	13.3	24	9.6	27.5	17.4	10	100	55
33226.W1548	Stainless 1.4542	10	40	12.0	13.3	24	9.6	27.5	17.4	10	100	58



Ball Lock Pins - Single Acting - Safety

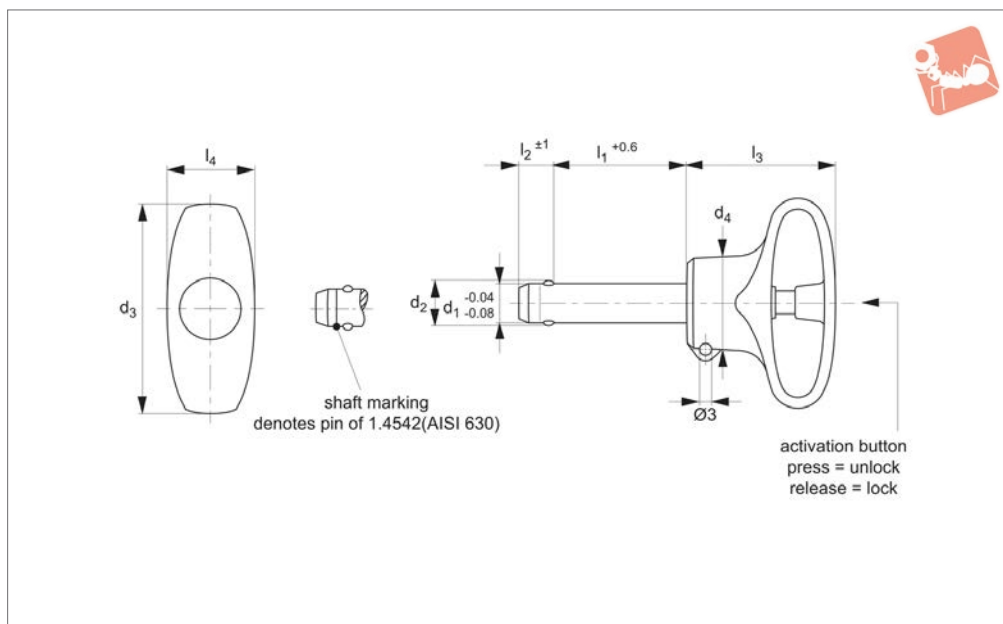
self-locking - stainless 1.4542

Ball Lock Pins & Quick Release

Order No.	Material	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Location hole dia.	Shearing resistance, double kN	Weight g
33226.W1549	Stainless 1.4542	10	45	12.0	13.3	24	9.6	27.5	17.4	10	100	61
33226.W1550	Stainless 1.4542	10	50	12.0	13.3	24	9.6	27.5	17.4	10	100	64
33226.W1552	Stainless 1.4542	10	60	12.0	13.3	24	9.6	27.5	17.4	10	100	70
33226.W1565	Stainless 1.4542	12	25	14.5	16.5	28	10.6	33.5	23.1	12	144	77
33226.W1566	Stainless 1.4542	12	30	14.5	16.5	28	10.6	33.5	23.1	12	144	82
33226.W1567	Stainless 1.4542	12	35	14.5	16.5	28	10.6	33.5	23.1	12	144	86
33226.W1568	Stainless 1.4542	12	40	14.5	16.5	28	10.6	33.5	23.1	12	144	90
33226.W1569	Stainless 1.4542	12	45	14.5	16.5	28	10.6	33.5	23.1	12	144	94
33226.W1570	Stainless 1.4542	12	50	14.5	16.5	28	10.6	33.5	23.1	12	144	99
33226.W1572	Stainless 1.4542	12	60	14.5	16.5	28	10.6	33.5	23.1	12	144	107
33226.W1574	Stainless 1.4542	12	70	14.5	16.5	28	10.6	33.5	23.1	12	144	116
33226.W1576	Stainless 1.4542	12	80	14.5	16.5	28	10.6	33.5	23.1	12	144	124



33100



Material

Type One-

Pin: Stainless steel 1.4305 (AISI 303).

Type Two-

Pin: Stainless steel 1.4542 (AISI 630), precipitation hardened, blast finish. Offering extreme load capacity. (Marked at end of shaft to denote 1.4542 material).

Handle: plastic (PBT/TPE). Colours avail.; orange/grey

Technical Notes

Pressing = unlocking.

Releasing = locking.

Unique design; elastic handle provides integral spring action to reset pin (hence no internal spring mechanism required).

Tested to over 100,000+ repetitions.

Temperature resistance -30°C to 80°C.

For quick fastening and locking of frequently repeated connections in applica-

tions such as; sports, leisure, medical and general engineering applications.

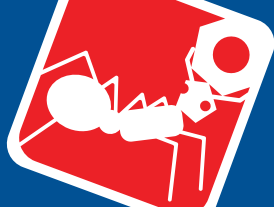
Tips

For easy to install locating bush see part 33248 <X\33248#26>.

Important Notes

*Shearing resistance similar to DIN 50141.

Order No.	Material	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33100.W0712	Stainless 1.4305	5	10	5.5	36	12.7	6.0	31.0	15.9	5	14	9
33100.W0713	Stainless 1.4305	5	15	5.5	36	12.7	6.0	31.0	15.9	5	14	10
33100.W0714	Stainless 1.4305	5	20	5.5	36	12.7	6.0	31.0	15.9	5	14	11
33100.W0715	Stainless 1.4305	5	25	5.5	36	12.7	6.0	31.0	15.9	5	14	11
33100.W0716	Stainless 1.4305	5	30	5.5	36	12.7	6.0	31.0	15.9	5	14	12
33100.W0722	Stainless 1.4305	6	10	7.0	36	12.7	7.0	31.0	15.9	6	21	10
33100.W0723	Stainless 1.4305	6	15	7.0	35	12.7	7.0	31.0	15.9	6	21	11
33100.W0724	Stainless 1.4305	6	20	7.0	36	12.7	7.0	31.0	15.9	6	21	12
33100.W0725	Stainless 1.4305	6	25	7.0	36	12.7	7.0	31.0	15.9	6	21	13
33100.W0726	Stainless 1.4305	6	30	7.0	36	12.7	7.0	31.0	15.9	6	21	14
33100.W0727	Stainless 1.4305	6	35	7.0	36	12.7	7.0	31.0	15.9	6	21	15
33100.W0728	Stainless 1.4305	6	40	7.0	36	12.7	7.0	31.0	15.9	6	21	16
33100.W0729	Stainless 1.4305	6	45	7.0	36	12.7	7.0	31.0	15.9	6	21	18
33100.W0730	Stainless 1.4305	6	50	7.0	36	12.7	7.0	31.0	15.9	6	21	18
33100.W0734	Stainless 1.4305	8	20	9.6	41	16.4	8.2	34.8	19.2	8	38	23
33100.W0735	Stainless 1.4305	8	25	9.6	41	16.4	8.2	34.8	19.2	8	38	25
33100.W0736	Stainless 1.4305	8	30	9.6	41	16.4	8.2	34.8	19.2	8	38	26
33100.W0737	Stainless 1.4305	8	35	9.6	41	16.4	8.2	34.8	19.2	8	38	28
33100.W0738	Stainless 1.4305	8	40	9.6	41	16.4	8.2	34.8	19.2	8	38	30
33100.W0739	Stainless 1.4305	8	45	9.6	41	16.4	8.2	34.8	19.2	8	38	32
33100.W0740	Stainless 1.4305	8	50	9.6	41	16.4	8.2	34.8	19.2	8	38	34
33100.W0744	Stainless 1.4305	10	20	12.0	41	16.4	9.6	34.8	19.2	10	60	30
33100.W0745	Stainless 1.4305	10	25	12.0	41	16.4	9.6	34.8	19.2	10	60	32
33100.W0746	Stainless 1.4305	10	30	12.0	41	16.4	9.6	34.8	19.2	10	60	35
33100.W0747	Stainless 1.4305	10	35	12.0	41	16.4	9.6	34.8	19.2	10	60	38
33100.W0748	Stainless 1.4305	10	40	12.0	41	16.4	9.6	34.8	19.2	10	60	41



Ball Lock Pins - Single Acting - Elastic self-locking

Ball Lock Pins & Quick Release

Order No.	Material	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33100.W0749	Stainless 1.4305	10	45	12.0	41	16.4	9.6	34.8	19.2	10	60	44
33100.W0750	Stainless 1.4305	10	50	12.0	41	16.4	9.6	34.8	19.2	10	60	47
33100.W0752	Stainless 1.4305	10	60	12.0	41	16.4	9.6	34.8	19.2	10	60	53
33100.W0765	Stainless 1.4305	12	25	14.5	49	21.2	10.6	40.5	24.8	12	87	54
33100.W0766	Stainless 1.4305	12	30	14.5	49	21.2	10.6	40.5	24.8	12	87	59
33100.W0767	Stainless 1.4305	12	35	14.5	49	21.2	10.6	40.5	24.8	12	87	63
33100.W0768	Stainless 1.4305	12	40	14.5	49	21.2	10.6	40.5	24.8	12	87	67
33100.W0769	Stainless 1.4305	12	45	14.5	49	21.2	10.6	40.5	24.8	12	87	71
33100.W0770	Stainless 1.4305	12	50	14.5	49	21.2	10.6	40.5	24.8	12	87	75
33100.W0772	Stainless 1.4305	12	60	14.5	49	21.2	10.6	40.5	24.8	12	87	84
33100.W0774	Stainless 1.4305	12	70	14.5	49	21.2	10.6	40.5	24.8	12	87	93
33100.W0776	Stainless 1.4305	12	80	14.5	49	21.2	10.6	40.5	24.8	12	87	101
33100.W0786	Stainless 1.4305	16	30	19.0	49	21.2	14.0	40.5	24.8	16	155	91
33100.W0787	Stainless 1.4305	16	35	19.0	49	21.2	14.0	40.5	24.8	16	155	98
33100.W0788	Stainless 1.4305	16	40	19.0	49	21.2	14.0	40.5	24.8	16	155	106
33100.W0789	Stainless 1.4305	16	45	19.0	49	21.2	14.0	40.5	24.8	16	155	114
33100.W0790	Stainless 1.4305	16	50	19.0	49	21.2	14.0	40.5	24.8	16	155	121
33100.W0792	Stainless 1.4305	16	60	19.0	49	21.2	14.0	40.5	24.8	16	155	137
33100.W0794	Stainless 1.4305	16	70	19.0	49	21.2	14.0	40.5	24.8	16	155	152
33100.W0796	Stainless 1.4305	16	80	19.0	49	21.2	14.0	40.5	24.8	16	155	167
33100.W0912	Stainless 1.4542	5	10	5.5	36	12.7	6.0	31.0	15.9	5	24	9
33100.W0913	Stainless 1.4542	5	15	5.5	36	12.7	6.0	31.0	15.9	5	24	10
33100.W0914	Stainless 1.4542	5	20	5.5	36	12.7	6.0	31.0	15.9	5	24	11
33100.W0915	Stainless 1.4542	5	25	5.5	36	12.7	6.0	31.0	15.9	5	24	11
33100.W0916	Stainless 1.4542	5	30	5.5	36	12.7	6.0	31.0	15.9	5	24	12
33100.W0922	Stainless 1.4542	6	10	7.0	36	12.7	7.0	31.0	15.9	6	35	10
33100.W0923	Stainless 1.4542	6	15	7.0	36	12.7	7.0	31.0	15.9	6	35	11
33100.W0924	Stainless 1.4542	6	20	7.0	36	12.7	7.0	31.0	15.9	6	35	12
33100.W0925	Stainless 1.4542	6	25	7.0	36	12.7	7.0	31.0	15.9	6	35	13
33100.W0926	Stainless 1.4542	6	30	7.0	36	12.7	7.0	31.0	15.9	6	35	14
33100.W0927	Stainless 1.4542	6	35	7.0	36	12.7	7.0	31.0	15.9	6	35	15
33100.W0928	Stainless 1.4542	6	40	7.0	36	12.7	7.0	31.0	15.9	6	35	16
33100.W0929	Stainless 1.4542	6	45	7.0	36	12.7	7.0	31.0	15.9	6	35	18
33100.W0930	Stainless 1.4542	6	50	7.0	36	12.7	7.0	31.0	15.9	6	35	18
33100.W0934	Stainless 1.4542	8	20	9.6	41	16.4	8.2	34.8	19.2	8	63	23
33100.W0935	Stainless 1.4542	8	25	9.6	41	16.4	8.2	34.8	19.2	8	63	25
33100.W0936	Stainless 1.4542	8	30	9.6	41	16.4	8.2	34.8	19.2	8	63	26
33100.W0937	Stainless 1.4542	8	35	9.6	41	16.4	8.2	34.8	19.2	8	63	28
33100.W0938	Stainless 1.4542	8	40	9.6	41	16.4	8.2	34.8	19.2	8	63	30
33100.W0939	Stainless 1.4542	8	45	9.6	41	16.4	8.2	34.8	19.2	8	63	32
33100.W0940	Stainless 1.4542	8	50	9.6	41	16.4	8.2	34.8	19.2	8	63	34
33100.W0944	Stainless 1.4542	10	20	12.0	41	16.4	9.6	34.8	19.2	10	100	30
33100.W0945	Stainless 1.4542	10	25	12.0	41	16.4	9.6	34.8	19.2	10	100	32
33100.W0946	Stainless 1.4542	10	30	12.0	41	16.4	9.6	34.8	19.2	10	100	35
33100.W0947	Stainless 1.4542	10	35	12.0	41	16.4	9.6	34.8	19.2	10	100	38
33100.W0948	Stainless 1.4542	10	40	12.0	41	16.4	9.6	34.8	19.2	10	100	41
33100.W0949	Stainless 1.4542	10	45	12.0	41	16.4	9.6	34.8	19.2	10	100	44
33100.W0950	Stainless 1.4542	10	50	12.0	41	16.4	9.6	34.8	19.2	10	100	47
33100.W0952	Stainless 1.4542	10	60	12.0	41	16.4	9.6	34.8	19.2	10	100	53
33100.W0965	Stainless 1.4542	12	25	14.5	49	21.2	10.6	40.5	24.8	12	144	54
33100.W0966	Stainless 1.4542	12	30	14.5	49	21.2	10.6	40.5	24.8	12	144	59
33100.W0967	Stainless 1.4542	12	35	14.5	49	21.2	10.6	40.5	24.8	12	144	63
33100.W0968	Stainless 1.4542	12	40	14.5	49	21.2	10.6	40.5	24.8	12	144	67
33100.W0969	Stainless 1.4542	12	45	14.5	49	21.2	10.6	40.5	24.8	12	144	71
33100.W0970	Stainless 1.4542	12	50	14.5	49	21.2	10.6	40.5	24.8	12	144	75
33100.W0972	Stainless 1.4542	12	60	14.5	49	21.2	10.6	40.5	24.8	12	144	84
33100.W0974	Stainless 1.4542	12	70	14.5	49	21.2	10.6	40.5	24.8	12	144	93
33100.W0976	Stainless 1.4542	12	80	14.5	49	21.2	10.6	40.5	24.8	12	144	101
33100.W0986	Stainless 1.4542	16	30	19.0	49	21.2	14.0	40.5	24.8	16	257	91
33100.W0987	Stainless 1.4542	16	35	19.0	49	21.2	14.0	40.5	24.8	16	257	98
33100.W0988	Stainless 1.4542	16	40	19.0	49	21.2	14.0	40.5	24.8	16	257	106
33100.W0989	Stainless 1.4542	16	45	19.0	49	21.2	14.0	40.5	24.8	16	257	114
33100.W0990	Stainless 1.4542	16	50	19.0	49	21.2	14.0	40.5	24.8	16	257	121
33100.W0992	Stainless 1.4542	16	60	19.0	49	21.2	14.0	40.5	24.8	16	257	137
33100.W0994	Stainless 1.4542	16	70	19.0	49	21.2	14.0	40.5	24.8	16	257	152

Ball Lock Pins & Quick Release

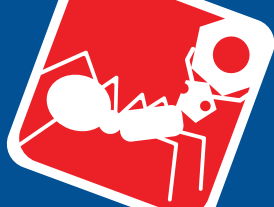
Ball Lock Pins - Single Acting - Elastic self-locking



Order No.	Material	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33100.W0996	Stainless 1.4542	16	80	19.0	49	21.2	14.0	40.5	24.8	16	257	167

BALL LOCK PINS & QUICK RELEASE PINS

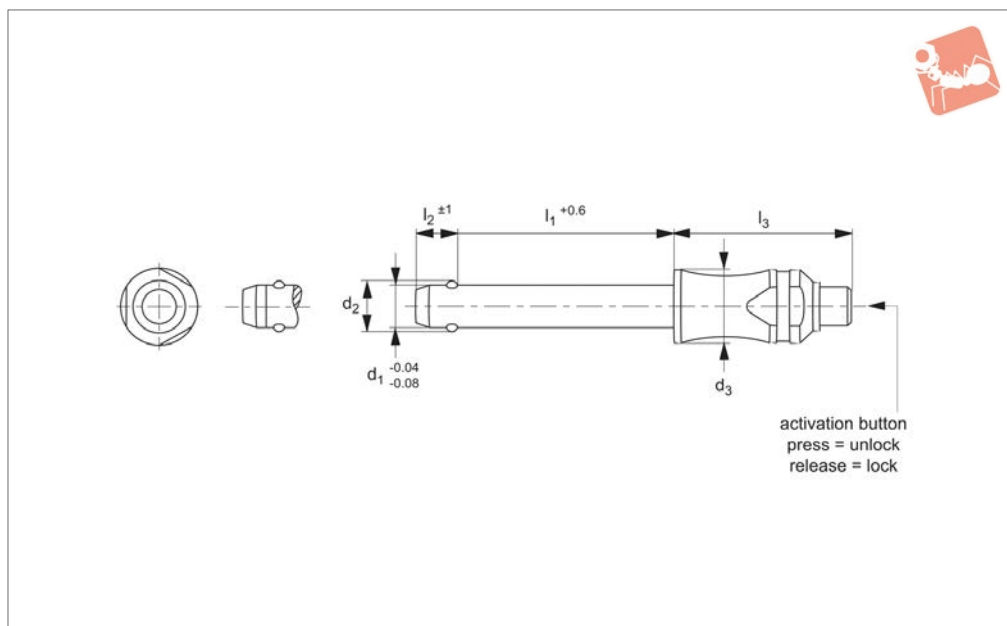




Ball Lock Pins - Contoured Handle

self-locking - single acting - titanium

Ball Lock Pins & Quick Release



33196

BALL LOCK PINS & QUICK RELEASE PINS

Material

Pin: Titanium G5 (6A/4V DIN 3.7165). Offering extreme load capacity.

Ball: Ceramic.

Spring: Corrosion resistant alloy.

Technical Notes

Pressing = unlocking.

Releasing = locking.

Single piece contoured design for limited

space applications.

Temperature resistance up to 400°C.

For quick fastening and locking of frequently repeated connections.

For suitable lanyards see part no. 33250.

W0970 and .W0974 only. Easy install

locating bushes available see part no.

33248.

Tips

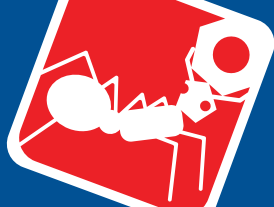
Single piece design, no danger of parts coming away from pin - ideal for applications with F.O.B (Foreign Object Body) issues.

Important Notes

*Shearing resistance similar to DIN 50141.

Order No.	d ₁	l ₁	d ₂	d ₃	l ₂	l ₃	Location hole dia. tol. H11	Shearing resistance, double kN min.	Weight g
33196.W0022	6	10	7.0	10	7.0	26.2	6	23	7
33196.W0024	6	20	7.0	10	7.0	26.2	6	23	8
33196.W0026	6	30	7.0	10	7.0	26.2	6	23	9
33196.W0028	6	40	7.0	10	7.0	26.2	6	23	10
33196.W0030	6	50	7.0	10	7.0	26.2	6	23	11
33196.W0034	8	20	9.6	14	8.2	33.1	8	43	19
33196.W0036	8	30	9.6	14	8.2	33.1	8	43	21
33196.W0038	8	40	9.6	14	8.2	33.1	8	43	23
33196.W0040	8	50	9.6	14	8.2	33.1	8	43	25
33196.W0044	10	20	12.0	14	9.6	33.1	8	46	23
33196.W0046	10	30	12.0	14	9.6	26.2	10	69	26
33196.W0048	10	40	12.0	14	9.6	26.2	10	69	29
33196.W0050	10	50	12.0	14	9.6	26.2	10	69	32
33196.W0052	10	60	12.0	14	9.6	26.2	10	69	36

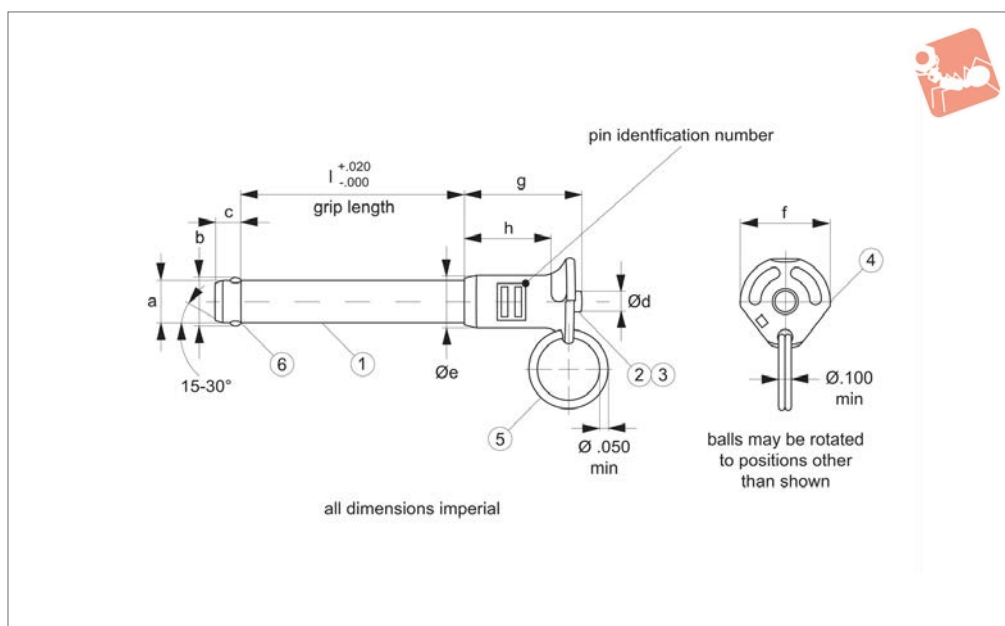




Aviation Pip-Pin - Standard B Handle

single acting - quick release pins

Ball Lock Pins & Quick Release



33600

BALL LOCK PINS & QUICK RELEASE PINS

Material

Shank (part 1) & Spindle (part 2):

CRES 17-4PH (AMS 5643), heat treated per MIL-H-6875, condition H900, min. 40 HRC, passivated per AMS2700

Spring (part 3, not shown):

CRES 302 (ASTM-A-313), heat treated per MIL-H-6875, passivated per AMS2700

Handle (part 4):

A380 (QQ-A-591), anodized (black) per MIL-A-8625

Attaching ring (part 5):

CRES 302 (ASTM-A-313), passivated per AMS2700

Ball (locking element, part 6):

CRES CL440C (AMS5630), heat treated per MIL-H-6875, passivated per AMS2700

Technical Notes

Wixroyd Aviation Pip-Pins manufactured to Aviation Norm NASM 17984 (former norm: MS 17984) and tested to NAS 1332.

Manufacture certified & assessed to EN9100D by EASE (European Aerospace Supplier Evaluation).

Temp. range -22°F to 302°F

Pressing = unlocking.

Releasing = locking.

Pip-Pins are used for frequently repeated operations such as quick fastening, locking, adjusting, changing and securing. All dimensions shown are imperial.

Tips

We can manufacture specials (both metric & imperial) to your drawing, and are certified to produce to NASM standards.

Wixroyd Aviation Pip-Pins can be produced within the following dimensions:

+ diameter: from 3/16" to 1"

+ grip length: from 0.3" to 9.9"

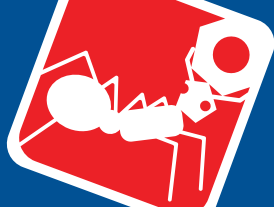
Quick production time on small batches.

Order No.	Dia. Ø nom.	Grip l	b	c	Ø d max.	Ø e max.	Weight g
33600.A005	3/16	0.5	0.220	0.26	0.31	0.44	17
33600.A006	3/16	0.6	0.220	0.26	0.31	0.44	17
33600.A007	3/16	0.7	0.220	0.26	0.31	0.44	17
33600.A008	3/16	0.8	0.220	0.26	0.31	0.44	18
33600.A010	3/16	1.0	0.220	0.26	0.31	0.44	18
33600.A011	3/16	1.1	0.220	0.26	0.31	0.44	19
33600.A013	3/16	1.3	0.220	0.26	0.31	0.44	19
33600.A015	3/16	1.5	0.220	0.26	0.31	0.44	20
33600.A018	3/16	1.8	0.220	0.26	0.31	0.44	21
33600.A020	3/16	2.0	0.220	0.26	0.31	0.44	22
33600.B007	1/4	0.7	0.289	0.29	0.31	0.44	20
33600.B008	1/4	0.8	0.289	0.29	0.31	0.44	20
33600.B010	1/4	1.0	0.289	0.29	0.31	0.44	22
33600.B011	1/4	1.1	0.289	0.29	0.31	0.44	22
33600.B012	1/4	1.2	0.289	0.29	0.31	0.44	24
33600.B014	1/4	1.4	0.289	0.29	0.31	0.44	24
33600.B018	1/4	1.8	0.289	0.29	0.31	0.44	26
33600.B019	1/4	1.9	0.289	0.29	0.31	0.44	27
33600.B020	1/4	2.0	0.289	0.29	0.31	0.44	27
33600.B023	1/4	2.3	0.289	0.29	0.31	0.44	29
33600.B025	1/4	2.5	0.289	0.29	0.31	0.44	32



Order No.	Dia. Ø nom.	Grip l	b	c	Ø d max.	Ø e max.	Weight g
33600.B028	1/4	2.8	0.289	0.29	0.31	0.44	32
33600.B029	1/4	2.9	0.289	0.29	0.31	0.44	33
33600.B064	1/4	6.4	0.289	0.29	0.31	0.44	59
33600.C008	5/16	0.8	0.375	0.33	0.31	0.49	25
33600.C010	5/16	1.0	0.375	0.33	0.31	0.49	28
33600.C012	5/16	1.2	0.375	0.33	0.31	0.49	29
33600.C014	5/16	1.4	0.375	0.33	0.31	0.49	31
33600.C016	5/16	1.6	0.375	0.33	0.31	0.49	33
33600.C017	5/16	1.7	0.375	0.33	0.31	0.49	34
33600.C019	5/16	1.9	0.375	0.33	0.31	0.49	33
33600.C020	5/16	2.0	0.375	0.33	0.31	0.49	36
33600.C022	5/16	2.2	0.375	0.33	0.31	0.49	38
33600.C023	5/16	2.3	0.375	0.33	0.31	0.49	39
33600.C025	5/16	2.5	0.375	0.33	0.31	0.49	43
33600.C029	5/16	2.9	0.375	0.33	0.31	0.49	46
33600.C030	5/16	3.0	0.375	0.33	0.31	0.49	47
33600.C036	5/16	3.6	0.375	0.33	0.31	0.49	53
33600.C049	5/16	4.9	0.375	0.33	0.31	0.49	65
33600.C062	5/16	6.2	0.375	0.33	0.31	0.49	73
33600.C067	5/16	6.7	0.375	0.33	0.31	0.49	85

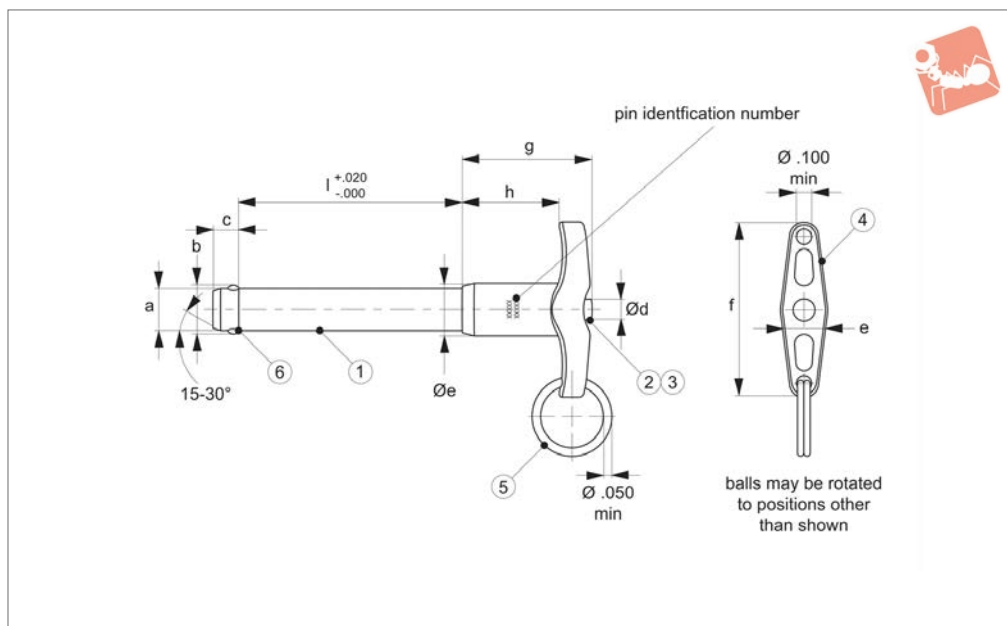
Order No.	Ø f max.	g max.	h min.	Shearing resistance, double lb min.	Location hole dia. max.	MS Part No.
33600.A005	0.800	0.83	0.48	5.150	0.1940	MS17984C305
33600.A006	0.800	0.83	0.48	5.150	0.1940	MS17984C306
33600.A007	0.800	0.83	0.48	5.150	0.1940	MS17984C307
33600.A008	0.800	0.83	0.48	5.150	0.1940	MS17984C308
33600.A010	0.800	0.83	0.48	5.150	0.1940	MS17984C310
33600.A011	0.800	0.83	0.48	5.150	0.1940	MS17984C311
33600.A013	0.800	0.83	0.48	5.150	0.1940	MS17984C313
33600.A015	0.800	0.83	0.48	5.150	0.1940	MS17984C315
33600.A018	0.800	0.83	0.48	5.150	0.1940	MS17984C318
33600.A020	0.800	0.83	0.48	5.150	0.1940	MS17984C320
33600.B007	0.800	0.89	0.48	9.200	0.2540	MS17984C407
33600.B008	0.800	0.89	0.48	9.200	0.2540	MS17984C408
33600.B010	0.800	0.89	0.48	9.200	0.2540	MS17984C410
33600.B011	0.800	0.89	0.48	9.200	0.2540	MS17984C411
33600.B012	0.800	0.89	0.48	9.200	0.2540	MS17984C412
33600.B014	0.800	0.89	0.48	9.200	0.2540	MS17984C414
33600.B018	0.800	0.89	0.48	9.200	0.2540	MS17984C418
33600.B019	0.800	0.89	0.48	9.200	0.2540	MS17984C419
33600.B020	0.800	0.89	0.48	9.200	0.2540	MS17984C410
33600.B023	0.800	0.89	0.48	9.200	0.2540	MS17984C423
33600.B025	0.800	0.89	0.48	9.200	0.2540	MS17984C425
33600.B028	0.800	0.89	0.48	9.200	0.2540	MS17984C428
33600.B029	0.800	0.89	0.48	9.200	0.2540	MS17984C429
33600.B064	0.800	0.89	0.48	9.200	0.2540	MS17984C464
33600.C008	1.135	0.93	0.48	14.400	0.3165	MS17984C508
33600.C010	1.135	0.93	0.48	14.400	0.3165	MS17984C510
33600.C012	1.135	0.93	0.48	14.400	0.3165	MS17984C512
33600.C014	1.135	0.93	0.48	14.400	0.3165	MS17984C514
33600.C016	1.135	0.93	0.48	14.400	0.3165	MS17984C516
33600.C017	1.135	0.93	0.48	14.400	0.3165	MS17984C517
33600.C019	1.135	0.93	0.48	14.400	0.3165	MS17984C519
33600.C020	1.135	0.93	0.48	14.400	0.3165	MS17984C520
33600.C022	1.135	0.93	0.48	14.400	0.3165	MS17984C522
33600.C023	1.135	0.93	0.48	14.400	0.3165	MS17984C523
33600.C025	1.135	0.93	0.48	14.400	0.3165	MS17984C525
33600.C029	1.135	0.93	0.48	14.400	0.3165	MS17984C529
33600.C030	1.135	0.93	0.48	14.400	0.3165	MS17984C530
33600.C036	1.135	0.93	0.48	14.400	0.3165	MS17984C536
33600.C049	1.135	0.93	0.48	14.400	0.3165	MS17984C549
33600.C062	1.135	0.93	0.48	14.400	0.3165	MS17984C562
33600.C067	1.135	0.93	0.48	14.400	0.3165	MS17984C567



Aviation Pip-Pin - Standard T-Handle

single acting - quick release pins - according to

Ball Lock Pins & Quick Release



33610

BALL LOCK PINS & QUICK RELEASE PINS

Material

Shank (part 1) & spindle (part 2):

CRES 17-4PH (AMS 5643), heat treated per MIL-H-6875, condition H900, min. 40 HRC, passivated per AMS2700.

Spring (part 3, not shown):

CRES 302 (ASTM-A-313), heat treated per MIL-H-6875, passivated per AMS2700.

Handle (part 4):

A380 (QQ-A-591), anodized (black) per MIL-A-8625.

Attaching ring (part 5):

CRES 302 (ASTM-A-313), passivated per AMS2700.

Ball (locking element, part 6):

CRES CL440C (AMS5630), heat treated per MIL-H-6875, passivated per AMS2700.

Technical Notes

Wixroyd Aviation Pip-pins manufactured to Aviation Norm NASM 17985 (former norm: MS 17985) and tested to NAS 1332.

Manufacture certified & assessed to EN9100D by EASE (European Aerospace Supplier Evaluation).

Temp. range -22°F to 302°F

Pressing = unlocking.

Releasing = locking.

Pip-pins are used for frequently repeated operations such as quick fastening, locking, adjusting, changing and securing. All dimensions shown are imperial.

Tips

We can manufacture specials (both metric & imperial) to your drawing, and are certified to produce to NASM standards.

Wixroyd Aviation Pip-Pins can be produced within the following dimensions:

+ diameter: from 3/16" to 1"

+ grip length: from 0.3" to 9.9"

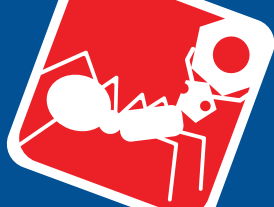
Quick production time on small batches.

Order No.	Dia. Ø inch nom.	Grip l inch	b ₁	c ₁	Ø d max.	Ø e max.	Weight g
33610.A003	3/16	0.3	,220	,260	,310	0.500	24
33610.A005	3/16	0.5	,220	,260	,310	0.500	24
33610.A008	3/16	0.8	,220	,260	,310	0.500	25
33610.A012	3/16	1.2	,220	,260	,310	0.500	26
33610.A013	3/16	1.3	,220	,260	,310	0.500	27
33610.A014	3/16	1.4	,220	,260	,310	0.500	27
33610.A026	3/16	2.6	,220	,260	,310	0.500	33
33610.B005	1/4	0.5	,289	,290	,310	0.500	26
33610.B009	1/4	0.9	,289	,290	,310	0.500	27
33610.B011	1/4	1.1	,289	,290	,310	0.500	28
33610.B012	1/4	1.2	,289	,290	,310	0.500	30
33610.B013	1/4	1.3	,289	,290	,310	0.500	30
33610.B015	1/4	1.5	,289	,290	,310	0.500	32
33610.B016	1/4	1.6	,289	,290	,310	0.500	33
33610.B021	1/4	2.1	,289	,290	,310	0.500	36
33610.B026	1/4	2.6	,289	,290	,310	0.500	40
33610.B028	1/4	2.8	,289	,290	,310	0.500	41
33610.B040	1/4	4.0	,289	,290	,310	0.500	49
33610.C003	5/16	0.3	,375	,330	,310	0.500	27
33610.C006	5/16	0.6	,375	,330	,310	0.500	30



Order No.	Dia. Ø inch nom.	Grip l inch	b ₁	c ₁	Ø d max.	Ø e max.	Weight g
33610.C010	5/16	1.0	,375	,330	,310	0.500	34
33610.C013	5/16	1.3	,375	,330	,310	0.500	36
33610.C015	5/16	1.5	,375	,330	,310	0.500	39
33610.C016	5/16	1.6	,375	,330	,310	0.500	39
33610.C018	5/16	1.8	,375	,330	,310	0.500	41
33610.C020	5/16	2.0	,375	,330	,310	0.500	43
33610.C023	5/16	2.3	,375	,330	,310	0.500	45
33610.C029	5/16	2.9	,375	,330	,310	0.500	52
33610.C030	5/16	3.0	,375	,330	,310	0.500	53
33610.C033	5/16	3.3	,375	,330	,310	0.500	56
33610.C040	5/16	4.0	,375	,330	,310	0.500	62
33610.C050	5/16	5.0	,375	,330	,310	0.500	75
33610.C064	5/16	6.4	,375	,330	,310	0.500	89
33610.C070	5/16	7.0	,375	,330	,310	0.500	93
33610.D005	3/8	0.5	,440	,365	,390	0.625	43
33610.D010	3/8	1.0	,440	,365	,390	0.625	48
33610.D012	3/8	1.2	,440	,365	,390	0.625	55
33610.D015	3/8	1.5	,440	,365	,390	0.625	57
33610.D016	3/8	1.6	,440	,365	,390	0.625	58
33610.D020	3/8	2.0	,440	,365	,390	0.625	60
33610.D024	3/8	2.4	,440	,365	,390	0.625	69
33610.D025	3/8	2.5	,440	,365	,390	0.625	72
33610.D026	3/8	2.6	,440	,365	,390	0.625	72
33610.D028	3/8	2.8	,440	,365	,390	0.625	72
33610.D031	3/8	3.1	,440	,365	,390	0.625	80
33610.D032	3/8	3.2	,440	,365	,390	0.625	80
33610.D035	3/8	3.5	,440	,365	,390	0.625	85
33610.D040	3/8	4.0	,440	,365	,390	0.625	91
33610.D045	3/8	4.5	,440	,365	,390	0.625	100
33610.E012	7/16	1.2	,509	,380	,390	0.625	60
33610.E018	7/16	1.8	,509	,380	,390	0.625	69
33610.E023	7/16	2.3	,509	,380	,390	0.625	82
33610.E024	7/16	2.4	,509	,380	,390	0.625	80
33610.E026	7/16	2.6	,509	,380	,390	0.625	90
33610.E029	7/16	2.9	,509	,380	,390	0.625	93
33610.E040	7/16	4.0	,509	,380	,390	0.625	113
33610.E042	7/16	4.2	,509	,380	,390	0.625	117
33610.E055	7/16	5.5	,509	,380	,390	0.625	145
33610.E072	1/2	7.2	,594	,460	,390	0.625	176
33610.F010	1/2	1.0	,594	,460	,565	0.800	82
33610.F012	1/2	1.2	,594	,460	,565	0.800	87
33610.F014	1/2	1.4	,594	,460	,565	0.800	94
33610.F015	1/2	1.5	,594	,460	,565	0.800	94
33610.F019	1/2	1.9	,594	,460	,565	0.800	106
33610.F020	1/2	2.0	,594	,460	,565	0.800	108
33610.F024	1/2	2.4	,594	,460	,565	0.800	117
33610.F029	1/2	2.9	,594	,460	,565	0.800	130
33610.F031	1/2	3.1	,594	,460	,565	0.800	135
33610.F036	1/2	3.6	,594	,460	,565	0.800	147
33610.F037	1/2	3.7	,594	,460	,565	0.800	146
33610.F040	1/2	4.0	,594	,460	,565	0.800	156
33610.F047	1/2	4.7	,594	,460	,565	0.800	177
33610.F048	1/2	4.8	,594	,460	,565	0.800	179
33610.F064	1/2	6.4	,594	,460	,565	0.800	218
33610.G017	9/16	1.7	,666	,510	,565	0.800	120
33610.G032	9/16	3.2	,666	,510	,565	0.800	160
33610.G036	9/16	3.6	,666	,510	,565	0.800	176
33610.G040	9/16	4.0	,666	,510	,565	0.800	190
33610.G061	9/16	6.1	,666	,510	,565	0.800	252

Order No.	Ø f max.	g ₁	h ₁	Shearing resistance, double lb min.	Location hole dia. max.	MS Part No.
33610.A003	1.815	1.27	0.800	5.150	0.1940	MS17985C303
33610.A005	1.815	1.27	0.800	5.150	0.1940	MS17985C305
33610.A008	1.815	1.27	0.800	5.150	0.1940	MS17985C308
33610.A012	1.815	1.27	0.800	5.150	0.1940	MS17985C312



Aviation Pip-Pin - Standard T-Handle

single acting - quick release pins - according to

Ball Lock Pins & Quick Release

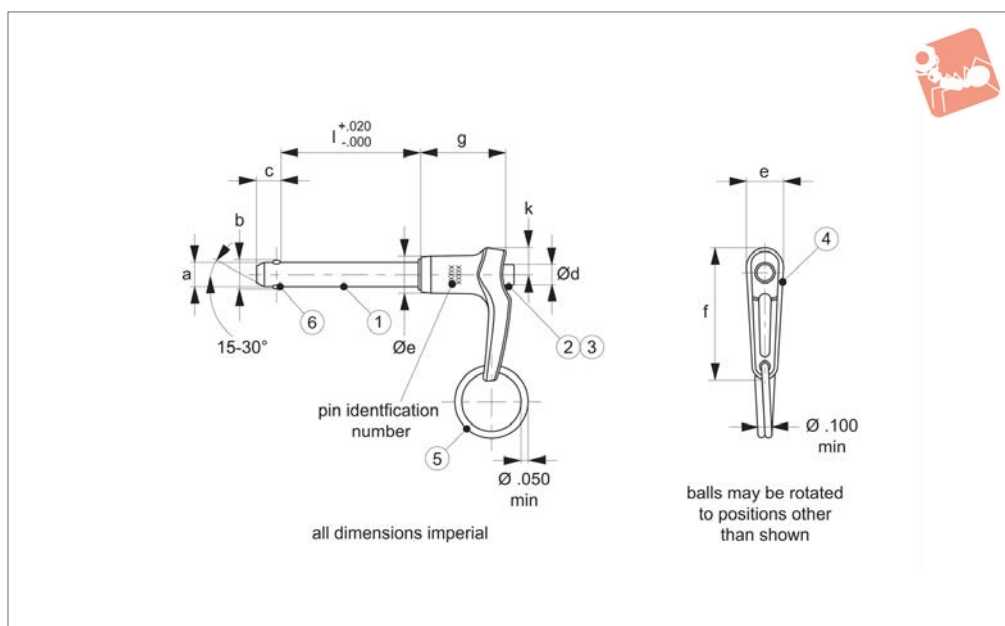
Order No.	Ø f max.	g ₁	h ₁	Shearing resistance, double lb min.	Location hole dia. max.	MS Part No.
33610.A013	1.815	1.27	0.800	5.150	0.1940	MS17985C313
33610.A014	1.815	1.27	0.800	5.150	0.1940	MS17985C314
33610.A026	1.815	1.27	0.800	5.150	0.1940	MS17985C326
33610.B005	1.815	1.27	0.800	9.200	0.2540	MS17985C405
33610.B009	1.815	1.27	0.800	9.200	0.2540	MS17985C409
33610.B011	1.815	1.27	0.800	9.200	0.2540	MS17985C411
33610.B012	1.815	1.27	0.800	9.200	0.2540	MS17985C412
33610.B013	1.815	1.27	0.800	9.200	0.2540	MS17985C413
33610.B015	1.815	1.27	0.800	9.200	0.2540	MS17985C415
33610.B016	1.815	1.27	0.800	9.200	0.2540	MS17985C416
33610.B021	1.815	1.27	0.800	9.200	0.2540	MS17985C421
33610.B026	1.815	1.27	0.800	9.200	0.2540	MS17985C426
33610.B028	1.815	1.27	0.800	9.200	0.2540	MS17985C428
33610.B040	1.815	1.27	0.800	9.200	0.2540	MS17985C440
33610.C003	1.815	1.27	0.800	14.400	0.3165	MS17985C503
33610.C006	1.815	1.27	0.800	14.400	0.3165	MS17985C506
33610.C010	1.815	1.27	0.800	14.400	0.3165	MS17985C510
33610.C013	1.815	1.27	0.800	14.400	0.3165	MS17985C513
33610.C015	1.815	1.27	0.800	14.400	0.3165	MS17985C515
33610.C016	1.815	1.27	0.800	14.400	0.3165	MS17985C516
33610.C018	1.815	1.27	0.800	14.400	0.3165	MS17985C518
33610.C020	1.815	1.27	0.800	14.400	0.3165	MS17985C520
33610.C023	1.815	1.27	0.800	14.400	0.3165	MS17985C523
33610.C029	1.815	1.27	0.800	14.400	0.3165	MS17985C529
33610.C030	1.815	1.27	0.800	14.400	0.3165	MS17985C530
33610.C033	1.815	1.27	0.800	14.400	0.3165	MS17985C533
33610.C040	1.815	1.27	0.800	14.400	0.3165	MS17985C540
33610.C050	1.815	1.27	0.800	14.400	0.3165	MS17985C550
33610.C064	1.815	1.27	0.800	14.400	0.3165	MS17985C564
33610.C070	1.815	1.27	0.800	14.400	0.3165	MS17985C570
33610.D005	2.065	1.45	0.850	20.700	0.3790	MS17985C605
33610.D010	2.065	1.45	0.850	20.700	0.3790	MS17985C610
33610.D012	2.065	1.45	0.850	20.700	0.3790	MS17985C612
33610.D015	2.065	1.45	0.850	20.700	0.3790	MS17985C615
33610.D016	2.065	1.45	0.850	20.700	0.3790	MS17985C616
33610.D020	2.065	1.45	0.850	20.700	0.3790	MS17985C620
33610.D024	2.065	1.45	0.850	20.700	0.3790	MS17985C624
33610.D025	2.065	1.45	0.850	20.700	0.3790	MS17985C625
33610.D026	2.065	1.45	0.850	20.700	0.3790	MS17985C626
33610.D028	2.065	1.45	0.850	20.700	0.3790	MS17985C628
33610.D031	2.065	1.45	0.850	20.700	0.3790	MS17985C631
33610.D032	2.065	1.45	0.850	20.700	0.3790	MS17985C632
33610.D035	2.065	1.45	0.850	20.700	0.3790	MS17985C635
33610.D040	2.065	1.45	0.850	20.700	0.3790	MS17985C640
33610.D045	2.065	1.45	0.850	20.700	0.3790	MS17985C645
33610.E012	2.065	1.47	0.850	28.500	0.4425	MS17985C712
33610.E018	2.065	1.47	0.850	28.500	0.4425	MS17985C718
33610.E023	2.065	1.47	0.850	28.500	0.4425	MS17985C723
33610.E024	2.065	1.47	0.850	28.500	0.4425	MS17985C724
33610.E026	2.065	1.47	0.850	28.500	0.4425	MS17985C726
33610.E029	2.065	1.47	0.850	28.500	0.4425	MS17985C729
33610.E040	2.065	1.47	0.850	28.500	0.4425	MS17985C740
33610.E042	2.065	1.47	0.850	28.500	0.4425	MS17985C742
33610.E055	2.065	1.47	0.850	28.500	0.4425	MS17985C755
33610.E072	2.345	1.60	0.850	36.900	0.5050	MS17985C772
33610.F010	2.345	1.60	0.885	36.900	0.5050	MS17985C810
33610.F012	2.345	1.60	0.885	36.900	0.5050	MS17985C812
33610.F014	2.345	1.60	0.885	36.900	0.5050	MS17985C814
33610.F015	2.345	1.60	0.885	36.900	0.5050	MS17985C815
33610.F019	2.345	1.60	0.885	36.900	0.5050	MS17985C819
33610.F020	2.345	1.60	0.885	36.900	0.5050	MS17985C820
33610.F024	2.345	1.60	0.885	36.900	0.5050	MS17985C824
33610.F029	2.345	1.60	0.885	36.900	0.5050	MS17985C829
33610.F031	2.345	1.60	0.885	36.900	0.5050	MS17985C831
33610.F036	2.345	1.60	0.885	36.900	0.5050	MS17985C836
33610.F037	2.345	1.60	0.885	36.900	0.5050	MS17985C837
33610.F040	2.345	1.60	0.885	36.900	0.5050	MS17985C840



Order No.	$\varnothing f$ max.	g_1	h_1	Shearing resistance, double lb min.	Location hole dia. max.	MS Part No.
33610.F047	2.345	1.60	0.885	36.900	0.5050	MS17985C847
33610.F048	2.345	1.60	0.885	36.900	0.5050	MS17985C848
33610.F064	2.345	1.60	0.885	36.900	0.5050	MS17985C864
33610.G017	2.345	1.60	0.885	46.700	0.5675	MS17985C917
33610.G032	2.345	1.60	0.885	46.700	0.5675	MS17985C932
33610.G036	2.345	1.60	0.885	46.700	0.5675	MS17985C936
33610.G040	2.345	1.60	0.885	46.700	0.5675	MS17985C940
33610.G061	2.345	1.60	0.885	46.700	0.5675	MS17985C961

Aviation Pip-Pin, Standard LA Handle

Ball Lock Pins & Quick Release



33620

BALL LOCK PINS & QUICK RELEASE PINS

Material

Shank (part 1) & spindle (part 2):

CRES 17-4PH (AMS 5643), heat treated per MIL-H-6875, condition H900, min. 40 HRC, passivated per AMS2700.

Spring (part 3, not shown):

CRES 302 (ASTM-A-313), heat treated per MIL-H-6875, passivated per AMS2700.

Handle (part 4):

A380 (QQ-A-591), anodized (black) per MIL-A-8625.

Attaching ring (part 5):

CRES 302 (ASTM-A-313), passivated per AMS2700.

Ball (locking element, part 6):

CRES CL440C (AMS5630), heat treated per MIL-H-6875, passivated per AMS2700.

Technical Notes

Wixroyd Aviation Pip-pins manufactured to Aviation Norm NASM 17986 (former norm: MS 17986) and tested to NAS 1332.

Manufacture certified & assessed to EN9100D by EASE (European Aerospace Supplier Evaluation).

Temp. range -22°F to 302°F

Pressing = unlocking.

Releasing = locking.

Pip-pins are used for frequently repeated operations such as quick fastening, locking, adjusting, changing and securing. All dimensions shown are imperial.

Tips

We can manufacture specials (both metric & imperial) to your drawing, and are certified to produce to NASM standards.

Wixroyd Aviation Pip-Pins can be produced within the following dimensions:

- + diameter: from 3/16" to 1"
- + grip length: from 0.3" to 9.9"

Quick production time on small batches.

Order No.	Dia. Ø nom.	Grip l	b	c	Ø d max.	Ø e max.	Weight g
33620.A005	3/16	0.5	,594	,460	,565	0.500	23
33620.A008	3/16	0.8	,594	,460	,565	0.500	26
33620.A010	3/16	1.0	,594	,460	,565	0.500	26
33620.A013	3/16	1.3	,594	,460	,565	0.500	28
33620.A014	3/16	1.4	,594	,460	,565	0.500	28
33620.A017	3/16	1.7	,594	,460	,565	0.500	27
33620.B012	1/4	1.2	,594	,460	,565	0.500	32
33620.B015	1/4	1.5	,594	,460	,565	0.500	33
33620.B017	1/4	1.7	,594	,460	,565	0.500	34
33620.B016	1/4	1.6	,594	,460	,565	0.500	33
33620.B021	1/4	2.1	,594	,460	,565	0.500	36
33620.C004	5/16	0.4	,594	,460	,565	0.500	29
33620.C006	5/16	0.6	,594	,460	,565	0.500	30
33620.C010	5/16	1.0	,594	,460	,565	0.500	34
33620.C013	5/16	1.3	,594	,460	,565	0.500	37
33620.C016	5/16	1.6	,594	,460	,565	0.500	40
33620.C018	5/16	1.8	,594	,460	,565	0.500	43
33620.C020	5/16	2.0	,594	,460	,565	0.500	41
33620.C023	5/16	2.3	,594	,460	,565	0.500	46
33620.C029	5/16	2.9	,594	,460	,565	0.500	54
33620.C030	5/16	3.0	,594	,460	,565	0.500	53

Ball Lock Pins & Quick Release

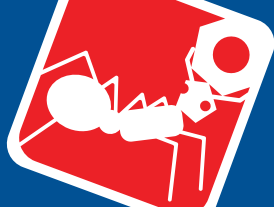
Aviation Pip-Pin, Standard LA Handle single acting, quick release pins - according to



BALL LOCK PINS & QUICK RELEASE PINS

Order No.	Dia. Ø nom.	Grip l	b	c	Ø d max.	Ø e max.	Weight g
33620.C033	5/16	3.3	,594	,460	,565	0.500	57
33620.C036	5/16	3.6	,594	,460	,565	0.500	60
33620.C040	5/16	4.0	,594	,460	,565	0.500	64
33620.D010	3/8	1.0	,594	,460	,565	0.625	49
33620.D015	3/8	1.5	,594	,460	,565	0.625	59
33620.D020	3/8	2.0	,594	,460	,565	0.625	65
33620.D024	3/8	2.4	,594	,460	,565	0.625	71
33620.D026	3/8	2.6	,594	,460	,565	0.625	73
33620.D030	3/8	3.0	,594	,460	,565	0.625	72
33620.D060	3/8	6.0	,594	,460	,565	0.625	122
33620.E012	7/16	1.2	,594	,460	,565	0.625	61
33620.E035	7/16	3.5	,594	,460	,565	0.625	-
33620.E040	7/16	4.0	,594	,460	,565	0.625	115
33620.E055	7/16	5.5	,594	,460	,565	0.625	146
33620.F010	1/2	1.0	,594	,460	,565	0.800	83
33620.F015	1/2	1.5	,594	,460	,565	0.800	95
33620.F019	1/2	1.9	,594	,460	,565	0.800	103
33620.F034	1/2	3.4	,594	,460	,565	0.800	143
33620.F042	1/2	4.2	,594	,460	,565	0.800	160
33620.F045	1/2	4.5	,594	,460	,565	0.800	172
33620.G017	9/16	1.7	,594	,460	,565	0.800	116
33620.G025	9/16	2.5	,594	,460	,565	0.800	140
33620.G040	9/16	4.0	,594	,460	,565	0.800	189
33620.G050	9/16	5.0	,594	,460	,565	0.800	-
33620.G060	9/16	6.0	,594	,460	,565	0.800	249
33620.G075	9/16	7.5	,594	,460	,565	0.800	298

Order No.	Ø f max.	g max.	h min.	k max.	Shearing resistance, double lb min.	Location hole dia. max.	MS Part No.
33620.A005	1.80	1.27	0.76	0.34	5.150	0.1940	MS17986C305
33620.A008	1.80	1.27	0.76	0.34	5.150	0.1940	MS17986C308
33620.A010	1.80	1.27	0.76	0.34	5.150	0.1940	MS17986C310
33620.A013	1.80	1.27	0.76	0.34	5.150	0.1940	MS17986C313
33620.A014	1.80	1.27	0.76	0.34	5.150	0.1940	MS17986C314
33620.A017	1.80	1.27	0.76	0.34	5.150	0.1940	MS17986C317
33620.B012	1.80	1.27	0.76	0.34	9.200	0.2540	MS17986C412
33620.B015	1.80	1.27	0.76	0.34	9.200	0.2540	MS17986C415
33620.B017	1.80	1.27	0.76	0.34	9.200	0.2540	MS17986C417
33620.B016	1.80	1.27	0.76	0.34	9.200	0.2540	MS17986C416
33620.B021	1.80	1.27	0.76	0.34	9.200	0.2540	MS17986C421
33620.C004	1.80	1.27	0.76	0.34	14400	0.3165	MS17986C504
33620.C006	1.80	1.27	0.76	0.34	14400	0.3165	MS17986C506
33620.C010	1.80	1.27	0.76	0.34	14400	0.3165	MS17986C510
33620.C013	1.80	1.27	0.76	0.34	14400	0.3165	MS17986C513
33620.C016	1.80	1.27	0.76	0.34	14400	0.3165	MS17986C516
33620.C018	1.80	1.27	0.76	0.34	14400	0.3165	MS17986C518
33620.C020	1.80	1.27	0.76	0.34	14400	0.3165	MS17986C520
33620.C023	1.80	1.27	0.76	0.34	14400	0.3165	MS17986C523
33620.C029	1.80	1.27	0.76	0.34	14400	0.3165	MS17986C529
33620.C030	1.80	1.27	0.76	0.34	14400	0.3165	MS17986C530
33620.C033	1.80	1.27	0.76	0.34	14400	0.3165	MS17986C533
33620.C036	1.80	1.27	0.76	0.34	14400	0.3165	MS17986C536
33620.C040	1.80	1.27	0.76	0.34	14400	0.3165	MS17986C540
33620.D010	2.03	1.45	0.85	0.39	20700	0.3790	MS17986C610
33620.D015	2.03	1.45	0.85	0.39	20700	0.3790	MS17986C615
33620.D020	2.03	1.45	0.85	0.39	20700	0.3790	MS17986C620
33620.D024	2.03	1.45	0.85	0.39	20700	0.3790	MS17986C624
33620.D026	2.03	1.45	0.85	0.39	20700	0.3790	MS17986C626
33620.D030	2.03	1.45	0.85	0.39	20700	0.3790	MS17986C630
33620.D060	2.03	1.45	0.85	0.39	20700	0.3790	MS17986C660
33620.E012	2.03	1.47	0.85	0.39	28500	0.4425	MS17986C712
33620.E035	2.03	1.47	0.85	0.39	28500	0.4425	MS17986C735
33620.E040	2.03	1.47	0.85	0.39	28500	0.4425	MS17986C740
33620.E055	2.03	1.47	0.85	0.39	28500	0.4425	MS17986C755
33620.F010	2.36	1.60	0.85	0.50	36900	0.5050	MS17986C810
33620.F015	2.36	1.60	0.85	0.50	36900	0.5050	MS17986C815
33620.F019	2.36	1.60	0.85	0.50	36900	0.5050	MS17986C819



Aviation Pip-Pin, Standard LA Handle

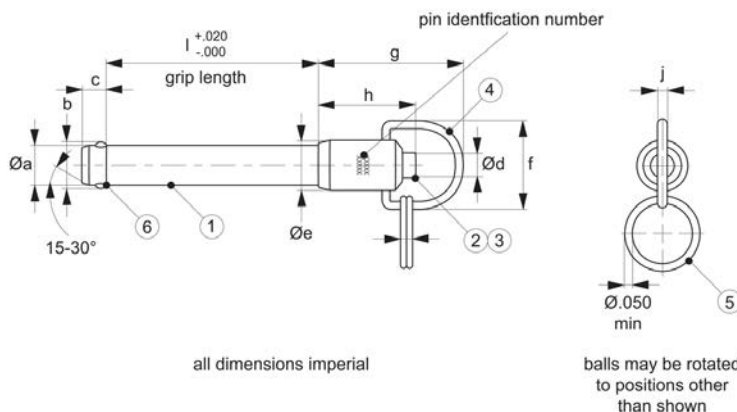
single acting, quick release pins - **according to**

Ball Lock Pins & Quick Release

Order No.	Ø f max.	g max.	h min.	k max.	Shearing resistance, double lb min.	Location hole dia. max.	MS Part No.
33620.F034	2.36	1.60	0.85	0.50	36900	0.5050	MS17986C834
33620.F042	2.36	1.60	0.85	0.50	36900	0.5050	MS17986C842
33620.F045	2.36	1.60	0.85	0.50	36900	0.5050	MS17986C845
33620.G017	2.36	1.60	0.85	0.50	46700	0.5675	MS17986C917
33620.G025	2.36	1.60	0.85	0.50	46700	0.5675	MS17986C925
33620.G040	2.36	1.60	0.85	0.50	46700	0.5675	MS17986C940
33620.G050	2.36	1.60	0.85	0.50	46700	0.5675	MS17986C950
33620.G060	2.36	1.60	0.85	0.50	46700	0.5675	MS17986C960
33620.G075	2.36	1.60	0.85	0.50	46700	0.5675	MS17986C975



33630



Material

Shank (part 1) & spindle (part 2):

CRES 17-4PH (AMS 5643), heat treated per MIL-H-6875, condition H900, min. 40 HRC, passivated per AMS2700.

Spring (part 3, not shown):

CRES 302 (ASTM-A-313), heat treated per MIL-H-6875, passivated per AMS2700.

Handle (part 4):

CRES 302 (ASTM-A-313), passivated per AMS2700.

Attaching ring (part 5):

CRES 302 (ASTM-A-313), passivated per AMS2700.

Ball (locking element, part 6):

CRES CL440C (AMS5630), heat treated per MIL-H-6875, passivated per AMS2700.

Technical Notes

Wixroyd Aviation Pip-pins manufactured to Aviation Norm NASM 17987 (former norm: MS 17987) and tested to NAS 1332.

Manufacture certified & assessed to EN9100D by EASE (European Aerospace Supplier Evaluation).

Temp. range -22°F to 302°F

Pressing = unlocking.

Releasing = locking.

Pip-pins are used for frequently repeated operations such as quick fastening, locking, adjusting, changing and securing. All dimensions shown are imperial.

Tips

We can manufacture specials (both metric & imperial) to your drawing, and are certified to produce to NASM standards.

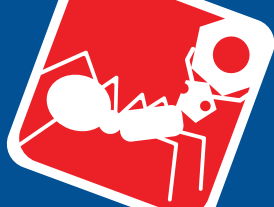
Wixroyd Aviation Pip-Pins can be produced within the following dimensions:

+ diameter: from 3/16" to 1"

+ grip length: from 0.3" to 9.9"

Quick production time on small batches.

Order No.	Dia. Ø nom.	Grip l	b	c	Ø d max.	Ø e max.	Weight g
33630.A008	3/16	0.8	,594	,460	,565	0.53	24
33630.A009	3/16	0.9	,594	,460	,565	0.53	24
33630.A010	3/16	1.0	,594	,460	,565	0.53	24
33630.A011	3/16	1.1	,594	,460	,565	0.53	25
33630.A012	3/16	1.2	,594	,460	,565	0.53	25
33630.A015	3/16	1.5	,594	,460	,565	0.53	26
33630.A016	3/16	1.6	,594	,460	,565	0.53	26
33630.A017	3/16	1.7	,594	,460	,565	0.53	27
33630.A025	3/16	2.5	,594	,460	,565	0.53	30
33630.A031	3/16	3.1	,594	,460	,565	0.53	33
33630.A043	5/16	4.3	,594	,460	,565	0.53	-
33630.B004	1/4	0.4	,594	,460	,565	0.53	24
33630.B005	1/4	0.5	,594	,460	,565	0.53	24
33630.B006	1/4	0.6	,594	,460	,565	0.53	25
33630.B007	1/4	0.7	,594	,460	,565	0.53	26
33630.B008	1/4	0.8	,594	,460	,565	0.53	27
33630.B009	1/4	0.9	,594	,460	,565	0.53	27
33630.B010	1/4	1.0	,594	,460	,565	0.53	27
33630.B011	1/4	1.1	,594	,460	,565	0.53	28
33630.B012	1/4	1.2	,594	,460	,565	0.53	29
33630.B014	1/4	1.4	,594	,460	,565	0.53	30



Aviation Pip-Pin, Standard R Handle

single acting, quick release pins - according to

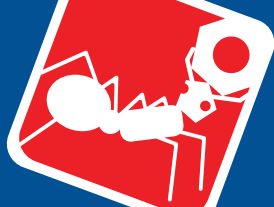
Ball Lock Pins & Quick Release

Order No.	Dia. Ø nom.	Grip l	b	c	Ø d max.	Ø e max.	Weight g
33630.B015	1/4	1.5	,594	,460	,565	0.53	31
33630.B017	1/4	1.7	,594	,460	,565	0.53	32
33630.B018	1/4	1.8	,594	,460	,565	0.53	32
33630.B019	1/4	1.9	,594	,460	,565	0.53	33
33630.B020	1/4	2.0	,594	,460	,565	0.53	34
33630.B021	1/4	2.1	,594	,460	,565	0.53	34
33630.B022	1/4	2.2	,594	,460	,565	0.53	36
33630.B025	1/4	2.5	,594	,460	,565	0.53	37
33630.B029	1/4	2.9	,594	,460	,565	0.53	40
33630.B030	1/4	3.0	,594	,460	,565	0.53	39
33630.B040	1/4	4.0	,594	,460	,565	0.53	47
33630.B047	1/4	4.7	,594	,460	,565	0.53	50
33630.C006	5/16	0.6	,594	,460	,565	0.59	30
33630.C007	5/16	0.7	,594	,460	,565	0.59	31
33630.C008	5/16	0.8	,594	,460	,565	0.59	33
33630.C009	5/16	0.9	,594	,460	,565	0.59	34
33630.C011	5/16	1.1	,594	,460	,565	0.59	35
33630.C012	5/16	1.2	,594	,460	,565	0.59	36
33630.C013	5/16	1.3	,594	,460	,565	0.59	38
33630.C015	5/16	1.5	,594	,460	,565	0.59	39
33630.C016	5/16	1.6	,594	,460	,565	0.59	39
33630.C018	5/16	1.8	,594	,460	,565	0.59	42
33630.C019	5/16	1.9	,594	,460	,565	0.59	43
33630.C020	5/16	2.0	,594	,460	,565	0.59	43
33630.C023	5/16	2.3	,594	,460	,565	0.59	46
33630.C026	5/16	2.6	,594	,460	,565	0.59	48
33630.C033	5/16	3.3	,594	,460	,565	0.59	56
33630.C035	5/16	3.5	,594	,460	,565	0.59	59
33630.C060	5/16	6.0	,594	,460	,565	0.59	85
33630.C067	5/16	6.7	,594	,460	,565	0.59	92
33630.D008	3/8	0.8	,594	,460	,565	0.65	49
33630.D009	3/8	0.9	,594	,460	,565	0.65	50
33630.D010	3/8	1.0	,594	,460	,565	0.65	52
33630.D011	3/8	1.1	,594	,460	,565	0.65	53
33630.D012	3/8	1.2	,594	,460	,565	0.65	54
33630.D013	3/8	1.3	,594	,460	,565	0.65	55
33630.D014	3/8	1.4	,594	,460	,565	0.65	55
33630.D015	3/8	1.5	,594	,460	,565	0.65	58
33630.D016	3/8	1.6	,594	,460	,565	0.65	61
33630.D018	3/8	1.8	,594	,460	,565	0.65	62
33630.D026	3/8	2.6	,594	,460	,565	0.65	73
33630.D030	3/8	3.0	,594	,460	,565	0.65	80
33630.D031	3/8	3.1	,594	,460	,565	0.65	82
33630.D043	3/8	4.3	,594	,460	,565	0.65	97
33630.E008	7/16	0.8	,594	,460	,565	0.71	56
33630.E012	7/16	1.2	,594	,460	,565	0.71	65
33630.E014	7/16	1.4	,594	,460	,565	0.71	68
33630.E015	7/16	1.5	,594	,460	,565	0.71	–
33630.E019	7/16	1.9	,594	,460	,565	0.71	77
33630.E020	7/16	2.0	,594	,460	,565	0.71	81
33630.E022	7/16	2.2	,594	,460	,565	0.71	81
33630.E024	7/16	2.4	,594	,460	,565	0.71	88
33630.E026	7/16	2.6	,594	,460	,565	0.71	88
33630.F011	1/2	1.1	,594	,460	,565	0.80	88
33630.F012	1/2	1.2	,594	,460	,565	0.80	91
33630.F013	1/2	1.3	,594	,460	,565	0.80	93
33630.F014	1/2	1.4	,594	,460	,565	0.80	96
33630.F015	1/2	1.5	,594	,460	,565	0.80	98
33630.F020	1/2	2.0	,594	,460	,565	0.80	109
33630.F023	1/2	2.3	,594	,460	,565	0.80	117
33630.F033	1/2	3.3	,594	,460	,565	0.80	141
33630.F039	1/2	3.9	,594	,460	,565	0.80	160
33630.F045	1/2	4.5	,594	,460	,565	0.80	160
33630.F050	1/2	5.0	,594	,460	,565	0.80	187
33630.F053	1/2	5.3	,594	,460	,565	0.80	186
33630.F065	1/2	6.5	,594	,460	,565	0.80	215
33630.F080	1/2	8.0	,594	,460	,565	0.80	260
33630.G013	9/16	1.3	,594	,460	,565	0.84	120



Order No.	Dia. Ø nom.	Grip l	b	c	Ø d max.	Ø e max.	Weight g
33630.G025	9/16	2.5	,594	,460	,565	0.84	150
33630.G030	9/16	3.0	,594	,460	,565	0.84	166
33630.G037	9/16	3.7	,594	,460	,565	0.84	183
33630.G055	9/16	5.5	,594	,460	,565	0.84	245

Order No.	Ø f max.	g max.	h min.	Shearing resistance, double lb min.	Location hole dia. max.	MS Part No.
33630.A008	1.45	0.73	0.08	5.150	0.1940	MS17987C308
33630.A009	1.45	0.73	0.08	5.150	0.1940	MS17987C309
33630.A010	1.45	0.73	0.08	5.150	0.1940	MS17987C310
33630.A011	1.45	0.73	0.08	5.150	0.1940	MS17987C311
33630.A012	1.45	0.73	0.08	5.150	0.1940	MS17987C312
33630.A015	1.45	0.73	0.08	5.150	0.1940	MS17987C315
33630.A016	1.45	0.73	0.08	5.150	0.1940	MS17987C316
33630.A017	1.45	0.73	0.08	5.150	0.1940	MS17987C317
33630.A025	1.45	0.73	0.08	5.150	0.1940	MS17987C325
33630.A031	1.45	0.73	0.08	5.150	0.1940	MS17987C331
33630.A043	1.45	0.73	0.08	5.150	0.1940	MS17987C343
33630.B004	1.50	0.78	0.08	9.200	0.2540	MS17987C404
33630.B005	1.50	0.78	0.08	9.200	0.2540	MS17987C405
33630.B006	1.50	0.78	0.08	9.200	0.2540	MS17987C406
33630.B007	1.50	0.78	0.08	9.200	0.2540	MS17987C407
33630.B008	1.50	0.78	0.08	9.200	0.2540	MS17987C408
33630.B009	1.50	0.78	0.08	9.200	0.2540	MS17987C409
33630.B010	1.50	0.78	0.08	9.200	0.2540	MS17987C410
33630.B011	1.50	0.78	0.08	9.200	0.2540	MS17987C411
33630.B012	1.50	0.78	0.08	9.200	0.2540	MS17987C412
33630.B014	1.50	0.78	0.08	9.200	0.2540	MS17987C414
33630.B015	1.50	0.78	0.08	9.200	0.2540	MS17987C415
33630.B017	1.50	0.78	0.08	9.200	0.2540	MS17987C417
33630.B018	1.50	0.78	0.08	9.200	0.2540	MS17987C418
33630.B019	1.50	0.78	0.08	9.200	0.2540	MS17987C419
33630.B020	1.50	0.78	0.08	9.200	0.2540	MS17987C420
33630.B021	1.50	0.78	0.08	9.200	0.2540	MS17987C421
33630.B022	1.50	0.78	0.08	9.200	0.2540	MS17987C422
33630.B025	1.50	0.78	0.08	9.200	0.2540	MS17987C425
33630.B029	1.50	0.78	0.08	9.200	0.2540	MS17987C429
33630.B030	1.50	0.78	0.08	9.200	0.2540	MS17987C430
33630.B040	1.50	0.78	0.08	9.200	0.2540	MS17987C440
33630.B047	1.50	0.78	0.08	9.200	0.2540	MS17987C447
33630.C006	1.65	0.83	0.08	14400	0.3165	MS17987C506
33630.C007	1.65	0.83	0.08	14400	0.3165	MS17987C507
33630.C008	1.65	0.83	0.08	14400	0.3165	MS17987C508
33630.C009	1.65	0.83	0.08	14400	0.3165	MS17987C509
33630.C011	1.65	0.83	0.08	14400	0.3165	MS17987C511
33630.C012	1.65	0.83	0.08	14400	0.3165	MS17987C512
33630.C013	1.65	0.83	0.08	14400	0.3165	MS17987C513
33630.C015	1.65	0.83	0.08	14400	0.3165	MS17987C515
33630.C016	1.65	0.83	0.08	14400	0.3165	MS17987C516
33630.C018	1.65	0.83	0.08	14400	0.3165	MS17987C518
33630.C019	1.65	0.83	0.08	14400	0.3165	MS17987C519
33630.C020	1.65	0.83	0.08	14400	0.3165	MS17987C520
33630.C023	1.65	0.83	0.08	14400	0.3165	MS17987C523
33630.C026	1.65	0.83	0.08	14400	0.3165	MS17987C526
33630.C033	1.65	0.83	0.08	14400	0.3165	MS17987C533
33630.C035	1.65	0.83	0.08	14400	0.3165	MS17987C535
33630.C060	1.65	0.83	0.08	14400	0.3165	MS17987C560
33630.C067	1.65	0.83	0.08	14400	0.3165	MS17987C567
33630.D008	1.65	0.94	0.08	20700	0.3790	MS17987C608
33630.D009	1.65	0.94	0.08	20700	0.3790	MS17987C609
33630.D010	1.65	0.94	0.08	20700	0.3790	MS17987C610
33630.D011	1.65	0.94	0.08	20700	0.3790	MS17987C611
33630.D012	1.65	0.94	0.08	20700	0.3790	MS17987C612
33630.D013	1.65	0.94	0.08	20700	0.3790	MS17987C613
33630.D014	1.65	0.94	0.08	20700	0.3790	MS17987C614
33630.D015	1.65	0.94	0.08	20700	0.3790	MS17987C615
33630.D016	1.65	0.94	0.08	20700	0.3790	MS17987C616



Aviation Pip-Pin, Standard R Handle

single acting, quick release pins - according to

Ball Lock Pins & Quick Release

Order No.	Ø f max.	g max.	h min.	Shearing resistance, double lb min.	Location hole dia. max.	MS Part No.
33630.D018	1.65	0.94	0.08	20700	0.3790	MS17987C618
33630.D026	1.65	0.94	0.08	20700	0.3790	MS17987C626
33630.D030	1.65	0.94	0.08	20700	0.3790	MS17987C630
33630.D031	1.65	0.94	0.08	20700	0.3790	MS17987C631
33630.D043	1.65	0.94	0.08	20700	0.3790	MS17987C643
33630.E008	1.85	0.98	0.08	28500	0.4425	MS17987C708
33630.E012	1.85	0.98	0.08	28500	0.4425	MS17987C712
33630.E014	1.85	0.98	0.08	28500	0.4425	MS17987C714
33630.E015	1.85	0.98	0.08	28500	0.4425	MS17987C715
33630.E019	1.85	0.98	0.08	28500	0.4425	MS17987C719
33630.E020	1.85	0.98	0.08	28500	0.4425	MS17987C720
33630.E022	1.85	0.98	0.08	28500	0.4425	MS17987C722
33630.E024	1.85	0.98	0.08	28500	0.4425	MS17987C724
33630.E026	1.85	0.98	0.08	28500	0.4425	MS17987C726
33630.F011	1.85	1.14	0.08	36900	0.5050	MS17987C811
33630.F012	1.85	1.14	0.08	36900	0.5050	MS17987C812
33630.F013	1.85	1.14	0.08	36900	0.5050	MS17987C813
33630.F014	1.85	1.14	0.08	36900	0.5050	MS17987C814
33630.F015	1.85	1.14	0.08	36900	0.5050	MS17987C815
33630.F020	1.85	1.14	0.08	36900	0.5050	MS17987C820
33630.F023	1.85	1.14	0.08	36900	0.5050	MS17987C823
33630.F033	1.85	1.14	0.08	36900	0.5050	MS17987C833
33630.F039	1.85	1.14	0.08	33900	0.5050	MS17987C839
33630.F045	1.85	1.14	0.08	36900	0.5050	MS17987C845
33630.F050	1.85	1.14	0.08	36900	0.5050	MS17987C850
33630.F053	1.85	1.14	0.08	36900	0.5050	MS17987C853
33630.F065	1.85	1.14	0.08	36900	0.5050	MS17987C865
33630.F080	1.85	1.14	0.08	36900	0.5050	MS17987C880
33630.G013	2.03	1.14	0.08	46700	0.5675	MS17987C913
33630.G025	2.03	1.14	0.08	46700	0.5675	MS17987C925
33630.G030	2.03	1.14	0.08	46700	0.5675	MS17987C930
33630.G037	2.03	1.14	0.08	46700	0.5675	MS17987C937
33630.G055	2.03	1.14	0.08	46700	0.5675	MS17987C955



Wixroyd Flight Pin Range - Certified to Aviation Standards

With many years experience producing an extensive range of standard Pip-pins (also know as quick release pins or ball lock pins) we are now able to offer of Aviation Standard approved Pip-pins, manufactured according to NASM norms (formerly MS norms) and tested to NAS 1332 standards.

Expanding Range



33600 - Single acting Pip-pin, standard B handle

33610 - Single acting Pip-pin, standard TA handle

33620 - Single acting Pip-pin, standard LA handle

33630 - Single acting Pip-pin, standard R handle

Wide Range of Aviation Applications

- Interior panel attachment
- Baby bassinet pin
- Curtain track attachment
- Curtain track support pins
- TV monitor attachment
- Folding table assembly (e.g. First Class Cabins)

Aviation Approved

The Wixroyd Aviation Pip-pin range is produced according to NASM norms, and tested to NAS standards. Our manufacturing processes have been assessed and certified by EASE (European Aerospace Supplier Evaluation) to EN9100D.

All our Aviation Pip-pins are individually marked to enable identification of their production lot number.

In-Stock and Available?

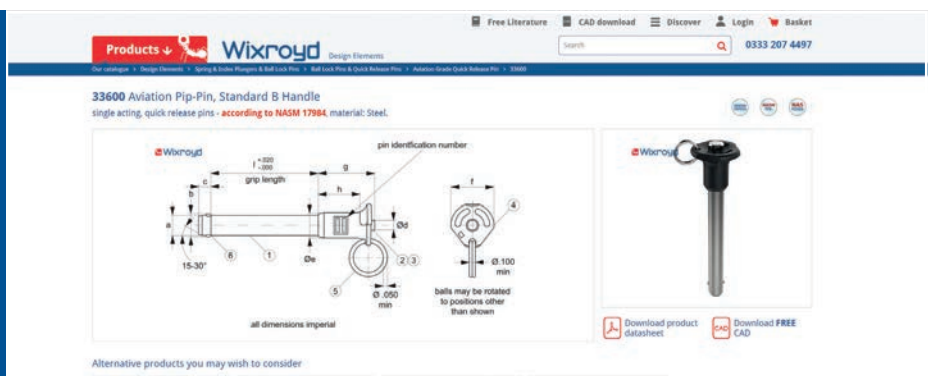
Yes! The product sizes shown on the following pages, with a cross reference to the NASM part code for ease of identification, are all available from stock for delivery within 5 days.

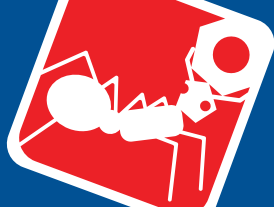
Special Designs

We have extensive knowledge and experience in designing, producing and assembling bespoke design pip-pins and ball lock pins in both imperial and metric sizes. We produce under a fully certified manufacturing process, both to our own high standard or to meet Aviation standards.

Please contact our technical team to discuss your requirements (tel. 0845 26 66 577) or email a drawing to info@wixroyd.com

For our full range visit:
wixroyd.com





Wixroyd Flight Pin Range - Certified to Aviation Standards

Your normal experience may be that imperial Aviation Standard Pip-pins are hard to obtain; price prohibitive, and delivery times far too long. The range of Wixroyd Aviation Pip-pins, in a variety of imperial dimensions, has been designed to solve these problems - we hold a wide, and ever increasing range of sizes ex-stock for immediate delivery - no more 6-8 week lead time!

With many years experience producing an extensive range of standard Pip-pins (also know as quick release pins or ball lock pins) we are now able to offer of Aviation Standard approved Pip-pins, manufactured according to NASM norms (formerly MS norms) and tested to NAS 1332 standards.

- Interior panel attachment
- Baby bassinet pin
- Curtain track attachment
- Curtain track support pins
- TV monitor attachment
- Folding table assembly (e.g. First Class Cabins)

Wide Range of Aviation Applications

Yes! The product sizes shown on the following pages, with a cross reference to the NASM part code for ease of identification, are all available from stock for delivery within 5 days.

In-stock and Available?

Our Aviation Pip-pins are manufactured to NASM norms, and we follow the material specification of these norms, which means you can feel safe in purchasing a part which is to specification - both in materials and strength.

Materials



The new Wixroyd Aviation Pip-pin range is produced according to NASM norms, and tested to NAS standards. Our manufacturing processes have been assessed and certified by EASE (European Aerospace Supplier Evaluation) to EN9100D.

Aviation Approved

All our Aviation Pip-pins are individually marked to enable identification of their production lot number. Marking allows identification of:

- NASM Standard Number
- Material Grade
- Pin/shank diameter
- Grip length
- Company identification
- Production lot number.

Identifying Production Batches

We have extensive knowledge and experience in designing, producing and assembling bespoke design pip-pins and ball lock pins in both imperial and metric sizes. We produce under a fully certified manufacturing process, both to our own high standard or to meet Aviation standards.

We can customise to meet your needs:

- Changes in grip/handle type
- Material variations
- Changes of functional dimensions; pin diameter, pin grip length

Please contact our technical team to discuss your requirements (tel. 0845 26 66 577) or email a drawing to info@wixroyd.com

Special Designs



Single acting Pip-pin, standard B handle



Single acting Pip-pin, standard TA handle



Single acting Pip-pin, standard LA handle

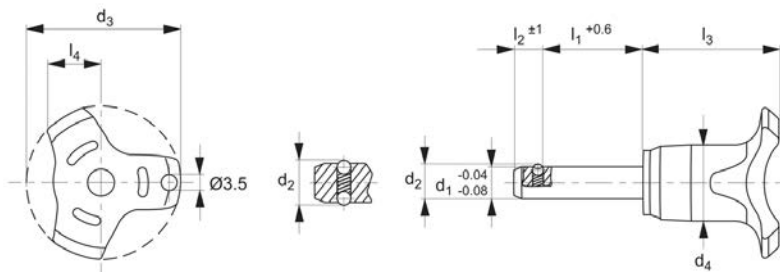


Single acting Pip-pin, standard R handle

Expanding Range



33140



size 10+12 - double ball

size 6+8 - single ball

Material

Pin: stainless steel 1,4305 (AISI 303).
Handle: thermoplastic PA 6, grey.
Spring: stainless steel.

Technical Notes

Balls are simply spring loaded and do not

lock out. Resulting in pins being easier to pull out.

Temperature range: -30°C to +80°C.
For a quick fastening, locking, adjusting, changing and securing. Quickly and easily unlockable for frequently repeated

connections.

Tips

For lanyards & retaining cables see part no. 33250.

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	Location hole tol. H11	Shearing resistance, double kN min.	Tensile force non lubricated N max.	Weight g
33140.W0062	6	10	6.5	38	17.3	5.0	27.0	10.8	6	22	8	14
33140.W0064	6	15	6.5	38	17.3	5.0	27.0	10.8	6	22	8	16
33140.W0066	6	20	6.5	38	17.3	5.0	27.0	10.8	6	22	8	16
33140.W0068	6	25	6.5	38	17.3	5.0	27.0	10.8	6	22	8	17
33140.W0070	6	30	6.5	38	17.3	5.0	27.0	10.8	6	22	8	18
33140.W0075	6	50	6.5	38	17.3	5.0	27.0	10.8	6	22	8	23
33140.W0084	8	15	8.7	38	17.3	6.3	28.6	10.8	8	40	15	21
33140.W0086	8	20	8.7	38	17.3	6.3	28.6	10.8	8	40	15	22
33140.W0088	8	25	8.7	38	17.3	6.3	28.6	10.8	8	40	15	25
33140.W0090	8	30	8.7	38	17.3	6.3	28.6	10.8	8	40	15	27
33140.W0095	8	50	8.7	38	17.3	6.3	28.6	10.8	8	40	15	33
33140.W0104	10	15	12.0	38	17.3	8.7	28.6	10.8	10	62	30	32
33140.W0106	10	20	12.0	38	17.3	8.7	28.6	10.8	10	62	30	35
33140.W0108	10	25	12.0	38	17.3	8.7	28.6	10.8	10	62	30	38
33140.W0110	10	30	12.0	38	17.3	8.7	28.6	10.8	10	62	30	39
33140.W0115	10	50	12.0	38	17.3	8.7	28.6	10.8	10	62	30	53
33140.W0122	12	20	14.5	38	17.3	9.5	28.6	10.8	12	90	32	43
33140.W0124	12	30	14.5	38	17.3	9.5	28.6	10.8	12	90	32	52
33140.W0126	12	40	14.5	38	17.3	9.5	28.6	10.8	12	90	32	61
33140.W0128	12	50	14.5	38	17.3	9.5	28.6	10.8	12	90	32	68



Socket Pins non-locking

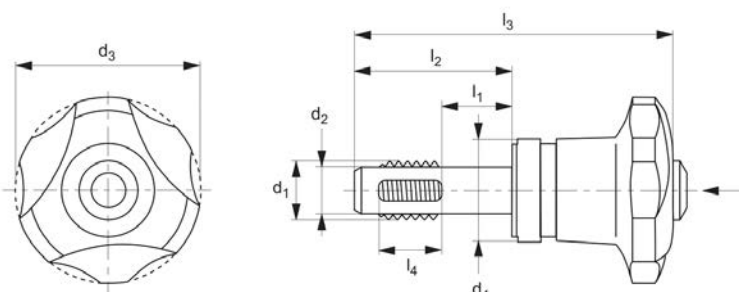
Ball Lock Pins & Quick Release



BALL LOCK PINS & QUICK RELEASE PINS



33331



Material

Pin: Free cutting steel, manganese phosphated or stainless steel 1.4305 (AISI 303).

Handle: Thermoplastic PA 6, black similar to RAL 9005

Press button: Aluminium, orange, anodised.

Threaded element: stainless steel 1.4542

(AISI 630), precipitation-hardened.

Spring: stainless steel.

Technical Notes

Pressing = unlocking.

Releasing = locking.

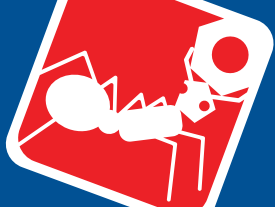
To suit metric course threads. The threaded lock pin can be quickly inserted into a threaded hole, and further tightened

up to indicated max. torque reducing both assembly and disassembly times.

Tips

For suitable lanyards see part no. 33268. Lanyards can be used to prevent accidental loss of pin from application.

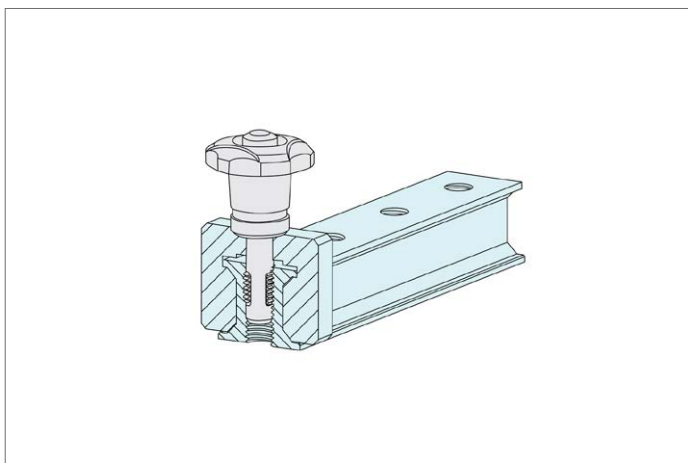
Order No.	Type	d ₁	l ₁	d ₂ -0.07	d ₃	d ₄	Weight g
33331.W0102	Steel	M 8	10	6.62	40	21.6	40
33331.W0104	Steel	M 8	20	6.62	40	21.6	42
33331.W0106	Steel	M 8	30	6.62	40	21.6	45
33331.W0202	Steel	M10	10	8.35	40	21.6	44
33331.W0204	Steel	M10	20	8.35	40	21.6	48
33331.W0206	Steel	M10	30	8.35	40	21.6	52
33331.W0303	Steel	M12	15	10.07	40	21.6	53
33331.W0306	Steel	M12	30	10.07	40	21.6	62
33331.W0310	Steel	M12	50	10.07	40	21.6	74
33331.W0503	Steel	M16	15	13.80	40	21.6	70
33331.W0506	Steel	M16	30	13.80	40	21.6	87
33331.W0510	Steel	M16	50	13.80	40	21.6	109
33331.W1102	Stainless Steel	M 8	10	6.62	40	21.6	40
33331.W1104	Stainless Steel	M 8	20	6.62	40	21.6	42
33331.W1106	Stainless Steel	M 8	30	6.62	40	21.6	45
33331.W1202	Stainless Steel	M10	10	8.35	40	21.6	44
33331.W1204	Stainless Steel	M10	20	8.35	40	21.6	48
33331.W1206	Stainless Steel	M10	30	8.35	40	21.6	52
33331.W1303	Stainless Steel	M12	15	10.07	40	21.6	53
33331.W1306	Stainless Steel	M12	30	10.07	40	21.6	62
33331.W1310	Stainless Steel	M12	50	10.07	40	21.6	74
33331.W1503	Stainless Steel	M16	15	13.80	40	21.6	70
33331.W1506	Stainless Steel	M16	30	13.80	40	21.6	87
33331.W1510	Stainless Steel	M16	50	13.80	40	21.6	109



Threaded Lock Pins self-locking

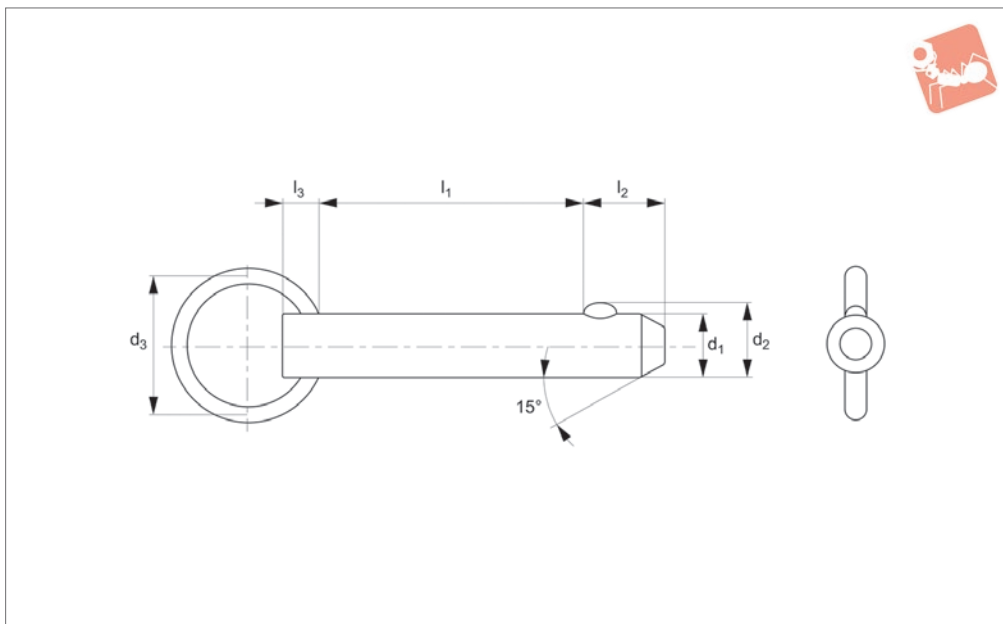
Ball Lock Pins & Quick Release

Order No.	l ₂	l ₃	l ₄	Locating thread	Temp. resistance °C min.	Temp. resistance °C max.	Torque to Nm max.	Shearing resistance two-shear kN min.
33331.W0102	23.8	58.4	8	M 8	-30	80	5	12.7
33331.W0104	33.8	68.4	8	M 8	-30	80	5	12.7
33331.W0106	43.8	78.4	8	M 8	-30	80	5	12.7
33331.W0202	26.0	60.6	10	M10	-30	80	5	20.6
33331.W0204	36.0	70.6	10	M10	-30	80	5	20.6
33331.W0206	46.0	80.6	10	M10	-30	80	5	20.6
33331.W0303	34.0	68.6	12	M12	-30	80	5	30.4
33331.W0306	49.0	83.6	12	M12	-30	80	5	30.4
33331.W0310	69.0	103.6	12	M12	-30	80	5	30.4
33331.W0503	34.0	68.6	12	M16	-30	80	5	62.9
33331.W0506	49.0	83.6	12	M16	-30	80	5	62.9
33331.W0510	69.0	103.6	12	M16	-30	80	5	62.9
33331.W1102	23.8	58.4	8	M 8	-30	80	5	16.7
33331.W1104	33.8	68.4	8	M 8	-30	80	5	16.7
33331.W1106	43.8	78.4	8	M 8	-30	80	5	16.7
33331.W1202	26.0	60.6	10	M10	-30	80	5	27.1
33331.W1204	36.0	70.6	10	M10	-30	80	5	27.1
33331.W1206	46.0	80.6	10	M10	-30	80	5	27.1
33331.W1303	34.0	68.6	12	M12	-30	80	5	40.0
33331.W1306	49.0	83.6	12	M12	-30	80	5	40.0
33331.W1310	69.0	103.6	12	M12	-30	80	5	40.0
33331.W1503	34.0	68.6	12	M16	-30	80	5	82.7
33331.W1506	49.0	83.6	12	M16	-30	80	5	82.7
33331.W1510	69.0	103.6	12	M16	-30	80	5	82.7





33010.1



Material

Shaft: Carbon steel (C1144), zinc plated.
Ball & spring: Stainless steel AISI 316.

Technical Notes

Detent pins are very economical for use in commercial and military equipment.
The solid body with direct spring loaded

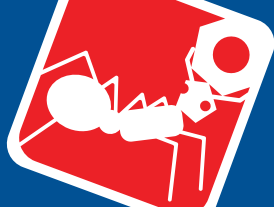
ball ensures reliable operation.
Can be used for locking telescopic tubing, securing bracket assemblies, as anchor clevis fittings, hinge pins and as replacement for cotter pins where frequent removal is necessary.
Hole sizes - commercial drills provide clear-

ance for our standard pins.
Inch dimensions in brackets ().

Tips

Also available in stainless steel see part no. PP1202.

Order No.	d_1 +0.00 -0.08	l_1 grip +1.50 -0.00	d_2	d_3	l_2	l_3	Pull out strength kg	Single shear strength kN min.
33010.W1183	4,76 (3/16")	7,62 (0,3")	5.18	25.4	5.08	4.74	1,9 - 2,3	10.8
33010.W1805	4,76 (3/16")	12,7 (0,5")	5.18	25.4	5.08	4.74	1,9 - 2,3	10.8
33010.W1810	4,76 (3/16")	25,4 (1")	5.18	25.4	5.08	4.74	1,9 - 2,3	10.8
33010.W1815	4,76 (3/16")	38,1 (1,5")	5.18	25.4	5.08	4.74	1,9 - 2,3	10.8
33010.W1820	4,76 (3/16")	50,8 (2")	5.18	25.4	5.08	4.74	1,9 - 2,3	10.8
33010.W1825	4,76 (3/16")	63,5 (2,5")	5.18	25.4	5.08	4.74	1,9 - 2,3	10.8
33010.W1830	4,76 (3/16")	76,2 (3")	5.18	25.4	5.08	4.74	1,9 - 2,3	10.8
33010.W1835	4,76 (3/16")	88,9 (3,5")	5.18	25.4	5.08	4.74	1,9 - 2,3	10.8
33010.W1840	4,76 (3/16")	101,6 (4")	5.18	25.4	5.08	4.74	1,9 - 2,3	10.8
33010.W2505	6,35 (1/4")	12,7 (0,5")	7.26	25.4	7.92	5.58	2,27 - 2,73	19.3
33010.W2510	6,35 (1/4")	25,4 (1")	7.26	25.4	7.92	5.58	2,27 - 2,73	19.3
33010.W2515	6,35 (1/4")	38,1 (1,5")	7.26	25.4	7.92	5.58	2,27 - 2,73	19.3
33010.W2520	6,35 (1/4")	50,8 (2")	7.26	25.4	7.92	5.58	2,27 - 2,73	19.3
33010.W2525	6,35 (1/4")	63,5 (2,5")	7.26	25.4	7.92	5.58	2,27 - 2,73	19.3
33010.W2530	6,35 (1/4")	76,2 (3")	7.26	25.4	7.92	5.58	2,27 - 2,73	19.3
33010.W2535	6,35 (1/4")	88,9 (3,5")	7.26	25.4	7.92	5.58	2,27 - 2,73	19.3
33010.W2540	6,35 (1/4")	101,6 (4")	7.26	25.4	7.92	5.58	2,27 - 2,73	19.3
33010.W3105	7,93 (5/16")	12,7 (0,5")	9.09	25.4	9.52	6.35	2,72 - 2,73	30.0
33010.W3110	7,93 (5/16")	25,4 (1")	9.09	25.4	9.52	6.35	2,72 - 2,73	30.0
33010.W3115	7,93 (5/16")	38,1 (1,5")	9.09	25.4	9.52	6.35	2,72 - 2,73	30.0
33010.W3120	7,93 (5/16")	50,8 (2")	9.09	25.4	9.52	6.35	2,72 - 2,73	30.0
33010.W3125	7,93 (5/16")	63,5 (2,5")	9.09	25.4	9.52	6.35	2,72 - 2,73	30.0
33010.W3130	7,93 (5/16")	76,2 (3")	9.09	25.4	9.52	6.35	2,72 - 2,73	30.0
33010.W3135	7,93 (5/16")	88,9 (3,5")	9.09	25.4	9.52	6.35	2,72 - 2,73	30.0
33010.W3140	7,93 (5/16")	101,6 (4")	9.09	25.4	9.52	6.35	2,72 - 2,73	30.0
33010.W3145	7,93 (5/16")	114,3 (4,5")	9.09	25.4	9.52	6.35	2,72 - 2,73	30.0
33010.W3150	7,93 (5/16")	127,0 (5")	9.09	25.4	9.52	6.35	2,72 - 2,73	30.0
33010.W3705	9,52 (3/8")	12,7 (0,5")	10.8	25.4	12.7	6.35	3,63 - 4,54	43.3
33010.W3710	9,52 (3/8")	25,4 (1")	10.8	25.4	12.7	6.35	3,63 - 4,54	43.3



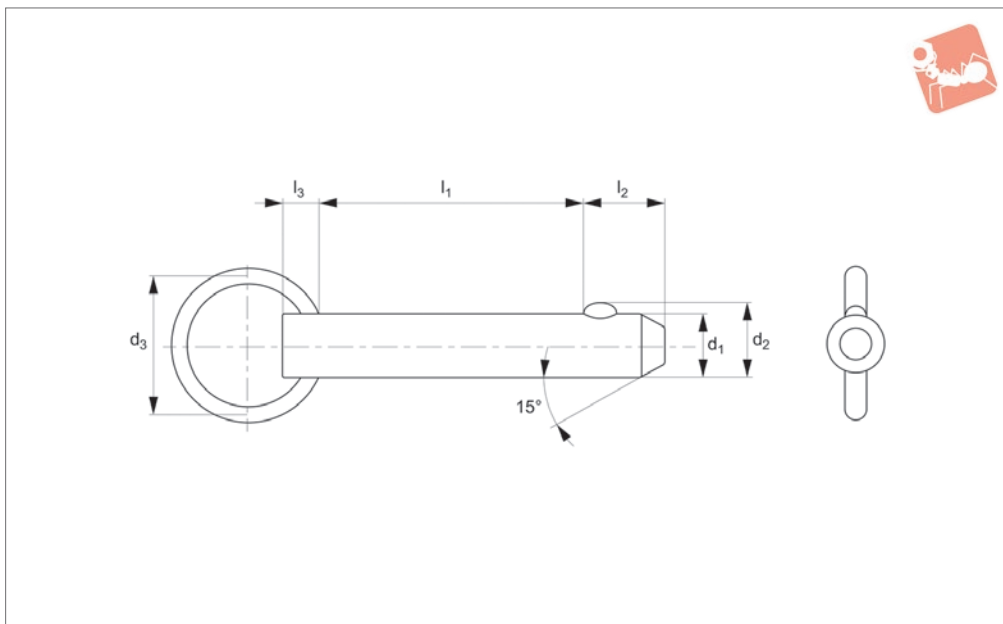
Detent Pin Steel

Ball Lock Pins & Quick Release

Order No.	d ₁ +0.00 -0.08	l ₁ grip +1.50 -0.00	d ₂	d ₃	l ₂	l ₃	Pull out strength kg	Single shear strength kN min.
33010.W3715	9,52 (3/8")	38,1 (1,5")	10.8	25.4	12.7	6.35	3,63 - 4,54	43.3
33010.W3720	9,52 (3/8")	50,8 (2")	10.8	25.4	12.7	6.35	3,63 - 4,54	43.3
33010.W3725	9,52 (3/8")	63,5 (2,5")	10.8	25.4	12.7	6.35	3,63 - 4,54	43.3
33010.W3730	9,52 (3/8")	76,2 (3")	10.8	25.4	12.7	6.35	3,63 - 4,54	43.3
33010.W3735	9,52 (3/8")	88,9 (3,5")	10.8	25.4	12.7	6.35	3,63 - 4,54	43.3
33010.W3740	9,52 (3/8")	101,6 (4")	10.8	25.4	12.7	6.35	3,63 - 4,54	43.3
33010.W3745	9,52 (3/8")	114,3 (4,5")	10.8	25.4	12.7	6.35	3,63 - 4,54	43.3
33010.W3750	9,52 (3/8")	127,0 (5")	10.8	25.4	12.7	6.35	3,63 - 4,54	43.3
33010.W3755	9,52 (3/8")	139,7 (5,5")	10.8	25.4	12.7	6.35	3,63 - 4,54	43.3
33010.W3760	9,52 (3/8")	152,4 (6")	10.8	25.4	12.7	6.35	3,63 - 4,54	43.3
33010.W4305	11,1 (7/16")	12,7 (0,5")	12.5	25.4	14.2	6.35	4,09 - 5,45	58.9
33010.W4310	11,1 (7/16")	25,4 (1")	12.5	25.4	14.2	6.35	4,09 - 5,45	58.9
33010.W4315	11,1 (7/16")	38,1 (1,5")	12.5	25.4	14.2	6.35	4,09 - 5,45	58.9
33010.W4320	11,1 (7/16")	50,8 (2")	12.5	25.4	14.2	6.35	4,09 - 5,45	58.9
33010.W4325	11,1 (7/16")	63,5 (2,5")	12.5	25.4	14.2	6.35	4,09 - 5,45	58.9
33010.W4330	11,1 (7/16")	76,2 (3")	12.5	25.4	14.2	6.35	4,09 - 5,45	58.9
33010.W4335	11,1 (7/16")	89,0 (3,5")	12.5	25.4	14.2	6.35	4,09 - 5,45	58.9
33010.W4340	11,1 (7/16")	101,6 (4")	12.5	25.4	14.2	6.35	4,09 - 5,45	58.9
33010.W4345	11,1 (7/16")	114,3 (4,5")	12.5	25.4	14.2	6.35	4,09 - 5,45	58.9
33010.W4350	11,1 (7/16")	127,0 (5")	12.5	25.4	14.2	6.35	4,09 - 5,45	58.9
33010.W4355	11,1 (7/16")	139,7 (5,5")	12.5	25.4	14.2	6.35	4,09 - 5,45	58.9
33010.W4360	11,1 (7/16")	152,4 (6")	12.5	25.4	14.2	6.35	4,09 - 5,45	58.9
33010.W5005	12,7 (1/2")	12,7 (0,5")	14.4	31.7	15.8	7.92	4,54 - 5,45	77.0
33010.W5010	12,7 (1/2")	25,4 (1")	14.4	31.7	15.8	7.92	4,54 - 5,45	77.0
33010.W5015	12,7 (1/2")	38,1 (1,5")	14.4	31.7	15.8	7.92	4,54 - 5,45	77.0
33010.W5020	12,7 (1/2")	50,8 (2")	14.4	31.7	15.8	7.92	4,54 - 5,45	77.0
33010.W5025	12,7 (1/2")	63,5 (2,5")	14.4	31.7	15.8	7.92	4,54 - 5,45	77.0
33010.W5030	12,7 (1/2")	76,2 (3")	14.4	31.7	15.8	7.92	4,54 - 5,45	77.0
33010.W5035	12,7 (1/2")	88,9 (3,5")	14.4	31.7	15.8	7.92	4,54 - 5,45	77.0
33010.W5040	12,7 (1/2")	101,6 (4")	14.4	31.7	15.8	7.92	4,54 - 5,45	77.0
33010.W5045	12,7 (1/2")	114,3 (4,5")	14.4	31.7	15.8	7.92	4,54 - 5,45	77.0
33010.W5050	12,7 (1/2")	127,0 (5")	14.4	31.7	15.8	7.92	4,54 - 5,45	77.0
33010.W5055	12,7 (1/2")	139,7 (5,5")	14.4	31.7	15.8	7.92	4,54 - 5,45	77.0
33010.W5060	12,7 (1/2")	152,4 (6")	14.4	31.7	15.8	7.92	4,54 - 5,45	77.0
33010.W5065	12,7 (1/2")	165,1 (6,5")	14.4	31.7	15.8	7.92	4,54 - 5,45	77.0
33010.W5070	12,7 (1/2")	177,8 (7")	14.4	31.7	15.8	7.92	4,54 - 5,45	77.0



33010.2



Material

Shaft: Carbon steel (C1144), zinc plated.
Ball & spring: Stainless steel AISI 316.

Technical Notes

Detent pins are very economical for use in commercial and military equipment.
The solid body with direct spring loaded

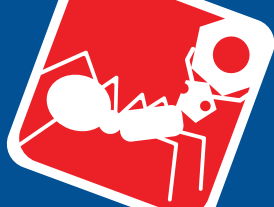
ball ensures reliable operation.
Can be used for locking telescopic tubing, securing bracket assemblies, as anchor clevis fittings, hinge pins and as replacement for cotter pins where frequent removal is necessary.
Hole sizes - commercial drills provide clear-

ance for our standard pins.
Inch dimensions in brackets ().

Tips

Also available in stainless steel see part no. PP1202.

Order No.	d_1 +0.00 -0.08	l_1 grip +1.50 -0.00	d_2	d_3	l_2	l_3	Pull out strength kg	Single shear strength kN min.
33010.W5610	14,2 (9/16")	25,4 (1")	16.3	31.7	17.4	7.92	5,45 - 6,81	97.6
33010.W5615	14,2 (9/16")	38,1 (1,5")	16.3	31.7	17.4	7.92	5,45 - 6,81	97.6
33010.W5620	14,2 (9/16")	50,8 (2")	16.3	31.7	17.4	7.92	5,45 - 6,81	97.6
33010.W5625	14,2 (9/16")	63,5 (2,5")	16.3	31.7	17.4	7.92	5,45 - 6,81	97.6
33010.W5630	14,2 (9/16")	76,2 (3")	16.3	31.7	17.4	7.92	5,45 - 6,81	97.6
33010.W5635	14,2 (9/16")	88,9 (3,5")	16.3	31.7	17.4	7.92	5,45 - 6,81	97.6
33010.W5640	14,2 (9/16")	101,6 (4")	16.3	31.7	17.4	7.92	5,45 - 6,81	97.6
33010.W5645	14,2 (9/16")	114,3 (4,5")	16.3	31.7	17.4	7.92	5,45 - 6,81	97.6
33010.W5650	14,2 (9/16")	127,0 (5")	16.3	31.7	17.4	7.92	5,45 - 6,81	97.6
33010.W5655	14,2 (9/16")	139,7 (5,5")	16.3	31.7	17.4	7.92	5,45 - 6,81	97.6
33010.W5660	14,2 (9/16")	152,4 (6")	16.3	31.7	17.4	7.92	5,45 - 6,81	97.6
33010.W5670	14,2 (9/16")	177,8 (7")	16.3	31.7	17.4	7.92	5,45 - 6,81	97.6
33010.W6210	15,8 (5/8")	25,4 (1")	18.0	31.7	19.0	9.52	3,36 - 7,26	121.6
33010.W6215	15,8 (5/8")	38,1 (1,5")	18.0	31.7	19.0	9.52	3,36 - 7,26	121.6
33010.W6220	15,8 (5/8")	50,8 (2")	18.0	31.7	19.0	9.52	3,36 - 7,26	121.6
33010.W6225	15,8 (5/8")	63,5 (2,5")	18.0	31.7	19.0	9.52	3,36 - 7,26	121.6
33010.W6230	15,8 (5/8")	76,2 (3")	18.0	31.7	19.0	9.52	3,36 - 7,26	121.6
33010.W6235	15,8 (5/8")	88,9 (3,5")	18.0	31.7	19.0	9.52	3,36 - 7,26	121.6
33010.W6240	15,8 (5/8")	101,6 (4")	18.0	31.7	19.0	9.52	3,36 - 7,26	121.6
33010.W6245	15,8 (5/8")	114,3 (4,5")	18.0	31.7	19.0	9.52	3,36 - 7,26	121.6
33010.W6250	15,8 (5/8")	127,0 (5")	18.0	31.7	19.0	9.52	3,36 - 7,26	121.6
33010.W6255	15,8 (5/8")	139,7 (5,5")	18.0	31.7	19.0	9.52	3,36 - 7,26	121.6
33010.W6260	15,8 (5/8")	152,4 (6")	18.0	31.7	19.0	9.52	3,36 - 7,26	121.6
33010.W6265	15,8 (5/8")	165,1 (6,5")	18.0	31.7	19.0	9.52	3,36 - 7,26	121.6
33010.W6270	15,8 (5/8")	177,8 (7")	18.0	31.7	19.0	9.52	3,36 - 7,26	121.6
33010.W6280	15,8 (5/8")	203,2 (8")	18.0	31.7	19.0	9.52	3,36 - 7,26	121.6
33010.W7510	19,0 (3/4")	25,4 (1")	21.7	38.1	23.7	9.52	8,17 - 9,98	173.6
33010.W7515	19,0 (3/4")	38,1 (1,5")	21.7	38.1	23.7	9.52	8,17 - 9,98	173.6
33010.W7520	19,0 (3/4")	50,8 (2")	21.7	38.1	23.7	9.52	8,17 - 9,98	173.6



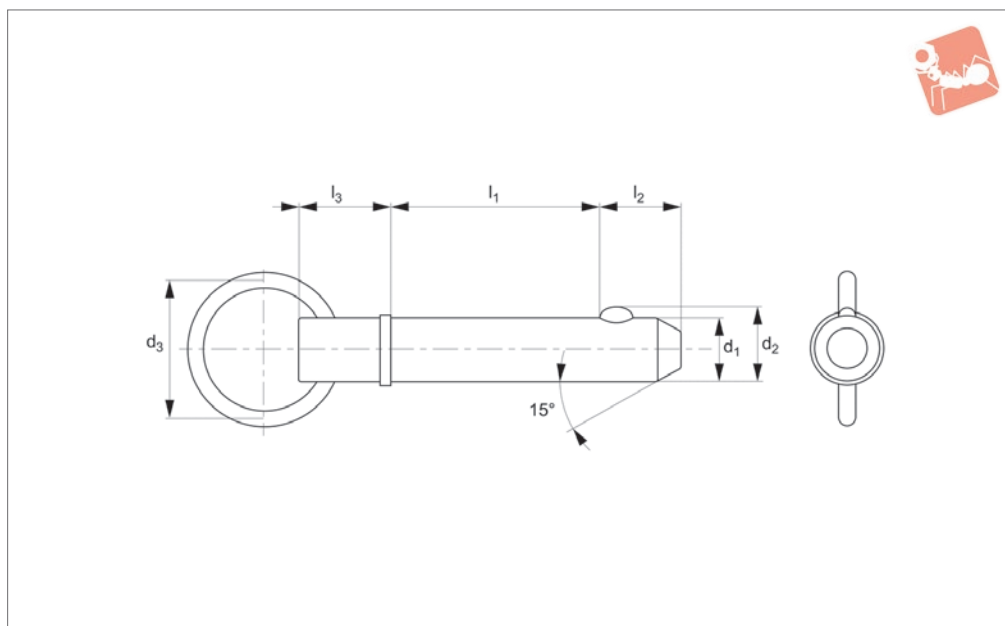
Detent Pin Steel

Ball Lock Pins & Quick Release

Order No.	d ₁ +0.00 -0.08	l ₁ grip +1.50 -0.00	d ₂	d ₃	l ₂	l ₃	Pull out strength kg	Single shear strength kN min.
33010.W7525	19,0 (3/4")	63,5 (2,5")	21.7	38.1	23.7	9.52	8,17 - 9,98	173.6
33010.W7530	19,0 (3/4")	76,2 (3")	21.7	38.1	23.7	9.52	8,17 - 9,98	173.6
33010.W7535	19,0 (3/4")	88,9 (3,5")	21.7	38.1	23.7	9.52	8,17 - 9,98	173.6
33010.W7540	19,0 (3/4")	101,6 (4")	21.7	38.1	23.7	9.52	8,17 - 9,98	173.6
33010.W7545	19,0 (3/4")	114,3 (4,5")	21.7	38.1	23.7	9.52	8,17 - 9,98	173.6
33010.W7550	19,0 (3/4")	127,0 (5")	21.7	38.1	23.7	9.52	8,17 - 9,98	173.6
33010.W7555	19,0 (3/4")	139,7 (5,5")	21.7	38.1	23.7	9.52	8,17 - 9,98	173.6
33010.W7560	19,0 (3/4")	152,4 (6")	21.7	38.1	23.7	9.52	8,17 - 9,98	173.6
33010.W7570	19,0 (3/4")	177,8 (7")	21.7	38.1	23.7	9.52	8,17 - 9,98	173.6
33010.W7580	19,0 (3/4")	203,2 (8")	21.7	38.1	23.7	9.52	8,17 - 9,98	173.6
33010.W8810	22,2 (7/8")	25,4 (1")	25.2	38.1	25.4	12.7	12,71 - 14,07	239.4
33010.W8815	22,2 (7/8")	38,1 (1,5")	25.2	38.1	25.4	12.7	12,71 - 14,07	239.4
33010.W8820	22,2 (7/8")	50,8 (2")	25.2	38.1	25.4	12.7	12,71 - 14,07	239.4
33010.W8825	22,2 (7/8")	63,5 (2,5")	25.2	38.1	25.4	12.7	12,71 - 14,07	239.4
33010.W8830	22,2 (7/8")	76,2 (3")	25.2	38.1	25.4	12.7	12,71 - 14,07	239.4
33010.W8835	22,2 (7/8")	88,9 (3,5")	25.2	38.1	25.4	12.7	12,71 - 14,07	239.4
33010.W8840	22,2 (7/8")	101,6 (4")	25.2	38.1	25.4	12.7	12,71 - 14,07	239.4
33010.W8845	22,2 (7/8")	114,3 (4,5")	25.2	38.1	25.4	12.7	12,71 - 14,07	239.4
33010.W8850	22,2 (7/8")	127,0 (5")	25.2	38.1	25.4	12.7	12,71 - 14,07	239.4
33010.W8855	22,2 (7/8")	139,7 (5,5")	25.2	38.1	25.4	12.7	12,71 - 14,07	239.4
33010.W8860	22,2 (7/8")	152,4 (6")	25.2	38.1	25.4	12.7	12,71 - 14,07	239.4
33010.W8865	22,2 (7/8")	165,1 (6,5")	25.2	38.1	25.4	12.7	12,71 - 14,07	239.4
33010.W8870	22,2 (7/8")	177,8 (7")	25.2	38.1	25.4	12.7	12,71 - 14,07	239.4
33010.W8880	22,2 (7/8")	203,2 (8")	25.2	38.1	25.4	12.7	12,71 - 14,07	239.4
33010.W1010	25,4 (1")	25,4 (1")	28.9	38.1	31.7	12.7	15,88 - 18-15	321.3
33010.W1015	25,4 (1")	38,1 (1,5")	28.9	38.1	31.7	12.7	15,88 - 18-15	321.3
33010.W1020	25,4 (1")	50,8 (2")	28.9	38.1	31.7	12.7	15,88 - 18-15	321.3
33010.W1025	25,4 (1")	63,5 (2,5")	28.9	38.1	31.7	12.7	15,88 - 18-15	321.3
33010.W1030	25,4 (1")	76,2 (3")	28.9	38.1	31.7	12.7	15,88 - 18-15	321.3
33010.W1035	25,4 (1")	88,9 (3,5")	28.9	38.1	31.7	12.7	15,88 - 18-15	321.3
33010.W1040	25,4 (1")	101,6 (4")	28.9	38.1	31.7	12.7	15,88 - 18-15	321.3
33010.W1045	25,4 (1")	114,3 (4,5")	28.9	38.1	31.7	12.7	15,88 - 18-15	321.3
33010.W1050	25,4 (1")	127,0 (5")	28.9	38.1	31.7	12.7	15,88 - 18-15	321.3
33010.W1055	25,4 (1")	139,7 (5,5")	28.9	38.1	31.7	12.7	15,88 - 18-15	321.3
33010.W1060	25,4 (1")	152,4 (6")	28.9	38.1	31.7	12.7	15,88 - 18-15	321.3
33010.W1070	25,4 (1")	177,8 (7")	28.9	38.1	31.7	12.7	15,88 - 18-15	321.3
33010.W1080	25,4 (1")	203,2 (8")	28.9	38.1	31.7	12.7	15,88 - 18-15	321.3



33014



Material

Shaft: Carbon steel (C1144), zinc plated.
Ball & spring: Stainless steel AISI 316.

Technical Notes

Detent pins are very economical for use in commercial and military equipment.
The solid body with direct spring loaded

ball ensures reliable operation.

Can be used for locking telescopic tubing, securing bracket assemblies, as anchor clevis fittings, hinge pins and as replacement for cotter pins where frequent removal is necessary.

Hole sizes - commercial drills provide clear-

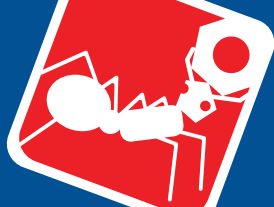
ance for our standard pins.

Inch dimensions in brackets ().

Tips

Also available in stainless steel see part no. P.

Order No.	d ₁ +0.00 -0.08	l ₁ grip +1.50 -0.00	d ₂	d ₃	l ₂	l ₃	Pull out strength kg	Single shear strength kN min.
33014.W1803	4,76 (3/16")	7,62 (0,3")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	10.8
33014.W1805	4,76 (3/16")	12,7 (0,5")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	10.8
33014.W1810	4,76 (3/16")	25,4 (1")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	10.8
33014.W1815	4,76 (3/16")	38,1 (1,5")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	10.8
33014.W1820	4,76 (3/16")	50,8 (2")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	10.8
33014.W1825	4,76 (3/16")	63,5 (2,5")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	10.8
33014.W1830	4,76 (3/16")	76,2 (3")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	10.8
33014.W1835	4,76 (3/16")	88,9 (3,5")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	10.8
33014.W1840	4,76 (3/16")	101,6 (4")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	10.8
33014.W2505	6,35 (1/4")	12,7 (0,5")	7.26	31.75	7.92	18.29	2,27 - 2,73	19.3
33014.W2506	6,35 (1/4")	15,24 (0,6")	7.26	31.75	7.92	18.29	2,27 - 2,73	19.3
33014.W2510	6,35 (1/4")	25,4 (1")	7.26	31.75	7.92	18.29	2,27 - 2,73	19.3
33014.W2515	6,35 (1/4")	38,1 (1,5")	7.26	31.75	7.92	18.29	2,27 - 2,73	19.3
33014.W2520	6,35 (1/4")	50,8 (2")	7.26	31.75	7.92	18.29	2,27 - 2,73	19.3
33014.W2525	6,35 (1/4")	63,5 (2,5")	7.26	31.75	7.92	18.29	2,27 - 2,73	19.3
33014.W2530	6,35 (1/4")	76,2 (3")	7.26	31.75	7.92	18.29	2,27 - 2,73	19.3
33014.W2535	6,35 (1/4")	88,9 (3,5")	7.26	31.75	7.92	18.29	2,27 - 2,73	19.3
33014.W2540	6,35 (1/4")	101,6 (4")	7.26	31.75	7.92	18.29	2,27 - 2,73	19.3
33014.W3105	7,94 (5/16")	12,7 (0,5")	9.09	31.75	9.53	19.05	2,27 - 2,73	30.0
33014.W3110	7,94 (5/16")	25,4 (1")	9.09	31.75	9.53	19.05	2,27 - 2,73	30.0
33014.W3115	7,94 (5/16")	38,1 (1,5")	9.09	31.75	9.53	19.05	2,27 - 2,73	30.0
33014.W3120	7,94 (5/16")	50,8 (2")	9.09	31.75	9.53	19.05	2,27 - 2,73	30.0
33014.W3125	7,94 (5/16")	63,5 (2,5")	9.09	31.75	9.53	19.05	2,27 - 2,73	30.0
33014.W3130	7,94 (5/16")	76,2 (3")	9.09	31.75	9.53	19.05	2,27 - 2,73	30.0
33014.W3135	7,94 (5/16")	88,9 (3,5")	9.09	31.75	9.53	19.05	2,27 - 2,73	30.0
33014.W3140	7,94 (5/16")	101,6 (4")	9.09	31.75	9.53	19.05	2,27 - 2,73	30.0
33014.W3145	7,94 (5/16")	114,3 (4,5")	9.09	31.75	9.53	19.05	2,27 - 2,73	30.0
33014.W3150	7,94 (5/16")	127 (5")	9.09	31.75	9.53	19.05	2,27 - 2,73	30.0
33014.W3705	9,53 (3,8")	12,7 (0,5")	10.82	44.45	12.7	19.05	3,63 - 4,54	43.3



Detent Pin - Ring Handle - Shoulder

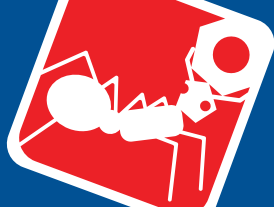
Steel

Ball Lock Pins & Quick Release

Order No.	d ₁ +0.00 -0.08	l ₁ grip +1.50 -0.00	d ₂	d ₃	l ₂	l ₃	Pull out strength kg	Single shear strength kN min.
33014.W3706	9,53 (3,8")	15,24 (0,6")	10.82	44.45	12.7	19.05	3,63 - 4,54	43.3
33014.W3710	9,53 (3,8")	25,4 (1")	10.82	44.45	12.7	19.05	3,63 - 4,54	43.3
33014.W3715	9,53 (3,8")	38,1 (1,5")	10.82	44.45	12.7	19.05	3,63 - 4,54	43.3
33014.W3718	9,53 (3,8")	45,72 (1,8")	10.82	44.45	12.7	19.05	3,63 - 4,54	43.3
33014.W3720	9,53 (3,8")	50,8 (2")	10.82	44.45	12.7	19.05	3,63 - 4,54	43.3
33014.W3725	9,53 (3,8")	63,5 (2,5")	10.82	44.45	12.7	19.05	3,63 - 4,54	43.3
33014.W3730	9,53 (3,8")	76,2 (3")	10.82	44.45	12.7	19.05	3,63 - 4,54	43.3
33014.W3735	9,53 (3,8")	88,9 (3,5")	10.82	44.45	12.7	19.05	3,63 - 4,54	43.3
33014.W3740	9,53 (3,8")	101,6 (4")	10.82	44.45	12.7	19.05	3,63 - 4,54	43.3
33014.W3745	9,53 (3,8")	114,3 (4,5")	10.82	44.45	12.7	19.05	3,63 - 4,54	43.3
33014.W3750	9,53 (3,8")	127 (5")	10.82	44.45	12.7	19.05	3,63 - 4,54	43.3
33014.W3755	9,53 (3,8")	139,7 (5,5")	10.82	44.45	12.7	19.05	3,63 - 4,54	43.3
33014.W3760	9,53 (3,8")	152,4 (6")	10.82	44.45	12.7	19.05	3,63 - 4,54	43.3
33014.W4305	11,11 (7,16")	12,7 (0,5")	12.6	44.45	14.27	24.13	4,09 - 5,45	58.9
33014.W4310	11,11 (7,16")	25,4 (1")	12.6	44.45	14.27	24.13	4,09 - 5,45	58.9
33014.W4315	11,11 (7,16")	38,1 (1,5")	12.6	44.45	14.27	24.13	4,09 - 5,45	58.9
33014.W4320	11,11 (7,16")	50,8 (2")	12.6	44.45	14.27	24.13	4,09 - 5,45	58.9
33014.W4325	11,11 (7,16")	63,5 (2,5")	12.6	44.45	14.27	24.13	4,09 - 5,45	58.9
33014.W4330	11,11 (7,16")	76,2 (3")	12.6	44.45	14.27	24.13	4,09 - 5,45	58.9
33014.W4335	11,11 (7,16")	88,9 (3,5")	12.6	44.45	14.27	24.13	4,09 - 5,45	58.9
33014.W4340	11,11 (7,16")	101,6 (4")	12.6	44.45	14.27	24.13	4,09 - 5,45	58.9
33014.W4345	11,11 (7,16")	114,3 (4,5")	12.6	44.45	14.27	24.13	4,09 - 5,45	58.9
33014.W4350	11,11 (7,16")	127 (5")	12.6	44.45	14.27	24.13	4,09 - 5,45	58.9
33014.W4355	11,11 (7,16")	139,7 (5,5")	12.6	44.45	14.27	24.13	4,09 - 5,45	58.9
33014.W4360	11,11 (7,16")	152,4 (6")	12.6	44.45	14.27	24.13	4,09 - 5,45	58.9
33014.W5005	12,7 (1/2")	12,7 (0,5")	14.48	50.8	15.88	25.7	4,54 - 5,45	77.0
33014.W5010	12,7 (1/2")	25,4 (1")	14.48	50.8	15.88	25.7	4,54 - 5,45	77.0
33014.W5013	12,7 (1/2")	33,02 (1,3")	14.48	50.8	15.88	25.7	4,54 - 5,45	77.0
33014.W5015	12,7 (1/2")	38,1 (1,5")	14.48	50.8	15.88	25.7	4,54 - 5,45	77.0
33014.W5020	12,7 (1/2")	50,8 (2")	14.48	50.8	15.88	25.7	4,54 - 5,45	77.0
33014.W5025	12,7 (1/2")	63,5 (2,5")	14.48	50.8	15.88	25.7	4,54 - 5,45	77.0
33014.W5035	12,7 (1/2")	88,9 (3,5")	14.48	50.8	15.88	25.7	4,54 - 5,45	77.0
33014.W5040	12,7 (1/2")	101,6 (4")	14.48	50.8	15.88	25.7	4,54 - 5,45	77.0
33014.W5045	12,7 (1/2")	114,3 (4,5")	14.48	50.8	15.88	25.7	4,54 - 5,45	77.0
33014.W5050	12,7 (1/2")	127 (5")	14.48	50.8	15.88	25.7	4,54 - 5,45	77.0
33014.W5055	12,7 (1/2")	139,7 (5,5")	14.48	50.8	15.88	25.7	4,54 - 5,45	77.0
33014.W5060	12,7 (1/2")	152,4 (6")	14.48	50.8	15.88	25.7	4,54 - 5,45	77.0
33014.W5065	12,7 (1/2")	165,1 (6,5")	14.48	50.8	15.88	25.7	4,54 - 5,45	77.0
33014.W5070	12,7 (1/2")	177,8 (7")	14.48	50.8	15.88	25.7	4,54 - 5,45	77.0
33014.W5610	14,29 (9/16")	25,4 (1")	16.31	50.8	17.45	25.7	5,45 - 6,81	97.6
33014.W5615	14,29 (9/16")	38,1 (1,5")	16.31	50.8	17.45	25.7	5,45 - 6,81	97.6
33014.W5620	14,29 (9/16")	50,8 (2")	16.31	50.8	17.45	25.7	5,45 - 6,81	97.6
33014.W5625	14,29 (9/16")	63,5 (2,5")	16.31	50.8	17.45	25.7	5,45 - 6,81	97.6
33014.W5630	14,29 (9/16")	76,2 (3")	16.31	50.8	17.45	25.7	5,45 - 6,81	97.6
33014.W5635	14,29 (9/16")	88,9 (3,5")	16.31	50.8	17.45	25.7	5,45 - 6,81	97.6
33014.W5640	14,29 (9/16")	101,6 (4")	16.31	50.8	17.45	25.7	5,45 - 6,81	97.6
33014.W5645	14,29 (9/16")	114,3 (4,5")	16.31	50.8	17.45	25.7	5,45 - 6,81	97.6
33014.W5650	14,29 (9/16")	127 (5")	16.31	50.8	17.45	25.7	5,45 - 6,81	97.6
33014.W5655	14,29 (9/16")	139,7 (5,5")	16.31	50.8	17.45	25.7	5,45 - 6,81	97.6
33014.W5660	14,29 (9/16")	152,4 (6")	16.31	50.8	17.45	25.7	5,45 - 6,81	97.6
33014.W5670	14,29 (9/16")	177,8 (7")	16.31	50.8	17.45	25.7	5,45 - 6,81	97.6
33014.W6210	15,88 (5/8")	25,4 (1")	18.03	57.15	19.05	27.31	6,36 - 7,26	121.6
33014.W6215	15,88 (5/8")	38,1 (1,5")	18.03	57.15	19.05	27.31	6,36 - 7,26	121.6
33014.W6220	15,88 (5/8")	50,8 (2")	18.03	57.15	19.05	27.31	6,36 - 7,26	121.6
33014.W6225	15,88 (5/8")	63,5 (2,5")	18.03	57.15	19.05	27.31	6,36 - 7,26	121.6
33014.W6230	15,88 (5/8")	76,2 (3")	18.03	57.15	19.05	27.31	6,36 - 7,26	121.6
33014.W6235	15,88 (5/8")	88,9 (3,5")	18.03	57.15	19.05	27.31	6,36 - 7,26	121.6
33014.W6240	15,88 (5/8")	101,6 (4")	18.03	57.15	19.05	27.31	6,36 - 7,26	121.6
33014.W6245	15,88 (5/8")	114,3 (4,5")	18.03	57.15	19.05	27.31	6,36 - 7,26	121.6
33014.W6250	15,88 (5/8")	127 (5")	18.03	57.15	19.05	27.31	6,36 - 7,26	121.6
33014.W6255	15,88 (5/8")	139,7 (5,5")	18.03	57.15	19.05	27.31	6,36 - 7,26	121.6
33014.W6260	15,88 (5/8")	152,4 (6")	18.03	57.15	19.05	27.31	6,36 - 7,26	121.6
33014.W6270	15,88 (5/8")	177,8 (7")	18.03	57.15	19.05	27.31	6,36 - 7,26	121.6
33014.W6280	15,88 (5/8")	203,2 (8")	18.03	57.15	19.05	27.31	6,36 - 7,26	121.6
33014.W7510	19,05 (3/4")	25,4 (1")	21.74	57.15	23.8	34.93	8,17 - 9,98	173.6
33014.W7515	19,05 (3/4")	38,1 (1,5")	21.74	57.15	23.8	34.93	8,17 - 9,98	173.6
33014.W7520	19,05 (3/4")	50,8 (2")	21.74	57.15	23.8	34.93	8,17 - 9,98	173.6

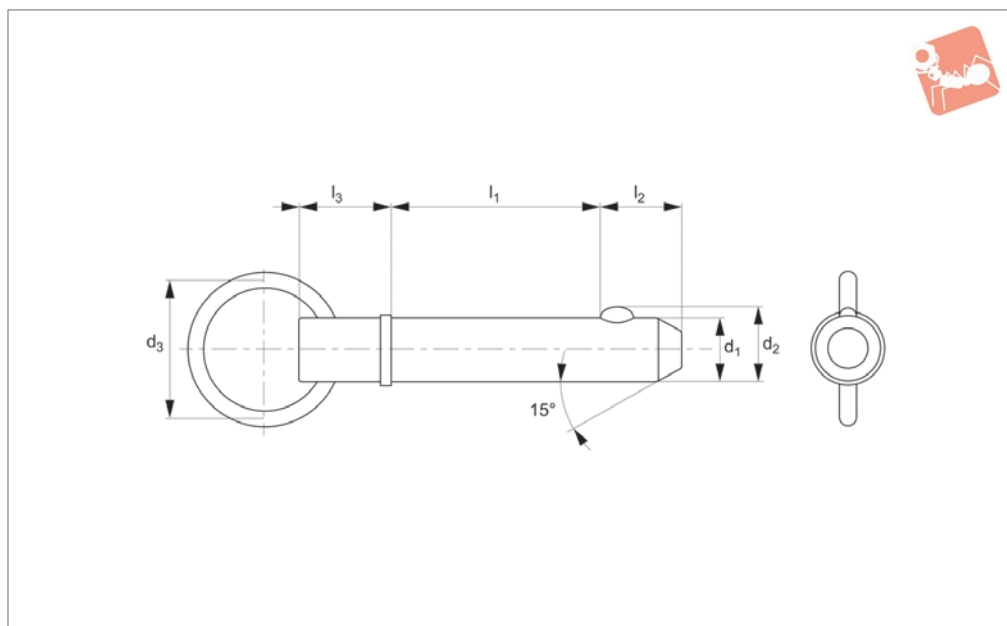


Order No.	d ₁ +0.00 -0.08	l ₁ grip +1.50 -0.00	d ₂	d ₃	l ₂	l ₃	Pull out strength kg	Single shear strength kN min.
33014.W7525	19,05 (3/4")	63,5 (2,5")	21.74	57.15	23.8	34.93	8,17 - 9,98	173.6
33014.W7530	19,05 (3/4")	76,2 (3")	21.74	57.15	23.8	34.93	8,17 - 9,98	173.6
33014.W7535	19,05 (3/4")	88,9 (3,5")	21.74	57.15	23.8	34.93	8,17 - 9,98	173.6
33014.W7540	19,05 (3/4")	101,6 (4")	21.74	57.15	23.8	34.93	8,17 - 9,98	173.6
33014.W7545	19,05 (3/4")	114,3 (4,5")	21.74	57.15	23.8	34.93	8,17 - 9,98	173.6
33014.W7550	19,05 (3/4")	127 (5")	21.74	57.15	23.8	34.93	8,17 - 9,98	173.6
33014.W7555	19,05 (3/4")	139,7 (5,5")	21.74	57.15	23.8	34.93	8,17 - 9,98	173.6
33014.W7560	19,05 (3/4")	152,4 (6")	21.74	57.15	23.8	34.93	8,17 - 9,98	173.6
33014.W7570	19,05 (3/4")	177,8 (7")	21.74	57.15	23.8	34.93	8,17 - 9,98	173.6
33014.W7580	19,05 (3/4")	203,2 (8")	21.74	57.15	23.8	34.93	8,17 - 9,98	173.6
33014.W8810	22,23 (7/8")	25,4 (1")	25.3	63.5	25.4	38.1	12,71 - 14,07	239.4
33014.W8815	22,23 (7/8")	38,1 (1,5")	25.3	63.5	25.4	38.1	12,71 - 14,07	239.4
33014.W8820	22,23 (7/8")	50,8 (2")	25.3	63.5	25.4	38.1	12,71 - 14,07	239.4
33014.W8825	22,23 (7/8")	63,5 (2,5")	25.3	63.5	25.4	38.1	12,71 - 14,07	239.4
33014.W8830	22,23 (7/8")	76,2 (3")	25.3	63.5	25.4	38.1	12,71 - 14,07	239.4
33014.W8835	22,23 (7/8")	88,9 (3,5")	25.3	63.5	25.4	38.1	12,71 - 14,07	239.4
33014.W8840	22,23 (7/8")	101,6 (4")	25.3	63.5	25.4	38.1	12,71 - 14,07	239.4
33014.W8845	22,23 (7/8")	114,3 (4,5")	25.3	63.5	25.4	38.1	12,71 - 14,07	239.4
33014.W8850	22,23 (7/8")	127 (5")	25.3	63.5	25.4	38.1	12,71 - 14,07	239.4
33014.W8855	22,23 (7/8")	139,7 (5,5")	25.3	63.5	25.4	38.1	12,71 - 14,07	239.4
33014.W8860	22,23 (7/8")	152,4 (6")	25.3	63.5	25.4	38.1	12,71 - 14,07	239.4
33014.W8865	22,23 (7/8")	165,1 (6,5")	25.3	63.5	25.4	38.1	12,71 - 14,07	239.4
33014.W8870	22,23 (7/8")	177,8 (7")	25.3	63.5	25.4	38.1	12,71 - 14,07	239.4
33014.W8880	22,23 (7/8")	203,2 (8")	25.3	63.5	25.4	38.1	12,71 - 14,07	239.4
33014.W1010	25,4 (1")	25,4 (1")	28.96	39	31.75	38.1	15,88 - 18,15	312.3
33014.W1015	25,4 (1")	38,1 (1,5")	28.96	39	31.75	38.1	15,88 - 18,15	312.3
33014.W1020	25,4 (1")	50,8 (2")	28.96	39	31.75	38.1	15,88 - 18,15	312.3
33014.W1025	25,4 (1")	63,5 (2,5")	28.96	39	31.75	38.1	15,88 - 18,15	312.3
33014.W1030	25,4 (1")	76,2 (3")	28.96	39	31.75	38.1	15,88 - 18,15	312.3
33014.W1035	25,4 (1")	88,9 (3,5")	28.96	39	31.75	38.1	15,88 - 18,15	312.3
33014.W1040	25,4 (1")	101,6 (4")	28.96	39	31.75	38.1	15,88 - 18,15	312.3
33014.W1045	25,4 (1")	114,3 (4,5")	28.96	39	31.75	38.1	15,88 - 18,15	312.3
33014.W1050	25,4 (1")	127 (5")	28.96	39	31.75	38.1	15,88 - 18,15	312.3
33014.W1055	25,4 (1")	139,7 (5,5")	28.96	39	31.75	38.1	15,88 - 18,15	312.3
33014.W1060	25,4 (1")	152,4 (6")	28.96	39	31.75	38.1	15,88 - 18,15	312.3
33014.W1070	25,4 (1")	177,8 (7")	28.96	39	31.75	38.1	15,88 - 18,15	312.3
33014.W1080	25,4 (1")	203,2 (8")	28.96	39	31.75	38.1	15,88 - 18,15	312.3



Detent Pin - Ring Handle - Shoulder stainless steel

Ball Lock Pins & Quick Release



33016

BALL LOCK PINS & QUICK RELEASE PINS

Material

Shaft: Stainless steel, AISI 303.

Ball & Spring: Stainless steel, AISI 316.

Technical Notes

Detent pins are very economical for use in commercial and military equipment.

The solid body with direct spring loaded ball ensures reliable operation.

For locking telescopic tubing, securing bracket assemblies, as anchor clevis fittings, hinge pins etc where frequent removal is necessary.

Hole sizes - commercial drills provide clearance for our standard pins.

Inch dimensions in brackets ().

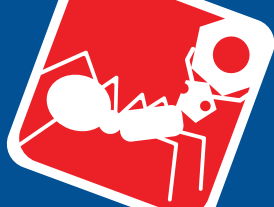
Tips

Also available on request in A4 (AISI 316) stainless steel, subject to min. quantity.

Order No.	d ₁ +0.00 -0.08	l ₁ grip +1.50 -0.00	d ₂	d ₃	l ₂	l ₃	Pull out strength kg	Single shear strength kN min.
33016.W1803	4,76 (3/16")	7,62 (0,3")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	12.2
33016.W1805	4,76 (3/16")	12,7 (0,5")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	12.2
33016.W1810	4,76 (3/16")	25,4 (1")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	12.2
33016.W1815	4,76 (3/16")	38,1 (1,5")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	12.2
33016.W1820	4,76 (3/16")	50,8 (2")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	12.2
33016.W1825	4,76 (3/16")	63,5 (2,5")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	12.2
33016.W1830	4,76 (3/16")	76,2 (3")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	12.2
33016.W1835	4,76 (3/16")	88,9 (3,5")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	12.2
33016.W1840	4,76 (3/16")	101,6 (4")	5.18	25.4	5.08	17.45	1, 9 - 2, 3	12.2
33016.W2505	6,35 (1/4")	12,7 (0,5")	7.26	25.4	7.92	18.29	2,27 - 2,73	21.7
33016.W2506	6,35 (1/4")	15,24 (0,6")	7.26	25.4	7.92	18.29	2,27 - 2,73	21.7
33016.W2510	6,35 (1/4")	25,4 (1")	7.26	25.4	7.92	18.29	2,27 - 2,73	21.7
33016.W2515	6,35 (1/4")	38,1 (1,5")	7.26	25.4	7.92	18.29	2,27 - 2,73	21.7
33016.W2520	6,35 (1/4")	50,8 (2")	7.26	25.4	7.92	18.29	2,27 - 2,73	21.7
33016.W2525	6,35 (1/4")	63,5 (2,5")	7.26	25.4	7.92	18.29	2,27 - 2,73	21.7
33016.W2530	6,35 (1/4")	76,2 (3")	7.26	25.4	7.92	18.29	2,27 - 2,73	21.7
33016.W2535	6,35 (1/4")	88,9 (3,5")	7.26	25.4	7.92	18.29	2,27 - 2,73	21.7
33016.W2540	6,35 (1/4")	101,6 (4")	7.26	25.4	7.92	18.29	2,27 - 2,73	21.7
33016.W3105	7,94 (5/16")	12,7 (0,5")	9.09	25.4	9.53	19.05	2,27 - 2,73	33.8
33016.W3110	7,94 (5/16")	25,4 (1")	9.09	25.4	9.53	19.05	2,27 - 2,73	33.8
33016.W3115	7,94 (5/16")	38,1 (1,5")	9.09	25.4	9.53	19.05	2,27 - 2,73	33.8
33016.W3120	7,94 (5/16")	50,8 (2")	9.09	25.4	9.53	19.05	2,27 - 2,73	33.8
33016.W3125	7,94 (5/16")	63,5 (2,5")	9.09	25.4	9.53	19.05	2,27 - 2,73	33.8
33016.W3130	7,94 (5/16")	76,2 (3")	9.09	25.4	9.53	19.05	2,27 - 2,73	33.8
33016.W3135	7,94 (5/16")	88,9 (3,5")	9.09	25.4	9.53	19.05	2,27 - 2,73	33.8
33016.W3140	7,94 (5/16")	101,6 (4")	9.09	25.4	9.53	19.05	2,27 - 2,73	33.8
33016.W3145	7,94 (5/16")	114,3 (4,5")	9.09	25.4	9.53	19.05	2,27 - 2,73	33.8
33016.W3150	7,94 (5/16")	127 (5")	9.09	25.4	9.53	19.05	2,27 - 2,73	33.8
33016.W3705	9,53 (3/8")	12,7 (0,5")	10.82	25.4	12.7	19.05	3,63 - 4,54	49.1
33016.W3706	9,53 (3/8")	15,24 (0,6")	10.82	25.4	12.7	19.05	3,63 - 4,54	49.1



Order No.	d ₁ +0.00 -0.08	l ₁ grip +1.50 -0.00	d ₂	d ₃	l ₂	l ₃	Pull out strength kg	Single shear strength kN min.
33016.W3710	9,53 (3,8")	25,4 (1")	10.82	25.4	12.7	19.05	3,63 - 4,54	49.1
33016.W3715	9,53 (3,8")	38,1 (1,5")	10.82	25.4	12.7	19.05	3,63 - 4,54	49.1
33016.W3718	9,53 (3,8")	45,72 (1,8")	10.82	25.4	12.7	19.05	3,63 - 4,54	49.1
33016.W3720	9,53 (3,8")	50,8 (2")	10.82	25.4	12.7	19.05	3,63 - 4,54	49.1
33016.W3725	9,53 (3,8")	63,5 (2,5")	10.82	25.4	12.7	19.05	3,63 - 4,54	49.1
33016.W3730	9,53 (3,8")	76,2 (3")	10.82	25.4	12.7	19.05	3,63 - 4,54	49.1
33016.W3735	9,53 (3,8")	88,9 (3,5")	10.82	25.4	12.7	19.05	3,63 - 4,54	49.1
33016.W3740	9,53 (3,8")	101,6 (4")	10.82	25.4	12.7	19.05	3,63 - 4,54	49.1
33016.W3745	9,53 (3,8")	114,3 (4,5")	10.82	25.4	12.7	19.05	3,63 - 4,54	49.1
33016.W3750	9,53 (3,8")	127 (5")	10.82	25.4	12.7	19.05	3,63 - 4,54	49.1
33016.W3755	9,53 (3,8")	139,7 (5,5")	10.82	25.4	12.7	19.05	3,63 - 4,54	49.1
33016.W3760	9,53 (3,8")	152,4 (6")	10.82	25.4	12.7	19.05	3,63 - 4,54	49.1
33016.W4305	11,11 (7,16")	12,7 (0,5")	12.6	25.4	14.27	24.13	4,09 - 5,45	66.5
33016.W4310	11,11 (7,16")	25,4 (1")	12.6	25.4	14.27	24.13	4,09 - 5,45	66.5
33016.W4315	11,11 (7,16")	38,1 (1,5")	12.6	25.4	14.27	24.13	4,09 - 5,45	66.5
33016.W4320	11,11 (7,16")	50,8 (2")	12.6	25.4	14.27	24.13	4,09 - 5,45	66.5
33016.W4325	11,11 (7,16")	63,5 (2,5")	12.6	25.4	14.27	24.13	4,09 - 5,45	66.5
33016.W4330	11,11 (7,16")	76,2 (3")	12.6	25.4	14.27	24.13	4,09 - 5,45	66.5
33016.W4335	11,11 (7,16")	88,9 (3,5")	12.6	25.4	14.27	24.13	4,09 - 5,45	66.5
33016.W4340	11,11 (7,16")	101,6 (4")	12.6	25.4	14.27	24.13	4,09 - 5,45	66.5
33016.W4345	11,11 (7,16")	114,3 (4,5")	12.6	25.4	14.27	24.13	4,09 - 5,45	66.5
33016.W4350	11,11 (7,16")	127 (5")	12.6	25.4	14.27	24.13	4,09 - 5,45	66.5
33016.W4355	11,11 (7,16")	139,7 (5,5")	12.6	25.4	14.27	24.13	4,09 - 5,45	66.5
33016.W4360	11,11 (7,16")	152,4 (6")	12.6	25.4	14.27	24.13	4,09 - 5,45	66.5
33016.W5005	12,7 (1/2")	12,7 (0,5")	14.48	31.75	15.88	25.7	4,54 - 5,45	87.1
33016.W5010	12,7 (1/2")	25,4 (1")	14.48	31.75	15.88	25.7	4,54 - 5,45	87.1
33016.W5013	12,7 (1/2")	33,02 (1,3")	14.48	31.75	15.88	25.7	4,54 - 5,45	87.1
33016.W5015	12,7 (1/2")	38,1 (1,5")	14.48	31.75	15.88	25.7	4,54 - 5,45	87.1
33016.W5020	12,7 (1/2")	50,8 (2")	14.48	31.75	15.88	25.7	4,54 - 5,45	87.1
33016.W5025	12,7 (1/2")	63,5 (2,5")	14.48	31.75	15.88	25.7	4,54 - 5,45	87.1
33016.W5035	12,7 (1/2")	88,9 (3,5")	14.48	31.75	15.88	25.7	4,54 - 5,45	87.1
33016.W5040	12,7 (1/2")	101,6 (4")	14.48	31.75	15.88	25.7	4,54 - 5,45	87.1
33016.W5045	12,7 (1/2")	114,3 (4,5")	14.48	31.75	15.88	25.7	4,54 - 5,45	87.1
33016.W5050	12,7 (1/2")	127 (5")	14.48	31.75	15.88	25.7	4,54 - 5,45	87.1
33016.W5055	12,7 (1/2")	139,7 (5,5")	14.48	31.75	15.88	25.7	4,54 - 5,45	87.1
33016.W5060	12,7 (1/2")	152,4 (6")	14.48	31.75	15.88	25.7	4,54 - 5,45	87.1
33016.W5065	12,7 (1/2")	165,1 (6,5")	14.48	31.75	15.88	25.7	4,54 - 5,45	87.1
33016.W5070	12,7 (1/2")	177,8 (7")	14.48	31.75	15.88	25.7	4,54 - 5,45	87.1
33016.W5610	14,29 (9/16")	25,4 (1")	16.31	31.75	17.45	25.7	5,45 - 6,81	110.3
33016.W5615	14,29 (9/16")	38,1 (1,5")	16.31	31.75	17.45	25.7	5,45 - 6,81	110.3
33016.W5620	14,29 (9/16")	50,8 (2")	16.31	31.75	17.45	25.7	5,45 - 6,81	110.3
33016.W5625	14,29 (9/16")	63,5 (2,5")	16.31	31.75	17.45	25.7	5,45 - 6,81	110.3
33016.W5630	14,29 (9/16")	76,2 (3")	16.31	31.75	17.45	25.7	5,45 - 6,81	110.3
33016.W5635	14,29 (9/16")	88,9 (3,5")	16.31	31.75	17.45	25.7	5,45 - 6,81	110.3
33016.W5640	14,29 (9/16")	101,6 (4")	16.31	31.75	17.45	25.7	5,45 - 6,81	110.3
33016.W5645	14,29 (9/16")	114,3 (4,5")	16.31	31.75	17.45	25.7	5,45 - 6,81	110.3
33016.W5650	14,29 (9/16")	127 (5")	16.31	31.75	17.45	25.7	5,45 - 6,81	110.3
33016.W5655	14,29 (9/16")	139,7 (5,5")	16.31	31.75	17.45	25.7	5,45 - 6,81	110.3
33016.W5660	14,29 (9/16")	152,4 (6")	16.31	31.75	17.45	25.7	5,45 - 6,81	110.3
33016.W5670	14,29 (9/16")	177,8 (7")	16.31	31.75	17.45	25.7	5,45 - 6,81	110.3
33016.W6210	15,88 (5/8")	25,4 (1")	18.03	31.75	19.05	27.31	6,36 - 7,26	137.3
33016.W6215	15,88 (5/8")	38,1 (1,5")	18.03	31.75	19.05	27.31	6,36 - 7,26	137.3
33016.W6220	15,88 (5/8")	50,8 (2")	18.03	31.75	19.05	27.31	6,36 - 7,26	137.3
33016.W6225	15,88 (5/8")	63,5 (2,5")	18.03	31.75	19.05	27.31	6,36 - 7,26	137.3
33016.W6230	15,88 (5/8")	76,2 (3")	18.03	31.75	19.05	27.31	6,36 - 7,26	137.3
33016.W6235	15,88 (5/8")	88,9 (3,5")	18.03	31.75	19.05	27.31	6,36 - 7,26	137.3
33016.W6240	15,88 (5/8")	101,6 (4")	18.03	31.75	19.05	27.31	6,36 - 7,26	137.3
33016.W6245	15,88 (5/8")	114,3 (4,5")	18.03	31.75	19.05	27.31	6,36 - 7,26	137.3
33016.W6250	15,88 (5/8")	127 (5")	18.03	31.75	19.05	27.31	6,36 - 7,26	137.3
33016.W6255	15,88 (5/8")	139,7 (5,5")	18.03	31.75	19.05	27.31	6,36 - 7,26	137.3
33016.W6260	15,88 (5/8")	152,4 (6")	18.03	31.75	19.05	27.31	6,36 - 7,26	137.3
33016.W6270	15,88 (5/8")	177,8 (7")	18.03	31.75	19.05	27.31	6,36 - 7,26	137.3
33016.W6280	15,88 (5/8")	203,2 (8")	18.03	31.75	19.05	27.31	6,36 - 7,26	137.3
33016.W7510	19,05 (3/4")	25,4 (1")	21.74	38.1	23.8	34.93	8,17 - 9,98	195.9
33016.W7515	19,05 (3/4")	38,1 (1,5")	21.74	38.1	23.8	34.93	8,17 - 9,98	195.9
33016.W7520	19,05 (3/4")	50,8 (2")	21.74	38.1	23.8	34.93	8,17 - 9,98	195.9
33016.W7525	19,05 (3/4")	63,5 (2,5")	21.74	38.1	23.8	34.93	8,17 - 9,98	195.9



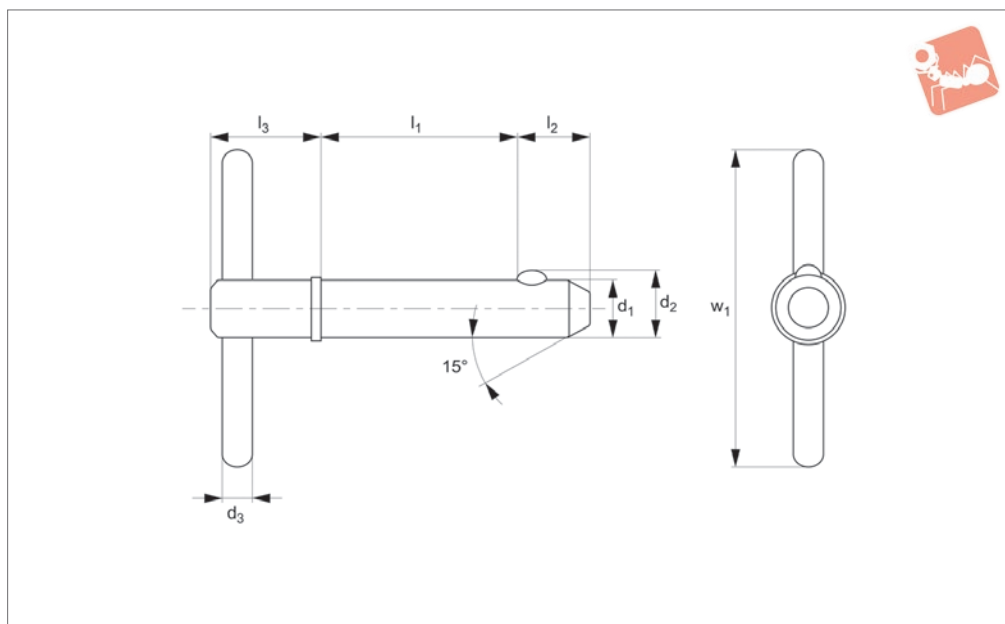
Detent Pin - Ring Handle - Shoulder stainless steel

Ball Lock Pins & Quick Release

Order No.	d ₁ +0.00 -0.08	l ₁ grip +1.50 -0.00	d ₂	d ₃	l ₂	l ₃	Pull out strength kg	Single shear strength kN min.
33016.W7530	19,05 (3/4")	76,2 (3")	21.74	38.1	23.8	34.93	8,17 - 9,98	195.9
33016.W7535	19,05 (3/4")	88,9 (3,5")	21.74	38.1	23.8	34.93	8,17 - 9,98	195.9
33016.W7540	19,05 (3/4")	101,6 (4")	21.74	38.1	23.8	34.93	8,17 - 9,98	195.9
33016.W7545	19,05 (3/4")	114,3 (4,5")	21.74	38.1	23.8	34.93	8,17 - 9,98	195.9
33016.W7550	19,05 (3/4")	127 (5")	21.74	38.1	23.8	34.93	8,17 - 9,98	195.9
33016.W7555	19,05 (3/4")	139,7 (5,5")	21.74	38.1	23.8	34.93	8,17 - 9,98	195.9
33016.W7560	19,05 (3/4")	152,4 (6")	21.74	38.1	23.8	34.93	8,17 - 9,98	195.9
33016.W7570	19,05 (3/4")	177,8 (7")	21.74	38.1	23.8	34.93	8,17 - 9,98	195.9
33016.W7580	19,05 (3/4")	203,2 (8")	21.74	38.1	23.8	34.93	8,17 - 9,98	195.9
33016.W8810	22,23 (7/8")	25,4 (1")	25.3	38.1	25.4	38.1	12,71 - 14,07	262.4
33016.W8815	22,23 (7/8")	38,1 (1,5")	25.3	38.1	25.4	38.1	12,71 - 14,07	262.4
33016.W8820	22,23 (7/8")	50,8 (2")	25.3	38.1	25.4	38.1	12,71 - 14,07	262.4
33016.W8825	22,23 (7/8")	63,5 (2,5")	25.3	38.1	25.4	38.1	12,71 - 14,07	262.4
33016.W8830	22,23 (7/8")	76,2 (3")	25.3	38.1	25.4	38.1	12,71 - 14,07	262.4
33016.W8835	22,23 (7/8")	88,9 (3,5")	25.3	38.1	25.4	38.1	12,71 - 14,07	262.4
33016.W8840	22,23 (7/8")	101,6 (4")	25.3	38.1	25.4	38.1	12,71 - 14,07	262.4
33016.W8845	22,23 (7/8")	114,3 (4,5")	25.3	38.1	25.4	38.1	12,71 - 14,07	262.4
33016.W8850	22,23 (7/8")	127 (5")	25.3	38.1	25.4	38.1	12,71 - 14,07	262.4
33016.W8855	22,23 (7/8")	139,7 (5,5")	25.3	38.1	25.4	38.1	12,71 - 14,07	262.4
33016.W8860	22,23 (7/8")	152,4 (6")	25.3	38.1	25.4	38.1	12,71 - 14,07	262.4
33016.W8865	22,23 (7/8")	165,1 (6,5")	25.3	38.1	25.4	38.1	12,71 - 14,07	262.4
33016.W8870	22,23 (7/8")	177,8 (7")	25.3	38.1	25.4	38.1	12,71 - 14,07	262.4
33016.W8880	22,23 (7/8")	203,2 (8")	25.3	38.1	25.4	38.1	12,71 - 14,07	262.4
33016.W1010	25,4 (1")	25,4 (1")	28.96	38.1	31.75	38.1	15,88 - 18,15	353.0
33016.W1015	25,4 (1")	38,1 (1,5")	28.96	38.1	31.75	38.1	15,88 - 18,15	353.0
33016.W1020	25,4 (1")	50,8 (2")	28.96	38.1	31.75	38.1	15,88 - 18,15	353.0
33016.W1025	25,4 (1")	63,5 (2,5")	28.96	38.1	31.75	38.1	15,88 - 18,15	353.0
33016.W1030	25,4 (1")	76,2 (3")	28.96	38.1	31.75	38.1	15,88 - 18,15	353.0
33016.W1035	25,4 (1")	88,9 (3,5")	28.96	38.1	31.75	38.1	15,88 - 18,15	353.0
33016.W1040	25,4 (1")	101,6 (4")	28.96	38.1	31.75	38.1	15,88 - 18,15	353.0
33016.W1045	25,4 (1")	114,3 (4,5")	28.96	38.1	31.75	38.1	15,88 - 18,15	353.0
33016.W1050	25,4 (1")	127 (5")	28.96	38.1	31.75	38.1	15,88 - 18,15	353.0
33016.W1055	25,4 (1")	139,7 (5,5")	28.96	38.1	31.75	38.1	15,88 - 18,15	353.0
33016.W1060	25,4 (1")	152,4 (6")	28.96	38.1	31.75	38.1	15,88 - 18,15	353.0
33016.W1070	25,4 (1")	177,8 (7")	28.96	38.1	31.75	38.1	15,88 - 18,15	353.0
33016.W1080	25,4 (1")	203,2 (8")	28.96	38.1	31.75	38.1	15,88 - 18,15	353.0



33018



Material

Shaft: Carbon steel (C1144), zinc plated.
Ball & spring: Stainless steel AISI 316.

Technical Notes

Detent pins are very economical for use in commercial and military equipment.
The solid body with direct spring loaded

ball ensures reliable operation.

Can be used for locking telescopic tubing, securing bracket assemblies, as anchor clevis fittings, hinge pins and as replacement for cotter pins where frequent removal is necessary.

Hole sizes - commercial drills provide clear-

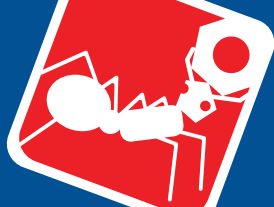
ance for our standard pins.

Inch dimensions in brackets ().

Tips

Also available in stainless steel see part no. P.

Order No.	d_1 +0.00 -0.08	l_1 grip +1.50 -0.00	d_2	d_3	l_2	l_3	Pull out strength kg	w_1	Single shear strength kN min.
33018.W1803	4,76 (3/16")	7,62 (0,3")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	10.8
33018.W1805	4,76 (3/16")	12,7 (0,5")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	10.8
33018.W1810	4,76 (3/16")	25,4 (1")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	10.8
33018.W1815	4,76 (3/16")	38,1 (1,5")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	10.8
33018.W1820	4,76 (3/16")	50,8 (2")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	10.8
33018.W1825	4,76 (3/16")	63,5 (2,5")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	10.8
33018.W1830	4,76 (3/16")	76,2 (3")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	10.8
33018.W1835	4,76 (3/16")	88,9 (3,5")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	10.8
33018.W1840	4,76 (3/16")	101,6 (4")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	10.8
33018.W2505	6,35 (1/4")	12,7 (0,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33018.W2506	6,35 (1/4")	15,24 (0,6")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33018.W2510	6,35 (1/4")	25,4 (1")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33018.W2515	6,35 (1/4")	38,1 (1,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33018.W2520	6,35 (1/4")	50,8 (2")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33018.W2525	6,35 (1/4")	63,5 (2,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33018.W2530	6,35 (1/4")	76,2 (3")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33018.W2535	6,35 (1/4")	88,9 (3,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33018.W2540	6,35 (1/4")	101,6 (4")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33018.W3105	7,94 (5/16")	12,7 (0,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33018.W3110	7,94 (5/16")	25,4 (1")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33018.W3115	7,94 (5/16")	38,1 (1,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33018.W3120	7,94 (5/16")	50,8 (2")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33018.W3125	7,94 (5/16")	63,5 (2,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33018.W3130	7,94 (5/16")	76,2 (3")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33018.W3135	7,94 (5/16")	88,9 (3,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33018.W3140	7,94 (5/16")	101,6 (4")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33018.W3145	7,94 (5/16")	114,3 (4,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33018.W3150	7,94 (5/16")	127 (5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33018.W3705	9,53 (3,8")	12,7 (0,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3



Detent Pin - T Handle - Shoulder steel

Ball Lock Pins & Quick Release

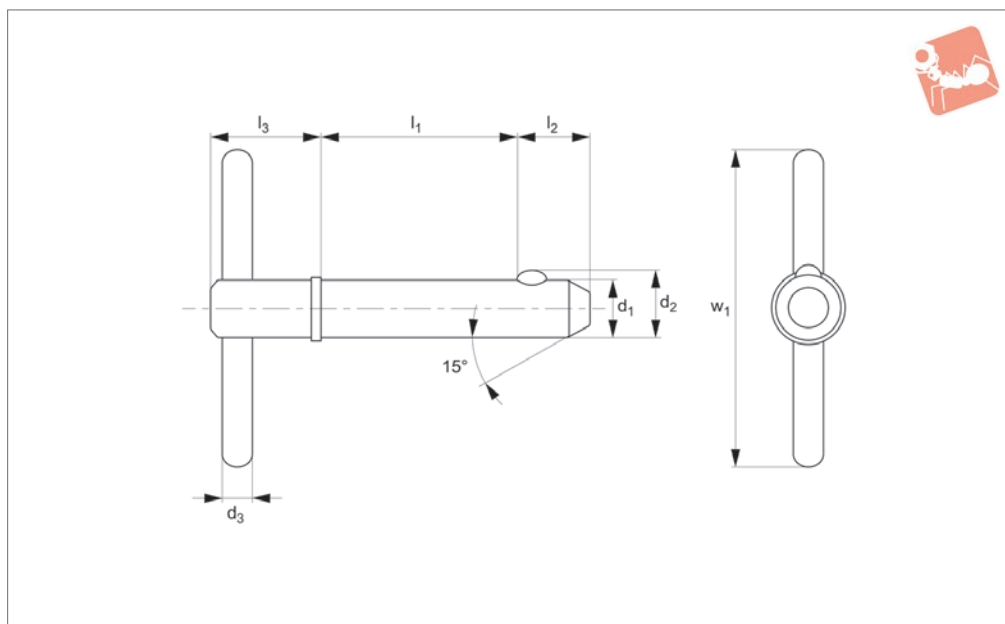


Order No.	d_1 +0.00 -0.08	l_1 grip +1.50 -0.00	d_2	d_3	l_2	l_3	Pull out strength kg	w_1	Single shear strength kN min.
33018.W3706	9,53 (3,8")	15,24 (0,6")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33018.W3710	9,53 (3,8")	25,4 (1")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33018.W3715	9,53 (3,8")	38,1 (1,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33018.W3718	9,53 (3,8")	45,72 (1,8")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33018.W3720	9,53 (3,8")	50,8 (2")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33018.W3725	9,53 (3,8")	63,5 (2,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33018.W3730	9,53 (3,8")	76,2 (3")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33018.W3735	9,53 (3,8")	88,9 (3,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33018.W3740	9,53 (3,8")	101,6 (4")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33018.W3745	9,53 (3,8")	114,3 (4,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33018.W3750	9,53 (3,8")	127 (5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33018.W3755	9,53 (3,8")	139,7 (5,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33018.W3760	9,53 (3,8")	152,4 (6")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33018.W4305	11,11(7/16")	12,7 (0,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33018.W4310	11,11(7/16")	25,4 (1")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33018.W4315	11,11(7/16")	38,1 (1,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33018.W4320	11,11(7/16")	50,8 (2")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33018.W4325	11,11(7/16")	63,5 (2,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33018.W4330	11,11(7/16")	76,2 (3")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9

BALL LOCK PINS & QUICK RELEASE PINS



33020



Material

Shaft: Stainless steel, AISI 303.

Ball & Spring: Stainless steel, AISI 316.

Technical Notes

Detent pins are very economical for use in commercial and military equipment.

The solid body with direct spring loaded ball ensures reliable operation.

For locking telescopic tubing, securing bracket assemblies, as anchor clevis fittings, hinge pins etc where frequent removal is necessary.

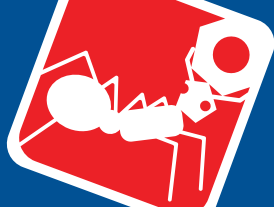
Hole sizes - commercial drills provide clearance for our standard pins.

Inch dimensions in brackets ().

Tips

Also available on request in A4 (AISI 316) stainless steel, subject to min. quantity.

Order No.	d_1 +0.00 -0.08	l_1 grip +1.50 -0.00	d_2	d_3	l_2	l_3	Pull out strength kg	w_1	Single shear strength kN min.
33020.W1803	4,76 (3/16")	7,62 (0,3")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33020.W1805	4,76 (3/16")	12,7 (0,5")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33020.W1810	4,76 (3/16")	25,4 (1")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33020.W1815	4,76 (3/16")	38,1 (1,5")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33020.W1820	4,76 (3/16")	50,8 (2")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33020.W1825	4,76 (3/16")	63,5 (2,5")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33020.W1830	4,76 (3/16")	76,2 (3")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33020.W1835	4,76 (3/16")	88,9 (3,5")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33020.W1840	4,76 (3/16")	101,6 (4")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33020.W2505	6,35 (1/4")	12,7 (0,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33020.W2506	6,35 (1/4")	15,24 (0,6")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33020.W2510	6,35 (1/4")	25,4 (1")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33020.W2515	6,35 (1/4")	38,1 (1,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33020.W2520	6,35 (1/4")	50,8 (2")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33020.W2525	6,35 (1/4")	63,5 (2,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33020.W2530	6,35 (1/4")	76,2 (3")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33020.W2535	6,35 (1/4")	88,9 (3,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33020.W2540	6,35 (1/4")	101,6 (4")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33020.W3105	7,94 (5/16")	12,7 (0,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33020.W3110	7,94 (5/16")	25,4 (1")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33020.W3115	7,94 (5/16")	38,1 (1,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33020.W3120	7,94 (5/16")	50,8 (2")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33020.W3125	7,94 (5/16")	63,5 (2,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33020.W3130	7,94 (5/16")	76,2 (3")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33020.W3135	7,94 (5/16")	88,9 (3,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33020.W3140	7,94 (5/16")	101,6 (4")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33020.W3145	7,94 (5/16")	114,3 (4,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33020.W3150	7,94 (5/16")	127 (5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33020.W3705	9,53 (3/8")	12,7 (0,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33020.W3706	9,53 (3/8")	15,24 (0,6")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1



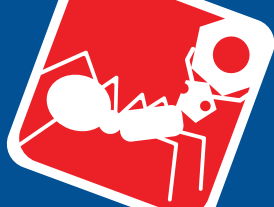
Detent Pin - T Handle - Shoulder stainless steel

Ball Lock Pins & Quick Release

Order No.	d ₁ +0.00 -0.08	l ₁ grip +1.50 -0.00	d ₂	d ₃	l ₂	l ₃	Pull out strength kg	w ₁	Single shear strength kN min.
33020.W3710	9,53 (3,8")	25,4 (1")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33020.W3715	9,53 (3,8")	38,1 (1,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33020.W3718	9,53 (3,8")	45,72 (1,8")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33020.W3720	9,53 (3,8")	50,8 (2")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33020.W3725	9,53 (3,8")	63,5 (2,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33020.W3730	9,53 (3,8")	76,2 (3")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33020.W3735	9,53 (3,8")	88,9 (3,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33020.W3740	9,53 (3,8")	101,6 (4")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33020.W3745	9,53 (3,8")	114,3 (4,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33020.W3750	9,53 (3,8")	127 (5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33020.W3755	9,53 (3,8")	139,7 (5,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33020.W3760	9,53 (3,8")	152,4 (6")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33020.W4305	11,11 (7,16")	12,7 (0,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33020.W4310	11,11 (7,16")	25,4 (1")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33020.W4315	11,11 (7,16")	38,1 (1,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33020.W4320	11,11 (7,16")	50,8 (2")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33020.W4325	11,11 (7,16")	63,5 (2,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33020.W4330	11,11 (7,16")	76,2 (3")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33020.W4335	11,11 (7,16")	88,9 (3,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33020.W4340	11,11 (7,16")	101,6 (4")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33020.W4345	11,11 (7,16")	114,3 (4,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33020.W4350	11,11 (7,16")	127 (5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33020.W4355	11,11 (7,16")	139,7 (5,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33020.W4360	11,11 (7,16")	152,4 (6")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33020.W5005	12,7 (1/2")	12,7 (0,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33020.W5010	12,7 (1/2")	25,4 (1")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33020.W5013	12,7 (1/2")	33,02 (1,3")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33020.W5015	12,7 (1/2")	38,1 (1,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33020.W5020	12,7 (1/2")	50,8 (2")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33020.W5025	12,7 (1/2")	63,5 (2,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33020.W5035	12,7 (1/2")	88,9 (3,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33020.W5040	12,7 (1/2")	101,6 (4")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33020.W5045	12,7 (1/2")	114,3 (4,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33020.W5050	12,7 (1/2")	127 (5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33020.W5055	12,7 (1/2")	139,7 (5,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33020.W5060	12,7 (1/2")	152,4 (6")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33020.W5065	12,7 (1/2")	165,1 (6,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33020.W5070	12,7 (1/2")	177,8 (7")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33020.W5610	14,29 (9/16")	25,4 (1")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33020.W5615	14,29 (9/16")	38,1 (1,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33020.W5620	14,29 (9/16")	50,8 (2")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33020.W5625	14,29 (9/16")	63,5 (2,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33020.W5630	14,29 (9/16")	76,2 (3")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33020.W5635	14,29 (9/16")	88,9 (3,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33020.W5640	14,29 (9/16")	101,6 (4")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33020.W5645	14,29 (9/16")	114,3 (4,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33020.W5650	14,29 (9/16")	127 (5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33020.W5655	14,29 (9/16")	139,7 (5,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33020.W5660	14,29 (9/16")	152,4 (6")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33020.W5670	14,29 (9/16")	177,8 (7")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33020.W6210	15,88 (5/8")	25,4 (1")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33020.W6215	15,88 (5/8")	38,1 (1,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33020.W6220	15,88 (5/8")	50,8 (2")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33020.W6225	15,88 (5/8")	63,5 (2,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33020.W6230	15,88 (5/8")	76,2 (3")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33020.W6235	15,88 (5/8")	88,9 (3,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33020.W6240	15,88 (5/8")	101,6 (4")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33020.W6245	15,88 (5/8")	114,3 (4,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33020.W6250	15,88 (5/8")	127 (5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33020.W6255	15,88 (5/8")	139,7 (5,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33020.W6260	15,88 (5/8")	152,4 (6")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33020.W6270	15,88 (5/8")	177,8 (7")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33020.W6280	15,88 (5/8")	203,2 (8")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33020.W7510	19,05 (3/4")	25,4 (1")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33020.W7515	19,05 (3/4")	38,1 (1,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33020.W7520	19,05 (3/4")	50,8 (2")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33020.W7525	19,05 (3/4")	63,5 (2,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9

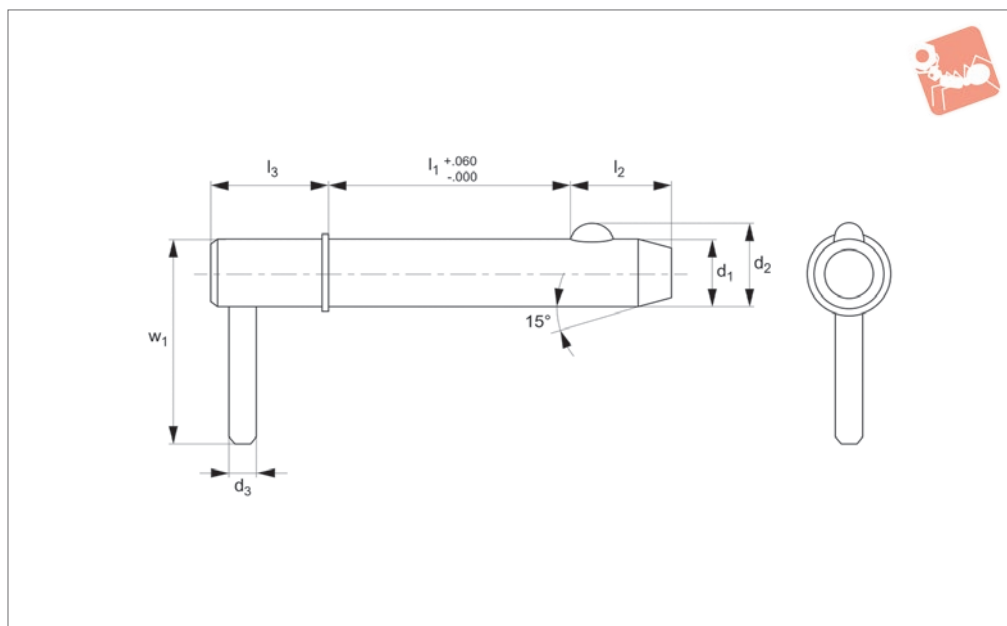


Order No.	d ₁ +0.00 -0.08	l ₁ grip +1.50 -0.00	d ₂	d ₃	l ₂	l ₃	Pull out strength kg	w ₁	Single shear strength kN min.
33020.W7530	19,05 (3/4")	76,2 (3")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33020.W7535	19,05 (3/4")	88,9 (3,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33020.W7540	19,05 (3/4")	101,6 (4")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33020.W7545	19,05 (3/4")	114,3 (4,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33020.W7550	19,05 (3/4")	127 (5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33020.W7555	19,05 (3/4")	139,7 (5,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33020.W7560	19,05 (3/4")	152,4 (6")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33020.W7570	19,05 (3/4")	177,8 (7")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33020.W7580	19,05 (3/4")	203,2 (8")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33020.W8810	22,23 (7/8")	25,4 (1")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33020.W8815	22,23 (7/8")	38,1 (1,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33020.W8820	22,23 (7/8")	50,8 (2")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33020.W8825	22,23 (7/8")	63,5 (2,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33020.W8830	22,23 (7/8")	76,2 (3")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33020.W8835	22,23 (7/8")	88,9 (3,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33020.W8840	22,23 (7/8")	101,6 (4")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33020.W8845	22,23 (7/8")	114,3 (4,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33020.W8850	22,23 (7/8")	127 (5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33020.W8855	22,23 (7/8")	139,7 (5,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33020.W8860	22,23 (7/8")	152,4 (6")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33020.W8865	22,23 (7/8")	165,1 (6,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33020.W8870	22,23 (7/8")	177,8 (7")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33020.W8880	22,23 (7/8")	203,2 (8")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33020.W1010	25,4 (1")	25,4 (1")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33020.W1015	25,4 (1")	38,1 (1,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33020.W1020	25,4 (1")	50,8 (2")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33020.W1025	25,4 (1")	63,5 (2,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33020.W1030	25,4 (1")	76,2 (3")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33020.W1035	25,4 (1")	88,9 (3,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33020.W1040	25,4 (1")	101,6 (4")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33020.W1045	25,4 (1")	114,3 (4,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33020.W1050	25,4 (1")	127 (5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33020.W1055	25,4 (1")	139,7 (5,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33020.W1060	25,4 (1")	152,4 (6")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33020.W1070	25,4 (1")	177,8 (7")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33020.W1080	25,4 (1")	203,2 (8")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0



Detent Pin - L Handle - Shoulder steel

Ball Lock Pins & Quick Release



33022

BALL LOCK PINS & QUICK RELEASE PINS

Material

Shaft: Carbon steel (C1144), zinc plated.
Ball & spring: Stainless steel AISI 316.

Technical Notes

Detent Pins are very economical for use in commercial and military equipment.
The solid body with direct spring loaded

ball ensures reliable operation.
Can be used for locking telescopic tubing, securing bracket assemblies, as anchor clevis fittings, hinge pins and as replacement for cotter pins where frequent removal is necessary.
Hole sizes - commercial drills provide clear-

ance for our standard pins.
Inch dimensions in brackets ().

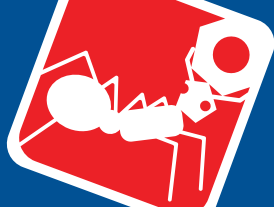
Tips

Also available in stainless steel see part no. 33024.

Order No.	d_1 +0.00 -0.08	l_1 grip +1.50 -0.00	d_2	d_3	l_2	l_3	Pull out strength kg	w_1	Single shear strength kN min.
33022.W1803	4,76 (3/16")	7,62 (0,3")	5.18	2.38	5.08	17.45	1,9 - 2,3	25.4	10.8
33022.W1805	4,76 (3/16")	12,7 (0,5")	5.18	2.38	5.08	17.45	1,9 - 2,3	25.4	10.8
33022.W1810	4,76 (3/16")	25,4 (1")	5.18	2.38	5.08	17.45	1,9 - 2,3	25.4	10.8
33022.W1815	4,76 (3/16")	38,1 (1,5")	5.18	2.38	5.08	17.45	1,9 - 2,3	25.4	10.8
33022.W1820	4,76 (3/16")	50,8 (2")	5.18	2.38	5.08	17.45	1,9 - 2,3	25.4	10.8
33022.W1825	4,76 (3/16")	63,5 (2,5")	5.18	2.38	5.08	17.45	1,9 - 2,3	25.4	10.8
33022.W1830	4,76 (3/16")	76,2 (3")	5.18	2.38	5.08	17.45	1,9 - 2,3	25.4	10.8
33022.W1835	4,76 (3/16")	88,9 (3,5")	5.18	2.38	5.08	17.45	1,9 - 2,3	25.4	10.8
33022.W1840	4,76 (3/16")	101,6 (4")	5.18	2.38	5.08	17.45	1,9 - 2,3	25.4	10.8
33022.W2505	6,35 (1/4")	12,7 (0,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33022.W2506	6,35 (1/4")	15,24 (0,6")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33022.W2510	6,35 (1/4")	25,4 (1")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33022.W2515	6,35 (1/4")	38,1 (1,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33022.W2520	6,35 (1/4")	50,8 (2")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33022.W2525	6,35 (1/4")	63,5 (2,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33022.W2530	6,35 (1/4")	76,2 (3")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33022.W2535	6,35 (1/4")	88,9 (3,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33022.W2540	6,35 (1/4")	101,6 (4")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	19.3
33022.W3105	7,94 (5/16")	12,7 (0,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33022.W3110	7,94 (5/16")	25,4 (1")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33022.W3115	7,94 (5/16")	38,1 (1,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33022.W3120	7,94 (5/16")	50,8 (2")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33022.W3125	7,94 (5/16")	63,5 (2,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33022.W3130	7,94 (5/16")	76,2 (3")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33022.W3135	7,94 (5/16")	88,9 (3,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33022.W3140	7,94 (5/16")	101,6 (4")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33022.W3145	7,94 (5/16")	114,3 (4,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33022.W3150	7,94 (5/16")	127 (5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	30.0
33022.W3705	9,53 (3,8")	12,7 (0,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3



Order No.	d ₁ +0.00 -0.08	l ₁ grip +1.50 -0.00	d ₂	d ₃	l ₂	l ₃	Pull out strength kg	w ₁	Single shear strength kN min.
33022.W3706	9,53 (3,8")	15,24 (0,6")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33022.W3710	9,53 (3,8")	25,4 (1")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33022.W3715	9,53 (3,8")	38,1 (1,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33022.W3718	9,53 (3,8")	45,72 (1,8")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33022.W3720	9,53 (3,8")	50,8 (2")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33022.W3725	9,53 (3,8")	63,5 (2,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33022.W3730	9,53 (3,8")	76,2 (3")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33022.W3735	9,53 (3,8")	88,9 (3,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33022.W3740	9,53 (3,8")	101,6 (4")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33022.W3745	9,53 (3,8")	114,3 (4,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33022.W3750	9,53 (3,8")	127 (5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33022.W3755	9,53 (3,8")	139,7 (5,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33022.W3760	9,53 (3,8")	152,4 (6")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	43.3
33022.W4305	11,11 (7,16")	12,7 (0,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33022.W4310	11,11 (7,16")	25,4 (1")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33022.W4315	11,11 (7,16")	38,1 (1,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33022.W4320	11,11 (7,16")	50,8 (2")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33022.W4325	11,11 (7,16")	63,5 (2,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33022.W4330	11,11 (7,16")	76,2 (3")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33022.W4335	11,11 (7,16")	88,9 (3,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33022.W4340	11,11 (7,16")	101,6 (4")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33022.W4345	11,11 (7,16")	114,3 (4,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33022.W4350	11,11 (7,16")	127 (5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33022.W4355	11,11 (7,16")	139,7 (5,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33022.W4360	11,11 (7,16")	152,4 (6")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	58.9
33022.W5005	12,7 (1/2")	12,7 (0,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	77.0
33022.W5010	12,7 (1/2")	25,4 (1")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	77.0
33022.W5013	12,7 (1/2")	33,02 (1,3")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	77.0
33022.W5015	12,7 (1/2")	38,1 (1,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	77.0
33022.W5020	12,7 (1/2")	50,8 (2")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	77.0
33022.W5025	12,7 (1/2")	63,5 (2,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	77.0
33022.W5035	12,7 (1/2")	88,9 (3,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	77.0
33022.W5040	12,7 (1/2")	101,6 (4")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	77.0
33022.W5045	12,7 (1/2")	114,3 (4,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	77.0
33022.W5050	12,7 (1/2")	127 (5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	77.0
33022.W5055	12,7 (1/2")	139,7 (5,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	77.0
33022.W5060	12,7 (1/2")	152,4 (6")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	77.0
33022.W5065	12,7 (1/2")	165,1 (6,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	77.0
33022.W5070	12,7 (1/2")	177,8 (7")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	77.0
33022.W5610	14,29 (9/16")	25,4 (1")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	97.6
33022.W5615	14,29 (9/16")	38,1 (1,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	97.6
33022.W5620	14,29 (9/16")	50,8 (2")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	97.6
33022.W5625	14,29 (9/16")	63,5 (2,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	97.6
33022.W5630	14,29 (9/16")	76,2 (3")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	97.6
33022.W5635	14,29 (9/16")	88,9 (3,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	97.6
33022.W5640	14,29 (9/16")	101,6 (4")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	97.6
33022.W5645	14,29 (9/16")	114,3 (4,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	97.6
33022.W5650	14,29 (9/16")	127 (5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	97.6
33022.W5655	14,29 (9/16")	139,7 (5,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	97.6
33022.W5660	14,29 (9/16")	152,4 (6")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	97.6
33022.W5670	14,29 (9/16")	177,8 (7")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	97.6
33022.W6210	15,88 (5/8")	25,4 (1")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	121.6
33022.W6215	15,88 (5/8")	38,1 (1,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	121.6
33022.W6220	15,88 (5/8")	50,8 (2")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	121.6
33022.W6225	15,88 (5/8")	63,5 (2,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	121.6
33022.W6230	15,88 (5/8")	76,2 (3")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	121.6
33022.W6235	15,88 (5/8")	88,9 (3,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	121.6
33022.W6240	15,88 (5/8")	101,6 (4")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	121.6
33022.W6245	15,88 (5/8")	114,3 (4,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	121.6
33022.W6250	15,88 (5/8")	127 (5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	121.6
33022.W6255	15,88 (5/8")	139,7 (5,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	121.6
33022.W6260	15,88 (5/8")	152,4 (6")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	121.6
33022.W6270	15,88 (5/8")	177,8 (7")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	121.6
33022.W6280	15,88 (5/8")	203,2 (8")	18.03	57.15	19.05	27.31	6,36 - 7,26	31.75	121.6
33022.W7510	19,05 (3/4")	25,4 (1")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	173.6
33022.W7515	19,05 (3/4")	38,1 (1,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	173.6
33022.W7520	19,05 (3/4")	50,8 (2")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	173.6



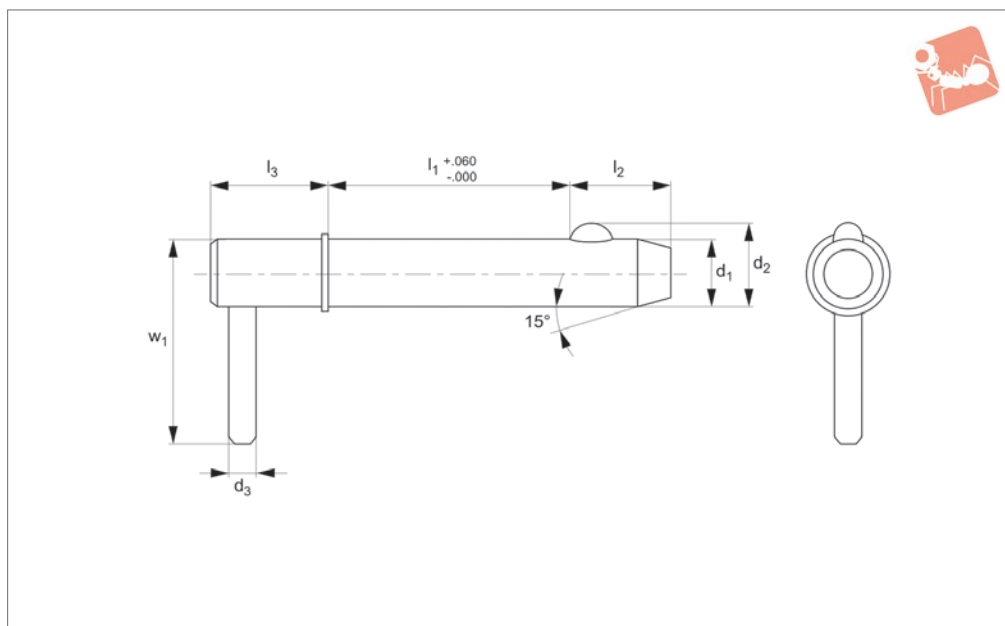
Detent Pin - L Handle - Shoulder steel

Ball Lock Pins & Quick Release

Order No.	d ₁ +0.00 -0.08	l ₁ grip +1.50 -0.00	d ₂	d ₃	l ₂	l ₃	Pull out strength kg	w ₁	Single shear strength kN min.
33022.W7525	19,05 (3/4")	63,5 (2,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	173.6
33022.W7530	19,05 (3/4")	76,2 (3")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	173.6
33022.W7535	19,05 (3/4")	88,9 (3,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	173.6
33022.W7540	19,05 (3/4")	101,6 (4")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	173.6
33022.W7545	19,05 (3/4")	114,3 (4,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	173.6
33022.W7550	19,05 (3/4")	127 (5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	173.6
33022.W7555	19,05 (3/4")	139,7 (5,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	173.6
33022.W7560	19,05 (3/4")	152,4 (6")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	173.6
33022.W7570	19,05 (3/4")	177,8 (7")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	173.6
33022.W7580	19,05 (3/4")	203,2 (8")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	173.6
33022.W8810	22,23 (7/8")	25,4 (1")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	239.4
33022.W8815	22,23 (7/8")	38,1 (1,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	239.4
33022.W8820	22,23 (7/8")	50,8 (2")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	239.4
33022.W8825	22,23 (7/8")	63,5 (2,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	239.4
33022.W8830	22,23 (7/8")	76,2 (3")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	239.4
33022.W8835	22,23 (7/8")	88,9 (3,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	239.4
33022.W8840	22,23 (7/8")	101,6 (4")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	239.4
33022.W8845	22,23 (7/8")	114,3 (4,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	239.4
33022.W8850	22,23 (7/8")	127 (5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	239.4
33022.W8855	22,23 (7/8")	139,7 (5,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	239.4
33022.W8860	22,23 (7/8")	152,4 (6")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	239.4
33022.W8865	22,23 (7/8")	165,1 (6,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	239.4
33022.W8870	22,23 (7/8")	177,8 (7")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	239.4
33022.W8880	22,23 (7/8")	203,2 (8")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	239.4
33022.W1010	25,4 (1")	25,4 (1")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	312.3
33022.W1015	25,4 (1")	38,1 (1,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	312.3
33022.W1020	25,4 (1")	50,8 (2")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	312.3
33022.W1025	25,4 (1")	63,5 (2,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	312.3
33022.W1030	25,4 (1")	76,2 (3")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	312.3
33022.W1035	25,4 (1")	88,9 (3,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	312.3
33022.W1040	25,4 (1")	101,6 (4")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	312.3
33022.W1045	25,4 (1")	114,3 (4,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	312.3
33022.W1050	25,4 (1")	127 (5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	312.3
33022.W1055	25,4 (1")	139,7 (5,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	312.3
33022.W1060	25,4 (1")	152,4 (6")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	312.3
33022.W1070	25,4 (1")	177,8 (7")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	312.3
33022.W1080	25,4 (1")	203,2 (8")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	312.3



33024



Material

Shaft: Stainless steel, AISI 303.

Ball & Spring: Stainless steel, AISI 316.

Technical Notes

Detent pins are very economical for use in commercial and military equipment.

The solid body with direct spring loaded ball ensures reliable operation.

For locking telescopic tubing, securing bracket assemblies, as anchor clevis fittings, hinge pins etc where frequent removal is necessary.

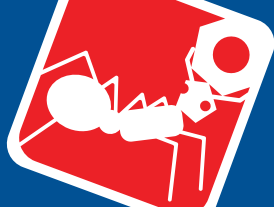
Hole sizes - commercial drills provide clearance for our standard pins.

Inch dimensions in brackets ().

Tips

Also available on request in A4 (AISI 316) stainless steel, subject to min. quantity.

Order No.	d_1 +0.00 -0.08	l_1 +1.5 -0.0	d_2	d_3	l_2	l_3	Pull out strength kg	w_1	Single shear strength kN min.
33024.W1803	4,76 (3/16")	7,62 (0,3")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33024.W1805	4,76 (3/16")	12,7 (0,5")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33024.W1810	4,76 (3/16")	25,4 (1")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33024.W1815	4,76 (3/16")	38,1 (1,5")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33024.W1820	4,76 (3/16")	50,8 (2")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33024.W1825	4,76 (3/16")	63,5 (2,5")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33024.W1830	4,76 (3/16")	76,2 (3")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33024.W1835	4,76 (3/16")	88,9 (3,5")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33024.W1840	4,76 (3/16")	101,6 (4")	5.18	2.38	5.08	17.45	1, 9 - 2, 3	25.4	12.2
33024.W2505	6,35 (1/4")	12,7 (0,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33024.W2506	6,35 (1/4")	15,24 (0,6")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33024.W2510	6,35 (1/4")	25,4 (1")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33024.W2515	6,35 (1/4")	38,1 (1,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33024.W2520	6,35 (1/4")	50,8 (2")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33024.W2525	6,35 (1/4")	63,5 (2,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33024.W2530	6,35 (1/4")	76,2 (3")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33024.W2535	6,35 (1/4")	88,9 (3,5")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33024.W2540	6,35 (1/4")	101,6 (4")	7.26	3.17	7.92	18.29	2,27 - 2,73	25.4	21.7
33024.W3105	7,94 (5/16")	12,7 (0,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33024.W3110	7,94 (5/16")	25,4 (1")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33024.W3115	7,94 (5/16")	38,1 (1,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33024.W3120	7,94 (5/16")	50,8 (2")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33024.W3125	7,94 (5/16")	63,5 (2,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33024.W3130	7,94 (5/16")	76,2 (3")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33024.W3135	7,94 (5/16")	88,9 (3,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33024.W3140	7,94 (5/16")	101,6 (4")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33024.W3145	7,94 (5/16")	114,3 (4,5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33024.W3150	7,94 (5/16")	127 (5")	9.09	3.96	9.53	19.05	2,27 - 2,73	25.4	33.8
33024.W3705	9,53 (3/8")	12,7 (0,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33024.W3706	9,53 (3/8")	15,24 (0,6")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1



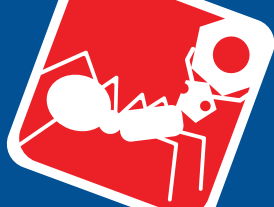
Detent Pin - L Handle - Shoulder stainless steel

Ball Lock Pins & Quick Release

Order No.	d_1 +0.00 -0.08	l_1 +1.5 -0.0	d_2	d_3	l_2	l_3	Pull out strength kg	w_1	Single shear strength kN min.
33024.W3710	9,53 (3,8")	25,4 (1")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33024.W3715	9,53 (3,8")	38,1 (1,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33024.W3718	9,53 (3,8")	45,72 (1,8")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33024.W3720	9,53 (3,8")	50,8 (2")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33024.W3725	9,53 (3,8")	63,5 (2,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33024.W3730	9,53 (3,8")	76,2 (3")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33024.W3735	9,53 (3,8")	88,9 (3,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33024.W3740	9,53 (3,8")	101,6 (4")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33024.W3745	9,53 (3,8")	114,3 (4,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33024.W3750	9,53 (3,8")	127 (5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33024.W3755	9,53 (3,8")	139,7 (5,5")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33024.W3760	9,53 (3,8")	152,4 (6")	10.82	3.96	12.7	19.05	3,63 - 4,54	25.4	49.1
33024.W4305	11,11 (7/16")	12,7 (0,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33024.W4310	11,11 (7/16")	25,4 (1")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33024.W4315	11,11 (7/16")	38,1 (1,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33024.W4320	11,11 (7/16")	50,8 (2")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33024.W4325	11,11 (7/16")	63,5 (2,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33024.W4330	11,11 (7/16")	76,2 (3")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33024.W4335	11,11 (7/16")	88,9 (3,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33024.W4340	11,11 (7/16")	101,6 (4")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33024.W4345	11,11 (7/16")	114,3 (4,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33024.W4350	11,11 (7/16")	127 (5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33024.W4355	11,11 (7/16")	139,7 (5,5")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33024.W4360	11,11 (7/16")	152,4 (6")	12.6	3.96	14.27	24.13	4,09 - 5,45	25.4	66.5
33024.W5005	12,7 (1/2")	12,7 (0,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33024.W5010	12,7 (1/2")	25,4 (1")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33024.W5013	12,7 (1/2")	33,02 (1,3")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33024.W5015	12,7 (1/2")	38,1 (1,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33024.W5020	12,7 (1/2")	50,8 (2")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33024.W5025	12,7 (1/2")	63,5 (2,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33024.W5035	12,7 (1/2")	88,9 (3,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33024.W5040	12,7 (1/2")	101,6 (4")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33024.W5045	12,7 (1/2")	114,3 (4,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33024.W5050	12,7 (1/2")	127 (5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33024.W5055	12,7 (1/2")	139,7 (5,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33024.W5060	12,7 (1/2")	152,4 (6")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33024.W5065	12,7 (1/2")	165,1 (6,5")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33024.W5070	12,7 (1/2")	177,8 (7")	14.48	4.76	15.88	25.7	4,54 - 5,45	31.75	87.1
33024.W5610	14,29 (9/16")	25,4 (1")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33024.W5615	14,29 (9/16")	38,1 (1,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33024.W5620	14,29 (9/16")	50,8 (2")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33024.W5625	14,29 (9/16")	63,5 (2,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33024.W5630	14,29 (9/16")	76,2 (3")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33024.W5635	14,29 (9/16")	88,9 (3,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33024.W5640	14,29 (9/16")	101,6 (4")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33024.W5645	14,29 (9/16")	114,3 (4,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33024.W5650	14,29 (9/16")	127 (5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33024.W5655	14,29 (9/16")	139,7 (5,5")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33024.W5660	14,29 (9/16")	152,4 (6")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33024.W5670	14,29 (9/16")	177,8 (7")	16.31	4.76	17.45	25.7	5,45 - 6,81	31.75	110.3
33024.W6210	15,88 (5/8")	25,4 (1")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33024.W6215	15,88 (5/8")	38,1 (1,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33024.W6220	15,88 (5/8")	50,8 (2")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33024.W6225	15,88 (5/8")	63,5 (2,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33024.W6230	15,88 (5/8")	76,2 (3")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33024.W6235	15,88 (5/8")	88,9 (3,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33024.W6240	15,88 (5/8")	101,6 (4")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33024.W6245	15,88 (5/8")	114,3 (4,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33024.W6250	15,88 (5/8")	127 (5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33024.W6255	15,88 (5/8")	139,7 (5,5")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33024.W6260	15,88 (5/8")	152,4 (6")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33024.W6270	15,88 (5/8")	177,8 (7")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33024.W6280	15,88 (5/8")	203,2 (8")	18.03	6.35	19.05	27.31	6,36 - 7,26	31.75	137.3
33024.W7510	19,05 (3/4")	25,4 (1")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33024.W7515	19,05 (3/4")	38,1 (1,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33024.W7520	19,05 (3/4")	50,8 (2")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33024.W7525	19,05 (3/4")	63,5 (2,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9

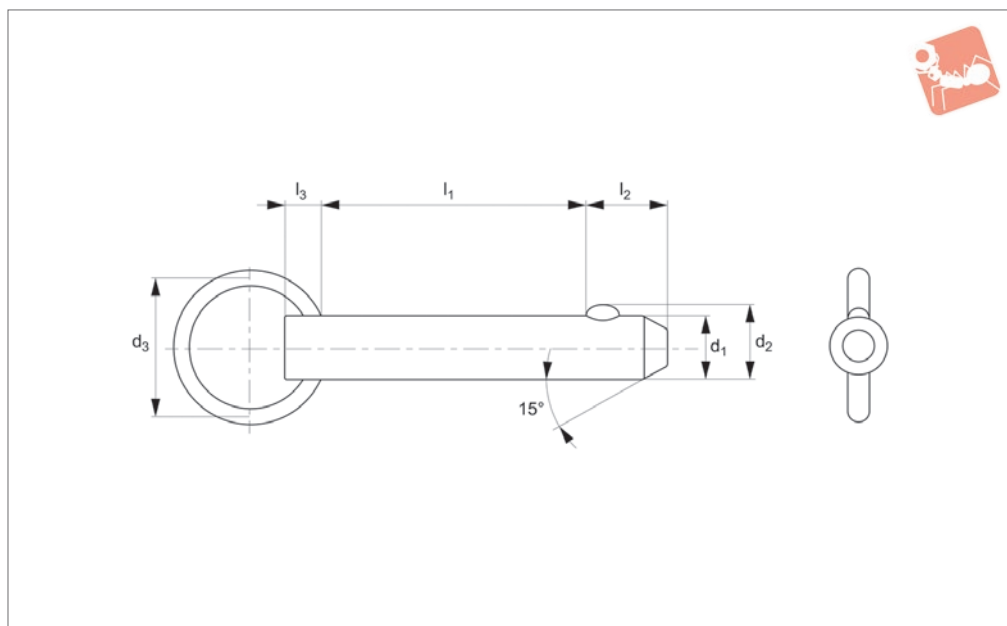


Order No.	d_1 +0.00 -0.08	l_1 +1.5 -0.0	d_2	d_3	l_2	l_3	Pull out strength kg	w_1	Single shear strength kN min.
33024.W7530	19,05 (3/4")	76,2 (3")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33024.W7535	19,05 (3/4")	88,9 (3,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33024.W7540	19,05 (3/4")	101,6 (4")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33024.W7545	19,05 (3/4")	114,3 (4,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33024.W7550	19,05 (3/4")	127 (5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33024.W7555	19,05 (3/4")	139,7 (5,5")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33024.W7560	19,05 (3/4")	152,4 (6")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33024.W7570	19,05 (3/4")	177,8 (7")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33024.W7580	19,05 (3/4")	203,2 (8")	21.74	6.35	23.8	34.93	8,17 - 9,98	38.1	195.9
33024.W8810	22,23 (7/8")	25,4 (1")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33024.W8815	22,23 (7/8")	38,1 (1,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33024.W8820	22,23 (7/8")	50,8 (2")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33024.W8825	22,23 (7/8")	63,5 (2,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33024.W8830	22,23 (7/8")	76,2 (3")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33024.W8835	22,23 (7/8")	88,9 (3,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33024.W8840	22,23 (7/8")	101,6 (4")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33024.W8845	22,23 (7/8")	114,3 (4,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33024.W8850	22,23 (7/8")	127 (5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33024.W8855	22,23 (7/8")	139,7 (5,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33024.W8860	22,23 (7/8")	152,4 (6")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33024.W8865	22,23 (7/8")	165,1 (6,5")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33024.W8870	22,23 (7/8")	177,8 (7")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33024.W8880	22,23 (7/8")	203,2 (8")	25.3	9.52	25.4	38.1	12,71 - 14,07	38.1	262.4
33024.W1010	25,4 (1")	25,4 (1")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33024.W1015	25,4 (1")	38,1 (1,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33024.W1020	25,4 (1")	50,8 (2")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33024.W1025	25,4 (1")	63,5 (2,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33024.W1030	25,4 (1")	76,2 (3")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33024.W1035	25,4 (1")	88,9 (3,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33024.W1040	25,4 (1")	101,6 (4")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33024.W1045	25,4 (1")	114,3 (4,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33024.W1050	25,4 (1")	127 (5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33024.W1055	25,4 (1")	139,7 (5,5")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33024.W1060	25,4 (1")	152,4 (6")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33024.W1070	25,4 (1")	177,8 (7")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0
33024.W1080	25,4 (1")	203,2 (8")	28.96	9.52	31.75	38.1	15,88 - 18,15	38.1	353.0



Detent Pin Stainless Steel

Ball Lock Pins & Quick Release



33012.1

BALL LOCK PINS & QUICK RELEASE PINS

Material

Shaft: Stainless steel, AISI 303.

Ball & Spring: Stainless steel, AISI 316.

Technical Notes

Detent pins are very economical for use in commercial and military equipment.

The solid body with direct spring loaded ball ensures reliable operation.

For locking telescopic tubing, securing bracket assemblies, as anchor clevis fittings, hinge pins etc where frequent removal is necessary.

Hole sizes - commercial drills provide clearance for our standard pins.

Inch dimensions in brackets ().

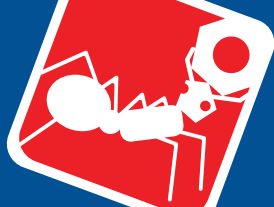
Tips

Also available on request in A4 (AISI 316) stainless steel, subject to min. quantity.

Order No.	d ₁ +0.00/-0.08	l ₁ grip +1.5/-0.0	d ₂	d ₃	l ₂	l ₃	Pull out strength kg	Single shear strength kN min.
33012.W1803	4,76 (3/16")	7,62 (0,3")	5.18	25.4	5.08	4.74	1,9 - 2,3	12.2
33012.W1805	4,76 (3/16")	12,7 (0,5")	5.18	25.4	5.08	4.74	1,9 - 2,3	12.2
33012.W1810	4,76 (3/16")	25,4 (1")	5.18	25.4	5.08	4.74	1,9 - 2,3	12.2
33012.W1815	4,76 (3/16")	38,1 (1,5")	5.18	25.4	5.08	4.74	1,9 - 2,3	12.2
33012.W1820	4,76 (3/16")	50,8 (2")	5.18	25.4	5.08	4.74	1,9 - 2,3	12.2
33012.W1825	4,76 (3/16")	63,5 (2,5")	5.18	25.4	5.08	4.74	1,9 - 2,3	12.2
33012.W1830	4,76 (3/16")	76,2 (3")	5.18	25.4	5.08	4.74	1,9 - 2,3	12.2
33012.W1835	4,76 (3/16")	88,9 (3,5")	5.18	25.4	5.08	4.74	1,9 - 2,3	12.2
33012.W1840	4,76 (3/16")	101,6 (4")	5.18	25.4	5.08	4.74	1,9 - 2,3	12.2
33012.W2505	6,35 (1/4")	12,7 (0,5")	7.26	25.4	7.92	5.58	2,27 - 2,73	21.7
33012.W2510	6,35 (1/4")	25,4 (1")	7.26	25.4	7.92	5.58	2,27 - 2,73	21.7
33012.W2515	6,35 (1/4")	38,1 (1,5")	7.26	25.4	7.92	5.58	2,27 - 2,73	21.7
33012.W2520	6,35 (1/4")	50,8 (2")	7.26	25.4	7.92	5.58	2,27 - 2,73	21.7
33012.W2525	6,35 (1/4")	63,5 (2,5")	7.26	25.4	7.92	5.58	2,27 - 2,73	21.7
33012.W2530	6,35 (1/4")	76,2 (3")	7.26	25.4	7.92	5.58	2,27 - 2,73	21.7
33012.W2535	6,35 (1/4")	88,9 (3,5")	7.26	25.4	7.92	5.58	2,27 - 2,73	21.7
33012.W2540	6,35 (1/4")	101,6 (4")	7.26	25.4	7.92	5.58	2,27 - 2,73	21.7
33012.W3105	7,93 (5/16")	12,7 (0,5")	9.09	25.4	9.52	6.35	2,27 - 2,73	33.8
33012.W3110	7,93 (5/16")	25,4 (1")	9.09	25.4	9.52	6.35	2,27 - 2,73	33.8
33012.W3115	7,93 (5/16")	38,1 (1,5")	9.09	25.4	9.52	6.35	2,27 - 2,73	33.8
33012.W3120	7,93 (5/16")	50,8 (2")	9.09	25.4	9.52	6.35	2,27 - 2,73	33.8
33012.W3125	7,93 (5/16")	63,5 (2,5")	9.09	25.4	9.52	6.35	2,27 - 2,73	33.8
33012.W3130	7,93 (5/16")	76,2 (3")	9.09	25.4	9.52	6.35	2,27 - 2,73	33.8
33012.W3135	7,93 (5/16")	88,9 (3,5")	9.09	25.4	9.52	6.35	2,27 - 2,73	33.8
33012.W3140	7,93 (5/16")	101,6 (4")	9.09	25.4	9.52	6.35	2,27 - 2,73	33.8
33012.W3145	7,93 (5/16")	114,3 (4,5")	9.09	25.4	9.52	6.35	2,27 - 2,73	33.8
33012.W3150	7,93 (5/16")	127,0 (5")	9.09	25.4	9.52	6.35	2,27 - 2,73	33.8
33012.W3705	9,52 (3/8")	12,7 (0,5")	10.8	25.4	12.7	6.35	3,63 - 4,54	49.1
33012.W3710	9,52 (3/8")	25,4 (1")	10.8	25.4	12.7	6.35	3,63 - 4,54	49.1
33012.W3715	9,52 (3/8")	38,1 (1,5")	10.8	25.4	12.7	6.35	3,63 - 4,54	49.1

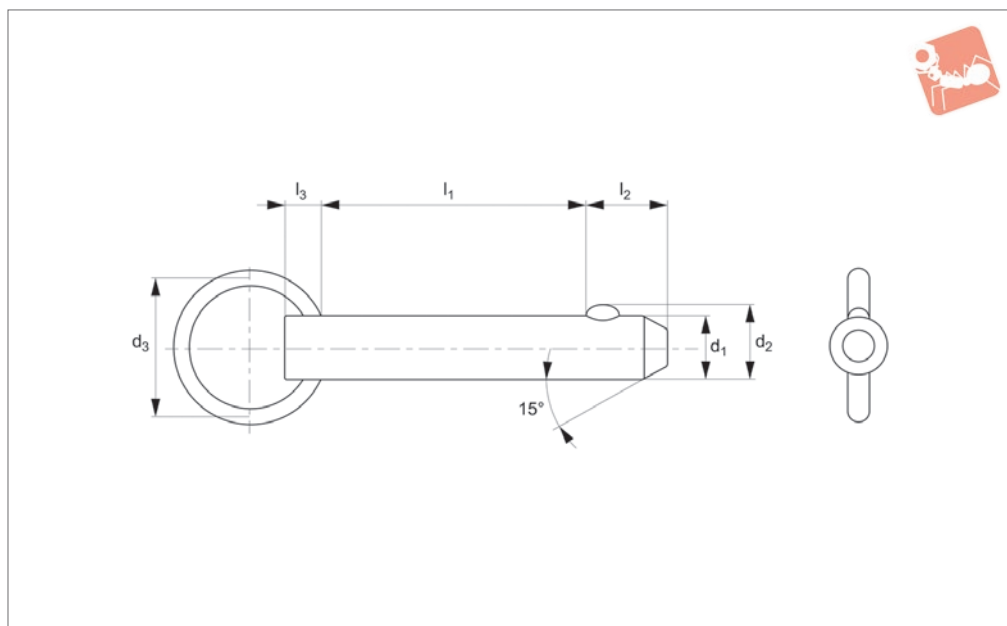


Order No.	d_1 +0.00 -0.08	l_1 grip +1.5 -0.0	d_2	d_3	l_2	l_3	Pull out strength kg	Single shear strength kN min.
33012.W3720	9,52 (3/8")	50,8 (2")	10.8	25.4	12.7	6.35	3,63 - 4,54	49.1
33012.W3725	9,52 (3/8")	63,5 (2,5")	10.8	25.4	12.7	6.35	3,63 - 4,54	49.1
33012.W3730	9,52 (3/8")	76,2 (3")	10.8	25.4	12.7	6.35	3,63 - 4,54	49.1
33012.W3735	9,52 (3/8")	88,9 (3,5")	10.8	25.4	12.7	6.35	3,63 - 4,54	49.1
33012.W3740	9,52 (3/8")	101,6 (4")	10.8	25.4	12.7	6.35	3,63 - 4,54	49.1
33012.W3745	9,52 (3/8")	114,3 (4,5")	10.8	25.4	12.7	6.35	3,63 - 4,54	49.1
33012.W3750	9,52 (3/8")	127,0 (5")	10.8	25.4	12.7	6.35	3,63 - 4,54	49.1
33012.W3755	9,52 (3/8")	139,7 (5,5")	10.8	25.4	12.7	6.35	3,63 - 4,54	49.1
33012.W3760	9,52 (3/8")	152,4 (6")	10.8	25.4	12.7	6.35	3,63 - 4,54	49.1
33012.W4305	11,1 (7/16")	12,7 (0,5")	12.5	25.4	14.2	6.35	4,09 - 5,45	66.5
33012.W4310	11,1 (7/16")	25,4 (1")	12.5	25.4	14.2	6.35	4,09 - 5,45	66.5
33012.W4315	11,1 (7/16")	38,1 (1,5")	12.5	25.4	14.2	6.35	4,09 - 5,45	66.5
33012.W4320	11,1 (7/16")	50,8 (2")	12.5	25.4	14.2	6.35	4,09 - 5,45	66.5
33012.W4325	11,1 (7/16")	63,5 (2,5")	12.5	25.4	14.2	6.35	4,09 - 5,45	66.5
33012.W4330	11,1 (7/16")	76,2 (3")	12.5	25.4	14.2	6.35	4,09 - 5,45	66.5
33012.W4335	11,1 (7/16")	88,9 (3,5")	12.5	25.4	14.2	6.35	4,09 - 5,45	66.5
33012.W4340	11,1 (7/16")	101,6 (4")	12.5	25.4	14.2	6.35	4,09 - 5,45	66.5
33012.W4345	11,1 (7/16")	114,3 (4,5")	12.5	25.4	14.2	6.35	4,09 - 5,45	66.5
33012.W4350	11,1 (7/16")	127,0 (5")	12.5	25.4	14.2	6.35	4,09 - 5,45	66.5
33012.W4355	11,1 (7/16")	139,7 (5,5")	12.5	25.4	14.2	6.35	4,09 - 5,45	66.5
33012.W4360	11,1 (7/16")	152,4 (6")	12.5	25.4	14.2	6.35	4,09 - 5,45	66.5
33012.W5005	12,7 (1/2")	12,7 (0,5")	14.4	31.7	15.8	7.92	4,54 - 5,45	87.1
33012.W5010	12,7 (1/2")	25,4 (1")	14.4	31.7	15.8	7.92	4,54 - 5,45	87.1
33012.W5015	12,7 (1/2")	38,1 (1,5")	14.4	31.7	15.8	7.92	4,54 - 5,45	87.1
33012.W5020	12,7 (1/2")	50,8 (2")	14.4	31.7	15.8	7.92	4,54 - 5,45	87.1
33012.W5025	12,7 (1/2")	63,5 (2,5")	14.4	31.7	15.8	7.92	4,54 - 5,45	87.1
33012.W5030	12,7 (1/2")	76,2 (3")	14.4	31.7	15.8	7.92	4,54 - 5,45	87.1
33012.W5035	12,7 (1/2")	88,9 (3,5")	14.4	31.7	15.8	7.92	4,54 - 5,45	87.1
33012.W5040	12,7 (1/2")	101,6 (4")	14.4	31.7	15.8	7.92	4,54 - 5,45	87.1
33012.W5045	12,7 (1/2")	114,3 (4,5")	14.4	31.7	15.8	7.92	4,54 - 5,45	87.1
33012.W5050	12,7 (1/2")	127,0 (5")	14.4	31.7	15.8	7.92	4,54 - 5,45	87.1
33012.W5055	12,7 (1/2")	139,7 (5,5")	14.4	31.7	15.8	7.92	4,54 - 5,45	87.1
33012.W5060	12,7 (1/2")	152,4 (6")	14.4	31.7	15.8	7.92	4,54 - 5,45	87.1
33012.W5065	12,7 (1/2")	165,1 (6,5")	14.4	31.7	15.8	7.92	4,54 - 5,45	87.1
33012.W5070	12,7 (1/2")	177,8 (7")	14.4	31.7	15.8	7.92	4,54 - 5,45	87.1



Detent Pin Stainless Steel

Ball Lock Pins & Quick Release



33012.2

BALL LOCK PINS & QUICK RELEASE PINS

Material

Shaft: Stainless steel, AISI 303.

Ball & Spring: Stainless steel, AISI 316.

Technical Notes

Detent pins are very economical for use in commercial and military equipment.

The solid body with direct spring loaded ball ensures reliable operation.

For locking telescopic tubing, securing bracket assemblies, as anchor clevis fittings, hinge pins etc where frequent removal is necessary.

Hole sizes - commercial drills provide clearance for our standard pins.

Inch dimensions in brackets ().

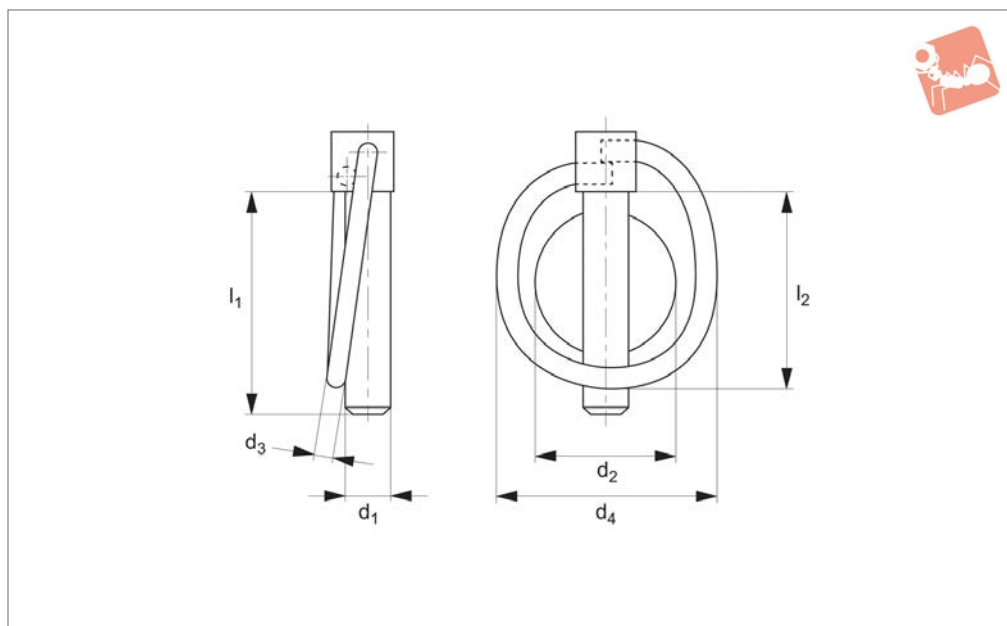
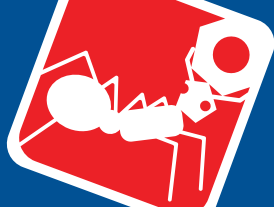
Tips

Also available on request in A4 (AISI 316) stainless steel, subject to min. quantity.

Order No.	d ₁ +0.00 -0.08	l ₁ grip +1.5 -0.0	d ₂	d ₃	l ₂	l ₃	Pull out strength kg	Single shear strength kN min.
33012.W5610	14,2 (9/16")	25,4 (1,0")	16.3	31.7	17.4	7.92	5,45 - 6,81	110.3
33012.W5615	14,2 (9/16")	38,1 (1,5")	16.3	31.7	17.4	7.92	5,45 - 6,81	110.3
33012.W5620	14,2 (9/16")	50,8 (2,0")	16.3	31.7	17.4	7.92	5,45 - 6,81	110.3
33012.W5625	14,2 (9/16")	63,5 (2,5")	16.3	31.7	17.4	7.92	5,45 - 6,81	110.3
33012.W5630	14,2 (9/16")	76,2 (3,0")	16.3	31.7	17.4	7.92	5,45 - 6,81	110.3
33012.W5635	14,2 (9/16")	88,9 (3,5")	16.3	31.7	17.4	7.92	5,45 - 6,81	110.3
33012.W5640	14,2 (9/16")	101,6 (4,0")	16.3	31.7	17.4	7.92	5,45 - 6,81	110.3
33012.W5645	14,2 (9/16")	114,3 (4,5")	16.3	31.7	17.4	7.92	5,45 - 6,81	110.3
33012.W5650	14,2 (9/16")	127,0 (5,0")	16.3	31.7	17.4	7.92	5,45 - 6,81	110.3
33012.W5655	14,2 (9/16")	139,7 (5,5")	16.3	31.7	17.4	7.92	5,45 - 6,81	110.3
33012.W5660	14,2 (9/16")	152,4 (6,0")	16.3	31.7	17.4	7.92	5,45 - 6,81	110.3
33012.W5670	14,2 (9/16")	177,8 (7,0")	16.3	31.7	17.4	7.92	5,45 - 6,81	110.3
33012.W6210	15,8 (5/8")	25,4 (1,0")	18.0	31.7	19.0	9.52	6,36 - 7,26	137.3
33012.W6215	15,8 (5/8")	38,1 (1,5")	18.0	31.7	19.0	9.52	6,36 - 7,26	137.3
33012.W6220	15,8 (5/8")	50,8 (2,0")	18.0	31.7	19.0	9.52	6,36 - 7,26	137.3
33012.W6225	15,8 (5/8")	63,5 (2,5")	18.0	31.7	19.0	9.52	6,36 - 7,26	137.3
33012.W6230	15,8 (5/8")	76,2 (3,0")	18.0	31.7	19.0	9.52	6,36 - 7,26	137.3
33012.W6235	15,8 (5/8")	88,9 (3,5")	18.0	31.7	19.0	9.52	6,36 - 7,26	137.3
33012.W6240	15,8 (5/8")	101,6 (4,0")	18.0	31.7	19.0	9.52	6,36 - 7,26	137.3
33012.W6245	15,8 (5/8")	114,3 (4,5")	18.0	31.7	19.0	9.52	6,36 - 7,26	137.3
33012.W6250	15,8 (5/8")	127,0 (5,0")	18.0	31.7	19.0	9.52	6,36 - 7,26	137.3
33012.W6255	15,8 (5/8")	139,7 (5,5")	18.0	31.7	19.0	9.52	6,36 - 7,26	137.3
33012.W6260	15,8 (5/8")	152,4 (6,0")	18.0	31.7	19.0	9.52	6,36 - 7,26	137.3
33012.W6265	15,8 (5/8")	165,1 (6,5")	18.0	31.7	19.0	9.52	6,36 - 7,26	137.3
33012.W6270	15,8 (5/8")	177,8 (7,0")	18.0	31.7	19.0	9.52	6,36 - 7,26	137.3
33012.W6280	15,8 (5/8")	203,2 (8,0")	18.0	31.7	19.0	9.52	6,36 - 7,26	137.3
33012.W7510	19,0 (3/4")	25,4 (1,0")	21.7	38.1	23.7	9.52	8,17 - 9,98	195.9
33012.W7515	19,0 (3/4")	38,1 (1,5")	21.7	38.1	23.7	9.52	8,17 - 9,98	195.9
33012.W7520	19,0 (3/4")	50,8 (2,0")	21.7	38.1	23.7	9.52	8,17 - 9,98	195.9
33012.W7525	19,0 (3/4")	63,5 (2,5")	21.7	38.1	23.7	9.52	8,17 - 9,98	195.9



Order No.	d_1 +0.00 -0.08	l_1 grip +1.5 -0.0	d_2	d_3	l_2	l_3	Pull out strength kg	Single shear strength kN min.
33012.W7530	19,0 (3/4")	76,2 (3,0")	21.7	38.1	23.7	9.52	8,17 - 9,98	195.9
33012.W7535	19,0 (3/4")	88,9 (3,5")	21.7	38.1	23.7	9.52	8,17 - 9,98	195.9
33012.W7540	19,0 (3/4")	101,6 (4,0")	21.7	38.1	23.7	9.52	8,17 - 9,98	195.9
33012.W7545	19,0 (3/4")	114,3 (4,5")	21.7	38.1	23.7	9.52	8,17 - 9,98	195.9
33012.W7550	19,0 (3/4")	127,0 (5,0")	21.7	38.1	23.7	9.52	8,17 - 9,98	195.9
33012.W7555	19,0 (3/4")	139,7 (5,5")	21.7	38.1	23.7	9.52	8,17 - 9,98	195.9
33012.W7560	19,0 (3/4")	152,4 (6,0")	21.7	38.1	23.7	9.52	8,17 - 9,98	195.9
33012.W7570	19,0 (3/4")	177,8 (7,0")	21.7	38.1	23.7	9.52	8,17 - 9,98	195.9
33012.W7580	19,0 (3/4")	203,2 (8,0")	21.7	38.1	23.7	9.52	8,17 - 9,98	195.9
33012.W8810	22,2 (7/8")	25,4 (1,0")	25.2	38.1	25.4	12.7	12,71 - 14,07	262.4
33012.W8815	22,2 (7/8")	38,1 (1,5")	25.2	38.1	25.4	12.7	12,71 - 14,07	262.4
33012.W8820	22,2 (7/8")	50,8 (2,0")	25.2	38.1	25.4	12.7	12,71 - 14,07	262.4
33012.W8825	22,2 (7/8")	63,5 (2,5")	25.2	38.1	25.4	12.7	12,71 - 14,07	262.4
33012.W8830	22,2 (7/8")	76,2 (3,0")	25.2	38.1	25.4	12.7	12,71 - 14,07	262.4
33012.W8835	22,2 (7/8")	88,9 (3,5")	25.2	38.1	25.4	12.7	12,71 - 14,07	262.4
33012.W8840	22,2 (7/8")	101,6 (4,0")	25.2	38.1	25.4	12.7	12,71 - 14,07	262.4
33012.W8845	22,2 (7/8")	114,3 (4,5")	25.2	38.1	25.4	12.7	12,71 - 14,07	262.4
33012.W8850	22,2 (7/8")	127,0 (5,0")	25.2	38.1	25.4	12.7	12,71 - 14,07	262.4
33012.W8855	22,2 (7/8")	139,7 (5,5")	25.2	38.1	25.4	12.7	12,71 - 14,07	262.4
33012.W8860	22,2 (7/8")	152,4 (6,0")	25.2	38.1	25.4	12.7	12,71 - 14,07	262.4
33012.W8865	22,2 (7/8")	165,1 (6,5")	25.2	38.1	25.4	12.7	12,71 - 14,07	262.4
33012.W8870	22,2 (7/8")	177,8 (7,0")	25.2	38.1	25.4	12.7	12,71 - 14,07	262.4
33012.W8880	22,2 (7/8")	203,2 (8,0")	25.2	38.1	25.4	12.7	12,71 - 14,07	262.4
33012.W1010	25,4 (1")	25,4 (1,0")	28.9	38.1	31.7	12.7	15,88 - 18,15	353.0
33012.W1015	25,4 (1")	38,1 (1,5")	28.9	38.1	31.7	12.7	15,88 - 18,15	353.0
33012.W1020	25,4 (1")	50,8 (2,0")	28.9	38.1	31.7	12.7	15,88 - 18,15	353.0
33012.W1025	25,4 (1")	63,5 (2,5")	28.9	38.1	31.7	12.7	15,88 - 18,15	353.0
33012.W1030	25,4 (1")	76,2 (3,0")	28.9	38.1	31.7	12.7	15,88 - 18,15	353.0
33012.W1035	25,4 (1")	88,9 (3,5")	28.9	38.1	31.7	12.7	15,88 - 18,15	353.0
33012.W1040	25,4 (1")	101,6 (4,0")	28.9	38.1	31.7	12.7	15,88 - 18,15	353.0
33012.W1045	25,4 (1")	114,3 (4,5")	28.9	38.1	31.7	12.7	15,88 - 18,15	353.0
33012.W1050	25,4 (1")	127,0 (5,0")	28.9	38.1	31.7	12.7	15,88 - 18,15	353.0
33012.W1055	25,4 (1")	139,7 (5,5")	28.9	38.1	31.7	12.7	15,88 - 18,15	353.0
33012.W1060	25,4 (1")	152,4 (6,0")	28.9	38.1	31.7	12.7	15,88 - 18,15	353.0
33012.W1070	25,4 (1")	177,8 (7,0")	28.9	38.1	31.7	12.7	15,88 - 18,15	353.0
33012.W1080	25,4 (1")	203,2 (8,0")	28.9	38.1	31.7	12.7	15,88 - 18,15	353.0



33300

Material

Mild steel, generally yellow zinc plated.

For pin $d_1 = 4,5$ & 6 there is no flat on the pin.

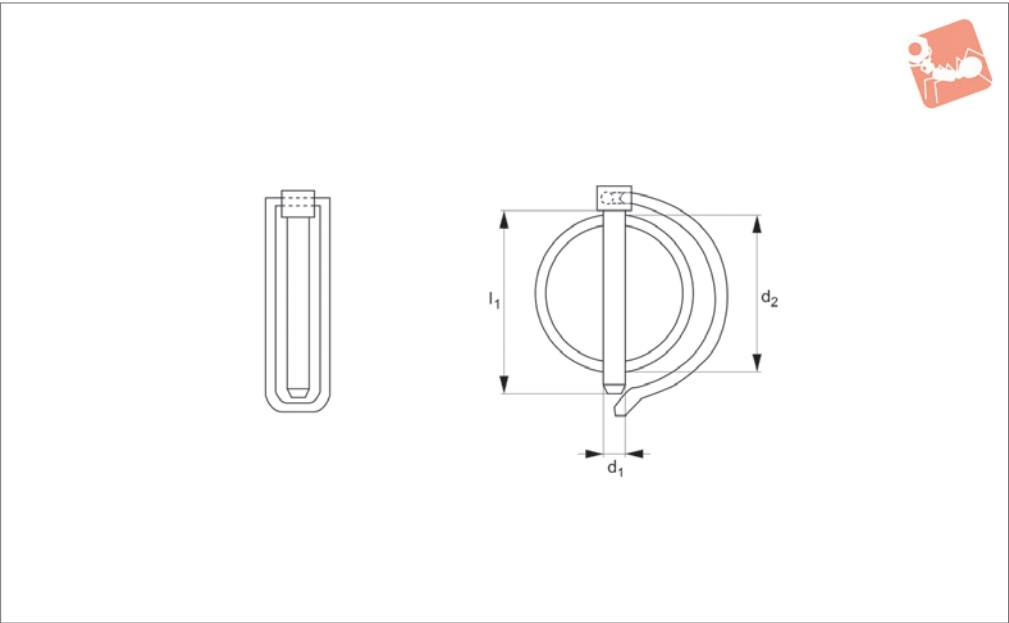
Technical Notes

To DIN 11023. With spring steel „keep“.

Order No.	d_1	l_1	d_2 max.	d_3	d_4	l_2
33300.W0004	4.5	42	25	3.5	41	37
33300.W0006	6.0	42	32	3.5	41	37
33300.W0007	7.0	42	32	3.5	41	37
33300.W0009	9.0	42	32	3.5	41	37
33300.W0010	10.0	42	32	3.5	41	37
33300.W0011	11.0	42	32	3.5	41	37



33320



Material

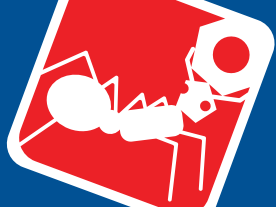
Mild steel, generally silver zinc-plated.
Zinc plating colour will be at manufac-

turers discretion.

Technical Notes

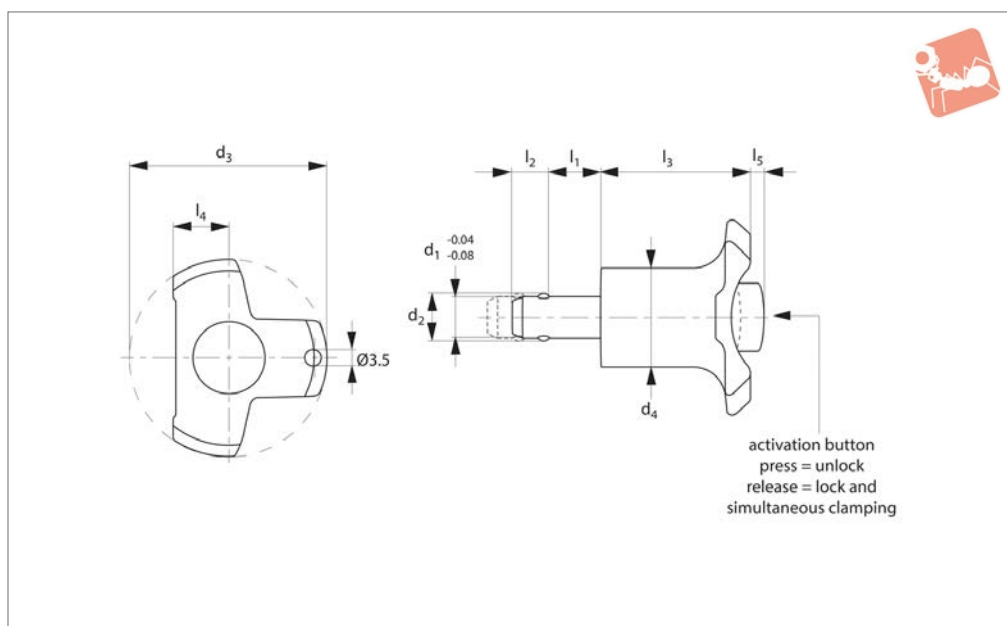
With spring steel „keep“.

Order No.	d ₁	l ₁	d ₂ max.
33320.W0041	4.5	32	28
33320.W0042	4.5	40	36
33320.W0061	6.0	32	28
33320.W0062	6.0	40	36
33320.W0063	6.0	45	40
33320.W0080	8.0	40	36
33320.W0081	8.0	45	40
33320.W0082	8.0	50	45
33320.W0083	8.0	60	50
33320.W0101	10.0	40	36
33320.W0102	10.0	50	45
33320.W0103	10.0	60	55
33320.W0111	11.0	45	40
33320.W0112	11.0	55	50



Clamping Pin self-locking

Ball Lock Pins & Quick Release



33180

BALL LOCK PINS & QUICK RELEASE PINS

Material

Pin: stainless steel 1,4305 (AISI 303).
Handle: thermoplastic PA 6, grey.
Spring: stainless steel.

Technical Notes

Pressing = unlocking & fixing.

Releasing = locking and simultaneous clamping.
Temperature resistance: -30°C to +80°C.
Locks and simultaneously clamps thin walled plates, with clamping distance of up to 5mm. Applications in welding work,

protection of covers and to close doors.

Tips

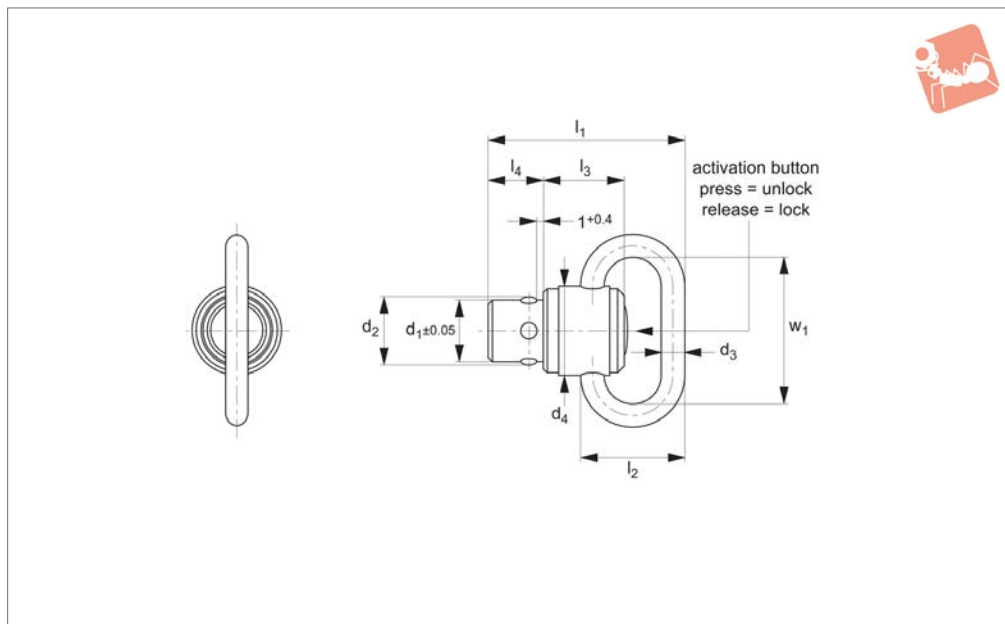
For lanyards & retaining cables see part no. 33250.

Order No.	d ₁	l ₁	d ₂	d ₃	d ₄	l ₂	l ₃	l ₄	l ₅ unclamped	Location hole tol. H11	Clamping force N max.	Weight g
33180.W0010	6	0 - 5	7.0	38	17.5	5.0	30.2	11.0	3	6	16	19
33180.W0012	6	5 - 10	7.0	38	17.5	5.0	30.2	11.0	3	6	18	23
33180.W0020	8	0 - 5	9.5	38	17.5	6.5	30.2	11.0	3	8	16	22
33180.W0022	8	5 - 10	9.5	38	17.5	6.5	30.2	11.0	3	8	18	25
33180.W0030	10	0 - 5	12.0	47	23.0	8.7	36.0	11.0	4	10	21	45
33180.W0032	10	5 - 10	12.0	47	23.0	8.7	36.0	11.0	4	10	23	47
33180.W0040	12	0 - 5	14.0	47	23.0	9.4	36.0	13.5	4	12	21	47
33180.W0042	12	5 - 10	14.0	47	23.0	9.4	36.0	13.5	4	12	23	54





33170



Material

Pin: Stainless Steel 1.4305 (AISI 303)

Spring: Stainless Steel

Finish: Black or Natural

Technical Notes

Temperature range -50°C to +150°C.

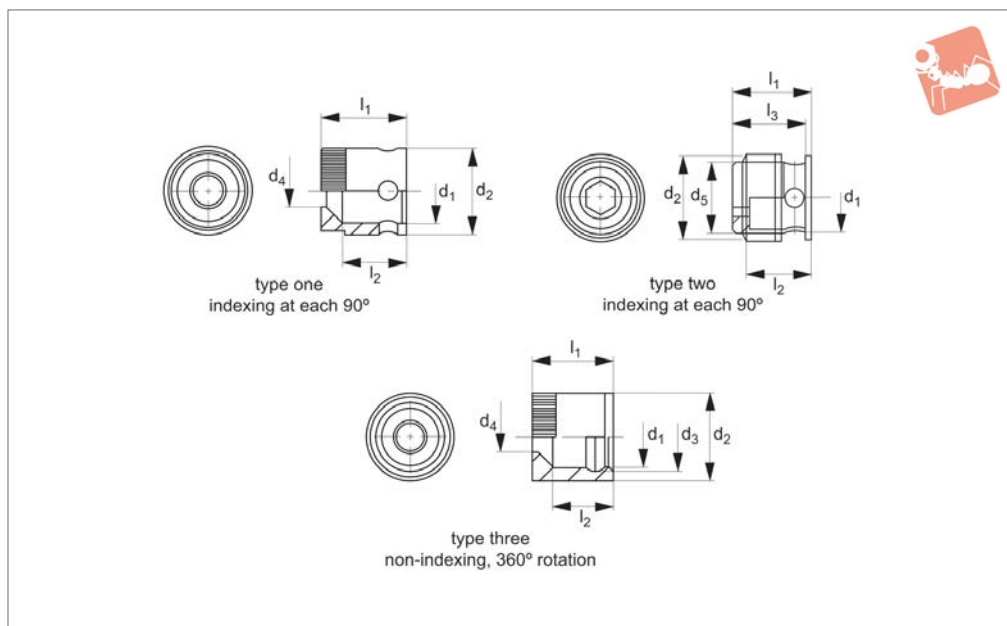
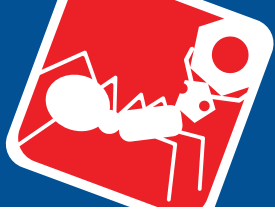
For quick fastening and locking of frequently repeated connections; gun slings, tool holders etc, used in combination with sling swivel receivers no.33172.

Pressing = Unlocking

Releasing = Locking

Order No.	Finish	Nom. pin dia	$d_1 + 0.05$	w_1	d_2	d_3	d_4	l_1	l_2	l_3	l_4	Load capacity kN max.	Weight g
33170.W0010	Black	9.5	9.5	23	11.1	3.5	14	31.3	16.5	12.5	9	1.2	20
33170.W0020	Black	9.5	9.5	40	11.1	4.5	14	36.6	23.0	12.5	9	2.0	29
33170.W0110	Natural	9.5	9.5	23	11.1	3.5	14	31.3	16.5	12.5	9	1.2	20
33170.W0120	Natural	9.5	9.5	40	11.1	4.5	14	36.6	23.0	12.5	9	2.0	29





33172

BALL LOCK PINS & QUICK RELEASE PINS

Material

Pin: stainless steel 1.4305.

Spring: stainless steel.

Finish: Black or natural.

Technical Notes

Temperature range -50°C to +150°C.

Receivers for sling swivel pins part no. 33170.

To achieve quick fastening and locking frequently repeated connections.

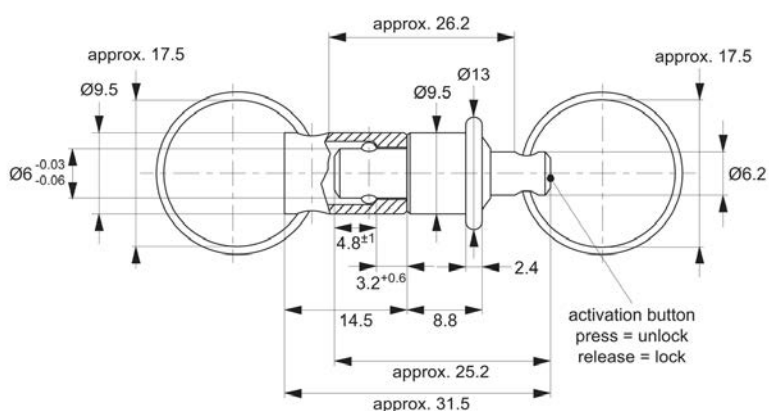
Type one and two: indexing at 90°.

Type three: non-indexing, 360° rotation.

Order No.	Dia. Ø nom.	Finish	For mounting in	Type	d ₁ tol. h9	d ₂ ±0.1	d ₃	d ₄	d ₅	l ₁	l ₂	l ₃	A/F	Weight g
33172.W0205	9.5	Black	Wood	One	9.6	12.65	-	4.9	-	12.65	9.65	-	-	5.6
33172.W0210	9.5	Black	Plastic	Two	9.6	12.65	-	-	10.7	12.10	9.20	11	5	3.0
33172.W0215	9.5	Black	Wood 360°	Three	9.6	13.50	11.3	4.9	-	12.65	9.65	-	-	6.5
33172.W0305	9.5	Natural	Wood	One	9.6	12.65	-	4.9	-	12.65	9.65	-	-	5.6
33172.W0310	9.5	Natural	Plastic	Two	9.6	12.65	-	-	10.7	12.10	9.20	11	5	3.0
33172.W0315	9.5	Natural	Wood 360°	Three	9.6	13.50	11.3	4.9	-	12.65	9.65	-	-	6.5



33178



Material

Pin & Bush: stainless steel 1.4305 (AISI 303).

Ball: stainless steel 1.3541

Ring & Spring: stainless steel.

Technical Notes

Pressing = unlocking

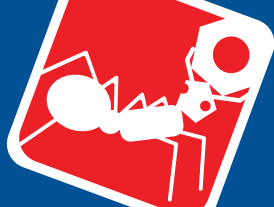
Releasing = locking.

Temperature resistance up to max. 250 °C.

Tips

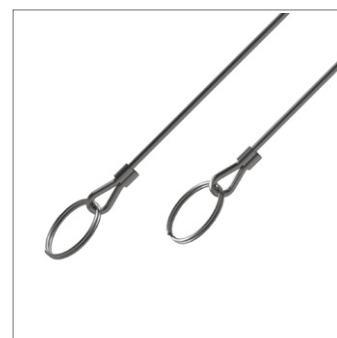
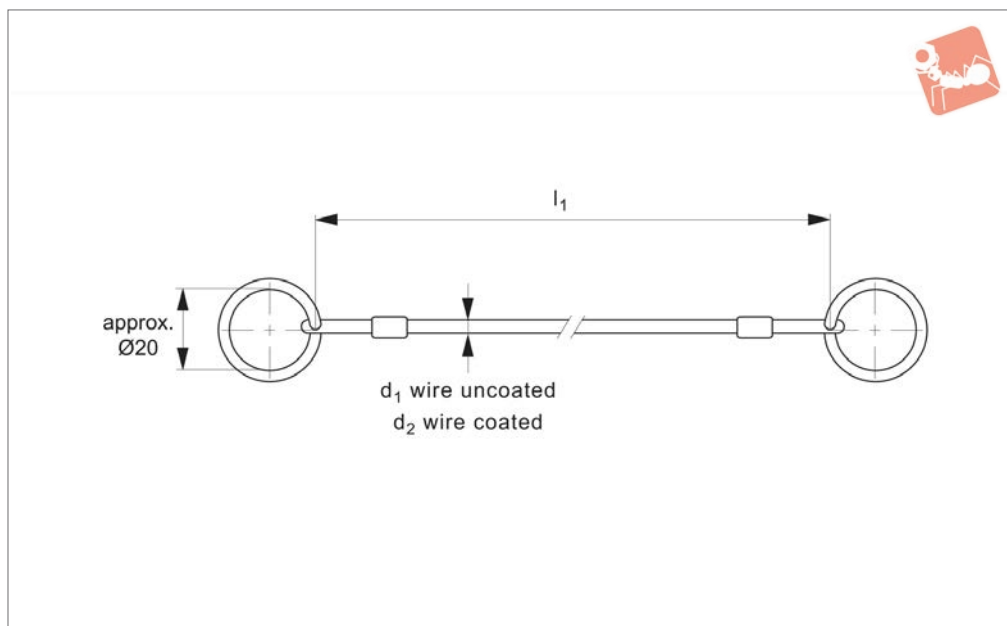
For lanyards & retaining cables see part no. 33250.

Order No.	Load capacity N max.	Weight g
33178.W0905	30	15



Lanyard - Loop to Loop with split rings - crimps stainless

Ball Lock Pins & Quick Release



33250

BALL LOCK PINS & QUICK RELEASE PINS

Material

Wire rope: stainless steel
Coating (if present): PA6 see table.
Crimps /sleeves: stainless steel
Split rings: stainless steel

temperature range: up to 250°C (uncoated)

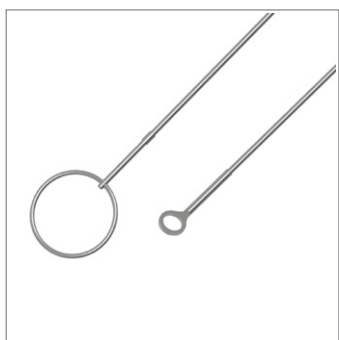
Tips

For use in securing components to assemblies, or to avoid items being misplaced. For our wide range of quick release pins nos. 33060 through 33226.

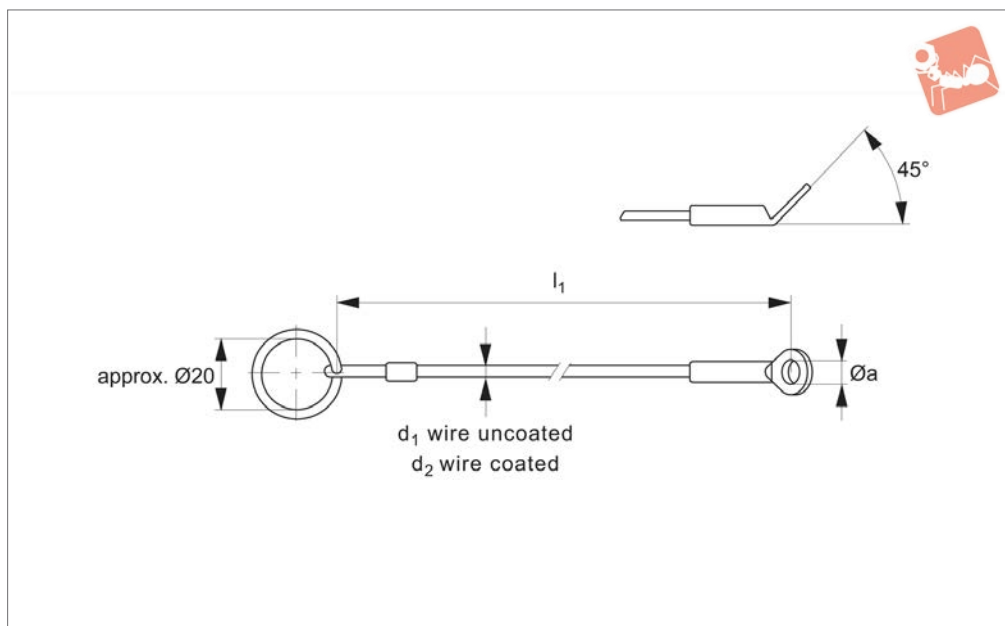
Technical Notes

Crimps tested to failure at 28 Kgf. Temperature range: up to 250°C (uncoated)

Order No.	Coating	d ₁ wire uncoated	l ₁	d ₂ wire coated	Weight g
33250.W0940	Black	1.5	150	2.2	6.5
33250.W0941	Black	1.5	200	2.2	6.4
33250.W0943	Black	1.5	300	2.2	7.5
33250.W0950	Clear	1.5	150	2.2	6.5
33250.W0952	Clear	1.5	200	2.2	6.4
33250.W0956	Clear	1.5	300	2.2	7.5
33250.W0930	Uncoated	1.5	150	-	6.5
33250.W0931	Uncoated	1.5	200	-	6.4
33250.W0933	Uncoated	1.5	300	-	7.5



33251



Material

Wire rope: stainless steel.
Coating (if present): PA6, see table.
Crimps/sleeves: stainless steel.
Eyelet and split ring: stainless steel.

temperature range: up to 250°C (uncoated).

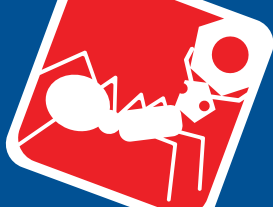
Tips

For use in securing components to assemblies, or to avoid items being misplaced. For our wide range of quick release pins nos. 33060 through 33226.

Technical Notes

Crimps tested for failure at 28 Kgf. Temperature range: up to 250°C (uncoated).

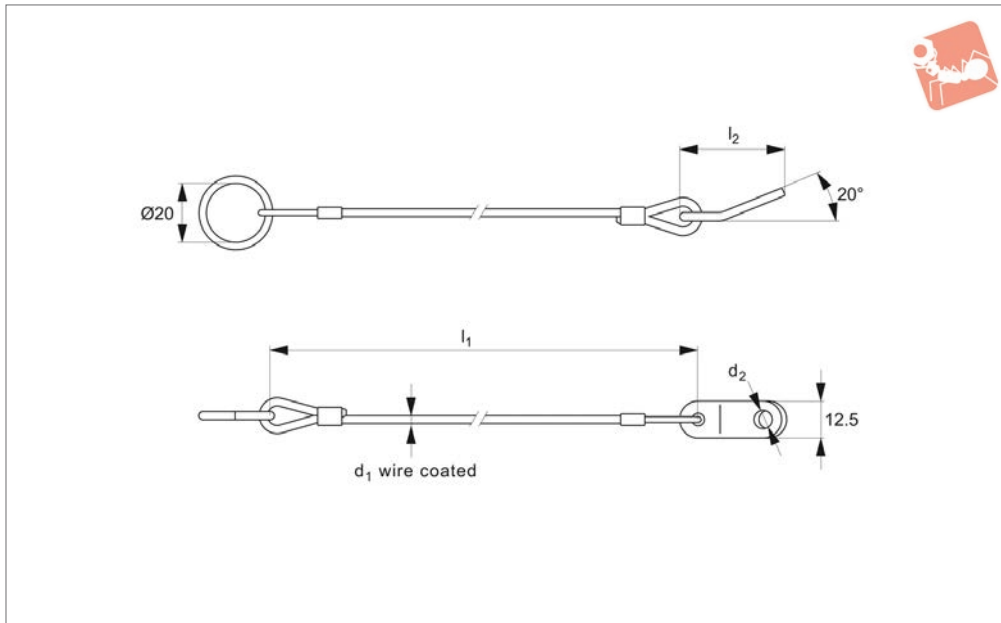
Order No.	Coating	d ₁ wire uncoated	l ₁	Ø a	d ₂ wire uncoated	Weight g
33251.W0945	Black	1.5	150	4.8	2.0	6.9
33251.W0946	Black	1.5	200	4.8	2.0	7.6
33251.W0948	Black	1.5	300	4.8	2.0	8.6
33251.W0960	Clear	1.5	150	4.8	2.0	6.9
33251.W0962	Clear	1.5	200	4.8	2.0	7.6
33251.W0966	Clear	1.5	300	4.8	2.0	8.6
33251.W0935	Uncoated	1.5	150	4.8	2.0	6.9
33251.W0936	Uncoated	1.5	200	4.8	2.0	7.6
33251.W0938	Uncoated	1.5	300	4.8	2.0	8.6



Lanyard - Split Ring to Rectangle Tab

crimps brass, tab stainless steel

Ball Lock Pins & Quick Release



33252

BALL LOCK PINS & QUICK RELEASE PINS

Material

Wire rope: stainless steel.
Coating: thermoplastic, PVC, green transparent
Crimps: brass, zinc plated.
Tabs: stainless steel
Split ring: stainless steel.

Technical Notes

Temperature range up to 80°C.

Tips

For use in securing components to assemblies, or to avoid items being misplaced. For our wide range of quick release pins

nos.33060 through 33226.

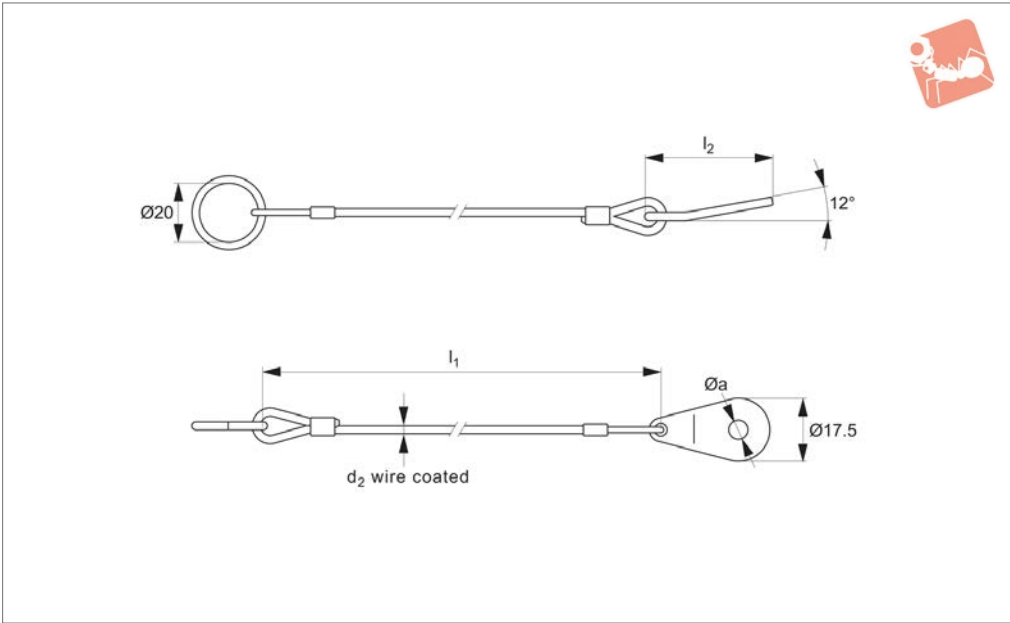
Important Notes

Conform to military spec MIL-DTL-83420 specification

Order No.	Coating	d ₁ wire coated	l ₁	d ₂	l ₂	Weight g
33252.W1301	Green	2.4	150	294.9	29	13
33252.W1302	Green	2.4	200	4.9	29	14
33252.W1303	Green	2.4	300	4.9	29	16



33253



Material
Wire rope: stainless steel.
Coating: thermoplastic, PVC, green trans-
parent
Crimps: brass, zinc plated.
Tabs: stainless steel
Split ring: stainless steel.

Technical Notes
Temperature range up to 80°C.
Tips
For use in securing components to assem-
lies, or to avoid items being misplaced. For
our wide range of quick release pins

nos.33060 through 33226.
Important Notes
Conform to military spec MIL-DTL-83420
specification

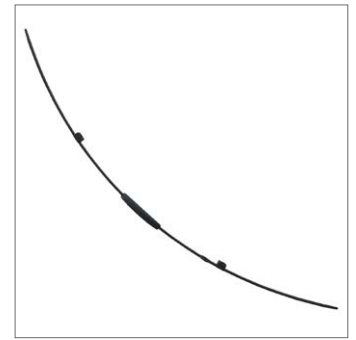
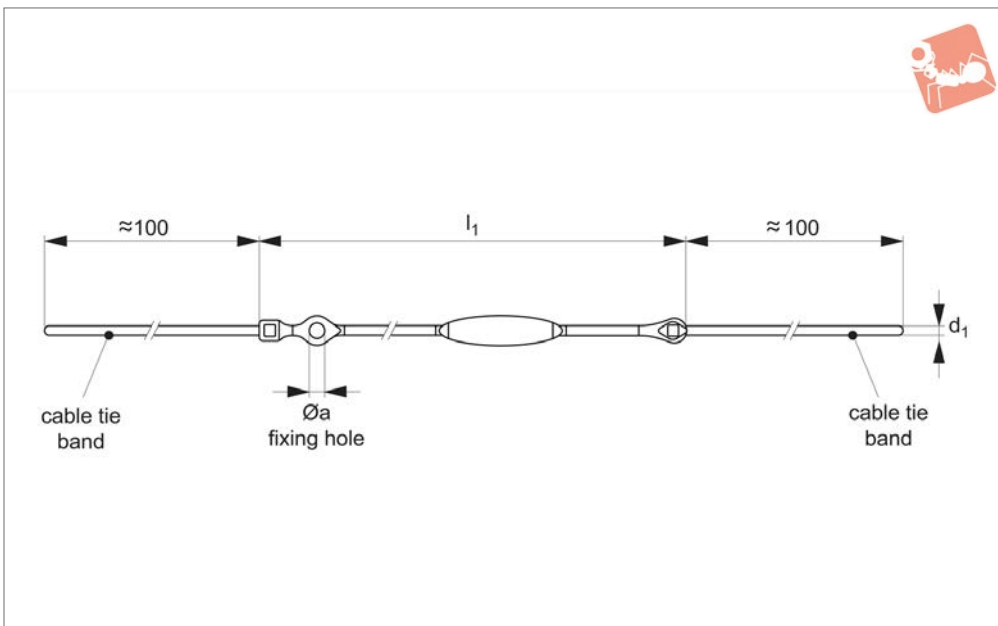
Order No.	Coating	l_1	$\varnothing a$	d_2 wire coated	l_2	Weight g
33253.W1311	Green	150	4.9	2.4	33	13.0
33253.W1312	Green	200	4.9	2.4	33	14.0
33253.W1313	Green	300	4.9	2.4	33	16.0



Lanyard - Cable Tie Loop

thermoplastic

Ball Lock Pins & Quick Release



33260

BALL LOCK PINS & QUICK RELEASE PINS

Material

Thermoplastic PA6, grey.

Technical Notes

Temperature range up to 80°C offers two

fixing alternatives:

- Cable tie at both ends
- Cable tie one end and fixing hole at other to secure with M4 screw.

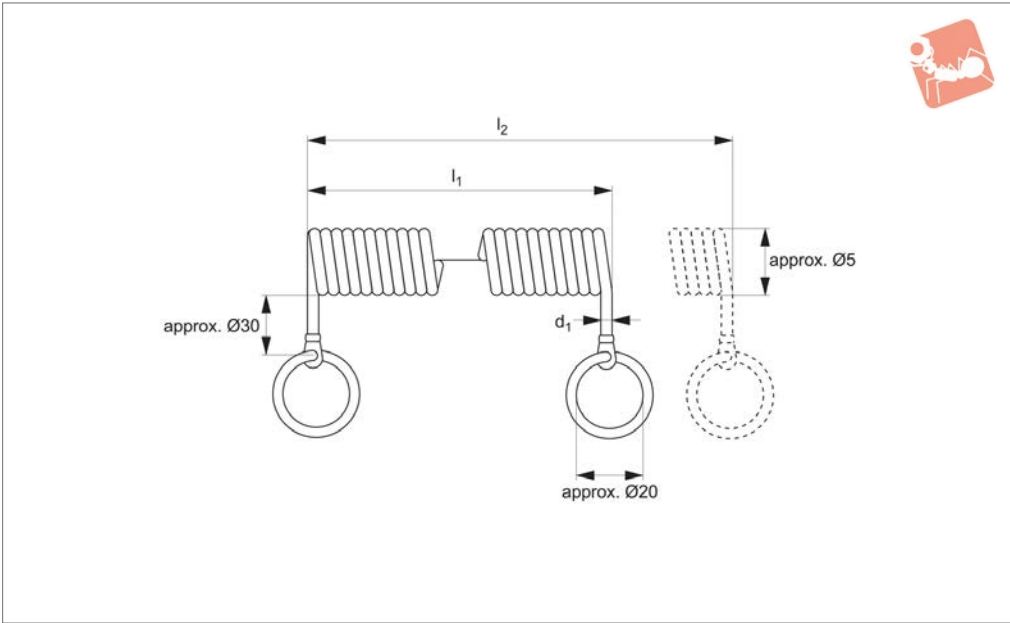
Tips

For use in securing components to assemblies, or to avoid items being misplaced.

Order No.	Coating	d ₁	l ₁	Ø a	Weight g
33260.W0970	n/a	2.5	150	4.2	2.1
33260.W0974	n/a	2.5	250	4.2	2.7



33261



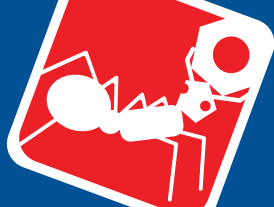
Material
Wire rope: steel.
Coating: PUR, thermoplastic.
Eyelet: brass, zinc plated.
Split ring: stainless steel.

Technical Notes
Temperature range up to 80°C. Coiled

sprung wire offers high extended length in a compact design.

Tips
For use in securing components to assemblies, or to avoid items being misplaced.
For our wide range of quick release pins, part nos. 33060 to 33226.

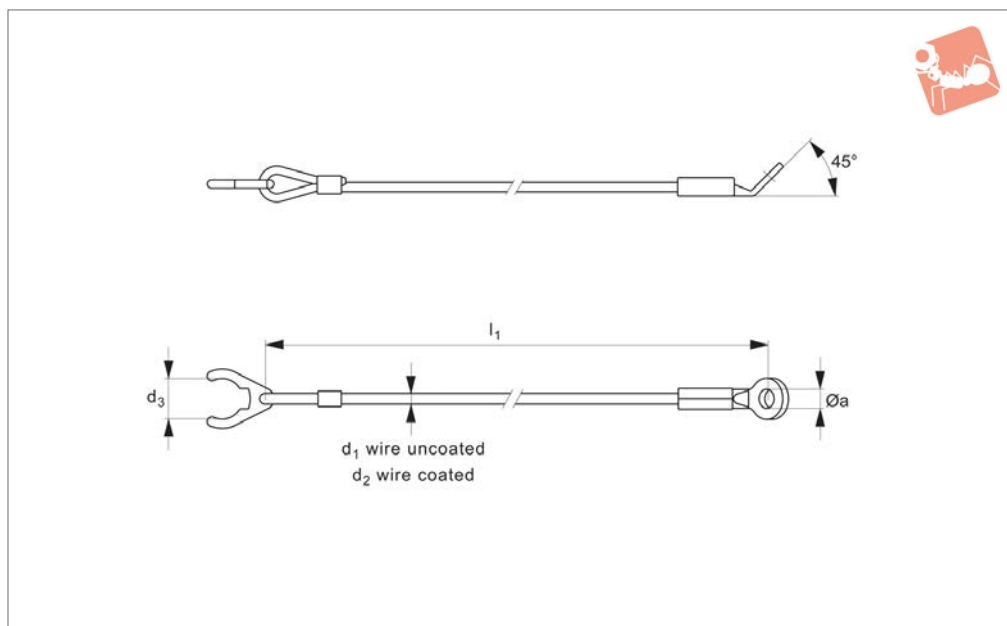
Order No.	PUR coating	d ₁	l ₁ retracted	l ₂ extended	Weight g
33261.W0980	Black	1.5	100	600	11.5
33261.W0982	Black	1.5	200	1200	17.4



Lanyard - Circlip End to Eyelet

crimps brass, tabs stainless steel

Ball Lock Pins & Quick Release



33265

BALL LOCK PINS & QUICK RELEASE PINS

Material

Wire rope: stainless steel.
Coating (if present): PVC, see table.
Crimps/sleeves: brass.
Eyelet, circlip end and split ring: stainless

steel.

Technical Notes

Designed specifically to hold ball lock pin 33194.

Important Notes

Assemble by attaching holding clips to the ball lock pin with a soft-face mallet, disassemble via levering off with a screw driver.

Order No.	Coating	d ₁ wire uncoated	l ₁	Ø a	d ₂ wire coated	d ₅ for use with part no. 33914 of pin dia d ₁	Weight g
33265.W1001	Clear	1.5	150	4.8	2.0	5/ 6	6.0
33265.W1021	Clear	1.5	200	4.8	2.0	5/ 6	7.0
33265.W1041	Clear	1.5	300	4.8	2.0	5/ 6	8.0
33265.W1061	Clear	1.5	150	2.0	4.8	8/10	7.0
33265.W1002	Clear	1.5	200	4.8	2.0	8/10	8.0
33265.W1022	Clear	1.5	200	4.8	2.0	8/10	9.0
33265.W1042	Clear	1.5	150	4.8	2.0	12/16	8.0
33265.W1062	Clear	1.5	200	4.8	2.0	12/16	9.0
33265.W1003	Clear	1.5	300	4.8	2.0	12/16	10.0
33265.W1023	Clear	1.5	150	4.8	2.0	20/25	12.0
33265.W1043	Clear	1.5	200	4.8	2.0	20/25	13.0
33265.W1063	Clear	1.5	300	4.8	2.0	20/25	14.0
33265.W1101	Black	1.5	150	4.8	2.0	5/ 6	6.0
33265.W1121	Black	1.5	200	4.8	2.0	5/ 6	7.0
33265.W1141	Black	1.5	300	4.8	2.0	5/ 6	8.0
33265.W1161	Black	1.5	150	4.8	2.0	8/10	7.0
33265.W1102	Black	1.5	200	4.8	2.0	8/10	8.0
33265.W1122	Black	1.5	300	4.8	2.0	8/10	9.0
33265.W1142	Black	1.5	150	4.8	2.0	12/16	8.0
33265.W1162	Black	1.5	200	4.8	2.0	12/16	9.0
33265.W1103	Black	1.5	300	4.8	2.0	12/16	10.0
33265.W1123	Black	1.5	150	4.8	2.0	20/25	12.0
33265.W1143	Black	1.5	200	4.8	2.0	20/25	13.0
33265.W1163	Black	1.5	300	4.8	2.0	20/25	14.0
33265.W1201	Uncoated	1.5	150	4.8	-	5/ 6	6.0
33265.W1221	Uncoated	1.5	200	4.8	-	5/ 6	7.0
33265.W1241	Uncoated	1.5	300	4.8	-	5/ 6	8.0
33265.W1261	Uncoated	1.5	150	4.8	-	8/10	7.0
33265.W1202	Uncoated	1.5	200	4.8	-	8/10	8.0
33265.W1222	Uncoated	1.5	300	4.8	-	8/10	9.0
33265.W1242	Uncoated	1.5	200	4.8	-	12/16	8.0
33265.W1262	Uncoated	1.5	200	4.8	-	12/16	9.0
33265.W1203	Uncoated	1.5	300	4.8	-	12/16	10.0

Ball Lock Pins & Quick Release

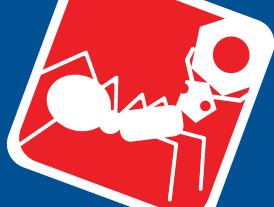


Lanyard - Circlip End to Eyelet

crimps brass, tabs stainless steel

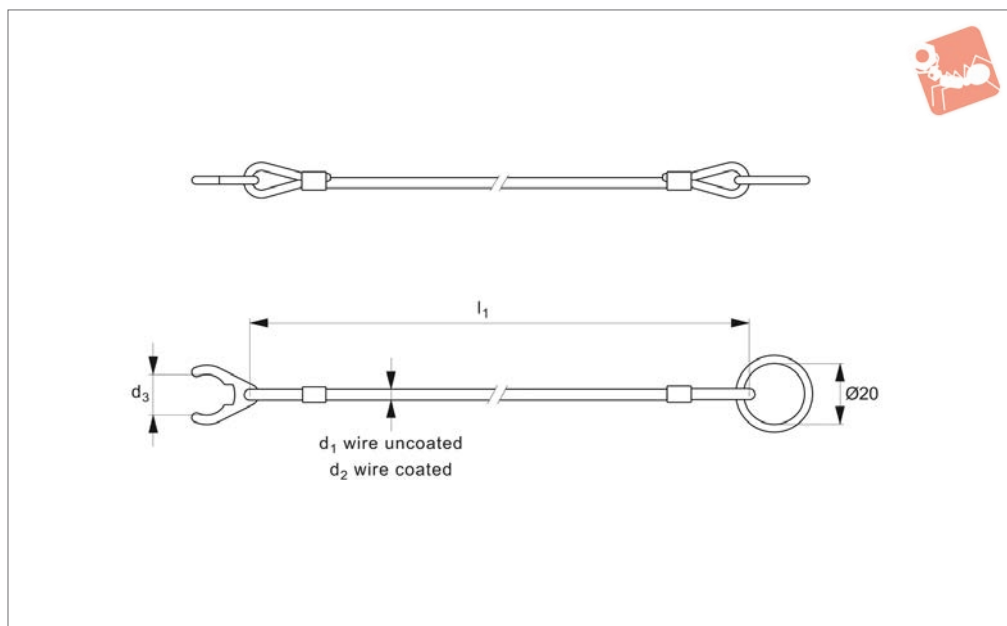


Order No.	Coating	d ₁ wire uncoated	l ₁	Ø a	d ₂ wire coated	d ₅ for use with part no. 33914 of pin dia d ₁	Weight g
33265.W1223	Uncoated	1.5	150	4.8	-	20/25	12.0
33265.W1243	Uncoated	1.5	200	4.8	-	20/25	13.0
33265.W1263	Uncoated	1.5	300	4.8	-	20/25	14.0



Lanyard - Circlip End to Loop with crimps brass, tabs stainless steel, for ball lock pins

Ball Lock Pins & Quick Release



33266

BALL LOCK PINS & QUICK RELEASE PINS

Material

Wire rope: stainless steel.
Coating (if present): PA6, see table.
Crimps/sleeves: brass.
Circlip end and split ring: stainless steel.

Technical Notes

Designed specifically to hold ball lock pin 33194.

Important Notes

Assemble by attaching holding clips to the ball lock pin with a soft-face mallet, disassemble via levering off with a screw driver.

Order No.	Coating	d ₁ wire uncoated	l ₁	d ₂ wire coated	d ₃ for use with part no. 33914 of pin dia d ₁	Weight g
33266.W1011	Clear	1.5	150	2.0	5/6	6.3
33266.W1031	Clear	1.5	150	2.0	8/10	7.2
33266.W1051	Clear	1.5	150	2.0	12/16	8.4
33266.W1071	Clear	1.5	150	2.0	20/25	11
33266.W1012	Clear	1.5	200	2.0	5/6	6.9
33266.W1032	Clear	1.5	200	2.0	8/10	7.8
33266.W1052	Clear	1.5	200	2.0	12/16	9.0
33266.W1072	Clear	1.5	200	2.0	20/25	12
33266.W1013	Clear	1.5	300	2.0	5/6	8.2
33266.W1033	Clear	1.5	300	2.0	8/10	9.0
33266.W1053	Clear	1.5	300	2.0	12/16	10
33266.W1073	Clear	1.5	300	2.0	20/25	13
33266.W1111	Black	1.5	150	2.0	5/6	6.3
33266.W1131	Black	1.5	150	2.0	8/10	7.3
33266.W1151	Black	1.5	150	2.0	12/16	8.4
33266.W1171	Black	1.5	150	2.0	20/25	11
33266.W1112	Black	1.5	200	2.0	5/6	7.0
33266.W1132	Black	1.5	200	2.0	8/10	7.8
33266.W1152	Black	1.5	200	2.0	12/16	9.0
33266.W1172	Black	1.5	200	2.0	20/25	12
33266.W1113	Black	1.5	300	2.0	5/6	8.2
33266.W1133	Black	1.5	300	2.0	8/10	9.0
33266.W1153	Black	1.5	300	2.0	12/16	10
33266.W1173	Black	1.5	300	2.0	20/25	13
33266.W1211	Uncoated	1.5	150	-	5/6	5.9
33266.W1231	Uncoated	1.5	150	-	8/10	6.8
33266.W1251	Uncoated	1.5	150	-	12/16	8.0
33266.W1271	Uncoated	1.5	150	-	20/25	11
33266.W1212	Uncoated	1.5	200	-	5/6	6.4
33266.W1232	Uncoated	1.5	200	-	8/10	7.3
33266.W1252	Uncoated	1.5	200	-	12/16	8.5
33266.W1272	Uncoated	1.5	200	-	20/25	12
33266.W1213	Uncoated	1.5	300	-	5/6	7.4

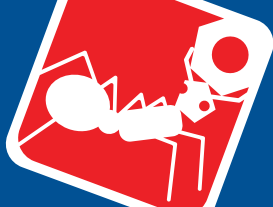
Ball Lock Pins & Quick Release



Lanyard - Circlip End to Loop with crimps brass, tabs stainless steel, for ball lock pins

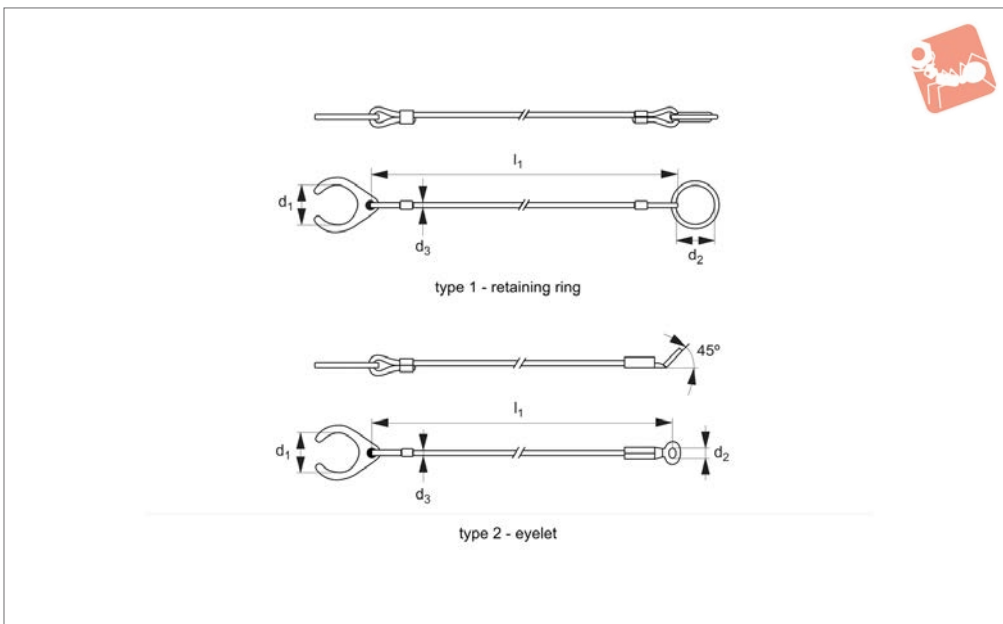


Order No.	Coating	d ₁ wire uncoated	l ₁	d ₂ wire coated	d ₃ for use with part no. 33914 of pin dia d ₁	Weight g
33266.W1233	Uncoated	1.5	300	-	8/10	8.6
33266.W1253	Uncoated	1.5	300	-	12/16	9.5
33266.W1273	Uncoated	1.5	300	-	20/25	13



Retaining Cable with holding clip for no. 33331

Ball Lock Pins & Quick Release



33268

BALL LOCK PINS & QUICK RELEASE PINS

Material

Split ring or eyelet: stainless steel.
Holding circlip: thermoplastic PA 6, black.
Wire rope: stainless steel.

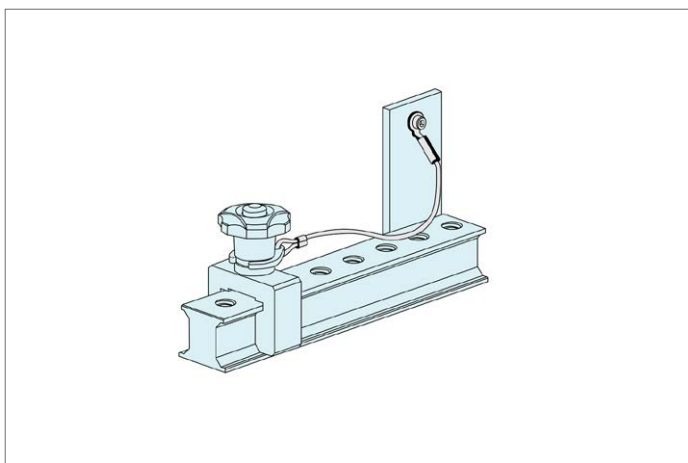
Coating: thermoplastic PA 6, black.

Technical Notes

Retaining cables designed specifically for

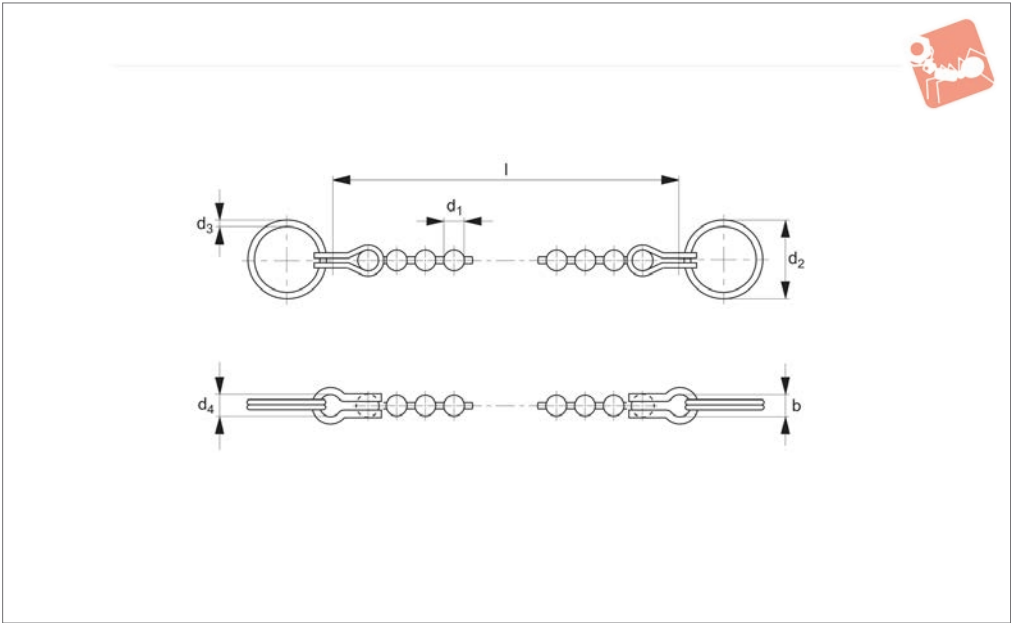
use with threaded lock pin no. 33331.
Lanyard prevents accidental loss of pin from application.

Order No.	Type	d ₁	l ₁	d ₂	d ₃ wire coated	To suit lock pin 33331	Weight g
33268.W6001	1	20.3	150	20.3	2	M 8 to M16	6
33268.W6002	1	20.3	200	20.3	2	M 8 to M16	7
33268.W6003	1	20.3	300	20.3	2	M 8 to M16	8
33268.W6011	2	20.3	150	4.8	2	M 8 to M16	6
33268.W6012	2	20.3	200	4.8	2	M 8 to M16	7
33268.W6013	2	20.3	300	4.8	2	M 8 to M16	8





33270



Material

Bead chain: stainless steel AISI 304,
polished.
End attachments: brass, nickel plated.

Split rings: stainless steel.

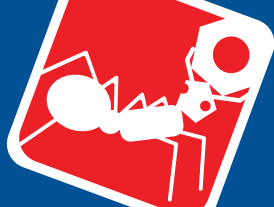
Technical Notes

Retaining chains secure single-acting ball

lock pins against possible loss.

Other chain lengths available on request.

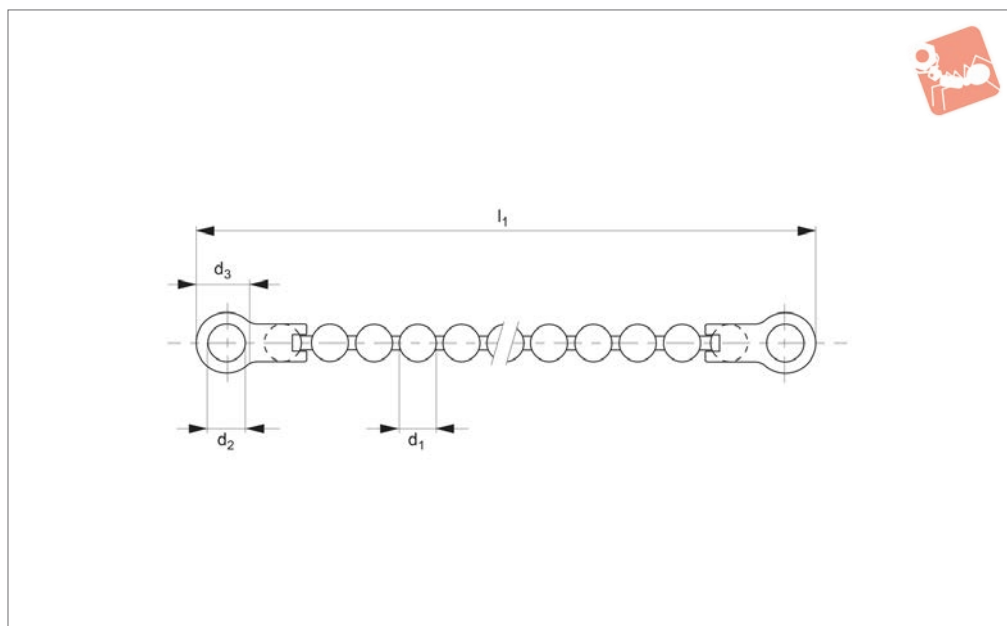
Order No.	Length l	d ₁	Breaking strength kg min.	d ₄	b	Ring thickness d ₃	Ring dia. d ₂
33270.W0200	200	3.2	20	3.5	6	1.52	24
33270.W0350	350	3.2	20	3.5	6	1.52	24
33270.W0500	500	3.2	20	3.5	6	1.52	24



Lanyard - Bead Chain

stainless steel

Ball Lock Pins & Quick Release



33272

BALL LOCK PINS & QUICK RELEASE PINS

Material

Bead chain: stainless steel AISI 304.
Terminals: brass.

Tips

For use in securing components to assem-

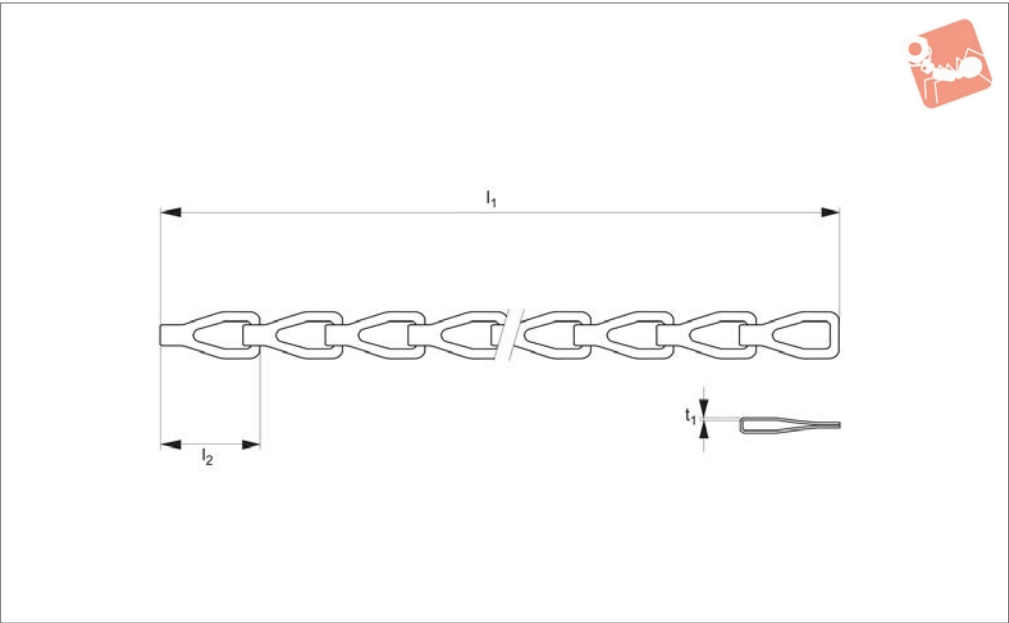
lies, or to avoid items being misplaced. For a wide range of detent pins and quick release ball lock pins see parts 33010 through 33226. Terminals also available in AISI 304 stainless steel on request. Subject

to min. quantity.

Order No.	Trade size	d ₁	l ₁ nom.	d ₂	d ₃	Terminal material
33272.W0080	10	4.5	80	4.7	6.35	Brass
33272.W0100	10	4.5	100	4.7	6.35	Brass
33272.W0150	10	4.5	150	4.7	6.35	Brass
33272.W0200	10	4.5	200	4.7	6.35	Brass
33272.W0300	10	4.5	300	4.7	6.35	Brass
33272.W0450	10	4.5	450	4.7	6.35	Brass



33274

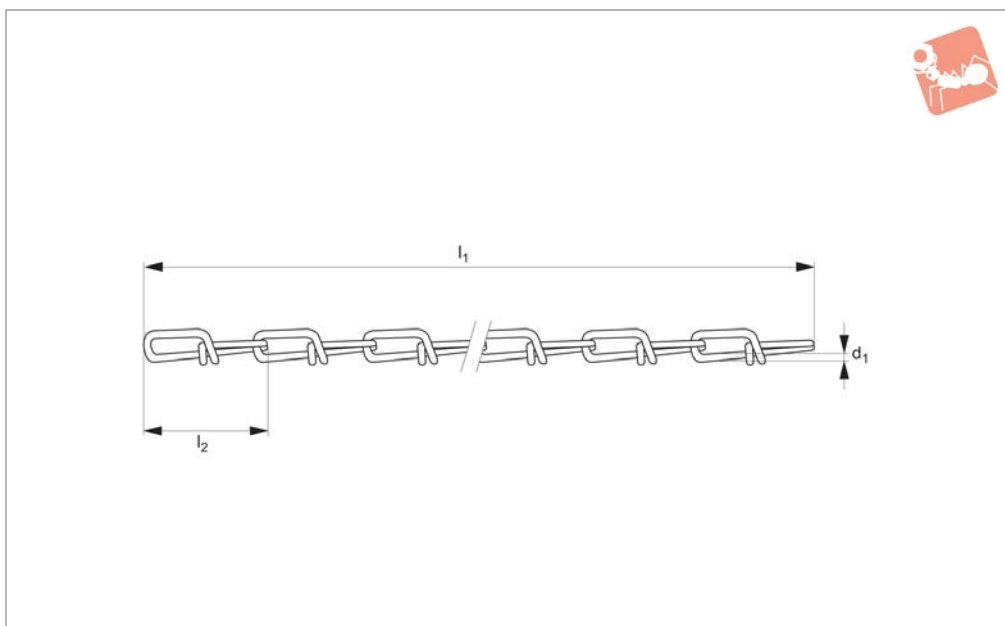
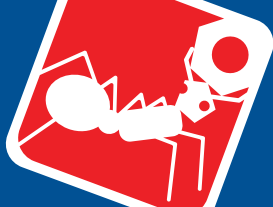


Material
Brass.

Tips
For use in securing components to assemb-

lies, or to avoid items being misplaced. For a wide range of detent pins and quick release ball lock pins see parts 33010 through 33226.

Order No.	Material	Trade size	l_1 nom.	l_2	t_1
33274.W0100	Brass	8	100	25	0.95
33274.W0150	Brass	8	150	25	0.95
33274.W0200	Brass	8	200	25	0.95
33274.W0300	Brass	8	300	25	0.95
33274.W0450	Brass	8	450	25	0.95



33276

BALL LOCK PINS & QUICK RELEASE PINS

Material

Steel (1008), zinc plated.

Tips

For use in securing components to assemb-

lies, or to avoid items being misplaced. For a wide range of detent pins and quick release ball lock pins see parts 33010 through 33226. Terminals also available in

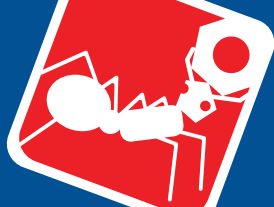
AISI 304 stainless steel on request. Subject to min. quantity.

Order No.	Material	Trade size	d_1	l_1 nom.	l_2
33276.W0128	Steel	4	1.8	128	32
33276.W0192	Steel	4	1.8	192	32
33276.W0256	Steel	4	1.8	256	32
33276.W0320	Steel	4	1.8	320	32
33276.W0448	Steel	4	1.8	448	32



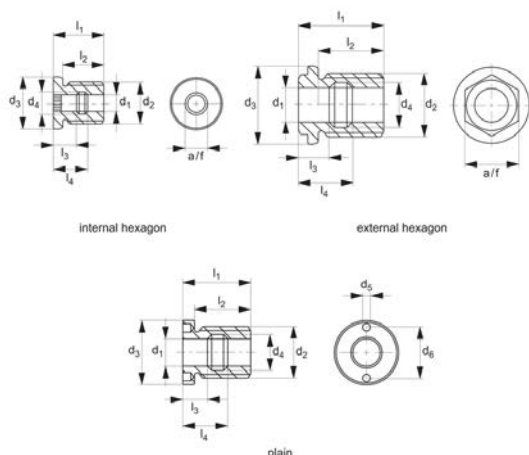
For use with our wide range of metric ball lock pins, see part no.'s 33060 through to 33226.

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Locating Bushes for ball lock pins

Ball Lock Pins & Quick Release



33248

BALL LOCK PINS & QUICK RELEASE PINS

Material

Body: stainless steel 1.4305. (AISI 303).

Technical Notes

For quick and safe location of single acting ball lock pins - especially in soft materials such as aluminium, or in thin walled

components.

Can be used from both sides. Optimised centering due to precision collar on bush.

Important Notes

l_5 and l_6 refer to depths of ball locating recess when bush is installed flange collar

up, or flange collar inverted (see diagram below).

Use pin face spanner with 5mm pin to install pin mount bushings.

Order No.	Type	d_1 tol. H11	d_2	d_3 tol. h9	d_4	d_5	d_6	Weight g
33248.W0905	Int Hex	5	M12	18	6.0	-	-	15
33248.W0906	Int Hex	6	M12	18	7.5	-	-	13
33248.W0908	Int Hex	8	M16	22	10.0	-	-	29
33248.W0910	Int Hex	10	M24	30	12.5	-	-	75
33248.W0912	Int Hex	12	M24	30	15.0	-	-	66
33248.W0916	Ext Hex	16	M30	36	19.5	-	-	124
33248.W0920	Ext Hex	20	M36	45	25.5	-	-	208
33248.W0924	Ext Hex	25	M42	50	32.0	-	-	415
33248.W0925	Plain	16	M30	39	19.5	5.1	30	160
33248.W0926	Plain	20	M36	43	25.5	5.1	30	257
33248.W0927	Plain	25	M42	50	32.0	5.1	36	434

Order No.	l_1	l_2	l_3	l_4	l_5	l_6	A/F
33248.W0905	19	15	9.0	13.0	5.1	9.0	5
33248.W0906	19	15	9.4	13.0	5.6	8.8	6
33248.W0908	25	20	12.0	17.0	7.3	11.7	8
33248.W0910	29	24	13.5	19.5	8.9	14.1	10
33248.W0912	29	24	14	20	9.6	14.4	12
33248.W0916	39	29	15.5	23.5	6.1	12.8	24
33248.W0920	49	38	17.5	31.5	7.7	19.3	30
33248.W0924	65	50	26.5	38.5	13.3	21.8	36
33248.W0925	39	33	15.5	23.5	10.4	16.6	-
33248.W0926	49	42	17.5	31.5	11.9	23.1	-
33248.W0927	65	57	26.5	38.5	13.3	21.8	-

