

Ball Lock Pins

Pin Stainless Steel, AISI 630

SPECIFICATION

Pin
 Stainless steel AISI 630
 Precipitation-hardened
 Knob, push button
 Stainless steel AISI 316L
 Balls
 Stainless steel AISI 420C
 Pressure spring
 Stainless steel
 German material no. 1.4565



INFORMATION

Ball lock pins GN 113.10 are used for quick fixing, connecting and locking of various parts and workpieces. A typical application is location pins which have to be often removed and replaced again. By pressing the spring loaded push button both balls are unlocked and by releasing it, the balls are locked again. Ball lock pins GN 113.10 have an extreme load capacity, the pin is made of heavy duty, hardened and highly abrasion-resistant stainless steel. The technical appendix contains the load capacities for the double-sided shearing resistance (breaking strength).

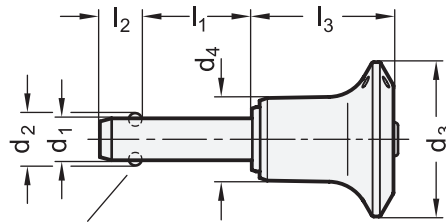
ACCESSORY

- Ball Chains GN 111 (see page 904) / GN 111.5 (see page 905)
- Retaining Cables GN 111.2 (see page 906)
- Spiral Retaining Cables GN 111.4 (see page 908)

TECHNICAL INFORMATION

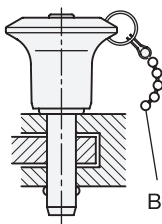
- ISO-Fundamental Tolerances (see page A21)
- Stainless Steel characteristics (see page A26)

Bore for key ring
(ball chain)



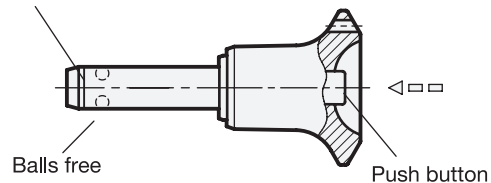
Balls in locking position

Ejemplo de aplicación



Ball chain GN 111

Marking for material
AISI 630




Balls free

Push button

GN 113.10

STAINLESS STEEL

Description	d1 0.04/-0.08	l1 +0.6	d2	d3	d4	l2 ±1	l3 -0.2	Location bore H11	Load capacity F in kN ≈	
									Double sided shearing resistance according DIN 50141 (Breaking strength)	
GN 113.10-5-10	5	10	5.5	23	10.2	6.2	20.2	5	24	22
GN 113.10-5-15	5	15	5.5	23	10.2	6.2	20.2	5	24	23
GN 113.10-5-20	5	20	5.5	23	10.2	6.2	20.2	5	24	24
GN 113.10-5-25	5	25	5.5	23	10.2	6.2	20.2	5	24	25
GN 113.10-5-30	5	30	5.5	23	10.2	6.2	20.2	5	24	26
GN 113.10-5-35	5	35	5.5	23	10.2	6.2	20.2	5	24	26
GN 113.10-5-40	5	40	5.5	23	10.2	6.2	20.2	5	24	27
GN 113.10-5-45	5	45	5.5	23	10.2	6.2	20.2	5	24	28
GN 113.10-5-50	5	50	5.5	23	10.2	6.2	20.2	5	24	29
GN 113.10-5-60	5	60	5.5	23	10.2	6.2	20.2	5	24	30
GN 113.10-5-70	5	70	5.5	23	10.2	6.2	20.2	5	24	32
GN 113.10-5-80	5	80	5.5	23	10.2	6.2	20.2	5	24	33
GN 113.10-6-10	6	10	7	23	10.2	7.2	20.2	6	35	24
GN 113.10-6-15	6	15	7	23	10.2	7.2	20.2	6	35	25
GN 113.10-6-20	6	20	7	23	10.2	7.2	20.2	6	35	26
GN 113.10-6-25	6	25	7	23	10.2	7.2	20.2	6	35	27
GN 113.10-6-30	6	30	7	23	10.2	7.2	20.2	6	35	28
GN 113.10-6-35	6	35	7	23	10.2	7.2	20.2	6	35	29
GN 113.10-6-40	6	40	7	23	10.2	7.2	20.2	6	35	30
GN 113.10-6-45	6	45	7	23	10.2	7.2	20.2	6	35	31
GN 113.10-6-50	6	50	7	23	10.2	7.2	20.2	6	35	32
GN 113.10-6-60	6	60	7	23	10.2	7.2	20.2	6	35	34
GN 113.10-6-70	6	70	7	23	10.2	7.2	20.2	6	35	36
GN 113.10-6-80	6	80	7	23	10.2	7.2	20.2	6	35	38
GN 113.10-8-10	8	10	9.5	27	13.2	8.4	26.8	8	63	43
GN 113.10-8-15	8	15	9.5	27	13.2	8.4	26.8	8	63	45
GN 113.10-8-20	8	20	9.5	27	13.2	8.4	26.8	8	63	47
GN 113.10-8-25	8	25	9.5	27	13.2	8.4	26.8	8	63	49
GN 113.10-8-30	8	30	9.5	27	13.2	8.4	26.8	8	63	50
GN 113.10-8-35	8	35	9.5	27	13.2	8.4	26.8	8	63	52
GN 113.10-8-40	8	40	9.5	27	13.2	8.4	26.8	8	63	55
GN 113.10-8-45	8	45	9.5	27	13.2	8.4	26.8	8	63	57
GN 113.10-8-50	8	50	9.5	27	13.2	8.4	26.8	8	63	59
GN 113.10-8-60	8	60	9.5	27	13.2	8.4	26.8	8	63	62
GN 113.10-8-70	8	70	9.5	27	13.2	8.4	26.8	8	63	66
GN 113.10-8-80	8	80	9.5	27	13.2	8.4	26.8	8	63	69
GN 113.10-8-90	8	90	9.5	27	13.2	8.4	26.8	8	63	73
GN 113.10-8-100	8	100	9.5	27	13.2	8.4	26.8	8	63	77
GN 113.10-10-15	10	15	12	27	13.2	9.9	26.8	10	100	51
GN 113.10-10-20	10	20	12	27	13.2	9.9	26.8	10	100	53
GN 113.10-10-25	10	25	12	27	13.2	9.9	26.8	10	100	57
GN 113.10-10-30	10	30	12	27	13.2	9.9	26.8	10	100	60
GN 113.10-10-35	10	35	12	27	13.2	9.9	26.8	10	100	62
GN 113.10-10-40	10	40	12	27	13.2	9.9	26.8	10	100	65
GN 113.10-10-45	10	45	12	27	13.2	9.9	26.8	10	100	68
GN 113.10-10-50	10	50	12	27	13.2	9.9	26.8	10	100	69
GN 113.10-10-60	10	60	12	27	13.2	9.9	26.8	10	100	77
GN 113.10-10-70	10	70	12	27	13.2	9.9	26.8	10	100	82
GN 113.10-10-80	10	80	12	27	13.2	9.9	26.8	10	100	88
GN 113.10-10-90	10	90	12	27	13.2	9.9	26.8	10	100	94
GN 113.10-10-100	10	100	12	27	13.2	9.9	26.8	10	100	101
GN 113.10-10-110	10	110	12	27	13.2	9.9	26.8	10	100	106
GN 113.10-10-120	10	120	12	27	13.2	9.9	26.8	10	100	112



Indexing elements



Indexing elements

GN 113.10

STAINLESS STEEL

Description	d _i 0.04/-0.08	l ₁ +0.6	d ₂	d ₃	d ₄	l ₂ ±1	l ₃ -0.2	Location bore H11	Load capacity F in kN ≈ Double sided shearing resistance according DIN 50141 (Breaking strength)	
GN 113.10-12-20	12	20	14.5	31	16.4	10.9	32.7	12	144	83
GN 113.10-12-25	12	25	14.5	31	16.4	10.9	32.7	12	144	88
GN 113.10-12-30	12	30	14.5	31	16.4	10.9	32.7	12	144	90
GN 113.10-12-35	12	35	14.5	31	16.4	10.9	32.7	12	144	96
GN 113.10-12-40	12	40	14.5	31	16.4	10.9	32.7	12	144	105
GN 113.10-12-45	12	45	14.5	31	16.4	10.9	32.7	12	144	110
GN 113.10-12-50	12	50	14.5	31	16.4	10.9	32.7	12	144	115
GN 113.10-12-60	12	60	14.5	31	16.4	10.9	32.7	12	144	118
GN 113.10-12-70	12	70	14.5	31	16.4	10.9	32.7	12	144	120
GN 113.10-12-80	12	80	14.5	31	16.4	10.9	32.7	12	144	135
GN 113.10-12-90	12	90	14.5	31	16.4	10.9	32.7	12	144	144
GN 113.10-12-100	12	100	14.5	31	16.4	10.9	32.7	12	144	148
GN 113.10-12-110	12	110	14.5	31	16.4	10.9	32.7	12	144	152
GN 113.10-12-120	12	120	14.5	31	16.4	10.9	32.7	12	144	169
GN 113.10-16-30	16	30	19	38	23.4	14.5	42.6	16	257	207
GN 113.10-16-35	16	35	19	38	23.4	14.5	42.6	16	257	215
GN 113.10-16-40	16	40	19	38	23.4	14.5	42.6	16	257	223
GN 113.10-16-45	16	45	19	38	23.4	14.5	42.6	16	257	231
GN 113.10-16-50	16	50	19	38	23.4	14.5	42.6	16	257	236
GN 113.10-16-60	16	60	19	38	23.4	14.5	42.6	16	257	254
GN 113.10-16-70	16	70	19	38	23.4	14.5	42.6	16	257	270
GN 113.10-16-80	16	80	19	38	23.4	14.5	42.6	16	257	285
GN 113.10-16-90	16	90	19	38	23.4	14.5	42.6	16	257	302
GN 113.10-16-100	16	100	19	38	23.4	14.5	42.6	16	257	333
GN 113.10-16-110	16	110	19	38	23.4	14.5	42.6	16	257	340
GN 113.10-16-120	16	120	19	38	23.4	14.5	42.6	16	257	348
GN 113.10-16-130	16	130	19	38	23.4	14.5	42.6	16	257	364
GN 113.10-16-140	16	140	19	38	23.4	14.5	42.6	16	257	379
GN 113.10-16-150	16	150	19	38	23.4	14.5	42.6	16	257	396
GN 113.10-20-50	20	50	24.8	38	23.4	17.4	42.6	20	403	297
GN 113.10-20-60	20	60	24.8	38	23.4	17.4	42.6	20	403	324
GN 113.10-20-70	20	70	24.8	38	23.4	17.4	42.6	20	403	348
GN 113.10-20-80	20	80	24.8	38	23.4	17.4	42.6	20	403	372
GN 113.10-20-90	20	90	24.8	38	23.4	17.4	42.6	20	403	397
GN 113.10-20-100	20	100	24.8	38	23.4	17.4	42.6	20	403	422
GN 113.10-20-110	20	110	24.8	38	23.4	17.4	42.6	20	403	446
GN 113.10-20-120	20	120	24.8	38	23.4	17.4	42.6	20	403	471
GN 113.10-20-130	20	130	24.8	38	23.4	17.4	42.6	20	403	496
GN 113.10-20-140	20	140	24.8	38	23.4	17.4	42.6	20	403	518
GN 113.10-20-150	20	150	24.8	38	23.4	17.4	42.6	20	403	544
GN 113.10-25-50	25	50	30.8	50	30.4	22.3	54.3	25	631	551
GN 113.10-25-60	25	60	30.8	50	30.4	22.3	54.3	25	631	591
GN 113.10-25-70	25	70	30.8	50	30.4	22.3	54.3	25	631	630
GN 113.10-25-80	25	80	30.8	50	30.4	22.3	54.3	25	631	667
GN 113.10-25-90	25	90	30.8	50	30.4	22.3	54.3	25	631	705
GN 113.10-25-100	25	100	30.8	50	30.4	22.3	54.3	25	631	744
GN 113.10-25-110	25	110	30.8	50	30.4	22.3	54.3	25	631	781
GN 113.10-25-120	25	120	30.8	50	30.4	22.3	54.3	25	631	820
GN 113.10-25-130	25	130	30.8	50	30.4	22.3	54.3	25	631	858
GN 113.10-25-140	25	140	30.8	50	30.4	22.3	54.3	25	631	897
GN 113.10-25-150	25	150	30.8	50	30.4	22.3	54.3	25	631	933