

Ball lock pins

stainless steel



Material:

Metal parts stainless steel.

Version:

Bright.

Sample order:

nIm 03194-3110030

(include length L e.g. 030 for L = 30 mm)

Note:

Ball lock pins are used for easy fastening or joining of components or workpieces.

The two balls are disengaged by pressing the push button and the pin can be slipped into holes in the workpieces.

Release the button to lock the balls and secure the connection.

Corrosion resistant. Option for connecting retaining cable.

Shear force double shear (F) = S · τ aB max.

The values given for the shear force are the theoretical breaking load.

These are non-binding reference values without consideration of safety factors and exclude any liability. The values given are for information purposes only and do not constitute a legally binding assurance of properties.

The load values have been calculated in accordance with DIN 50141. Each user must determine individually whether the ball lock pin is suitable for the respective application.

Different materials in which the ball lock pins are used, weather conditions and wear can influence the determined values.

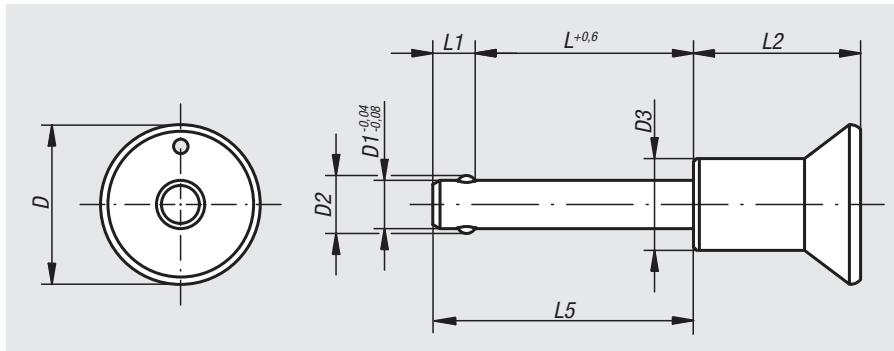
Accessories:

Safety spiral cable: 03199-10200

Retaining cable with loop: 03199-...

Key Ring 03199-15/19/23

Bushing for ball lock pins 03197....



Order No.	D	D1	D2	D3	L	L1	L2	L5	Receiving hole H11	Shearing force double shear max.kN
03194-2305***	25	5	5,5	14	10/15/20/25/30	6	26,5	16/21/26/31/36	5	15
03194-2306***	25	6	6,85	14	10/15/20/25/30/35/40/45/50	7	26,5	17/22/27/32/37/42/47/52/57	6	22
03194-2308***	25	8	9,5	14	20/25/30/35/40/45/50	8	26,5	28/33/38/43/48/53/58	8	38
03194-3110***	33	10	12	19	20/25/30/35/40/45/50/60	9	34,6	29/34/39/44/49/54/59/69	10	60
03194-3112***	33	12	14,5	19	25/30/35/40/45/50/60/70/80	10	34,6	35/40/45/50/55/60/70/80/90	12	86
03194-3116***	33	16	19	20	30/35/40/45/50/60/70/80	13,3	34,6	43,3/48,3/53,3/58,3/63,3/68,3/73,3/78,3/83,3/88,3	16	153

Ball lock pins with mushroom grip

stainless steel



Material:

Pin stainless steel 1.4542.
Mushroom knob and push button
stainless steel 1.4305.
Balls stainless steel 1.4125.
Compression spring stainless steel.

Version:

All stainless steel parts passivated.
Pin hardened to min. 40 HRC.
Balls hardened to 58 +4 HRC.

Sample order:

nIm 03194-02105030
(include length L e.g. 030 for L = 30 mm.)

Note:

Ball lock pins are used for easy fastening or joining of components or workpieces.

The two balls are disengaged by pressing the push button and the pin can be slipped into holes in the workpieces. When the push button is released, the balls lock the connection securely. If required, the ball lock pins can be fitted with a retaining cable.

Shear force double shear (F) = $S \cdot \tau \cdot aB$ max.

The values given for the shear force are the theoretical breaking load.

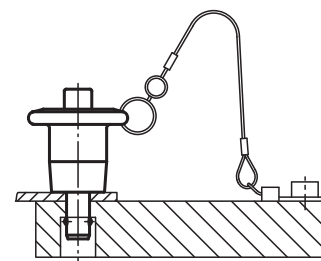
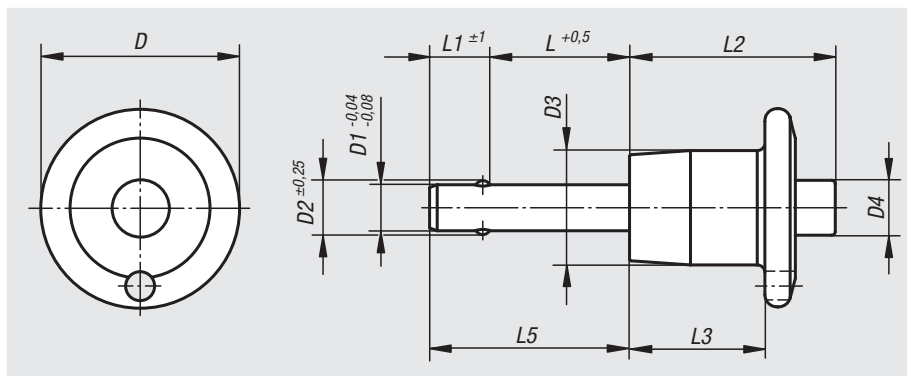
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Different materials in which the ball lock pins are used, weather conditions and wear can influence the determined values.

Accessories:

Bushes for ball lock pins 03197
Safety spiral cable 03199
Retaining cable with loop 03199
Key ring 03199



Order No.	D	D1	D2	D3	D4	L	L1	L2	L3	L5	Receiving hole H11	Shearing force double shear max.kN
03194-02105***	20,6	5	5,54	11,9	5,8	10/15/20/25/30/35/40/50/60/70	6	23,4	16	16/21/26/31/36/41/46/56/66/76	5	24,4
03194-02106***	20,6	6	6,99	11,9	5,8	10/15/20/25/30/35/40/50/60/70/80	7	23,4	16	17/22/27/32/37/42/47/57/67/77/87	6	35,64
03194-02108***	20,6	8	9,42	11,9	5,8	10/15/20/25/30/35/40/50/60/70/80	8	23,4	16	18/23/28/33/38/43/48/58/68/78/88	8	63,8
03194-02510***	25,4	10	11,86	14,2	7,4	15/20/25/30/35/40/50/60/70/80/90/100	9	25,7	17,8	24/29/34/39/44/49/59/69/79/89/99/109	10	100,1
03194-03512***	34,7	12	14,45	18,3	10,7	20/25/30/35/40/50/60/70/80/90/100	10	32,3	21,6	30/35/40/45/50/60/70/80/90/100/110	12	144,06

Ball lock pins with grip ring

stainless steel



Material:

Pin stainless steel 1.4542.
Head and push button stainless steel 1.4305.
Balls stainless steel 1.4125.
Spring stainless steel.
Grip ring and key ring stainless steel.

Version:

All stainless steel parts passivated.
Pin, hardened to min. 40 HRC.
Balls hardened to 58 +4 HRC.

Sample order:

nIm 03194-01505030
(Include length L e.g. 030 for L = 30 mm)

Note:

Ball lock pins are used for easy fastening or joining of components or workpieces. The two balls are disengaged by pressing the push button and the pin can be slipped into holes in the workpieces. Release the button to lock the balls and secure the connection. If required, the ball lock pins can be fitted with a retaining cable.

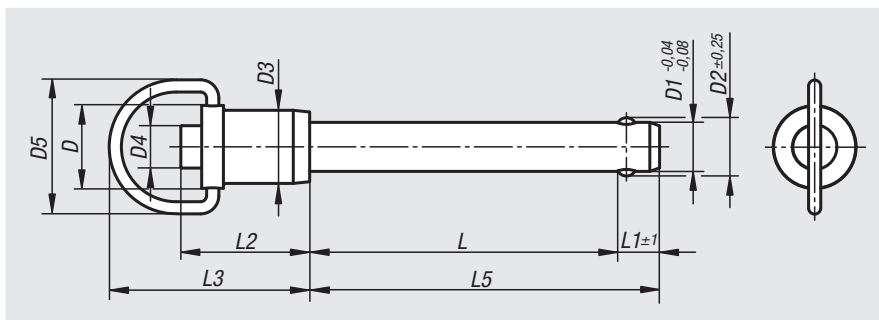
The hardened, high-tensile stainless steel pin permits extreme loads with low wear. Thanks to the high corrosion and acid resistance, they are mainly used in the foodstuff industry, in the chemical and petrochemical industry and as constructional elements in the aerospace industry.

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Different materials in which the ball lock pins are used, weather conditions and wear can influence the determined values.



Accessories:

Safety spiral cable 03199-10200
Retaining cable with loop 03199- ...
Key ring 03199-15/19/23
Bushing for ball lock pins 03197-...

Order No.	D	D1	D2	D3	D4	D5	L	L1	L2	L3	L5	Receiving hole H11	Shearing force double shear max.kN
03194-01505***	15	5	5,54	11,9	5,8	29,5	10/15/20/25/30/35/40/45/50/60/70/80/90/100	6	23,4	36,8	16	5	24,4
03194-01506***	15	6	6,99	11,9	5,8	29,5	10/15/20/25/30/35/40/45/50/60/70/80/90/100	7	23,4	36,8	17	6	35,64
03194-01508***	15	8	9,42	11,9	5,8	29,5	10/15/20/25/30/35/40/45/50/60/70/80/90/100	8	23,4	36,8	18	8	63,8
03194-01710***	16,5	10	11,86	14,2	7,4	29,5	15/20/25/30/35/40/45/50/60/70/80/90/100	9	25,7	38,6	24	10	100,1
03194-02112***	20,6	12	14,45	18,3	10,7	36,3	20/25/30/35/40/45/50/60/70/80/90/100	10	32,3	47,8	30	12	144,06
03194-02716***	26,9	16	19	23,9	13,7	43,7	25/30/35/40/45/50/60/70/80/90/100	14	41,9	65,3	39	16	257,18