Spring plungers, locking bolts, ball locking bolts

Spring plungers, locking bolts, ball locking bolts

Spring plungers
with recess and ball, steel
K0309

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Spring plungers
with recess and ball, stainless steel
K0310

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Spring plungers
with recess and ball in delrin
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Spring plungers
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Spring plungers
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Spring plungers
with hexagon socket and ball, steel
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Spring plungers
with hexagon socket and ball, stainless steel
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Spring plungers
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Spring plungers
with hexagon socket and pressure pin, long version
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Spring plungers
with hexagon socket and pressure pin, steel
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with hexagon socket and pressure pin in plastic, steel
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Spring plungers
with hexagon socket and pressure pin, stainless steel
K0319

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Spring plungers
with hexagon socket and pressure pin in plastic, stainless steel
K0320

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Spring plungers
with recess and ball, steel, LONG-LOK secured
K0321

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Spring plungers
with recess and ball, stainless steel, LONG-LOK secured
K0322

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new article

extended article

Spring plungers, locking bolts, ball locking bolts

Spring plungers
with recess and pressure pin, steel, LONG-LOK secured
K0323

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Spring plungers
with recess and pressure pin, stainless steel, LONG-LOK secured
K0324

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Spring plungers
with hexagon socket and ball, steel, LONG-LOK secured
K0325

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Spring plungers
with hexagon socket and ball, stainless steel, LONG-LOK secured
K0326

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Spring plungers
with hexagon socket and pressure pin, steel, LONG-LOK secured
K0327

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Spring plungers
with hexagon socket and pressure pin in plastic, steel, LONG-LOK secured
K0328

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Spring plungers
with hexagon socket and pressure pin, stainless steel, LONG-LOK secured
K0329

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Spring Plungers
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Spring plungers
with head
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Spring plungers
smooth surface, stainless steel
K0333

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K0334

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Spring plungers
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Spring plungers
smooth surface, without collar in stainless steel
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Spring plungers
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K0368

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extended article

Spring plungers, locking bolts, ball locking bolts

new article

extended article

Spring plungers, locking bolts, ball locking bolts

Locking bolts without collar
K0345

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Locking bolts without collar
K0635

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Locking bolts without collar
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Locking bolts without collar
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Spacer rings
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Precision locking bolts with cylindrical support
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Cylindrical sleeves
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Locking bolts with grip in stainless steel
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Locking bolts with grip in stainless steel
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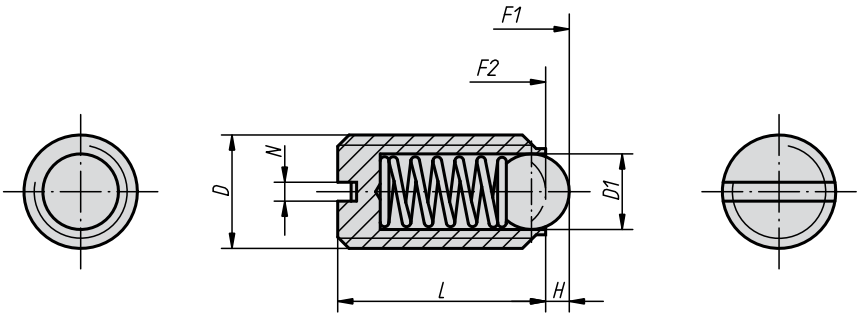
new article

extended article

Spring plungers, locking bolts, ball locking bolts

Spring plungers

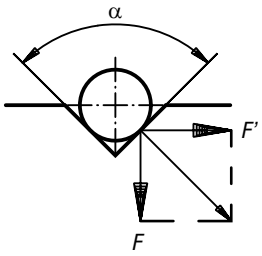
with recess and ball, steel



Material:
Sleeve in steel quality class 5.8.
Ball in steel.
Spring in spring steel D.

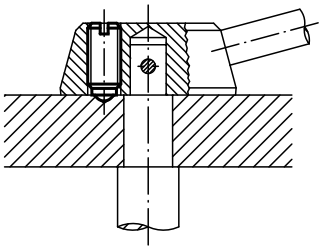
Surface finish:
Black oxide finish.
Ball hardened.

Sample order:
K0309.203



α = 60°, F' = 1.732 x F
α = 90°, F' = F
α= 120°, F' = 0.577 x F

handle indexing



Spring plungers

with recess and ball, steel

KIPP Spring plungers with recess and ball, standard spring force

Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0309.03	M3	1,5	7	0,5	0,4	1,5	3	0,2
K0309.04	M4	2,5	9	0,8	0,6	4	10	0,6
K0309.05	M5	3	12	0,9	0,8	6	11	0,9
K0309.06	M6	3,5	14	1	1	9	13	1,5
K0309.08	M8	5	16	1,5	1,2	15	30	3,5
K0309.10	M10	6	19	2	1,6	20	35	7
K0309.12	M12	8	22	2,5	2	30	55	10
K0309.16	M16	10	24	3,5	2,5	65	125	24
K0309.20	M20	12	30	4,5	2,5	80	160	44,3

KIPP Spring plungers with recess and ball, strong spring force

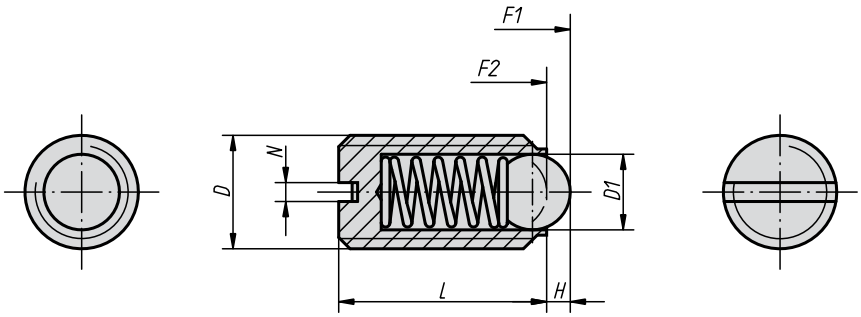
Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0309.203	M3	1,5	7	0,5	0,4	5	7	0,2
K0309.204	M4	2,5	9	0,8	0,6	12	22	0,6
K0309.205	M5	3	12	0,9	0,8	19	30	0,9
K0309.206	M6	3,5	14	1	1	28	40	1,5
K0309.208	M8	5	16	1,5	1,2	47	73	3,5
K0309.210	M10	6	19	2	1,6	66	100	7
K0309.212	M12	8	22	2,5	2	66	120	10
K0309.216	M16	10	24	3,5	2,5	90	180	24
K0309.220	M20	12	30	4,5	2,5	115	240	44,3

KIPP Spring plungers with recess and ball, long version, standard spring force

Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0309.404	M4	2,5	16	0,8	0,6	4	10	0,6
K0309.405	M5	3	20	0,9	0,8	6	11	0,9
K0309.406	M6	3,5	25	1	1	9	13	1,5
K0309.408	M8	5	30	1,5	1,2	15	30	3,5
K0309.410	M10	6	35	2	1,6	20	35	7
K0309.412	M12	8	40	2,5	2	30	55	10
K0309.416	M16	10	45	3,5	2,5	65	125	24

Spring plungers

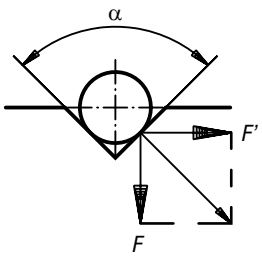
with recess and ball, stainless steel



Material:
Sleeve 1.4305.
Ball 1.4034.
Spring 1.4310.

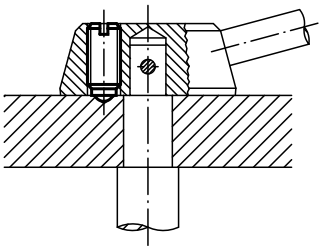
Surface finish:
Natural finish.
Ball hardened.

Sample order:
K0310.203



α = 60°, F' = 1.732 x F
α = 90°, F' = F
α = 120°, F' = 0.577 x F

handle indexing



Spring plungers

with recess and ball, stainless steel

KIPP Spring plungers with recess and ball, standard spring force

Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0310.03	M3	1,5	7	0,5	0,4	1,5	3	0,2
K0310.04	M4	2,5	9	0,8	0,6	4	10	0,6
K0310.05	M5	3	12	0,9	0,8	6	11	0,9
K0310.06	M6	3,5	14	1	1	9	13	1,5
K0310.08	M8	5	16	1,5	1,2	15	30	3,5
K0310.10	M10	6	19	2	1,6	20	35	7
K0310.12	M12	8	22	2,5	2	30	55	10
K0310.16	M16	10	24	3,5	2,5	65	125	24
K0310.20	M20	12	30	4,5	2,5	80	160	44,3

KIPP Spring plungers with recess and ball, strong spring force

Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0310.203	M3	1,5	7	0,5	0,4	5	7	0,2
K0310.204	M4	2,5	9	0,8	0,6	12	22	0,6
K0310.205	M5	3	12	0,9	0,8	19	30	0,9
K0310.206	M6	3,5	14	1	1	28	40	1,5
K0310.208	M8	5	16	1,5	1,2	47	73	3,5
K0310.210	M10	6	19	2	1,6	66	100	7
K0310.212	M12	8	22	2,5	2	66	120	10
K0310.216	M16	10	24	3,5	2,5	90	180	24
K0310.220	M20	12	30	4,5	2,5	115	240	44,3

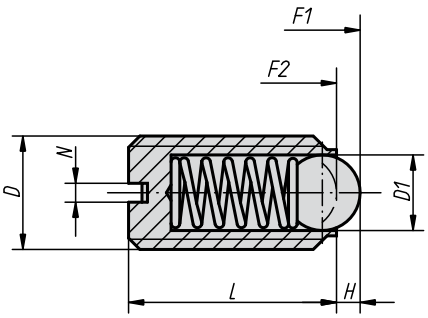
KIPP Spring plungers with recess and ball, long version, standard spring force

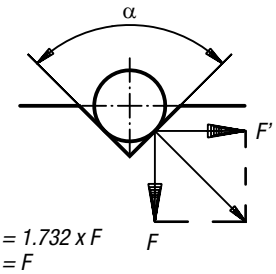
Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0310.404	M4	2,5	16	0,8	0,6	4	10	0,6
K0310.405	M5	3	20	0,9	0,8	6	11	0,9
K0310.406	M6	3,5	25	1	1	9	13	1,5
K0310.408	M8	5	30	1,5	1,2	15	30	3,5
K0310.410	M10	6	35	2	1,6	20	35	7
K0310.412	M12	8	40	2,5	2	30	55	10
K0310.416	M16	10	45	3,5	2,5	65	125	24

K0311

Spring plungers

with recess and ball in Delrin





α = 60°, F' = 1.732 x F
α = 90°, F' = F
α = 120°, F' = 0.577 x F

Material, surface finish:
Sleeve in plastic.
Ball in white Delrin.
Spring 1.4310.

Sample order:
K0311.10

Note:
Spring plungers are used for indexing and positioning.
They can also be used as ejectors.

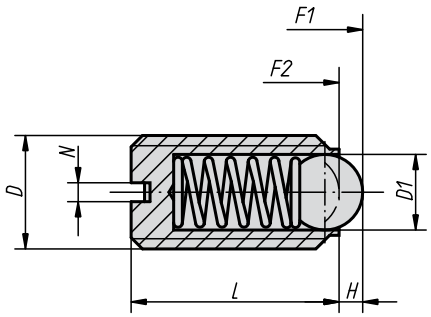
KIPP Spring plungers with recess and ball in Delrin

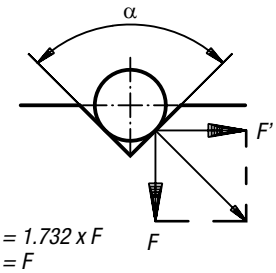
Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0311.06	M6	3,5	14	1	1	9	13	0,4
K0311.08	M8	5	16	1,5	1,2	15	30	0,8
K0311.10	M10	6	19	2	1,6	20	40	1,6

K0312

Spring plungers

with recess and ball in stainless steel





α = 60°, F' = 1.732 x F
α = 90°, F' = F
α = 120°, F' = 0.577 x F

Material, surface finish:
Sleeve in plastic.
Ball in stainless steel 1.4034, hardened.
Spring 1.4310.

Sample order:
K0312.10

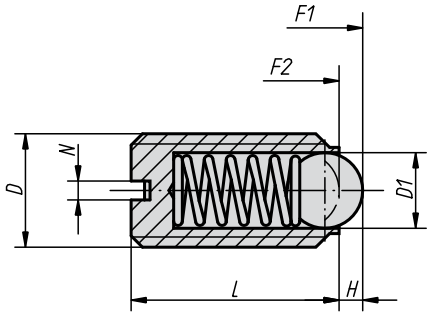
Note:
Spring plungers are used for indexing and positioning.
They can also be used as ejectors.

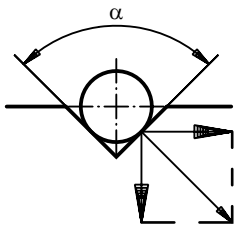
KIPP Spring plungers with recess and ball in stainless steel

Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0312.06	M6	3,5	14	1	1	9	13	0,6
K0312.08	M8	5	16	1,5	1,2	15	30	1,2
K0312.10	M10	6	19	2	1,6	20	40	2,3

Spring plungers

with recess and ceramic ball, stainless steel





α = 60°, F' = 1.732 x F
α = 90°, F' = F
α = 120°, F' = 0.577 x F

Material:
Sleeve 1.4305.
Ceramic ball Si_3N_4.
Spring 1.4310.

Surface finish:
Natural finish

Sample order:
K0609.05

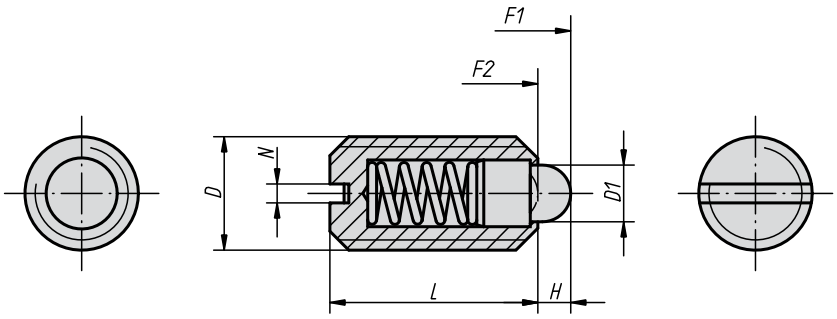
Note:
The combination of excellent material properties is a special feature of silicon nitride (Si_3N_4). These include, for example, high tenacity and stability, excellent wear resistance and efficient chemical resistance.

KIPP Spring plungers with recess and ceramic ball, stainless steel

Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0609.05	M5	3	12	0,9	0,8	6	11	0,9
K0609.06	M6	3,5	14	1	1	9	13	1,5
K0609.08	M8	5	16	1,5	1,2	15	30	3,5
K0609.10	M10	6	19	2	1,6	20	35	7
K0609.12	M12	8	22	2,5	2	30	55	10
K0609.16	M16	10	24	3,5	2,5	65	125	24

Spring plungers

with recess and pressure pin, steel



Material:
Sleeve in steel quality class 5.8.
Pressure pin in steel.
Spring in spring steel D.

Surface finish:
Black oxide finish.
Pressure pin hardened.

Sample order:
K0313.10

KIPP Spring plungers with recess and pressure pin, standard spring force

Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0313.04	M4	1,8	9	1,5	0,6	6	20	0,39
K0313.05	M5	2,4	12	2	0,8	6	20	1
K0313.06	M6	2,7	14	2	1	7	20	1,7
K0313.08	M8	4	16	2	1,2	15	30	4
K0313.10	M10	4,5	19	2,5	1,6	20	35	7
K0313.12	M12	6	22	3,5	2	30	55	13
K0313.16	M16	8,5	24	4,5	2,5	45	100	24
K0313.20	M20	10	30	6,5	2,5	60	120	46,3

KIPP Spring plungers with recess and pressure pin, light spring force

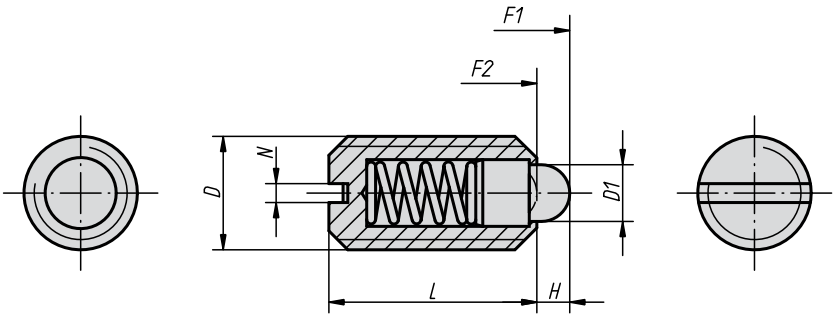
Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0313.104	M4	1,8	9	1,5	0,6	3	10	0,39
K0313.105	M5	2,4	12	2	0,8	3	10	1
K0313.106	M6	2,7	14	2	1	4	10	1,7
K0313.108	M8	4	16	2	1,2	7	15	4
K0313.110	M10	4,5	19	2,5	1,6	9	16	7
K0313.112	M12	6	22	3,5	2	14	26	13
K0313.116	M16	8,5	24	4,5	2,5	22	50	24
K0313.120	M20	10	30	6,5	2,5	30	60	46,3

KIPP Spring plungers with recess and pressure pin, strong spring force

Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0313.205	M5	2,4	12	2	0,8	9	25	1
K0313.206	M6	2,7	14	2	1	11	25	1,7
K0313.208	M8	4	16	2	1,2	22	43	4
K0313.210	M10	4,5	19	2,5	1,6	20	54	7
K0313.212	M12	6	22	3,5	2	36	94	13
K0313.216	M16	8,5	24	4,5	2,5	60	110	24

Spring plungers

with recess and pressure pin, stainless steel



Material:
Sleeve 1.4305.
Pressure pin 1.4034.
Spring 1.4310.

Surface finish:
Natural finish.
Pressure pin hardened.

Sample order:
K0314.10

KIPP Spring plungers with recess and pressure pin, standard spring force

Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0314.04	M4	1,8	9	1,5	0,6	6	20	0,39
K0314.05	M5	2,4	12	2	0,8	6	20	1
K0314.06	M6	2,7	14	2	1	7	20	1,7
K0314.08	M8	4	16	2	1,2	15	30	4
K0314.10	M10	4,5	19	2,5	1,6	20	35	7
K0314.12	M12	6	22	3,5	2	30	55	13
K0314.16	M16	8,5	24	4,5	2,5	45	100	24
K0314.20	M20	10	30	6,5	2,5	60	120	46,3

KIPP Spring plungers with recess and pressure pin, light spring force

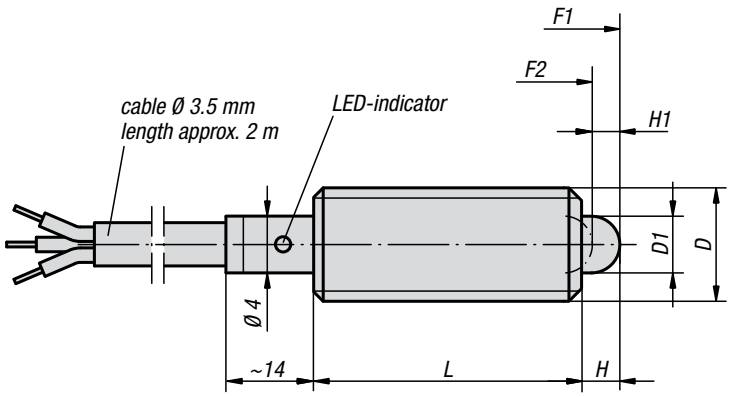
Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0314.104	M4	1,8	9	1,5	0,6	3	10	0,39
K0314.105	M5	2,4	12	2	0,8	3	10	1
K0314.106	M6	2,7	14	2	1	4	10	1,7
K0314.108	M8	4	16	2	1,2	7	15	4
K0314.110	M10	4,5	19	2,5	1,6	9	16	7
K0314.112	M12	6	22	3,5	2	14	26	13
K0314.116	M16	8,5	24	4,5	2,5	22	50	24
K0314.120	M20	10	30	6,5	2,5	30	60	46,3

KIPP Spring plungers with recess and pressure pin, strong spring force

Order No.	D	D1	L	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0314.205	M5	2,4	12	2	0,8	9	25	1
K0314.206	M6	2,7	14	2	1	11	25	1,7
K0314.208	M8	4	16	2	1,2	22	43	4
K0314.210	M10	4,5	19	2,5	1,6	20	54	7
K0314.212	M12	6	22	3,5	2	36	94	13
K0314.216	M16	8,5	24	4,5	2,5	60	110	24

Spring plungers

with end position feedback



Material:
Sleeve, pressure pin and spring in steel.
Inductive proximitiy switch.

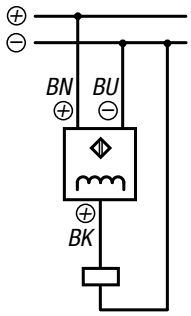
Surface finish:
Black oxide finish.
Pressure pin hardened.

Sample order:
K0656.5081

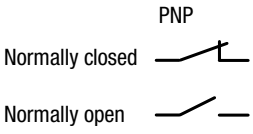
Note:
An electrical control signal can be sent via the built-in end switch.
Voltage: U = 10 – 30 V DC
Electricity: I max. = 200 mA
Temperature range: -25 °C – +70 °C
Protection class: IP 67

Safety:
The use of spring plungers with end position feedback is not suitable for restraining people.

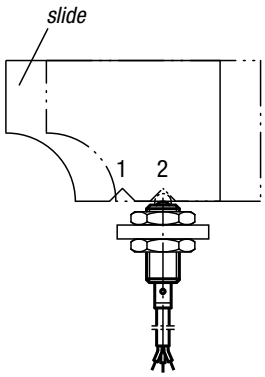
Connection diagram:



BN = brown
BK = black
BU = blue



Application, position feedback:
Pos. 1: slide engaged
Pos. 2: slide disengaged



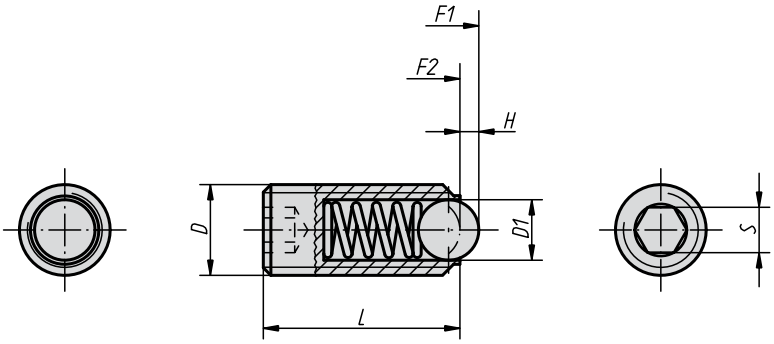
KIPP Spring plungers with end position feedback

Order No.	Surface finish	D	D1	L	H	H1	Switching contact from stroke H1	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0656.5061	normally closed	M6	2,7	27	3	2	1,2 - 1,6	7	20
K0656.5081	normally closed	M8	4	29	3	2	1,2 - 1,8	15	30
K0656.5101	normally closed	M10	4,5	36	4	3	2,2 - 2,8	26	44
K0656.5062	normally open	M6	2,7	27	3	2	1,2 - 1,6	7	20
K0656.5082	normally open	M8	4	29	3	2	1,2 - 1,8	15	30
K0656.5102	normally open	M10	4,5	36	4	3	2,2 - 2,8	26	44

Notes

Spring plungers

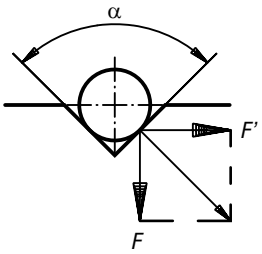
with hexagon socket and ball, steel



Material:
Sleeve in steel quality class 5.8.
Ball in steel.
Spring in spring steel D.

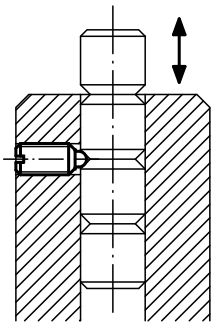
Surface finish:
Black oxide finish.
Ball hardened.

Sample order:
K0315.210



α = 60°, F' = 1.732 x F
α = 90°, F' = F
α = 120°, F' = 0.577 x F

column locking



Spring plungers

with hexagon socket and ball, steel

KIPP Spring plungers with hexagon socket and ball, standard spring force

Order No.	D	D1	L	H	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0315.03	M3	1,5	9	0,5	1,5	1,5	3	0,23
K0315.04	M4	2,5	10	0,8	2	4	10	0,46
K0315.05	M5	3	14	0,9	2,5	6	11	1,27
K0315.06	M6	3,5	15	1	3	9	13	2
K0315.08	M8	5	18	1,5	4	15	30	4
K0315.10	M10	6	23	2	5	20	35	8
K0315.12	M12	8	26	2,5	6	30	55	12
K0315.16	M16	10	33	3,5	8	65	125	31
K0315.20	M20	12	43	4,5	10	80	160	64
K0315.24	M24	15	48	5,5	12	90	180	100

KIPP Spring plungers with hexagon socket and ball, strong spring force

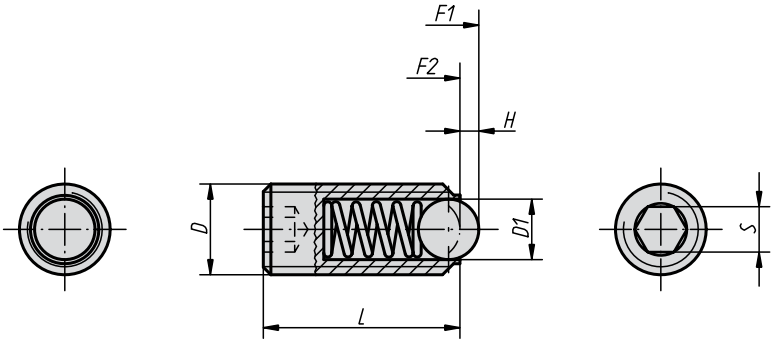
Order No.	D	D1	L	H	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0315.203	M3	1,5	9	0,5	1,5	5	7	0,23
K0315.204	M4	2,5	10	0,8	2	12	22	0,46
K0315.205	M5	3	14	0,9	2,5	19	30	1,27
K0315.206	M6	3,5	15	1	3	28	40	2
K0315.208	M8	5	18	1,5	4	47	73	4
K0315.210	M10	6	23	2	5	66	100	8
K0315.212	M12	8	26	2,5	6	66	120	12
K0315.216	M16	10	33	3,5	8	90	180	31
K0315.220	M20	12	43	4,5	10	115	240	64
K0315.224	M24	15	48	5,5	12	130	270	100

KIPP Spring plungers with hexagon socket and ball, long version, standard spring force

Order No.	D	D1	L	H	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0315.404	M4	2,5	16	0,8	2	4	10	0,89
K0315.405	M5	3	20	0,9	2,5	6	11	1,82
K0315.406	M6	3,5	25	1	3	9	13	3,37
K0315.408	M8	5	30	1,5	4	15	30	7,36
K0315.410	M10	6	35	2	5	20	35	13,52
K0315.412	M12	8	40	2,5	6	30	55	21,61
K0315.416	M16	10	45	3,5	8	65	125	46,56

Spring plungers

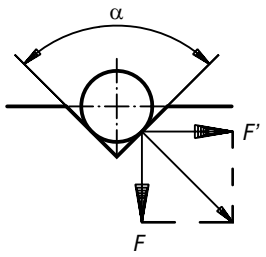
with hexagon socket and ball, stainless steel



Material:
Sleeve 1.4305.
Ball 1.4034.
Spring 1.4310.

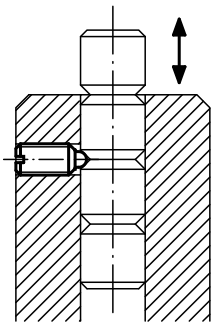
Surface finish:
Natural finish.
Ball hardened.

Sample order:
K0316.210



α = 60°, F' = 1.732 x F
α = 90°, F' = F
α = 120°, F' = 0.577 x F

column locking



Spring plungers

with hexagon socket and ball, stainless steel

KIPP Spring plungers with hexagon socket and ball, standard spring force

Order No.	D	D1	L	H	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0316.03	M3	1,5	9	0,5	1,5	1,5	3	0,23
K0316.04	M4	2,5	10	0,8	2	4	10	0,46
K0316.05	M5	3	14	0,9	2,5	6	11	1,27
K0316.06	M6	3,5	15	1	3	9	13	2
K0316.08	M8	5	18	1,5	4	15	30	4
K0316.10	M10	6	23	2	5	20	35	8
K0316.12	M12	8	26	2,5	6	30	55	12
K0316.16	M16	10	33	3,5	8	65	125	31
K0316.20	M20	12	43	4,5	10	80	160	64
K0316.24	M24	15	48	5,5	12	90	180	100

KIPP Spring plungers with hexagon socket and ball, strong spring force

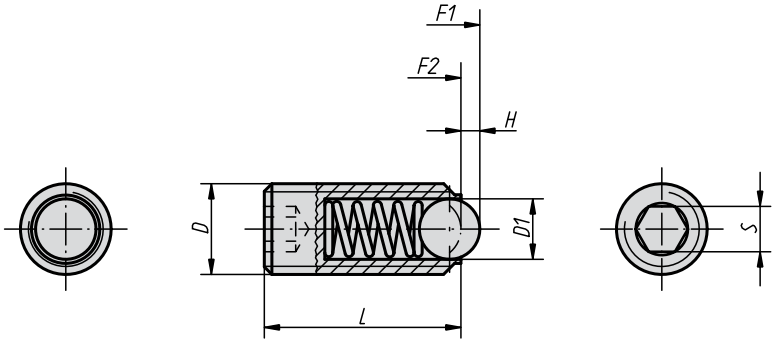
Order No.	D	D1	L	H	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0316.203	M3	1,5	9	0,5	1,5	5	7	0,23
K0316.204	M4	2,5	10	0,8	2	12	22	0,46
K0316.205	M5	3	14	0,9	2,5	19	30	1,27
K0316.206	M6	3,5	15	1	3	28	40	2
K0316.208	M8	5	18	1,5	4	47	73	4
K0316.210	M10	6	23	2	5	66	100	8
K0316.212	M12	8	26	2,5	6	66	120	12
K0316.216	M16	10	33	3,5	8	90	180	31
K0316.220	M20	12	43	4,5	10	115	240	64
K0316.224	M24	15	48	5,5	12	130	270	100

KIPP Spring plungers with hexagon socket and ball, long version, standard spring force

Order No.	D	D1	L	H	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0316.404	M4	2,5	16	0,8	2	4	10	0,89
K0316.405	M5	3	20	0,9	2,5	6	11	1,82
K0316.406	M6	3,5	25	1	3	9	13	3,37
K0316.408	M8	5	30	1,5	4	15	30	7,36
K0316.410	M10	6	35	2	5	20	35	13,52
K0316.412	M12	8	40	2,5	6	30	55	21,61
K0316.416	M16	10	45	3,5	8	65	125	46,56

Spring plungers

with hexagon socket and ceramic ball

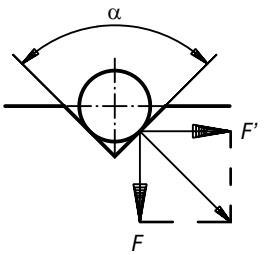


Material:
Sleeve 1.4305.
Ceramic ball Si_3N_4.
Spring 1.4310.

Surface finish:
Natural finish.

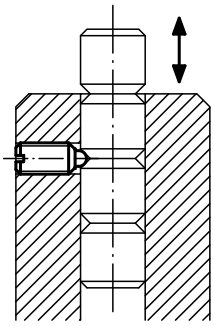
Sample order:
K0610.05

Note:
The combination of excellent material properties is a special feature of silicon nitride (Si_3N_4). These include, for example, high tenacity and stability, excellent wear resistance and efficient chemical resistance.



α = 60°, F' = 1.732 x F
α = 90°, F' = F
α = 120°, F' = 0.577 x F

column locking

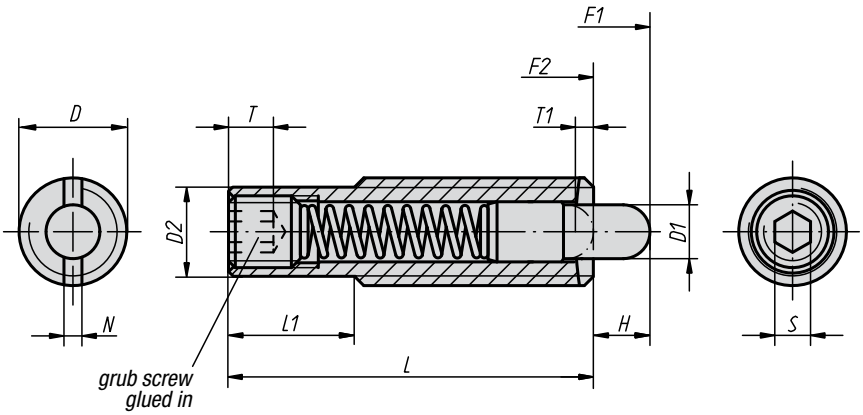


KIPP Spring plungers with hexagon socket and ceramic ball

Order No.	D	D1	L	H	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0610.05	M5	3	14	0,9	2,5	6	11	1,3
K0610.06	M6	3,5	15	1	3	9	13	2
K0610.08	M8	5	18	1,5	4	15	30	4
K0610.10	M10	6	23	2	5	20	35	8
K0610.12	M12	8	26	2,5	6	30	55	12
K0610.16	M16	10	33	3,5	8	65	125	31

Spring plungers

with hexagon socket and pressure pin, long version



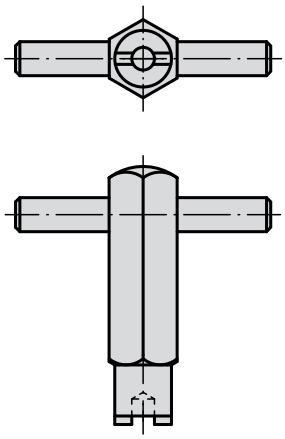
Material:
Sleeve in steel quality class 5.8.
Pressure pin in steel.
Spring in spring steel D.

Surface finish:
Black oxide finish.
Pressure pin hardened.

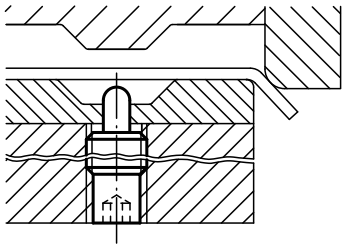
Sample order:
K0657.616

Note:
These spring plungers are chiefly used as ejectors and spring stops in machine construction.

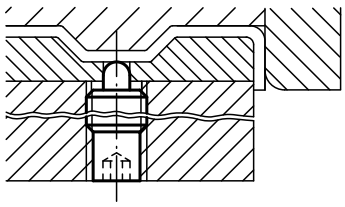
assembly key



bending the shank



press

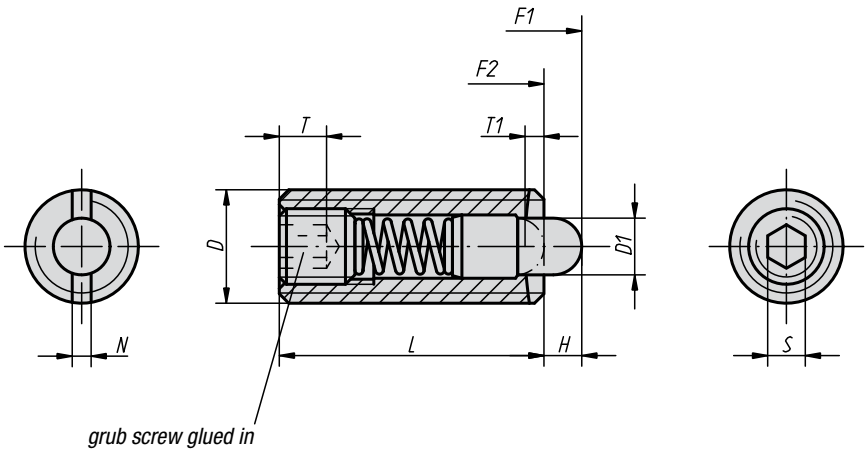


KIPP Spring plungers with hexagon socket and pressure pin, long version

Order No.	D	D1	D2	L	L1	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. assembly key
K0657.608	M8	3,5	6,2	30	10	6	2	1,4	1,2	2,5	8	22	K0317.908
K0657.610	M10	4	8	40	10	8	3	1,4	1,6	3	12	30	K0317.910
K0657.612	M12	6	9,6	50	20	10	5	2	2	4	20	50	K0317.912
K0657.616	M16	7,5	13,4	60	30	12	6	2,5	2,5	5	30	64	K0317.916

Spring plungers

with hexagon socket and pressure pin, steel

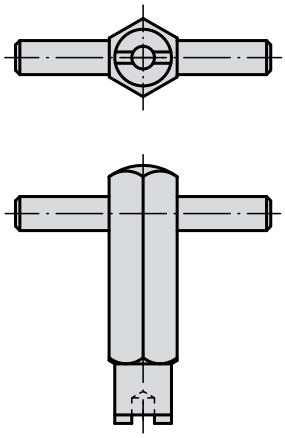


Material:
Sleeve in steel quality class 5.8.
Pressure pin in steel.
Spring in spring steel D.

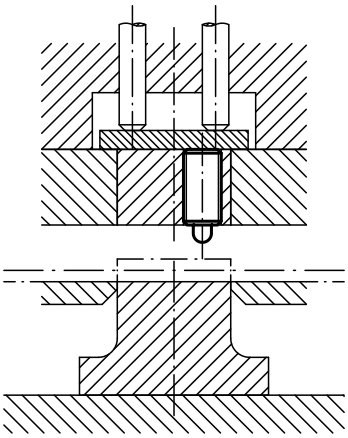
Surface finish:
Black oxide finish.
Pressure pin hardened.

Sample order:
K0317.16

assembly key



Spring plunger
cutaway view



Spring plungers

with hexagon socket and pressure pin, steel

KIPP Spring plungers with hexagon socket and pressure pin, standard spring force

Order No.	D	D1	L	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g	Order No. assembly key
K0317.03	M3	1	10	1,5	1,5	1	0,4	0,7	0,5	3	0,35	K0317.903
K0317.04	M4	1,5	15	1,5	2	0,6	0,6	1,3	5	16	0,8	K0317.904
K0317.05	M5	2,4	18	2,3	2	0,8	0,8	1,5	6	20	1,3	K0317.905
K0317.06	M6	2,7	20	2,5	2,5	1	1	2	7	20	2,5	K0317.906
K0317.08	M8	3,5	22	3	3	1,4	1,2	2,5	9	35	6	K0317.908
K0317.10	M10	4	22	3	3,5	1,4	1,6	3	9	35	9	K0317.910
K0317.12	M12	6	28	4	5	2	2	4	10	55	16	K0317.912
K0317.16	M16	7,5	32	5	6	2,5	2,5	5	45	100	35	K0317.916
K0317.20	M20	10	40	7	8	3	2,5	6	60	120	66,3	-
K0317.24	M24	12	52	10	10	3	2,5	8	80	160	122,2	-

KIPP Spring plungers with hexagon socket and pressure pin, light spring force

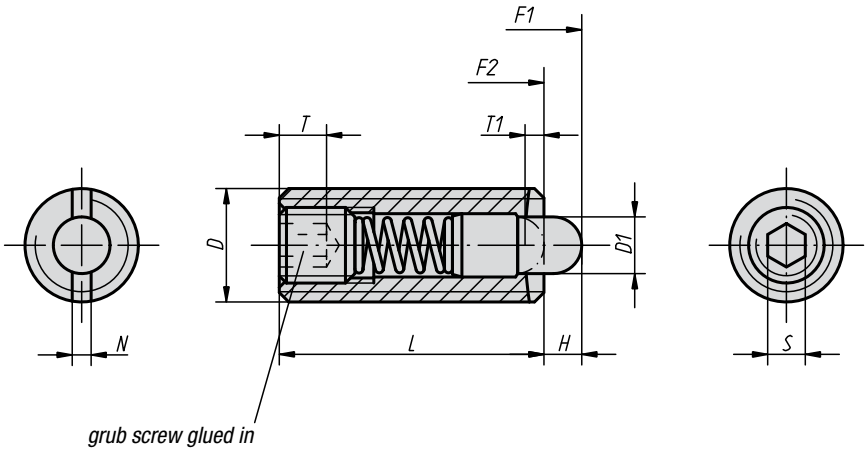
Order No.	D	D1	L	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g	Order No. assembly key
K0317.104	M4	1,5	15	1,5	2	0,6	0,6	1,3	2	7	0,8	K0317.904
K0317.105	M5	2,4	18	2,3	2	0,8	0,8	1,5	3	10	1,3	K0317.905
K0317.106	M6	2,7	20	2,5	2,5	1	1	2	3	9	2,5	K0317.906
K0317.108	M8	3,5	22	3	3	1,4	1,2	2,5	4	16	6	K0317.908
K0317.110	M10	4	22	3	3,5	1,4	1,6	3	4	16	9	K0317.910
K0317.112	M12	6	28	4	5	2	2	4	5	27	16	K0317.912
K0317.116	M16	7,5	32	5	6	2,5	2,5	5	20	45	35	K0317.916

KIPP Spring plungers with hexagon socket and pressure pin, strong spring force

Order No.	D	D1	L	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g	Order No. assembly key
K0317.205	M5	2,4	18	2,3	2	0,8	0,8	1,5	11	29	1,3	K0317.905
K0317.206	M6	2,7	20	2,5	2,5	1	1	2	14	37	2,5	K0317.906
K0317.208	M8	3,5	22	3	3	1,4	1,2	2,5	22	65	6	K0317.908
K0317.210	M10	4	22	3	3,5	1,4	1,6	3	19	70	9	K0317.910
K0317.212	M12	6	28	4	5	2	2	4	25	85	16	K0317.912
K0317.216	M16	7,5	32	5	6	2,5	2,5	5	60	150	35	K0317.916
K0317.220	M20	10	40	7	8	3	2,5	6	75	190	66,3	-
K0317.224	M24	12	52	10	10	3	2,5	8	95	240	122,2	-

Spring plungers

with hexagon socket and pressure pin in plastic, steel

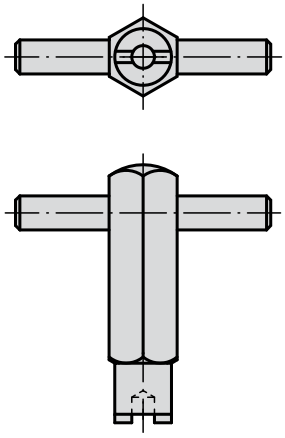


Material:
Sleeve in steel quality class 5.8.
Pressure pin in plastic.
Spring in spring steel D.

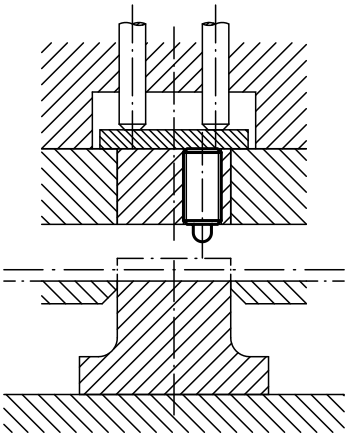
Surface finish:
Black oxide finish.

Sample order:
K0318.16

assembly key



Spring plunger
cutaway view



Spring plungers

with hexagon socket and pressure pin in plastic, steel

KIPP Spring plungers with hexagon socket and pressure pin, standard spring force

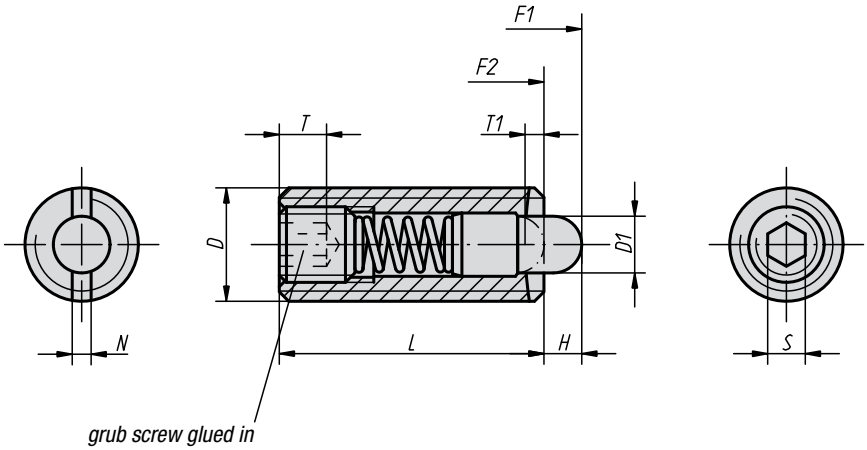
Order No.	D	D1	L	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g	Order No. assembly key
K0318.03	M3	1	10	1,5	1,5	1	0,4	0,7	0,5	3	0,35	K0317.903
K0318.04	M4	1,5	15	1,5	2	0,6	0,6	1,3	5	16	0,8	K0317.904
K0318.05	M5	2,4	18	2,3	2	0,8	0,8	1,5	6	20	1,3	K0317.905
K0318.06	M6	2,7	20	2,5	2,5	1	1	2	7	20	2,5	K0317.906
K0318.08	M8	3,5	22	3	3	1,4	1,2	2,5	9	35	6	K0317.908
K0318.10	M10	4	22	3	3,5	1,4	1,6	3	9	35	9	K0317.910
K0318.12	M12	6	28	4	5	2	2	4	10	55	16	K0317.912
K0318.16	M16	7,5	32	5	6	2,5	2,5	5	45	100	35	K0317.916

KIPP Spring plungers with hexagon socket and pressure pin, light spring force

Order No.	D	D1	L	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g	Order No. assembly key
K0318.104	M4	1,5	15	1,5	2	0,6	0,6	1,3	2	7	0,8	K0317.904
K0318.105	M5	2,4	18	2,3	2	0,8	0,8	1,5	3	10	1,3	K0317.905
K0318.106	M6	2,7	20	2,5	2,5	1	1	2	3	9	2,5	K0317.906
K0318.108	M8	3,5	22	3	3	1,4	1,2	2,5	4	16	6	K0317.908
K0318.110	M10	4	22	3	3,5	1,4	1,6	3	4	16	9	K0317.910
K0318.112	M12	6	28	4	5	2	2	4	5	27	16	K0317.912
K0318.116	M16	7,5	32	5	6	2,5	2,5	5	20	45	35	K0317.916

Spring plungers

with hexagon socket and pressure pin, stainless steel

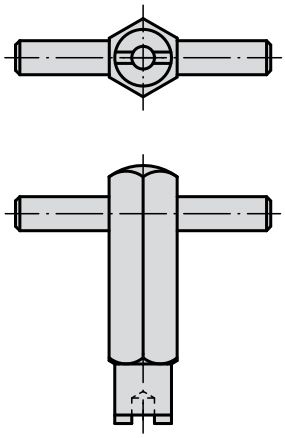


Material:
Sleeve 1.4305.
Pressure pin 1.4034.
Spring 1.4310.

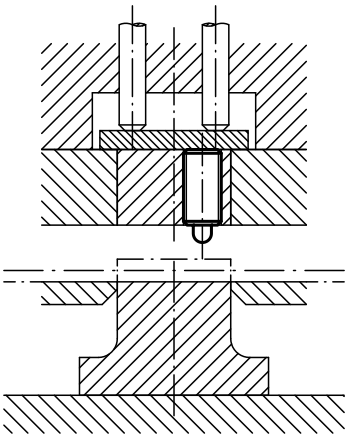
Surface finish:
Natural finish.
Pressure pin hardened.

Sample order:
K0319.16

assembly key



Spring plunger
cutaway view



Spring plungers

with hexagon socket and pressure pin, stainless steel

KIPP Spring plungers with hexagon socket and pressure pin, standard spring force

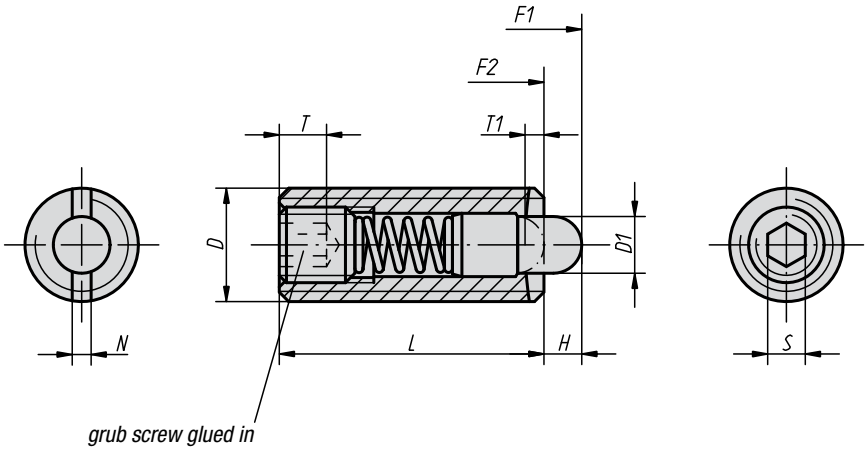
Order No.	D	D1	L	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g	Order No. assembly key
K0319.03	M3	1	10	1,5	1,5	1	0,4	0,7	0,5	3	0,35	K0317.903
K0319.04	M4	1,5	15	1,5	2	0,6	0,6	1,3	5	16	0,8	K0317.904
K0319.05	M5	2,4	18	2,3	2	0,8	0,8	1,5	5	17	1,3	K0317.905
K0319.06	M6	2,7	20	2,5	2,5	1	1	2	6	17	2,5	K0317.906
K0319.08	M8	3,5	22	3	3	1,4	1,2	2,5	7	29	6	K0317.908
K0319.10	M10	4	22	3	3,5	1,4	1,6	3	8	31	9	K0317.910
K0319.12	M12	6	28	4	5	2	2	4	10	47	16	K0317.912
K0319.16	M16	7,5	32	5	6	2,5	2,5	5	45	100	35	K0317.916

KIPP Spring plungers with hexagon socket and pressure pin, strong spring force

Order No.	D	D1	L	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g	Order No. assembly key
K0319.205	M5	2,4	18	2,3	2	0,8	0,8	1,5	9	26	1,3	K0317.905
K0319.206	M6	2,7	20	2,5	2,5	1	1	2	11	35	2,5	K0317.906
K0319.208	M8	3,5	22	3	3	1,4	1,2	2,5	15	48	6	K0317.908
K0319.210	M10	4	22	3	3,5	1,4	1,6	3	15	58	9	K0317.910
K0319.212	M12	6	28	4	5	2	2	4	19	74	16	K0317.912

Spring plungers

with hexagon socket and pressure pin in plastic, stainless steel

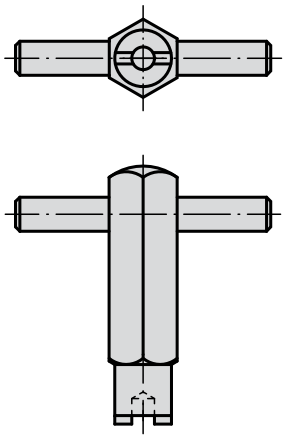


Material:
Sleeve in stainless steel 1.4305.
Pressure pin in plastic.
Spring in stainless steel 1.4310.

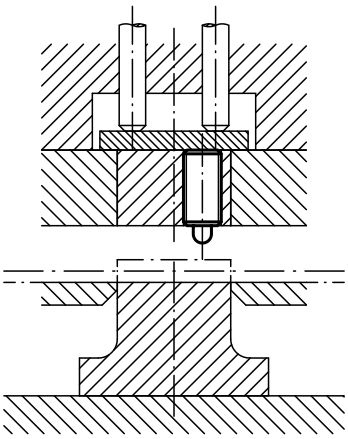
Surface finish:
Natural finish.

Sample order:
K0320.16

assembly key



Spring plunger
cutaway view



KIPP Spring plungers with hexagon socket and pressure pin, standard spring force

Order No.	D	D1	L	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g	Order No. assembly key
K0320.03	M3	1	10	1,5	1,5	1	0,4	0,7	0,5	3	0,35	K0317.903
K0320.04	M4	1,5	15	1,5	2	0,6	0,6	1,3	5	16	0,8	K0317.904
K0320.05	M5	2,4	18	2,3	2	0,8	0,8	1,5	5	17	1,3	K0317.905
K0320.06	M6	2,7	20	2,5	2,5	1	1	2	6	17	2,5	K0317.906
K0320.08	M8	3,5	22	3	3	1,4	1,2	2,5	7	29	6	K0317.908
K0320.10	M10	4	22	3	3,5	1,4	1,6	3	8	31	9	K0317.910
K0320.12	M12	6	28	4	5	2	2	4	10	47	16	K0317.912
K0320.16	M16	7,5	32	5	6	2,5	2,5	5	45	100	35	K0317.916

Notes

Spring plungers with LONG-LOK thread lock

LONG-LOK, the most advanced locking thread mechanism

The following advantages are yours:

1. Vibration resistant.

The integrated LONG-LOK thread lock secures spring plungers rationally and economically. No loosening or falling out after impacts, knocks or vibrations.

2. Extremly high loosening torque.

The resilient nylon insert is squeezed like a wedge between the thread of the spring plunger and the fastening component. By means of the nylon locking system, the thread backlash is shifted to one side, which in turn causes surface pressure at the thread flanks. The resulting loosening torque is higher than that achieved with most conventional, mechanical methods.

3. Secure in every position.

The LONG-LOK thread lock requires neither initial tension nor any defined position. This is ideal for the positioning of the spring plungers.

4. Saves assembly time and stocking space.

The LONG-LOK thread lock is integrated into spring plungers. There are no additional components. No circlips, no spring washers, no locking nuts. As a result, assembly and stocking costs are reduced considerably.

5. For repeated use.

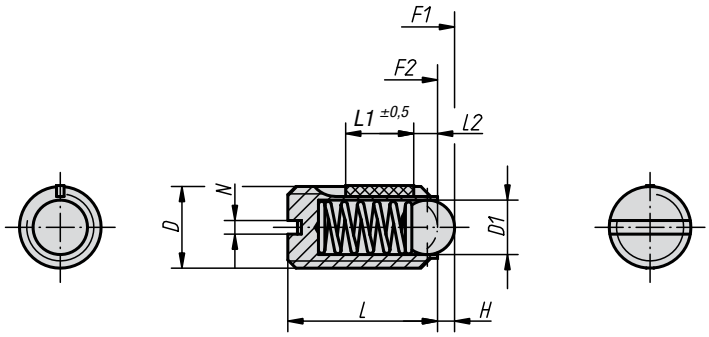
When using the LONG-LOK thread lock for the first time, it requires a slightly higher tightening torque. After third or fourth use, the last reached value remains nearly constant for about 20 times.

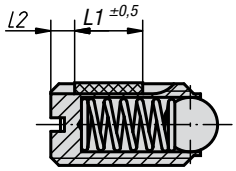
6. Problem solver from M3 to M16.

Light-weight or heavy-weight: name your requirements! We will supply you with the suitable spring plungers with integrated LONG-LOK thread lock.

Spring plungers

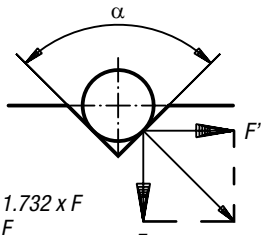
with recess and ball, steel, LONG-LOK secured





applies to models with
D = M3, M4, M5 and M6

L2 = approx. two thread turns



α = 60°, F' = 1.732 x F
α = 90°, F' = F
α = 120°, F' = 0.577 x F

Material:
Sleeve in steel quality class 5.8.
Ball in steel.
Spring in spring steel D.

LONG-LOK thread lock in nylon.

Surface finish:
Black oxide finish.
Ball hardened.

Sample order:
K0321.12

KIPP Spring plungers with recess and ball, standard spring force, LONG-LOK secured

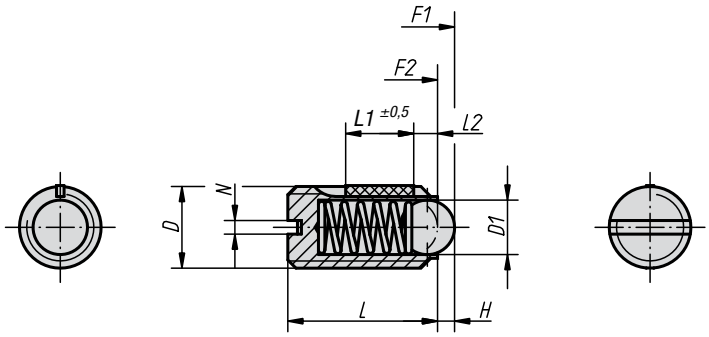
Order No.	D	D1	L	L1	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g
K0321.03	M3	1,5	7	4	0,5	0,4	1,5	3	0,10	0,07	0,2
K0321.04	M4	2,5	9	5	0,8	0,6	4	10	0,18	0,12	0,6
K0321.05	M5	3	12	6	0,9	0,8	6	11	0,12	0,08	0,9
K0321.06	M6	3,5	14	7	1	1	9	13	0,43	0,21	1,5
K0321.08	M8	5	16	8	1,5	1,2	15	30	1,09	0,37	3,5
K0321.10	M10	6	19	9	2	1,6	20	35	1,36	0,62	7
K0321.12	M12	8	22	10	2,5	2	30	55	2,03	1,36	10
K0321.16	M16	10	24	14	3,5	2,5	65	125	3,95	2,95	24

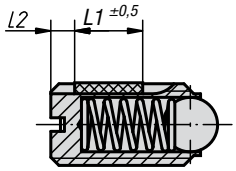
KIPP Spring plungers with recess and ball, strong spring force, LONG-LOK secured

Order No.	D	D1	L	L1	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g
K0321.203	M3	1,5	7	4	0,5	0,4	5	7	0,10	0,07	0,2
K0321.204	M4	2,5	9	5	0,8	0,6	12	22	0,18	0,12	0,6
K0321.205	M5	3	12	6	0,9	0,8	19	30	0,12	0,08	0,9
K0321.206	M6	3,5	14	7	1	1	28	40	0,43	0,21	1,5
K0321.208	M8	5	16	8	1,5	1,2	47	73	1,09	0,37	3,5
K0321.210	M10	6	19	9	2	1,6	66	100	1,36	0,62	7
K0321.212	M12	8	22	10	2,5	2	66	120	2,03	1,36	10
K0321.216	M16	10	24	14	3,5	2,5	90	180	3,95	2,95	24

Spring plungers

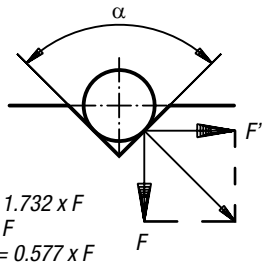
with recess and ball, stainless steel, LONG-LOK secured





applies to models with
D = M3, M4, M5 and M6

L2 = approx. two thread turns



α = 60°, F' = 1.732 x F
α = 90°, F' = F
α = 120°, F' = 0.577 x F

Material:
Sleeve 1.4305.
Ball 1.4034.
Spring 1.4310.

LONG-LOK thread lock in nylon.

Surface finish:
Natural finish.
Ball hardened.

Sample order:
K0322.12

KIPP Spring plungers with recess and ball, standard spring force, LONG-LOK secured

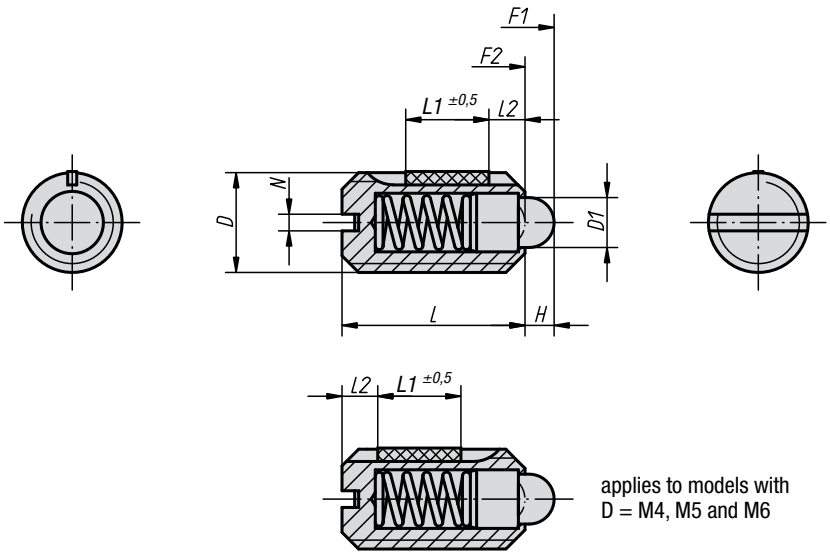
Order No.	D	D1	L	L1	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g
K0322.03	M3	1,5	7	4	0,5	0,4	1,5	3	0,10	0,07	0,2
K0322.04	M4	2,5	9	5	0,8	0,6	4	10	0,18	0,12	0,6
K0322.05	M5	3	12	6	0,9	0,8	6	11	0,12	0,08	0,9
K0322.06	M6	3,5	14	7	1	1	9	13	0,43	0,21	1,5
K0322.08	M8	5	16	8	1,5	1,2	15	30	1,09	0,37	3,5
K0322.10	M10	6	19	9	2	1,6	20	35	1,36	0,62	7
K0322.12	M12	8	22	10	2,5	2	30	55	2,03	1,36	10
K0322.16	M16	10	24	14	3,5	2,5	65	125	3,95	2,95	24

KIPP Spring plungers with recess and ball, strong spring force, LONG-LOK secured

Order No.	D	D1	L	L1	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g
K0322.203	M3	1,5	7	4	0,5	0,4	5	7	0,10	0,07	0,2
K0322.204	M4	2,5	9	5	0,8	0,6	12	22	0,18	0,12	0,6
K0322.205	M5	3	12	6	0,9	0,8	19	30	0,12	0,08	0,9
K0322.206	M6	3,5	14	7	1	1	28	40	0,43	0,21	1,5
K0322.208	M8	5	16	8	1,5	1,2	47	73	1,09	0,37	3,5
K0322.210	M10	6	19	9	2	1,6	66	100	1,36	0,62	7
K0322.212	M12	8	22	10	2,5	2	66	120	2,03	1,36	10
K0322.216	M16	10	24	14	3,5	2,5	90	180	3,95	2,95	24

Spring plungers

with recess and pressure pin, steel, LONG-LOK secured



applies to models with
D = M4, M5 and M6

L2 = approx. two thread turns

Material:
Sleeve in steel quality class 5.8.
Pressure pin in steel.
Spring in spring steel D.

LONG-LOK thread lock in nylon.

Surface finish:
Black oxide finish.
Pressure pin hardened.

Sample order:
K0323.10

KIPP Spring plungers with recess and pressure pin, standard spring force, LONG-LOK secured

Order No.	D	D1	L	L1	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g
K0323.04	M4	1,8	9	5	1,5	0,6	6	20	0,18	0,12	0,39
K0323.05	M5	2,4	12	6	2	0,8	6	20	0,12	0,08	1
K0323.06	M6	2,7	14	7	2	1	7	20	0,44	0,21	1,7
K0323.08	M8	4	16	8	2	1,2	15	30	1,10	0,38	4
K0323.10	M10	4,5	19	9	2,5	1,6	20	35	1,36	0,62	7
K0323.12	M12	6	22	10	3,5	2	30	55	2,11	1,41	13
K0323.16	M16	8,5	24	14	4,5	2,5	45	100	3,95	3,05	24

KIPP Spring plungers with recess and pressure pin, light spring force, LONG-LOK secured

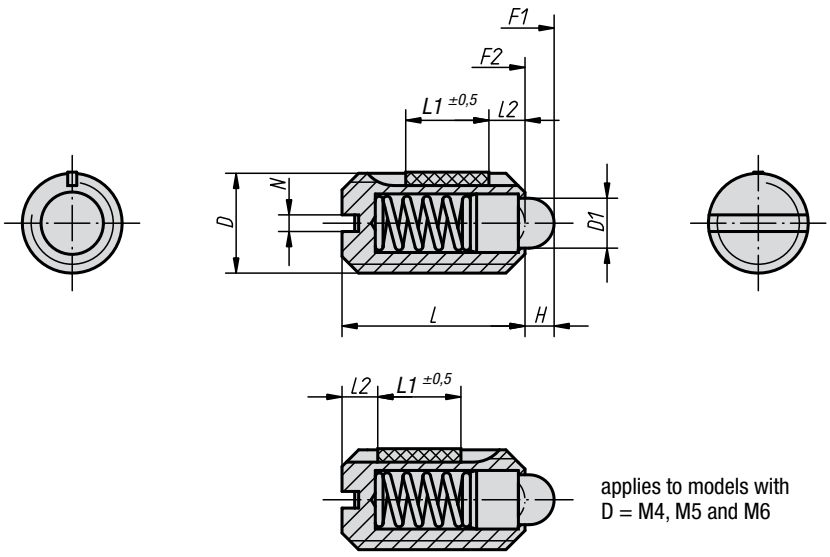
Order No.	D	D1	L	L1	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g
K0323.104	M4	1,8	9	5	1,5	0,6	3	10	0,18	0,12	0,39
K0323.105	M5	2,4	12	6	2	0,8	3	10	0,12	0,08	1
K0323.106	M6	2,7	14	7	2	1	4	10	0,44	0,21	1,7
K0323.108	M8	4	16	8	2	1,2	7	15	1,10	0,38	4
K0323.110	M10	4,5	19	9	2,5	1,6	9	16	1,36	0,62	7
K0323.112	M12	6	22	10	3,5	2	14	26	2,11	1,41	13
K0323.116	M16	8,5	24	14	4,5	2,5	22	50	3,95	3,05	24

KIPP Spring plungers with recess and pressure pin, strong spring force, LONG-LOK secured

Order No.	D	D1	L	L1	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g
K0323.205	M5	2,4	12	6	2	0,8	9	25	0,12	0,08	1
K0323.206	M6	2,7	14	7	2	1	11	25	0,44	0,21	1,7
K0323.208	M8	4	16	8	2	1,2	22	43	1,1	0,38	4
K0323.210	M10	4,5	19	9	2,5	1,6	20	54	1,36	0,62	7
K0323.212	M12	6	22	10	3,5	2	36	94	2,11	1,41	13
K0323.216	M16	8,5	24	14	4,5	2,5	60	110	3,99	3,05	29

Spring plungers

with recess and pressure pin, stainless steel, LONG-LOK secured



applies to models with
D = M4, M5 and M6

L2 = approx. two thread turns

Material:
Sleeve 1.4305.
Pressure pin 1.4034.
Spring 1.4310.

LONG-LOK thread lock in nylon.

Surface finish:
Natural finish.
Pressure pin hardened.

Sample order:
K0324.10

KIPP Spring plungers with recess and pressure pin, standard spring force, LONG-LOK secured

Order No.	D	D1	L	L1	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g
K0324.04	M4	1,8	9	5	1,5	0,6	6	20	0,18	0,12	0,39
K0324.05	M5	2,4	12	6	2	0,8	6	20	0,12	0,08	1
K0324.06	M6	2,7	14	7	2	1	7	20	0,44	0,21	1,7
K0324.08	M8	4	16	8	2	1,2	15	30	1,10	0,38	4
K0324.10	M10	4,5	19	9	2,5	1,6	20	35	1,36	0,62	7
K0324.12	M12	6	22	10	3,5	2	30	55	2,11	1,41	13
K0324.16	M16	8,5	24	14	4,5	2,5	45	100	3,95	3,05	24

KIPP Spring plungers with recess and pressure pin, light spring force, LONG-LOK secured

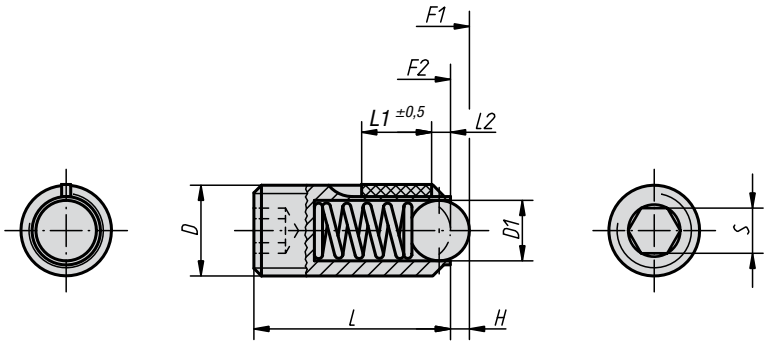
Order No.	D	D1	L	L1	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g
K0324.104	M4	1,8	9	5	1,5	0,6	3	10	0,18	0,12	0,39
K0324.105	M5	2,4	12	6	2	0,8	3	10	0,12	0,08	1
K0324.106	M6	2,7	14	7	2	1	4	10	0,44	0,21	1,7
K0324.108	M8	4	16	8	2	1,2	7	15	1,10	0,38	4
K0324.110	M10	4,5	19	9	2,5	1,6	9	16	1,36	0,62	7
K0324.112	M12	6	22	10	3,5	2	14	26	2,11	1,41	13
K0324.116	M16	8,5	24	14	4,5	2,5	22	50	3,95	3,05	24

KIPP Spring plungers with recess and pressure pin, strong spring force, LONG-LOK secured

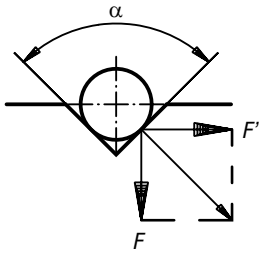
Order No.	D	D1	L	L1	H	N	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g
K0324.205	M5	2,4	12	6	2	0,8	9	25	0,12	0,08	1
K0324.206	M6	2,7	14	7	2	1	11	25	0,44	0,21	1,7
K0324.208	M8	4	16	8	2	1,2	22	43	1,1	0,38	4
K0324.210	M10	4,5	19	9	2,5	1,6	20	54	1,36	0,62	7
K0324.212	M12	6	22	10	3,5	2	36	94	2,11	1,41	13
K0324.216	M16	8,5	24	14	4,5	2,5	60	110	3,99	3,05	29

Spring plungers

with hexagon socket and ball, steel, LONG-LOK secured



L2 = approx. two thread turns



α = 60°, F' = 1.732 x F
α = 90°, F' = F
α = 120°, F' = 0.577 x F

Material:
Sleeve in steel quality class 5.8.
Ball in steel.
Spring in spring steel D.

LONG-LOK thread lock in nylon.

Surface finish:
Black oxide finish.
Ball hardened.

Sample order:
K0325.08

KIPP Spring plungers with hexagon socket and ball, standard spring force, LONG-LOK secured

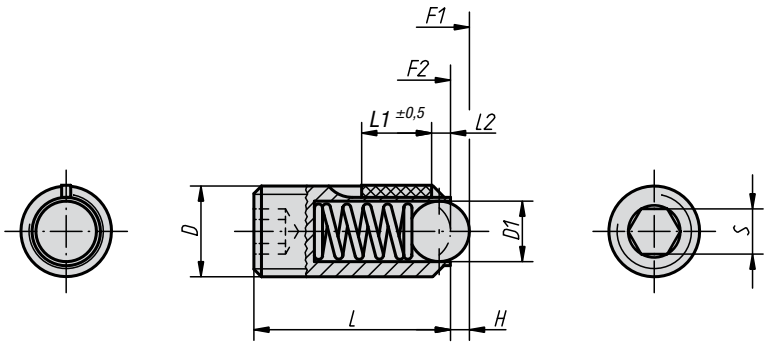
Order No.	D	D1	L	L1	H	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g
K0325.03	M3	1,5	9	4	0,5	1,5	1,5	3	0,10	0,07	0,23
K0325.04	M4	2,5	10	5	0,8	2	4	10	0,18	0,12	0,46
K0325.05	M5	3	14	6	0,9	2,5	6	11	0,12	0,08	1,27
K0325.06	M6	3,5	15	7	1	3	9	13	0,44	0,21	2
K0325.08	M8	5	18	8	1,5	4	15	30	1,10	0,38	4
K0325.10	M10	6	23	9	2	5	20	35	1,30	0,60	8
K0325.12	M12	8	26	10	2,5	6	30	55	2,00	1,30	12
K0325.16	M16	10	33	14	3,5	8	65	125	3,90	3,00	31

KIPP Spring plungers with hexagon socket and ball, strong spring force, LONG-LOK secured

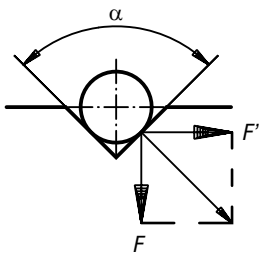
Order No.	D	D1	L	L1	H	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g
K0325.203	M3	1,5	9	4	0,5	1,5	5	7	0,10	0,07	0,23
K0325.204	M4	2,5	10	5	0,8	2	12	22	0,18	0,12	0,46
K0325.205	M5	3	14	6	0,9	2,5	19	30	0,12	0,08	1,27
K0325.206	M6	3,5	15	7	1	3	28	40	0,44	0,21	2
K0325.208	M8	5	18	8	1,5	4	47	73	1,10	0,38	4
K0325.210	M10	6	23	9	2	5	66	100	1,30	0,60	8
K0325.212	M12	8	26	10	2,5	6	66	120	2,00	1,30	12
K0325.216	M16	10	33	14	3,5	8	90	180	3,90	3,00	31

Spring plungers

with hexagon socket and ball, stainless steel, LONG-LOK secured



L2 = approx. two thread turns



α = 60°, F' = 1.732 x F
α = 90°, F' = F
α = 120°, F' = 0.577 x F

Material:
Sleeve 1.4305.
Ball 1.4034.
Spring 1.4310.

LONG-LOK thread lock in nylon.

Surface finish:
Natural finish.
Ball hardened.

Sample order:
K0326.08

KIPP Spring plungers with hexagon socket and ball, standard spring force, LONG-LOK secured

Order No.	D	D1	L	L1	H	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g
K0326.03	M3	1,5	9	4	0,5	1,5	1,5	3	0,10	0,07	0,23
K0326.04	M4	2,5	10	5	0,8	2	4	10	0,18	0,12	0,46
K0326.05	M5	3	14	6	0,9	2,5	6	11	0,12	0,08	1,27
K0326.06	M6	3,5	15	7	1	3	9	13	0,44	0,21	2
K0326.08	M8	5	18	8	1,5	4	15	30	1,10	0,38	4
K0326.10	M10	6	23	9	2	5	20	35	1,30	0,60	8
K0326.12	M12	8	26	10	2,5	6	30	55	2,00	1,30	12
K0326.16	M16	10	33	14	3,5	8	65	125	3,90	3,00	31

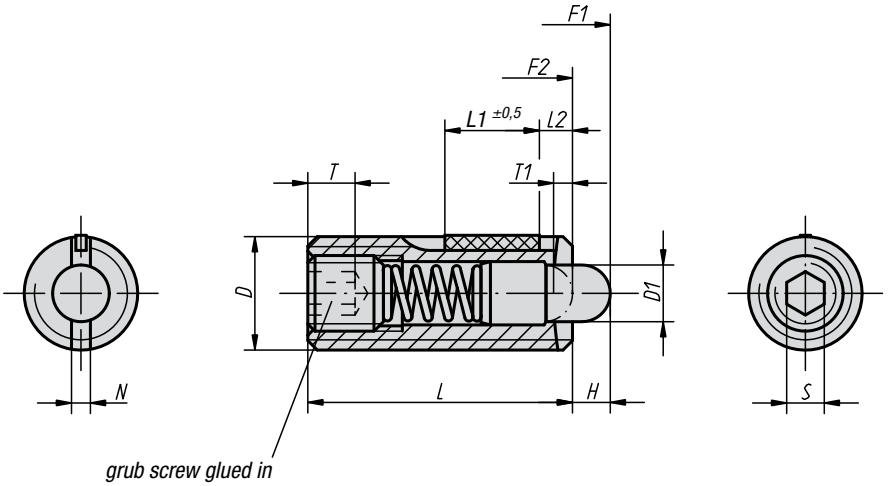
KIPP Spring plungers with hexagon socket and ball, strong spring force, LONG-LOK secured

Order No.	D	D1	L	L1	H	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g
K0326.203	M3	1,5	9	4	0,5	1,5	5	7	0,10	0,07	0,23
K0326.204	M4	2,5	10	5	0,8	2	12	22	0,18	0,12	0,46
K0326.205	M5	3	14	6	0,9	2,5	19	30	0,12	0,08	1,27
K0326.206	M6	3,5	15	7	1	3	28	40	0,44	0,21	2
K0326.208	M8	5	18	8	1,5	4	47	73	1,10	0,38	4
K0326.210	M10	6	23	9	2	5	66	100	1,30	0,60	8
K0326.212	M12	8	26	10	2,5	6	66	120	2,00	1,30	12
K0326.216	M16	10	33	14	3,5	8	90	180	3,90	3,00	31

Notes

Spring plungers

with hexagon socket and pressure pin, steel, LONG-LOK secured



Material:
Sleeve in steel quality class 5.8.
Pressure pin in steel.
Spring in spring steel D.

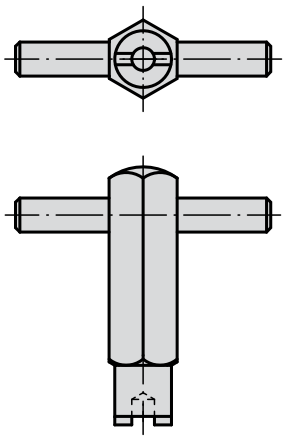
LONG-LOK thread lock in nylon.

Surface finish:
Black oxide finish.
Pressure pin hardened.

Sample order:
K0327.12

L2 = approx. two thread turns

assembly key



Spring plungers

with hexagon socket and pressure pin, steel, LONG-LOK secured

KIPP Spring plungers with hexagon socket and pressure pin, standard spring force, LONG-LOK secured

Order No.	D	D1	L	L1	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g	Order No. assembly key
K0327.05	M5	2,4	18	7	2,3	2	0,8	0,8	1,5	6	20	0,12	0,08	1,3	K0317.905
K0327.06	M6	2,7	20	7	2,5	2,5	1	1	2	7	20	0,45	0,22	2,5	K0317.906
K0327.08	M8	3,5	22	8	3	3	1,4	1,2	2,5	9	35	1,05	0,37	6	K0317.908
K0327.10	M10	4	22	9	3	3,5	1,4	1,6	3	9	35	1,30	0,60	9	K0317.910
K0327.12	M12	6	28	10	4	5	2	2	4	10	55	2,00	1,30	16	K0317.912
K0327.16	M16	7,5	32	14	5	6	2,5	2,5	5	45	100	3,90	3,00	35	K0317.916

KIPP Spring plungers with hexagon socket and pressure pin, light spring force, LONG-LOK secured

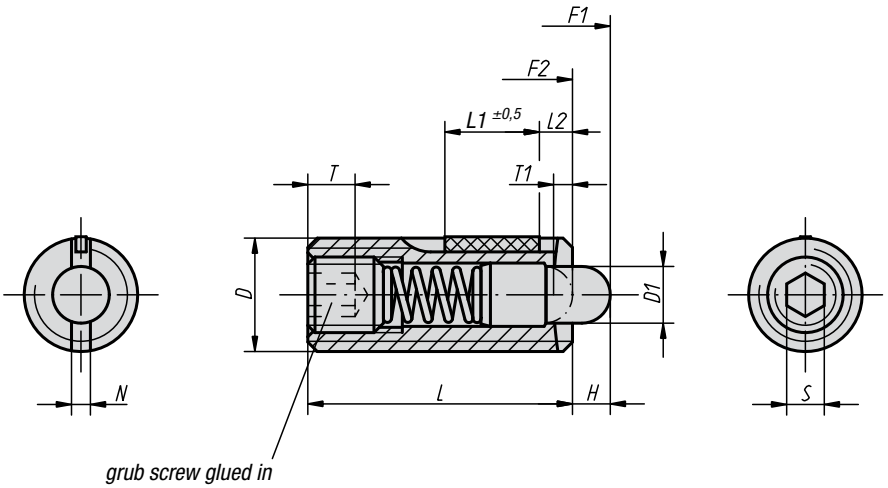
Order No.	D	D1	L	L1	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g	Order No. assembly key
K0327.105	M5	2,4	18	7	2,3	2	0,8	0,8	1,5	3	10	0,12	0,08	1,3	K0317.905
K0327.106	M6	2,7	20	7	2,5	2,5	1	1	2	3	9	0,45	0,22	2,5	K0317.906
K0327.108	M8	3,5	22	8	3	3	1,4	1,2	2,5	4	16	1,05	0,37	6	K0317.908
K0327.110	M10	4	22	9	3	3,5	1,4	1,6	3	4	16	1,30	0,60	9	K0317.910
K0327.112	M12	6	28	10	4	5	2	2	4	5	27	2,00	1,30	16	K0317.912
K0327.116	M16	7,5	32	14	5	6	2,5	2,5	5	20	45	3,90	3,00	35	K0317.916

KIPP Spring plungers with hexagon socket and pressure pin, strong spring force, LONG-LOK secured

Order No.	D	D1	L	L1	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g	Order No. assembly key
K0327.205	M5	2,4	18	7	2,3	2	0,8	0,8	1,5	11	29	0,12	0,08	1,3	K0317.905
K0327.206	M6	2,7	20	7	2,5	2,5	1	1	2	14	37	0,45	0,22	2,5	K0317.906
K0327.208	M8	3,5	22	8	3	3	1,4	1,2	2,5	22	65	1,05	0,37	6	K0317.908
K0327.210	M10	4	22	9	3	3,5	1,4	1,6	3	19	70	1,30	0,60	9	K0317.910
K0327.212	M12	6	28	10	4	5	2	2	4	25	85	2,00	1,30	16	K0317.912
K0327.216	M16	7,5	32	14	5	6	2,5	2,5	5	60	150	3,90	3,00	35	K0317.916

Spring plungers

with hexagon socket and pressure pin in plastic, steel, LONG-LOK secured



Material:
Sleeve in steel quality class 5.8.
Pressure pin in plastic.
Spring in spring steel D.

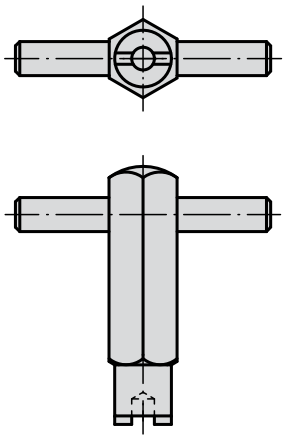
LONG-LOK thread lock in nylon.

Surface finish:
Black oxide finish.

Sample order:
K0328.12

L2 = approx. two thread turns

assembly key



KIPP Spring plungers with hexagon socket and pressure pin, standard spring force, LONG-LOK secured

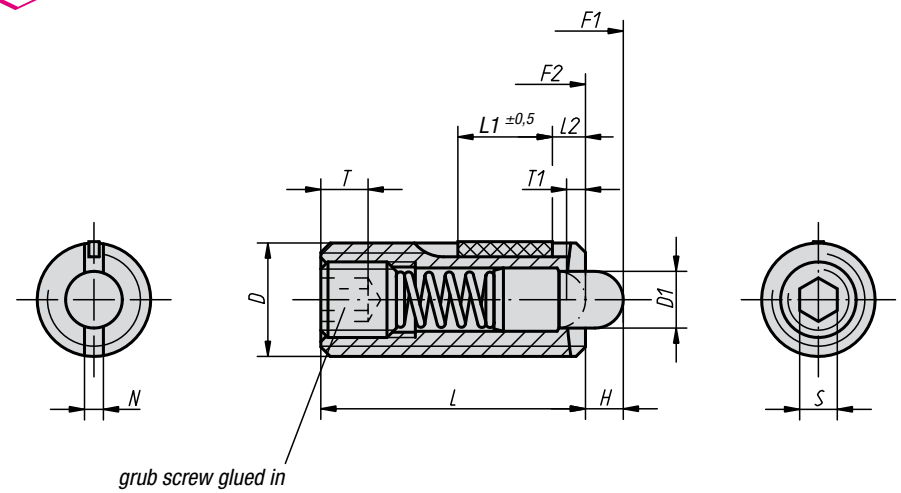
Order No.	D	D1	L	L1	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g	Order No. assembly key
K0328.05	M5	2,4	18	7	2,3	2	0,8	0,8	1,5	6	20	0,12	0,08	1,3	K0317.905
K0328.06	M6	2,7	20	7	2,5	2,5	1	1	2	7	20	0,45	0,22	2,5	K0317.906
K0328.08	M8	3,5	22	8	3	3	1,4	1,2	2,5	9	35	1,05	0,37	6	K0317.908
K0328.10	M10	4	22	9	3	3,5	1,4	1,6	3	9	35	1,30	0,60	9	K0317.910
K0328.12	M12	6	28	10	4	5	2	2	4	10	55	2,00	1,30	16	K0317.912
K0328.16	M16	7,5	32	14	5	6	2,5	2,5	5	45	100	3,90	3,00	35	K0317.916

KIPP Spring plungers with hexagon socket and pressure pin, light spring force, LONG-LOK secured

Order No.	D	D1	L	L1	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g	Order No. assembly key
K0328.105	M5	2,4	18	7	2,3	2	0,8	0,8	1,5	3	10	0,12	0,08	1,3	K0317.905
K0328.106	M6	2,7	20	7	2,5	2,5	1	1	2	3	9	0,45	0,22	2,5	K0317.906
K0328.108	M8	3,5	22	8	3	3	1,4	1,2	2,5	4	16	1,05	0,37	6	K0317.908
K0328.110	M10	4	22	9	3	3,5	1,4	1,6	3	4	16	1,30	0,60	9	K0317.910
K0328.112	M12	6	28	10	4	5	2	2	4	5	27	2,00	1,30	16	K0317.912
K0328.116	M16	7,5	32	14	5	6	2,5	2,5	5	20	45	3,90	3,00	35	K0317.916

Spring plungers

with hexagon socket and pressure pin, stainless steel, LONG-LOK secured



Material:
Sleeve 1.4305.
Pressure pin 1.4034.
Spring 1.4310.

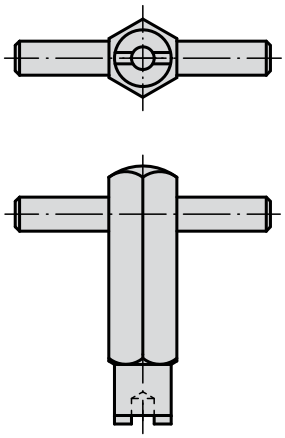
LONG-LOK thread lock in nylon.

Surface finish:
Natural finish.
Pressure pin hardened.

Sample order:
K0329.12

L2 = approx. two thread turns

assembly key



KIPP Spring plungers with hexagon socket and pressure pin, standard spring force, LONG-LOK secured

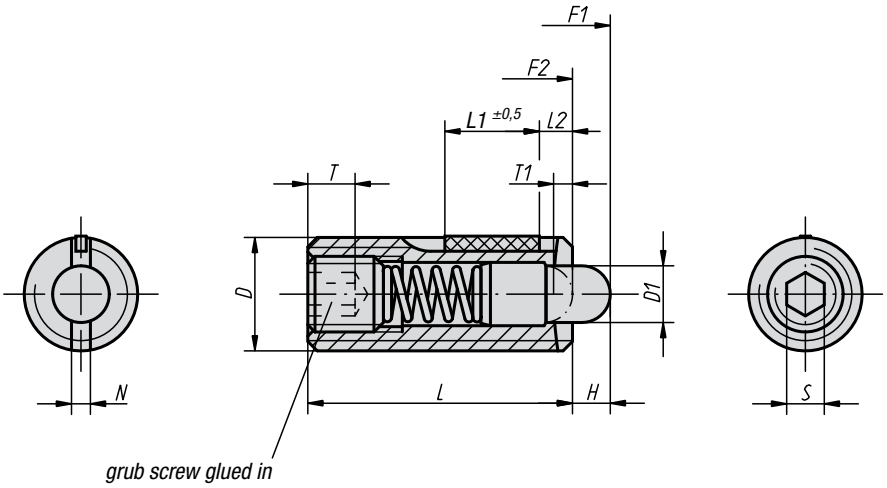
Order No.	D	D1	L	L1	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g	Order No. assembly key
K0329.05	M5	2,4	18	7	2,3	2	0,8	0,8	1,5	5	17	0,12	0,08	1,3	K0317.905
K0329.06	M6	2,7	20	7	2,5	2,5	1	1	2	6	17	0,45	0,22	2,5	K0317.906
K0329.08	M8	3,5	22	8	3	3	1,4	1,2	2,5	7	29	1,05	0,37	6	K0317.908
K0329.10	M10	4	22	9	3	3,5	1,4	1,6	3	8	31	1,30	0,60	9	K0317.910
K0329.12	M12	6	28	10	4	5	2	2	4	10	47	2,00	1,30	16	K0317.912
K0329.16	M16	7,5	32	14	5	6	2,5	2,5	5	45	100	3,90	3,00	35	K0317.916

KIPP Spring plungers with hexagon socket and pressure pin, strong spring force, LONG-LOK secured

Order No.	D	D1	L	L1	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g	Order No. assembly key
K0329.205	M5	2,4	18	7	2,3	2	0,8	0,8	1,5	9	26	0,12	0,08	1,3	K0317.905
K0329.206	M6	2,7	20	7	2,5	2,5	1	1	2	11	35	0,45	0,22	2,5	K0317.906
K0329.208	M8	3,5	22	8	3	3	1,4	1,2	2,5	15	48	1,05	0,37	6	K0317.908
K0329.210	M10	4	22	9	3	3,5	1,4	1,6	3	15	58	1,30	0,60	9	K0317.910
K0329.212	M12	6	28	10	4	5	2	2	4	19	74	2,00	1,30	16	K0317.912

Spring plungers

with hexagon socket and pressure pin in plastic, stainless steel, LONG-LOK secured



Material:
Sleeve in stainless steel 1.4305.
Pressure pin in plastic.
Spring in stainless steel 1.4310.

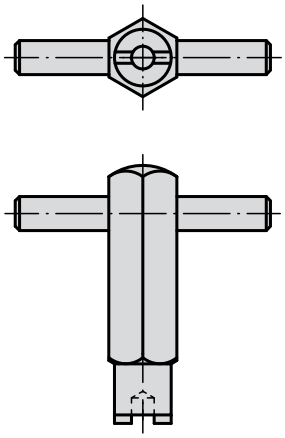
LONG-LOK thread lock in nylon.

Surface finish:
Natural finish.

Sample order:
K0330.12

L2 = approx. two thread turns

assembly key

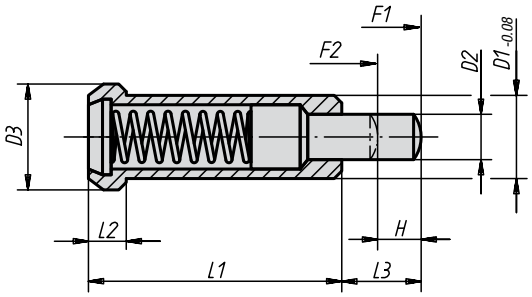


KIPP Spring plungers with hexagon socket and pressure pin, standard spring force, LONG-LOK secured

Order No.	D	D1	L	L1	H	T	T1	N	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque approx. Nm	Loosening torque, after third unscrewing approx. Nm	Approx. weight g	Order No. assembly key
K0330.05	M5	2,4	18	7	2,3	2	0,8	0,8	1,5	5	17	0,12	0,08	1,3	K0317.905
K0330.06	M6	2,7	20	7	2,5	2,5	1	1	2	6	17	0,45	0,22	2,5	K0317.906
K0330.08	M8	3,5	22	8	3	3	1,4	1,2	2,5	7	29	1,05	0,37	6	K0317.908
K0330.10	M10	4	22	9	3	3,5	1,4	1,6	3	8	31	1,30	0,60	9	K0317.910
K0330.12	M12	6	28	10	4	5	2	2	4	10	47	2,00	1,30	16	K0317.912
K0330.16	M16	7,5	32	14	5	6	2,5	2,5	5	45	100	3,90	3,00	35	K0317.916

Spring plungers

with head

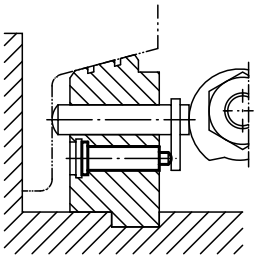


Material:
Free cutting steel.

Surface finish:
Black oxide finish.
Pressure pin hardened.

Sample order:
K0331.10

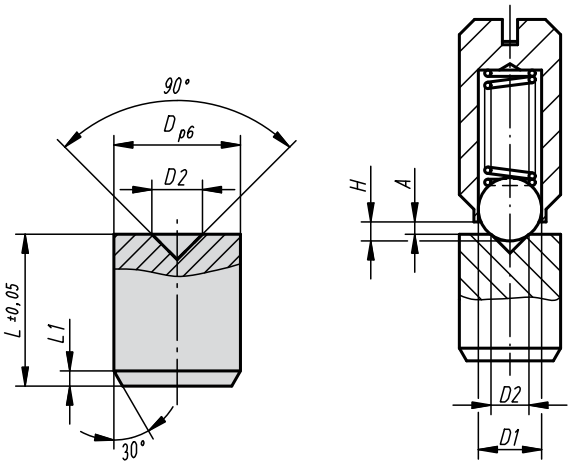
Note:
These spring plungers are chiefly used as ejectors and spring stops in machine construction.



KIPP Spring plungers with head

Order No.	D1	D2	D3	L1	L2	L3	H	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0331.08	8	3,95	10	24	3,2	8	4,5	30	90	8
K0331.10	10	5,95	13	30	4	10	5,5	42	110	14
K0331.12	12	7,95	16	36	5	12	6,5	50	130	26

Locators



Material, surface finish:
Free-cutting steel, natural finish, hardened.

Sample order:
K0332.05020

Note:
If abrasion-resistant and exact locking is necessary, locators can be used together with spring plungers, especially with strong spring force.

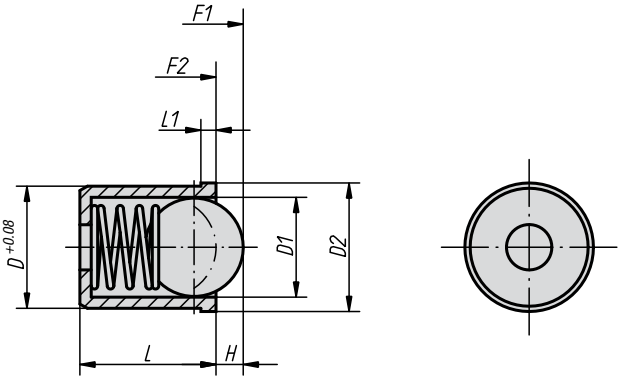
$$A = H - \left(\frac{D1 + D2}{2} - \frac{\sqrt{2}}{2} \times D1 \right)$$

KIPP Locators

Order No.	Suitable for Spring Plunger D	D	D1	D2	H	L	L1
K0332.04015	- / M4	4	see relevant product page for dimensions	1,5	see relevant product page for dimensions	5	0,5
K0332.05020	ø 4 / M5	5	see relevant product page for dimensions	2	see relevant product page for dimensions	6	0,5
K0332.06020	ø 5 / M6	6	see relevant product page for dimensions	2	see relevant product page for dimensions	8	0,7
K0332.08030	ø 6 / M8	8	see relevant product page for dimensions	3	see relevant product page for dimensions	10	1
K0332.10040	ø 8 / M10	10	see relevant product page for dimensions	4	see relevant product page for dimensions	12	1,2
K0332.12060	ø 10 / M12	12	see relevant product page for dimensions	6	see relevant product page for dimensions	14	1,5
K0332.16080	ø 12 / M16	16	see relevant product page for dimensions	8	see relevant product page for dimensions	18	2

Spring plungers

smooth surface, stainless steel

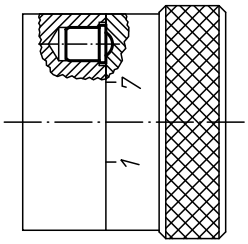


Material:
Sleeve and spring in stainless steel.
Ball in plastic or hardened stainless steel.

Surface finish:
Sleeve natural finish. Ball hardened, natural finish.

Sample order:
K0333.05

example:

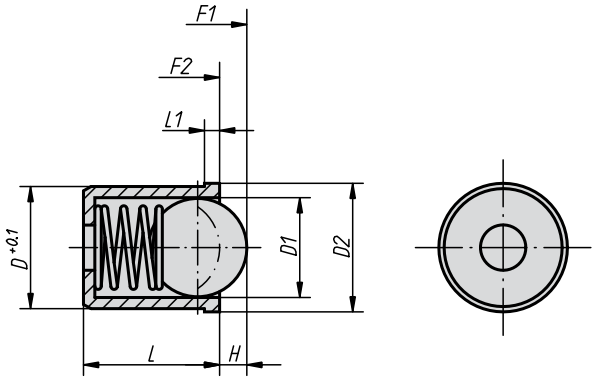


KIPP Spring plungers smooth surface in stainless steel

Order No.	Surface finish	D	D1	D2	L	L1	H	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0333.03	ball, stainless steel	3	2,5	3,5	4	0,8	0,65	1,7	3,4	0,18
K0333.04	ball, stainless steel	4	3	4,6	5	1	0,8	3	7	0,3
K0333.05	ball, stainless steel	5	4	5,6	6	1	1	4	7	0,6
K0333.06	ball, stainless steel	6	5	6,5	7	1	1,5	6	12	1
K0333.08	ball, stainless steel	8	6,5	8,5	9	1	1,8	6	12	2
K0333.10	ball, stainless steel	10	8	12	13,5	2,5	2,7	10	20	6
K0333.12	ball, stainless steel	12	10	14	16	2,5	3,5	15	25	10
K0333.304	ball in plastic	4	3	4,6	5	1	0,5	3	7	0,3
K0333.305	ball in plastic	5	4	5,6	6	1	0,6	4	7	0,6
K0333.306	ball in plastic	6	5	6,5	7	1	1,1	6	12	1
K0333.308	ball in plastic	8	6,5	8,5	9	1	1,5	6	12	2
K0333.310	ball in plastic	10	8	12	13,5	2,5	2,3	10	20	6
K0333.312	ball in plastic	12	10	14	16	2,5	3,1	15	25	10

Spring plungers

smooth surface, plastic



Material:
Sleeve thermoplastic.
Spring stainless steel 1.4300.
Ball in plastic or hardened stainless steel.

Surface finish:
Sleeve black.
Ball hardened, natural finish.

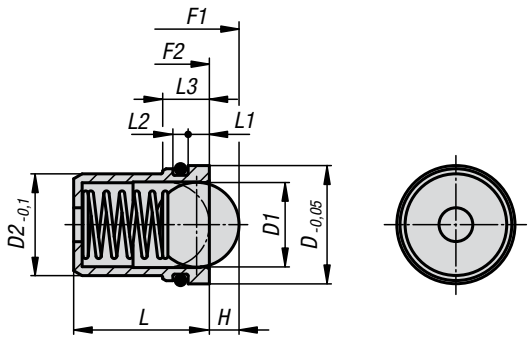
Sample order:
K0334.05

KIPP Spring plungers smooth surface in plastic

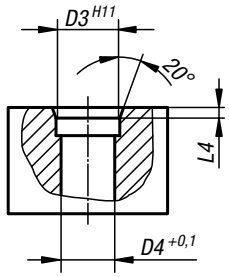
Order No.	Surface finish	D	D1	D2	L	L1	H	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0334.04	ball, stainless steel	4	3	4,6	5	1	0,7	3	7	0,2
K0334.05	ball, stainless steel	5	4	5,6	6	1	1	4	7	0,4
K0334.06	ball, stainless steel	6	5	6,5	7	1	1,5	6	12	0,7
K0334.08	ball, stainless steel	8	6,5	8,5	9	1	1,8	6	12	1,5
K0334.10	ball, stainless steel	10	8	12	13,5	2,5	2,7	10	20	3,14
K0334.12	ball, stainless steel	12	10	14	16	2,5	3,5	15	25	5,66
K0334.204	ball in plastic	4	3	4,6	5	1	0,9	3	7	0,17
K0334.205	ball in plastic	5	4	5,6	6	1	1,2	4	7	0,35
K0334.206	ball in plastic	6	5	6,5	7	1	1,5	6	12	0,66
K0334.208	ball in plastic	8	6,5	8,5	9	1	2	6	12	1,46
K0334.210	ball in plastic	10	8	12	13,5	2,5	2,7	10	20	1,44
K0334.212	ball in plastic	12	10	14	16	2,5	3,5	15	25	2,29

Spring plungers

with adhesive ring



Assembly dimensions



Material:
Sleeve, spring and ball in stainless steel
O-ring NBR.

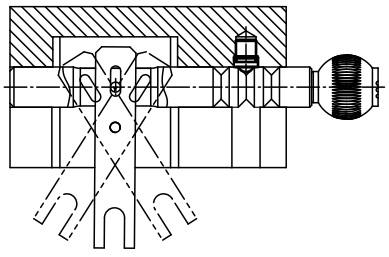
Surface finish:
Sleeve natural finish. Ball hardened, natural finish.
O-ring black.

Sample order:
K0582.05

Note:
The spring plungers with adhesive ring are for installation in the „overhead position“ or for installation situations that are difficult to access.

They can be pressed directly with the hand or a finger, or with the aid of a simple assembly aid, into the provided receiving hole. The O-ring then ensures the necessary adhesion and thus secures the spring plunger against dropping out. Other components can be comfortably installed without additional measures.

Application example:



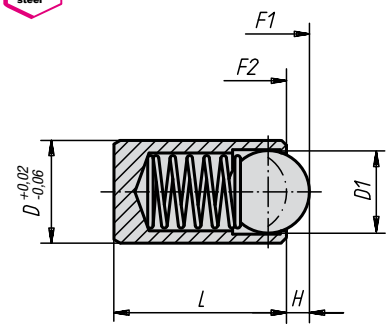
KIPP Spring plungers with adhesive ring

Order No.	D	D1	D2	D3	D4	H	L	L1	L2	L3	L4	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0582.05	4,95	3	4	5	4,1	0,8	5	1	0,7	2,3	0,7	3	7	0,4
K0582.06	5,95	4	5	6	5,1	1	6	1	0,7	2,3	0,7	4	7	0,7
K0582.08	7,95	5	6	8	6,1	1,5	7	1,5	1,2	3,7	1	6	12	1,4
K0582.10	9,95	6,5	8	10	8,1	1,8	9	2	1,2	4,2	1,5	6	12	3,1
K0582.12	11,95	8	10	12	10,1	2,7	13,5	2,5	1,8	5,3	2	10	20	6,3
K0582.14	13,95	10	12	14	12,1	3,5	16	2,5	1,8	5,5	2	15	25	10,1

K0335

Spring plungers

smooth surface, without collar in stainless steel



Material:
Sleeve, ball and spring in stainless steel.

Surface finish:
Ball hardened, natural finish.

Sample order:
K0335.208

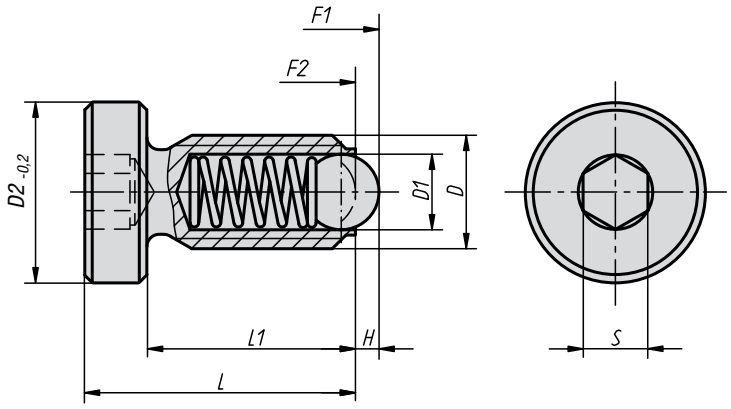
KIPP Spring plungers smooth surface, without collar in stainless steel

Order No.	D	D1	L	H	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0335.203	3	2	7	0,65	5	7	0,32
K0335.204	4	3	9	0,8	12	22	0,6
K0335.205	5	4	12	1	19	30	1,2
K0335.206	6	5	14	1,5	22	40	2,0
K0335.208	8	6	16	1,8	42	73	4,8
K0335.210	10	8	22	2,7	54	100	9,2
K0335.212	12	10	24	3,2	54	122	14,5

K0336

Spring plungers

with head



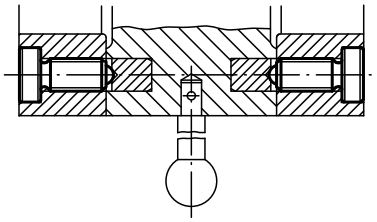
Material:
Free cutting steel or stainless steel.

Surface finish:
Steel black oxide finish.
Stainless steel natural finish.
Ball in steel or stainless steel, hardened, natural finish.

Sample order:
K0336.10

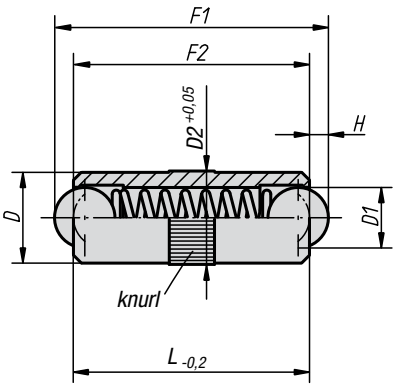
KIPP Spring plungers with head

Order No. steel	Order No. stainless steel	D	D1	D2	L	L1	H	S	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0336.06	**K0336.061**	M6	3,5	10	16	12	1	3	9	13	4
K0336.08	**K0336.081**	M8	5	13	21	16	1,5	4	15	30	9
K0336.10	**K0336.101**	M10	6	16	26	20	2	5	20	35	17
K0336.12	**K0336.121**	M12	8	18	32	25	2,5	6	30	55	28



Spring plungers

smooth surface, double-sided



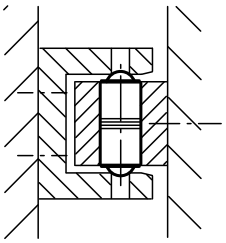
Material:
Sleeve in brass.
Balls and spring in stainless steel.

Surface finish:
Balls hardened, natural finish.

Sample order:
K0337.05

KIPP Spring plungers smooth surface, double-sided

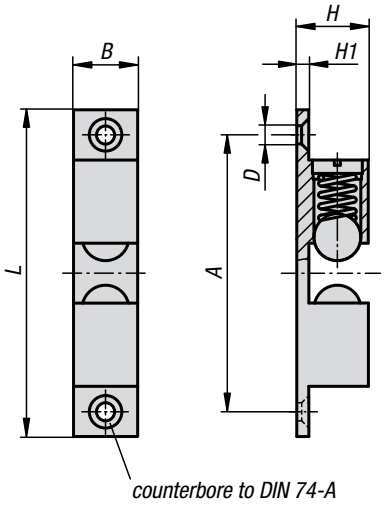
Order No.	D	D1	D2	L	H	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight g
K0337.04	4	3	4,05	10	0,9	3	7	0,7
K0337.05	5	4	5,05	12	1,2	4	8	1,3
K0337.06	6	5	6,05	16	1,6	6	10	2,4
K0337.08	8	6	8,05	20	2	8	12	5,8
K0337.10	10	8	10,05	24	2,9	10	16	10,5



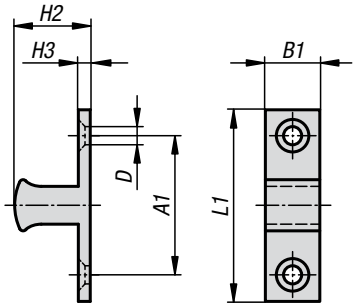
Notes

Double ball catch

housing



latching pawl

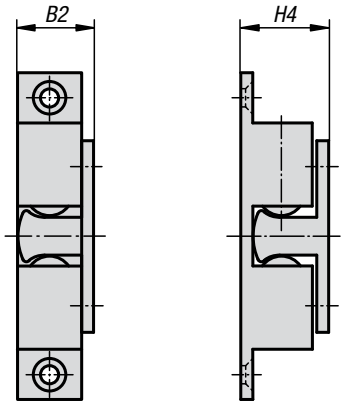


Material, surface finish:
Housing and latching pawl in chromium-plated brass. Balls and springs in stainless steel.

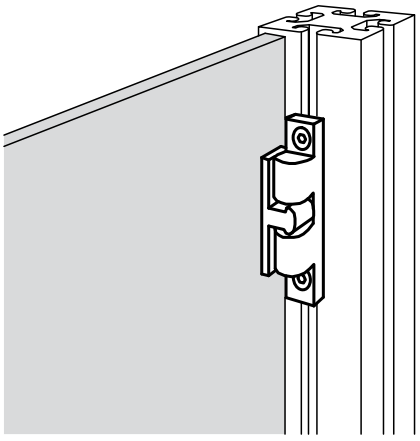
Sample order:
K0583.50

Note:
Quick closure for diverse applications such as holding doors, flaps and blinds shut. The double ball catch consists of a bush and an opposing piece, the latching pawl, which engages with the bush. The latching pawl can be pushed into the bush laterally or frontally. The engagement pressure is adjustable.

catch



laterally frontal

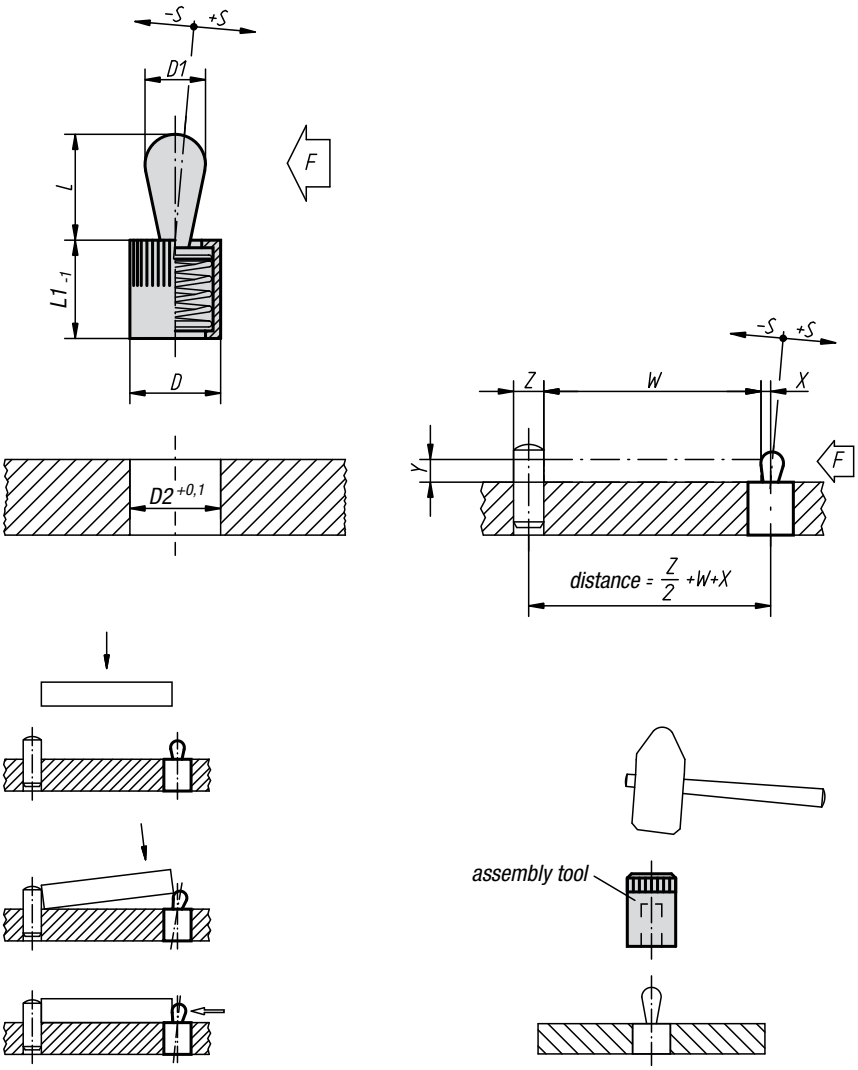


KIPP Double ball catch

Order No.	A	A1	B	B1	B2	D	H	H1	H2	H3	H4	L	L1	Approx. weight kg
K0583.50	39,8	19,8	8,8	7,6	10,8	3,8	10,6	2	11,2	2	13,2	49	28,8	0,024
K0583.60	50	23,5	11	9	13,5	4,8	13,2	2,4	13,5	2,2	15,5	60	35	0,04
K0583.70	58	30	13	12	15,2	4,8	15	2,4	15,7	2,2	18,1	68,4	40,2	0,065

Notes

Lateral spring plungers



Material:
Sleeve in aluminium.
Spring in steel.
Pressure pin in steel or in plastic.

Surface finish:
Pressure pin (steel) surface hardened and galvanized.
Sleeve blue galvanized.

Sample order:
K0368.72064

Note:
Lateral spring plungers aid in the positioning and clamping, holding and fastening of tools and parts during engraving, labelling, drilling, galling, threading, honing, grinding, welding, soldering, hard-facing, assembling, etc.
In order to position, see K0369 for suitable eccentric bushes.

KIPP Lateral spring plungers without seal, pressure pin and spring in steel

Order No.	D	D1	L	L1	D2	±S	F approx. N	X if Y = 1	X if Y = 2	X if Y = 3	X if Y = 4,5	X if Y = 6	X if Y = 8	Approx. weight g	Order No. assembly tool
K0368.21034	6	3	4	7	6	0,5	10	0,8	1	1	1	1	1	0,6	K0369.03
K0368.21036	6	3	4	7	6	0,5	20	0,8	1	1	1	1	1	0,6	K0369.03
K0368.21038	6	3	4	7	6	0,5	40	0,8	1	1	1	1	1	0,7	K0369.03
K0368.21054	10	5	6,7	11	10	0,8	20	-	1,5	1,7	1,7	1,7	1,7	2,7	K0369.05
K0368.21056	10	5	6,7	11	10	0,8	50	-	1,5	1,7	1,7	1,7	1,7	2,8	K0369.05
K0368.21058	10	5	6,7	11	10	0,8	100	-	1,5	1,7	1,7	1,7	1,7	3,1	K0369.05
K0368.21064	10	6	10,7	11	10	1	40	-	-	-	1,7	1,9	1,9	3,4	K0369.05
K0368.21066	10	6	10,7	11	10	1	75	-	-	-	1,7	1,9	1,9	3,6	K0369.05
K0368.21068	10	6	10,7	11	10	1	150	-	-	-	1,7	1,9	1,9	3,8	K0369.05
K0368.21084	12	8	13,9	13	12	1,3	50	-	-	-	-	2,5	2,7	6,8	K0369.08
K0368.21086	12	8	13,9	13	12	1,3	100	-	-	-	-	2,5	2,7	7,4	K0369.08
K0368.21088	12	8	13,9	13	12	1,3	200	-	-	-	-	2,5	2,7	7,4	K0369.08
K0368.21104	16	10	16,7	17	16	1,6	100	-	-	-	-	-	3,1	15,0	K0369.10
K0368.21106	16	10	16,7	17	16	1,6	200	-	-	-	-	-	3,1	15,0	K0369.10
K0368.21108	16	10	16,7	17	16	1,6	300	-	-	-	-	-	3,1	15,3	K0369.10

Lateral spring plungers

KIPP Lateral spring plungers with seal, pressure pin and spring in steel

Order No.	D	D1	L	L1	D2	±S	F approx. N	X if Y = 1	X if Y = 2	X if Y = 3	X if Y = 4,5	X if Y = 6	X if Y = 8	Approx. weight g	Order No. assembly tool
K0368.22034	6	3	4	7	6	0,5	10	0,8	1	1	1	1	1	0,6	K0369.03
K0368.22036	6	3	4	7	6	0,5	20	0,8	1	1	1	1	1	0,6	K0369.03
K0368.22038	6	3	4	7	6	0,5	40	0,8	1	1	1	1	1	0,7	K0369.03
K0368.22054	10	5	6	12	10	0,8	20	-	1,5	1,7	1,7	1,7	1,7	2,7	K0369.05
K0368.22056	10	5	6	12	10	0,8	50	-	1,5	1,7	1,7	1,7	1,7	2,9	K0369.05
K0368.22058	10	5	6	12	10	0,8	100	-	1,5	1,7	1,7	1,7	1,7	3,1	K0369.05
K0368.22064	10	6	10	12	10	1	40	-	-	-	1,7	1,9	1,9	3,4	K0369.05
K0368.22066	10	6	10	12	10	1	75	-	-	-	1,7	1,9	1,9	3,6	K0369.05
K0368.22068	10	6	10	12	10	1	150	-	-	-	1,7	1,9	1,9	3,8	K0369.05
K0368.22084	12	8	13	14	12	1,3	50	-	-	-	-	2,5	2,7	7,0	K0369.08
K0368.22086	12	8	13	14	12	1,3	100	-	-	-	-	2,5	2,7	8,0	K0369.08
K0368.22088	12	8	13	14	12	1,3	200	-	-	-	-	2,5	2,7	7,4	K0369.08
K0368.22104	16	10	16	18	16	1,6	100	-	-	-	-	-	3,1	15,0	K0369.10
K0368.22106	16	10	16	18	16	1,6	200	-	-	-	-	-	3,1	15,2	K0369.10
K0368.22108	16	10	16	18	16	1,6	300	-	-	-	-	-	3,1	15,6	K0369.10

KIPP Lateral spring plungers without seal, pressure pin in plastic, spring in steel

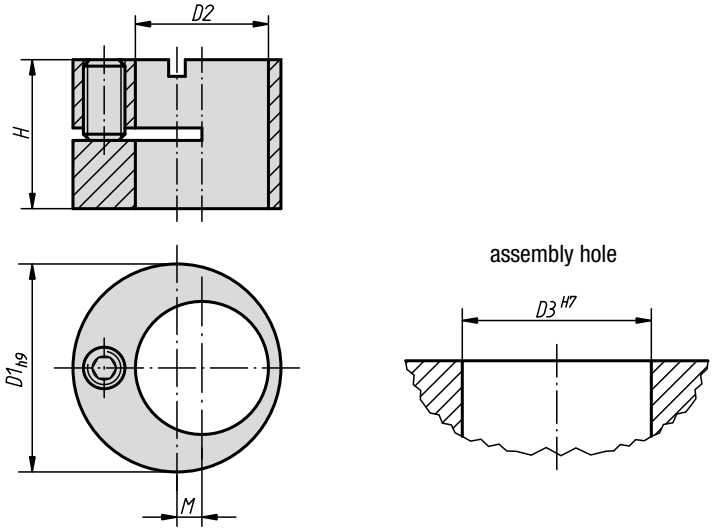
Order No.	D	D1	L	L1	D2	±S	F approx. N	X if Y = 1	X if Y = 2	X if Y = 3	X if Y = 4,5	X if Y = 6	X if Y = 8	Approx. weight g	Order No. assembly tool
K0368.71034	6	3	4	7	6	0,5	10	0,8	1	1	1	1	1	0,4	K0369.03
K0368.71036	6	3	4	7	6	0,5	20	0,8	1	1	1	1	1	0,4	K0369.03
K0368.71054	10	5	6,7	11	10	0,8	20	-	1,5	1,7	1,7	1,7	1,7	1,3	K0369.05
K0368.71056	10	5	6,7	11	10	0,8	50	-	1,5	1,7	1,7	1,7	1,7	1,3	K0369.05
K0368.71064	10	6	10,7	11	10	1	40	-	-	-	1,7	1,9	1,9	1,5	K0369.05
K0368.71066	10	6	10,7	11	10	1	75	-	-	-	1,7	1,9	1,9	1,5	K0369.05
K0368.71084	12	8	13,9	13	12	1,3	50	-	-	-	-	2,5	2,7	2,9	K0369.08
K0368.71086	12	8	13,9	13	12	1,3	100	-	-	-	-	2,5	2,7	2,9	K0369.08
K0368.71104	16	10	16,7	17	16	1,6	100	-	-	-	-	-	3,1	6,6	K0369.10
K0368.71106	16	10	16,7	17	16	1,6	200	-	-	-	-	-	3,1	6,6	K0369.10

KIPP Lateral spring plungers with seal, pressure pin in plastic, spring in steel

Order No.	D	D1	L	L1	D2	±S	F approx. N	X if Y = 1	X if Y = 2	X if Y = 3	X if Y = 4,5	X if Y = 6	X if Y = 8	Approx. weight g	Order No. assembly tool
K0368.72034	6	3	4	7	6	0,5	10	0,8	1	1	1	1	1	0,4	K0369.03
K0368.72036	6	3	4	7	6	0,5	20	0,8	1	1	1	1	1	0,4	K0369.03
K0368.72054	10	5	6	12	10	0,8	20	-	1,5	1,7	1,7	1,7	1,7	1,3	K0369.05
K0368.72056	10	5	6	12	10	0,8	50	-	1,5	1,7	1,7	1,7	1,7	1,3	K0369.05
K0368.72064	10	6	10	12	10	1	40	-	-	-	1,7	1,9	1,9	1,5	K0369.05
K0368.72066	10	6	10	12	10	1	75	-	-	-	1,7	1,9	1,9	1,5	K0369.05
K0368.72084	12	8	13	14	12	1,3	50	-	-	-	-	2,5	2,7	3,0	K0369.08
K0368.72086	12	8	13	14	12	1,3	100	-	-	-	-	2,5	2,7	3,0	K0369.08
K0368.72104	16	10	16	18	16	1,6	100	-	-	-	-	-	3,1	6,7	K0369.10
K0368.72106	16	10	16	18	16	1,6	200	-	-	-	-	-	3,1	6,7	K0369.10

Eccentric bushes and assembly tools

for lateral spring plungers

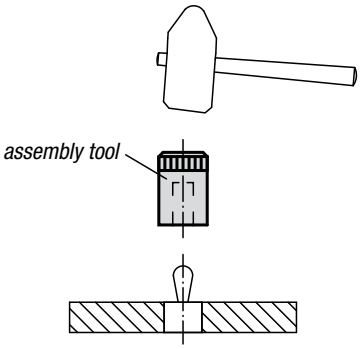


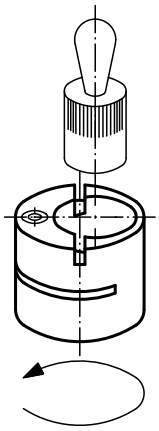
Material:
Steel.

Surface finish:
Black oxide finish.

Sample order:
K0369.180

Note:
Eccentric bushes enable lateral spring plungers to be positioned exactly to the workpiece.





KIPP Assembly tools

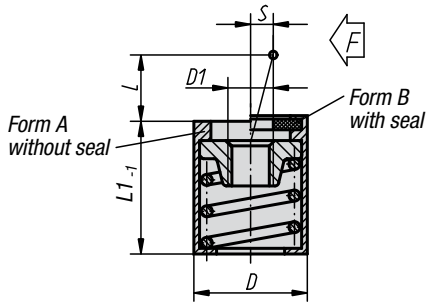
Order No.	Suitable for Lateral spring plungers with D =
K0369.03	6
K0369.05	10
K0369.08	12
K0369.10	16

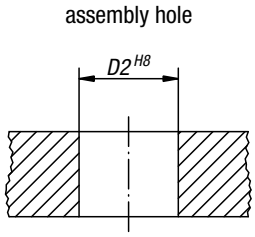
KIPP Eccentric bushes for lateral spring plungers

Order No.	D1	D2	D3	H	M	Approx. weight kg	Suitable for lateral spring plungers with D =
K0369.120	12	6	12	9,9	2	0,006	6
K0369.160	16	10	16	11,9	2	0,010	10
K0369.180	18	12	18	13,9	2	0,012	12
K0369.250	25	16	25	17,9	3	0,036	16

Lateral spring plungers

without pressure pin





KIPP Lateral spring plungers without pressure pin

Order No. Form A	Order No. Form B	D	D1	D2	L	L1	S	F approx.N	Approx. weight kg
K0370.31054	K0370.32054	10	M4	10	4	12	1,6	20	0,004
K0370.31056	K0370.32056	10	M4	10	4	12	1,6	50	0,004
K0370.31058	K0370.32058	10	M4	10	4	12	1,6	100	0,004
K0370.31064	K0370.32064	10	M4	10	7,5	12	2	40	0,004
K0370.31066	K0370.32066	10	M4	10	7,5	12	2	75	0,004
K0370.31068	K0370.32068	10	M4	10	7,5	12	2	150	0,004
K0370.31104	K0370.32104	16	M6	16	11,5	18	3,2	100	0,010
K0370.31106	K0370.32106	16	M6	16	11,5	18	3,2	200	0,010
K0370.31108	K0370.32108	16	M6	16	11,5	18	3,2	300	0,010

Material:
Sleeve in aluminium.
Receiving washer in steel, hardened and black oxide finish.
Spring in steel.

Surface finish:
Sleeve blue galvanized.

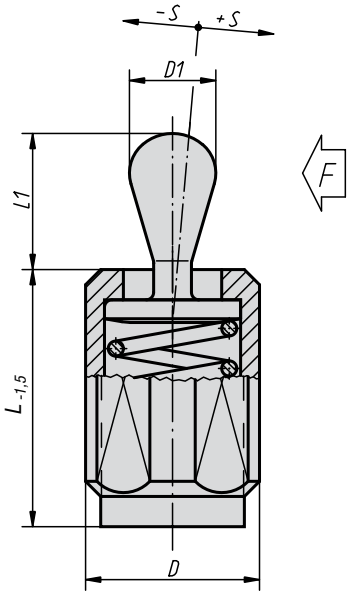
Sample order:
K0370.31058

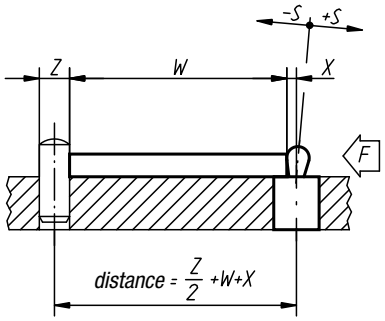
Note:
Depending on the circumstances, the pressure pin can be fabricated by the customer and screwed into the threaded hole of the receiving washer.
Utilizing stroke (S) and the corresponding length (L), lateral pressure (F) can be achieved.
In addition, form B is equipped with a seal to prevent chips and dirt from entering.

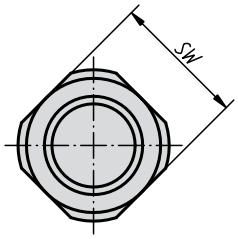
Notes

Lateral spring plungers

with threaded sleeve







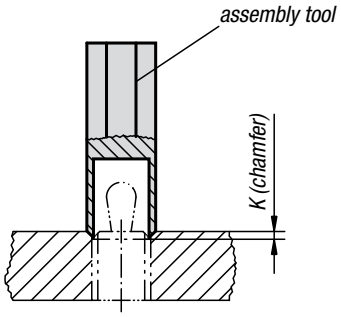
Material:
Sleeve and spring in steel.
Pressure pin in steel or in plastic.

Surface finish:
Pressure pin in steel, hardened and galvanized.
Sleeve blue galvanized.

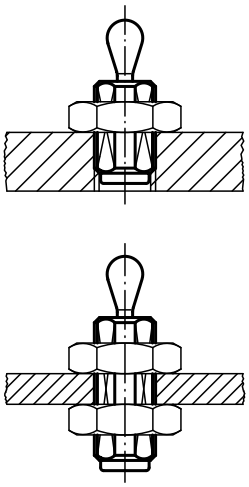
Sample order:
K0371.1020X12 (please also indicate size L)

L 11.5 = L 12
L 19 = L 20
L 26.5 = L 27
L 18 = L 16
L 31.5 = L 29
L 45 = L 43

Note:
Lateral spring plungers with threaded sleeve can be positioned individually to the part to be clamped. Furthermore, the threaded sleeve is suitable to be screwed into thin sheets, as it can be mounted with one or two nuts.



mounting example



Lateral spring plungers

with threaded sleeve

KIPP Lateral spring plungers without seal, pressure pin in steel or in plastic

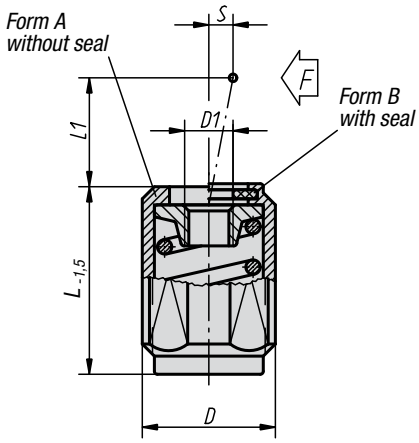
Order No.	Surface finish	L	L1	D	D1	±S	F approx.N	X	SW	K	Order No. assembly tool
K0371.1020X	pressure pin in steel	11,5/19/26,5	6,7	M12	5	0,8	20	1,6	10	2x60°	K0371.06
K0371.1040X	pressure pin in steel	11,5/19/26,5	10,7	M12	6	1	40	1,8	10	2x60°	K0371.06
K0371.1050X	pressure pin in steel	11,5/19/26,5	6,7	M12	5	0,8	50	1,6	10	2x60°	K0371.06
K0371.1075X	pressure pin in steel	11,5/19/26,5	10,7	M12	6	1	75	1,8	10	2x60°	K0371.06
K0371.1100X	pressure pin in steel	11,5/19/26,5	6,7	M12	5	0,8	100	1,6	10	2x60°	K0371.06
K0371.1100X	pressure pin in steel	18/31,5/45	16,7	M18x1,5	10	1,6	100	3,2	16	2,5x60°	K0371.10
K0371.1150X	pressure pin in steel	11,5/19/26,5	10,7	M12	6	1	150	1,8	10	2x60°	K0371.06
K0371.1200X	pressure pin in steel	18/31,5/45	16,7	M18x1,5	10	1,6	200	3,2	16	2,5x60°	K0371.10
K0371.1300X	pressure pin in steel	18/31,5/45	16,7	M18x1,5	10	1,6	300	3,2	16	2,5x60°	K0371.10
K0371.2020X	pressure pin in plastic	11,5/19/26,5	6,7	M12	5	0,8	20	1,6	10	2x60°	K0371.06
K0371.2040X	pressure pin in plastic	11,5/19/26,5	10,7	M12	6	1	40	1,8	10	2x60°	K0371.06
K0371.2050X	pressure pin in plastic	11,5/19/26,5	6,7	M12	5	0,8	50	1,6	10	2x60°	K0371.06
K0371.2075X	pressure pin in plastic	11,5/19/26,5	10,7	M12	6	1	75	1,8	10	2x60°	K0371.06
K0371.2100X	pressure pin in plastic	18/31,5/45	16,7	M18x1,5	10	1,6	100	3,2	16	2,5x60°	K0371.10
K0371.2200X	pressure pin in plastic	18/31,5/45	16,7	M18x1,5	10	1,6	200	3,2	16	2,5x60°	K0371.10

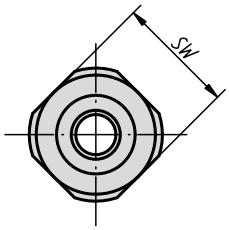
KIPP Lateral spring plungers with seal, pressure pin in steel or in plastic

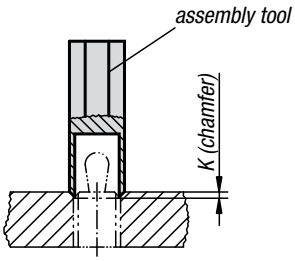
Order No.	Surface finish	L	L1	D	D1	±S	F approx.N	X	SW	K	Order No. assembly tool
K0371.3020X	pressure pin in steel	11,5/19/26,5	6	M12	5	0,8	20	1,6	10	2x60°	K0371.06
K0371.3040X	pressure pin in steel	11,5/19/26,5	10	M12	6	1	40	1,8	10	2x60°	K0371.06
K0371.3050X	pressure pin in steel	11,5/19/26,5	6	M12	5	0,8	50	1,6	10	2x60°	K0371.06
K0371.3075X	pressure pin in steel	11,5/19/26,5	10	M12	6	1	75	1,8	10	2x60°	K0371.06
K0371.3100X	pressure pin in steel	11,5/19/26,5	6	M12	5	0,8	100	1,6	10	2x60°	K0371.06
K0371.3100X	pressure pin in steel	18/31,5/45	16	M18x1,5	10	1,6	100	3,2	16	2,5x60°	K0371.10
K0371.3150X	pressure pin in steel	11,5/19/26,5	10	M12	6	1	150	1,8	10	2x60°	K0371.06
K0371.3200X	pressure pin in steel	18/31,5/45	16	M18x1,5	10	1,6	200	3,2	16	2,5x60°	K0371.10
K0371.3300X	pressure pin in steel	18/31,5/45	16	M18x1,5	10	1,6	300	3,2	16	2,5x60°	K0371.10
K0371.4020X	pressure pin in plastic	11,5/19/26,5	6	M12	5	0,8	20	1,6	10	2x60°	K0371.06
K0371.4040X	pressure pin in plastic	11,5/19/26,5	10	M12	6	1	40	1,8	10	2x60°	K0371.06
K0371.4050X	pressure pin in plastic	11,5/19/26,5	6	M12	5	0,8	50	1,6	10	2x60°	K0371.06
K0371.4075X	pressure pin in plastic	11,5/19/26,5	10	M12	6	1	75	1,8	10	2x60°	K0371.06
K0371.4100X	pressure pin in plastic	18/31,5/45	16	M18x1,5	10	1,6	100	3,2	16	2,5x60°	K0371.10
K0371.4200X	pressure pin in plastic	18/31,5/45	16	M18x1,5	10	1,6	200	3,2	16	2,5x60°	K0371.10

Lateral spring plungers

with threaded sleeve, without pressure pin







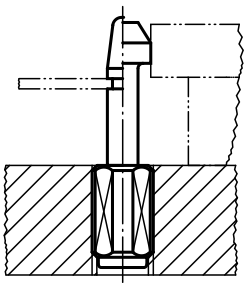
Material:
Sleeve and spring in steel.
Receiving washer in steel, hardened and black oxide finish.

Surface finish:
Sleeve blue galvanized.

Sample order:
K0372.1100X20 (please also indicate size L)

L 11.5 = L 12
L 19 = L 20
L 26.5 = L 27
L 18 = L 16
L 31.5 = L 29
L 45 = L 43

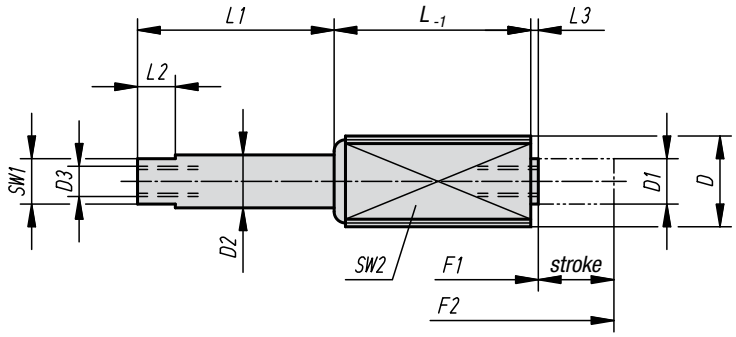
Note:
Depending on the circumstances, the pressure pin can be fabricated by the customer and screwed into the threaded hole of the receiving washer.
Utilizing stroke (S) and the corresponding length (L), lateral pressure (F) can be achieved.
In addition, form B is equipped with a seal to prevent chips and dirt from entering.



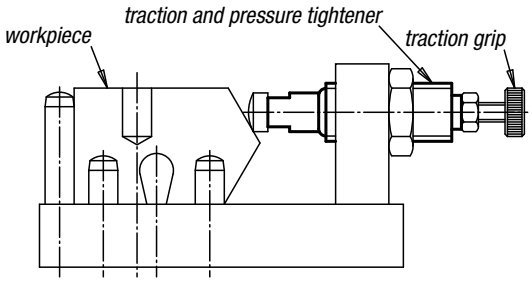
KIPP Lateral spring plungers with threaded sleeve, without pressure pin

Order No. Form A	Order No. Form B	L	L1	D	D1	±S	F approx.N	SW	K	Order No. assembly tool
K0372.1020X	**K0372.2020X**	11,5/19/26,5	4	M12	M4	1,6	20	10	2x60°	K0371.06
K0372.1040X	**K0372.2040X**	11,5/19/26,5	7,5	M12	M4	2	40	10	2x60°	K0371.06
K0372.1050X	**K0372.2050X**	11,5/19/26,5	4	M12	M4	1,6	50	10	2x60°	K0371.06
K0372.1075X	**K0372.2075X**	11,5/19/26,5	7,5	M12	M4	2	75	10	2x60°	K0371.06
K0372.1100X	**K0372.2100X**	11,5/19/26,5	4	M12	M4	1,6	100	10	2x60°	K0371.06
K0372.1100X	**K0372.2100X**	18/31,5/45	11,5	M18x1,5	M6	3,2	100	16	2,5x60°	K0371.10
K0372.1150X	**K0372.2150X**	11,5/19/26,5	7,5	M12	M4	2	150	10	2x60°	K0371.06
K0372.1200X	**K0372.2200X**	18/31,5/45	11,5	M18x1,5	M6	3,2	200	16	2,5x60°	K0371.10
K0372.1300X	**K0372.2300X**	18/31,5/45	11,5	M18x1,5	M6	3,2	300	16	2,5x60°	K0371.10

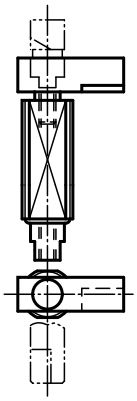
Spring traction units and pressure pads



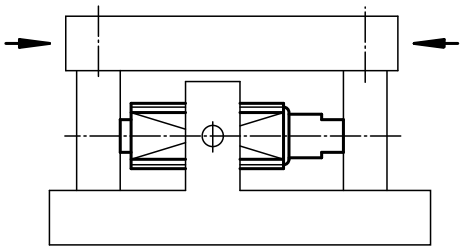
traction and pressure tightener



traction tightener as locking mechanism



traction and pressure tightener as base carrier



Material:
Bush, spring bolt and spring in steel.

Surface finish:
Body blue galvanized.
Spring bolts black oxide finish.

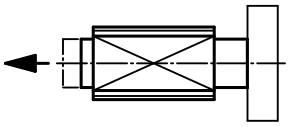
Sample order:
K0373.1202004

Note:
As a result of the bilateral thread in the spring bolt, many inserts are possible for individual applications, e.g. with prisms, studs, pendulum seats, handles, knobs, milled nuts, etc.

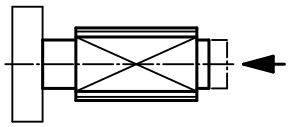
Assembly:
To lock the threaded bush in position, we recommend a LOCTITE screw lock No. K0655.243.... .

Application:

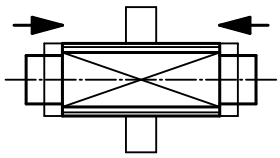
As **pressure tightener:**
The active force presses the part.



As **traction tightener:**
The active force tractions the part.



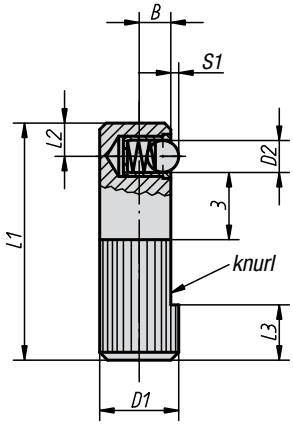
As **traction and pressure tightener**:
In this case the inner bolt has a fixed position. Threaded bush acts as the base carrier.
The active force tractions or presses the part in both directions.



KIPP Spring traction units and pressure pads

Order No.	D	D1	D2	D3	F1 (N)	F2 (N)	Stroke	L	L1	L2	L3	SW1	SW2 4-sided
K0373.1202004	M12	6	7	M4x8	5	20	3,5	11	4,5	5	1	6	10
K0373.1202006	M12	6	7	M4x8	5	20	6	18,5	7	5	1	6	10
K0373.1202010	M12	6	7	M4x8	5	20	10	26	11	5	1	6	10
K0373.1206003	M12	6	7	M4x8	15	60	3	11	4,5	5	1	6	10
K0373.1206005	M12	6	7	M4x8	15	60	5	18,5	7	5	1	6	10
K0373.1206008	M12	6	7	M4x8	15	60	8	26	11	5	1	6	10
K0373.1212503	M12	6	7	M4x8	30	125	3	11	4,5	5	1	6	10
K0373.1212505	M12	6	7	M4x8	30	125	5	18,5	7	5	1	6	10
K0373.1212508	M12	6	7	M4x8	30	125	8	26	11	5	1	6	10
K0373.1815004	M18x1,5	10	11	M6x12	50	150	4	17	6	6	2,5	9	16
K0373.1815007	M18x1,5	10	11	M6x12	50	150	7	29,5	11,5	6	2,5	9	16
K0373.1815013	M18x1,5	10	11	M6x12	50	150	12,5	45,5	16	6	2,5	9	16

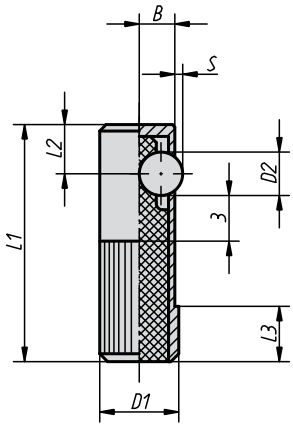
Lateral spring plungers



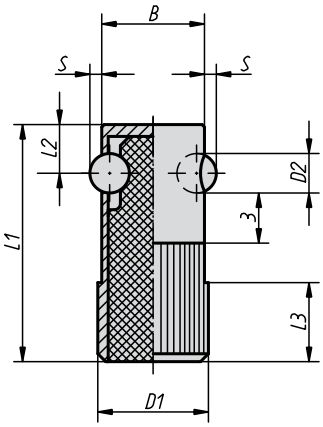
Form A
ball in stainless steel,
on one side

Form B
ball in delrin,
on one side

Form C
ball in steel,
spring in plastic, on one side



Form D
ball in steel,
spring in plastic, on both sides



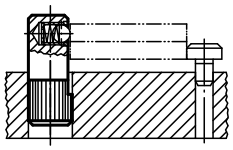
Material:
Body in free-cutting steel.
Ball in steel or stainless steel, hardened or delrin.
Spring in stainless steel or in plastic.

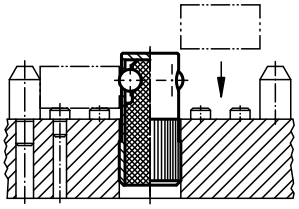
Surface finish:
Body black oxide finish.
Ball natural finish.

Sample order:
K0374.410

Note:
The lateral spring plunger must be pressed into the hole to at least dimension L3. It positions and presses small parts into fixtures and devices. If a mechanical machining process is executed on the workpiece, further clamping units might be necessary to clamp it. When storing fixtures and devices, make sure that the plastic sping is not loaded.

The spring force is a statistical average.





drift punch 

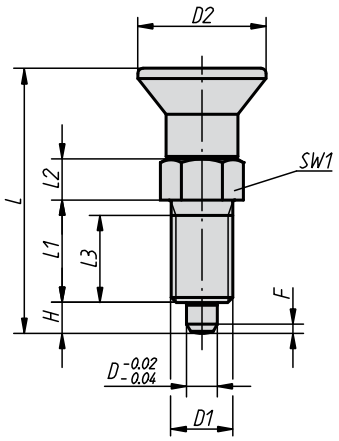
KIPP Lateral spring plungers

Order No.	Form	D1	D2	L1	L2	L3	B	S	S1	Receiving hole H8	Spring force initial pressure N	Spring force final pressure N	Approx. weight kg
K0374.008	A	8	3	25	3,6	6	3,2	-	0,7	8	2,5	6,5	0,009
K0374.010	A	10	4	30	4,2	7	4	-	1	10	4,5	9	0,017
K0374.012	A	12	5	35	4,8	9	5	-	1,5	12	6,5	13	0,029
K0374.014	A	14	6,5	40	5,8	10	5,4	-	1,8	14	8	18	0,043
K0374.108	B	8	3	25	3,6	6	3,2	-	0,9	8	2,5	6,5	0,009
K0374.110	B	10	4	30	4,2	7	4	-	1,2	10	4,5	9	0,017
K0374.112	B	12	5	35	4,8	9	5	-	1,5	12	6,5	13	0,029
K0374.114	B	14	6,5	40	5,8	10	5,4	-	2	14	8	18	0,043
K0374.410	C	10	5,5	30	7	8	4,5	1	-	10	60	170	0,009
K0374.412	C	12	6,5	35	8	9	5,5	1,5	-	12	80	260	0,013
K0374.414	C	14	8	40	9	10	6,5	2	-	14	120	480	0,019
K0374.616	D	16	5,5	35	7	11	15	1,5	-	16	110	220	0,020
K0374.618	D	18	6,5	40	8	12	17	1,8	-	18	120	330	0,027
K0374.622	D	22	8	45	9	15	21	2,5	-	22	130	540	0,043

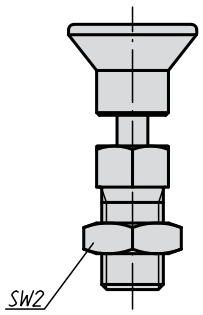
Notes

Locking bolts

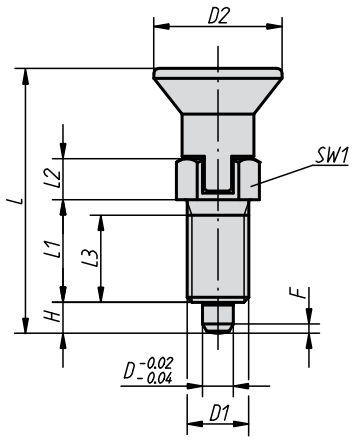
Form A
without locking slot
without locking nut



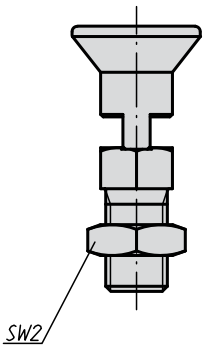
Form B
without locking slot
with locking nut



Form C
with locking slot
without locking nut



Form D
with locking slot
with locking nut



Material:
- Steel version, locking pin hardened:
  quality class 5.8.
- Stainless steel version, locking pin hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

Surface finish:
- Steel version, locking pin hardened:
  black oxide finish. Locking pin ground.
- Stainless steel version, locking pin hardened:
  natural finish. Locking pin ground.
- Stainless steel version, locking pin not hardened:
  natural finish. Locking pin ground.

Sample order:
K0338.04206

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged. Form C or D is recommended for applications in which gradual disengagement of the locking bolt is desired, without any relocking of the locking pin.

On request:
Special versions and spacer rings.

Locking bolts

KIPP Locking bolts, in steel, locking pin hardened

Order No. Form A	Order No. Form B	Order No. Form C	Order No. Form D	D	D1	D2	L	L1	L2	L3	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0338.1903	**K0338.2903**	**K0338.3903**	**K0338.4903**	3	M6x0,75	14	31,5	12	5	10	3,5	8	-/10/-/10	0,8	4,5	10
K0338.1004	**K0338.2004**	**K0338.3004**	**K0338.4004**	4	M8x1	18	38,5	15	6	13	4	10	-/13/-/13	1	6	12
K0338.1105	**K0338.2105**	**K0338.3105**	**K0338.4105**	5	M10x1	21	43,5	17	7	15	5	13	-/17/-/17	1,3	5	12
K0338.1206	**K0338.2206**	**K0338.3206**	**K0338.4206**	6	M12x1,5	25	51,7	20	8	17	6	14	-/19/-/19	1,8	6	14
K0338.1308	**K0338.2308**	**K0338.3308**	**K0338.4308**	8	M16x1,5	33	68	26	10	23	8	19	-/24/-/24	2,3	15	35
K0338.1410	**K0338.2410**	**K0338.3410**	**K0338.4410**	10	M20x1,5	33	74	28	12	25	10	22	-/30/-/30	2,8	15	34
K0338.1412	**K0338.2412**	**K0338.3412**	**K0338.4412**	12	M20x1,5	33	78	28	14	25	12	22	-/30/-/30	2,8	15	39
K0338.1516	**K0338.2516**	**K0338.3516**	**K0338.4516**	16	M24x2	40	96	32	18	28	16	27	-/36/-/36	3,2	20	46

KIPP Locking bolts, in stainless steel, locking pin hardened

Order No. Form A	Order No. Form B	Order No. Form C	Order No. Form D	D	D1	D2	L	L1	L2	L3	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0338.01903	**K0338.02903**	**K0338.03903**	**K0338.04903**	3	M6x0,75	14	31,5	12	5	10	3,5	8	-/10/-/10	0,8	4,5	10
K0338.01004	**K0338.02004**	**K0338.03004**	**K0338.04004**	4	M8x1	18	38,5	15	6	13	4	10	-/13/-/13	1	6	12
K0338.01105	**K0338.02105**	**K0338.03105**	**K0338.04105**	5	M10x1	21	43,5	17	7	15	5	13	-/17/-/17	1,3	5	12
K0338.01206	**K0338.02206**	**K0338.03206**	**K0338.04206**	6	M12x1,5	25	51,7	20	8	17	6	14	-/19/-/19	1,8	6	14
K0338.01308	**K0338.02308**	**K0338.03308**	**K0338.04308**	8	M16x1,5	33	68	26	10	23	8	19	-/24/-/24	2,3	15	35
K0338.01410	**K0338.02410**	**K0338.03410**	**K0338.04410**	10	M20x1,5	33	74	28	12	25	10	22	-/30/-/30	2,8	15	34
K0338.01412	**K0338.02412**	**K0338.03412**	**K0338.04412**	12	M20x1,5	33	78	28	14	25	12	22	-/30/-/30	2,8	15	39
K0338.01516	**K0338.02516**	**K0338.03516**	**K0338.04516**	16	M24x2	40	96	32	18	28	16	27	-/36/-/36	3,2	20	46

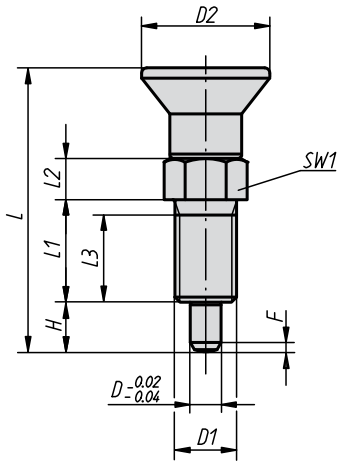
KIPP Locking bolts, in stainless steel, locking pin not hardened

Order No. Form A	Order No. Form B	Order No. Form C	Order No. Form D	D	D1	D2	L	L1	L2	L3	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0338.11903	**K0338.12903**	**K0338.13903**	**K0338.14903**	3	M6x0,75	14	31,5	12	5	10	3,5	8	-/10/-/10	0,8	4,5	10
K0338.11004	**K0338.12004**	**K0338.13004**	**K0338.14004**	4	M8x1	18	38,5	15	6	13	4	10	-/13/-/13	1	6	12
K0338.11105	**K0338.12105**	**K0338.13105**	**K0338.14105**	5	M10x1	21	43,5	17	7	15	5	13	-/17/-/17	1,3	5	12
K0338.11206	**K0338.12206**	**K0338.13206**	**K0338.14206**	6	M12x1,5	25	51,7	20	8	17	6	14	-/19/-/19	1,8	6	14
K0338.11308	**K0338.12308**	**K0338.13308**	**K0338.14308**	8	M16x1,5	33	68	26	10	23	8	19	-/24/-/24	2,3	15	35
K0338.11410	**K0338.12410**	**K0338.13410**	**K0338.14410**	10	M20x1,5	33	74	28	12	25	10	22	-/30/-/30	2,8	15	34
K0338.11412	**K0338.12412**	**K0338.13412**	**K0338.14412**	12	M20x1,5	33	78	28	14	25	12	22	-/30/-/30	2,8	15	39
K0338.11516	**K0338.12516**	**K0338.13516**	**K0338.14516**	16	M24x2	40	96	32	18	28	16	27	-/36/-/36	3,2	20	46

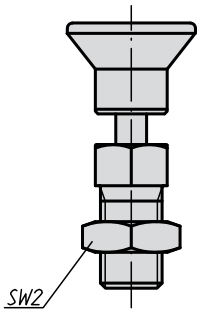
Locking Bolts

with extended locking pin

Form A
without locking slot
without locking nut



Form B
without locking slot
with locking nut



Material:
- Steel version, locking pin hardened:
  quality class 5.8.
- Stainless steel version, locking pin hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4305.

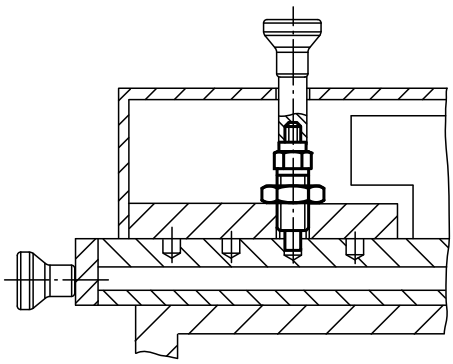
Mushroom knob in anthracite grey thermoplastic.

Surface finish:
- Steel version, locking pin hardened:
  black oxide finish. Locking pin ground.
- Stainless steel version, locking pin hardened:
  natural finish. Locking pin ground.
- Stainless steel version, locking pin not hardened:
  natural finish. Locking pin ground.

Sample order:
K0630.21903

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.

On request:
Special versions and spacer rings.



Locking Bolts

with extended locking pin

KIPP Locking bolts, with extended locking pin, in steel, locking pin hardened

Order No. Form A	Order No. Form B	D	D1	D2	L	L1	L2	L3	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0630.21903	**K0630.22903**	3	M6x0,75	14	33	12	5	10	5	8	- / 10	0,8	4,5	12
K0630.21004	**K0630.22004**	4	M8x1	18	40,5	15	6	13	6	10	- / 13	1	6	15
K0630.21105	**K0630.22105**	5	M10x1	21	46,5	17	7	15	8	13	- / 17	1,3	5	16
K0630.21206	**K0630.22206**	6	M12x1,5	25	54,7	20	8	17	9	14	- / 19	1,8	6	18
K0630.21308	**K0630.22308**	8	M16x1,5	33	72	26	10	23	12	19	- / 24	2,3	15	45
K0630.21410	**K0630.22410**	10	M20x1,5	33	79	28	12	25	15	22	- / 30	2,8	15	43
K0630.21412	**K0630.22412**	12	M20x1,5	33	84	28	14	25	18	22	- / 30	2,8	15	51
K0630.21516	**K0630.22516**	16	M24x2	40	104	32	18	28	24	27	- / 36	3,2	20	60

KIPP Locking bolts, with extended locking pin, in stainless steel, with extended locking pin, locking pin hardened

Order No. Form A	Order No. Form B	D	D1	D2	L	L1	L2	L3	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0630.201903	**K0630.202903**	3	M6x0,75	14	33	12	5	10	5	8	- / 10	0,8	4,5	12
K0630.201004	**K0630.202004**	4	M8x1	18	40,5	15	6	13	6	10	- / 13	1	6	15
K0630.201105	**K0630.202105**	5	M10x1	21	46,5	17	7	15	8	13	- / 17	1,3	5	16
K0630.201206	**K0630.202206**	6	M12x1,5	25	54,7	20	8	17	9	14	- / 19	1,8	6	18
K0630.201308	**K0630.202308**	8	M16x1,5	33	72	26	10	23	12	19	- / 24	2,3	15	45
K0630.201410	**K0630.202410**	10	M20x1,5	33	79	28	12	25	15	22	- / 30	2,8	15	43
K0630.201412	**K0630.202412**	12	M20x1,5	33	84	28	14	25	18	22	- / 30	2,8	15	51
K0630.201516	**K0630.202516**	16	M24x2	40	104	32	18	28	24	27	- / 36	3,2	20	60

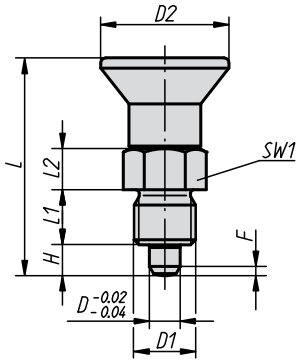
KIPP Locking bolts, with extended locking pin, in stainless steel, locking pin not hardened

Order No. Form A	Order No. Form B	D	D1	D2	L	L1	L2	L3	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0630.211903	**K0630.212903**	3	M6x0,75	14	33	12	5	10	5	8	- / 10	0,8	4,5	12
K0630.211004	**K0630.212004**	4	M8x1	18	40,5	15	6	13	6	10	- / 13	1	6	15
K0630.211105	**K0630.212105**	5	M10x1	21	46,5	17	7	15	8	13	- / 17	1,3	5	16
K0630.211206	**K0630.212206**	6	M12x1,5	25	54,7	20	8	17	9	14	- / 19	1,8	6	18
K0630.211308	**K0630.212308**	8	M16x1,5	33	72	26	10	23	12	19	- / 24	2,3	15	45
K0630.211410	**K0630.212410**	10	M20x1,5	33	79	28	12	25	15	22	- / 30	2,8	15	43
K0630.211412	**K0630.212412**	12	M20x1,5	33	84	28	14	25	18	22	- / 30	2,8	15	51
K0630.211516	**K0630.212516**	16	M24x2	40	104	32	18	28	24	27	- / 36	3,2	20	60

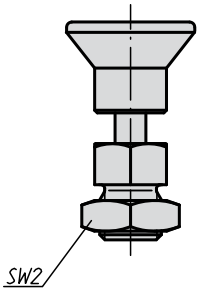
Locking bolts

short version

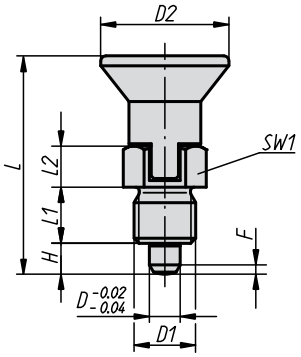
Form A
without locking slot
without locking nut



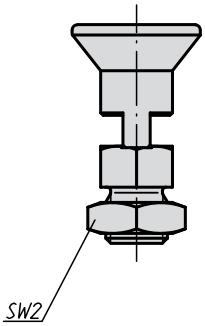
Form B
without locking slot
with locking nut

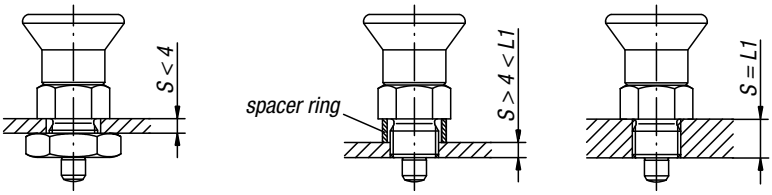


Form C
with locking slot
without locking nut



Form D
with locking slot
with locking nut





Material:
- Steel version, locking pin hardened: quality class 5.8.
- Stainless steel version, locking pin not hardened: threaded sleeve 1.4305. Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

Surface finish:
- Steel version, locking pin hardened: black oxide finish. Locking pin ground.
- Stainless steel version, locking pin not hardened: natural finish. Locking pin ground.

Sample order:
K0631.16206

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged. Form C or D is recommended for applications in which gradual disengagement of the locking bolt is desired, without any relocking of the locking pin.

On request:
Special versions and spacer rings.

KIPP Locking bolts, short version, in steel, locking pin hardened

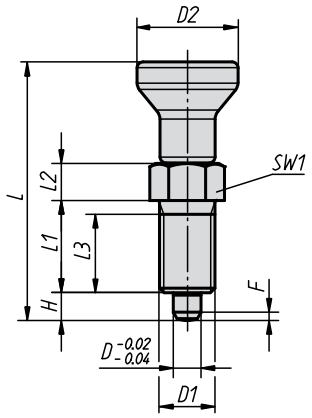
Order No. Form A	Order No. Form B	Order No. Form C	Order No. Form D	D	D1	D2	L	L1	L2	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0631.5004	K0631.6004	K0631.7004	K0631.8004	4	M8x1	18	29,5	6	6	4	10	- / 13 / - / 13	1	6	12
K0631.5105	K0631.6105	K0631.7105	K0631.8105	5	M10x1	21	34,5	8	7	5	13	- / 17 / - / 17	1,3	5	12
K0631.5206	K0631.6206	K0631.7206	K0631.8206	6	M12x1,5	25	41,7	10	8	6	14	- / 19 / - / 19	1,8	6	14
K0631.5308	K0631.6308	K0631.7308	K0631.8308	8	M16x1,5	33	54	12	10	8	19	- / 24 / - / 24	2,3	14	28
K0631.5410	K0631.6410	K0631.7410	K0631.8410	10	M20x1,5	33	61	15	12	10	22	- / 30 / - / 30	2,8	15	32

KIPP Locking bolts, short version, in steel, locking pin not hardened

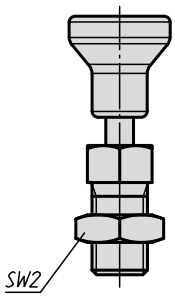
Order No. Form A	Order No. Form B	Order No. Form C	Order No. Form D	D	D1	D2	L	L1	L2	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0631.15004	K0631.16004	K0631.17004	K0631.18004	4	M8x1	18	29,5	6	6	4	10	- / 13 / - / 13	1	6	12
K0631.15105	K0631.16105	K0631.17105	K0631.18105	5	M10x1	21	34,5	8	7	5	13	- / 17 / - / 17	1,3	5	12
K0631.15206	K0631.16206	K0631.17206	K0631.18206	6	M12x1,5	25	41,7	10	8	6	14	- / 19 / - / 19	1,8	6	14
K0631.15308	K0631.16308	K0631.17308	K0631.18308	8	M16x1,5	33	54	12	10	8	19	- / 24 / - / 24	2,3	14	28
K0631.15410	K0631.16410	K0631.17410	K0631.18410	10	M20x1,5	33	61	15	12	10	22	- / 30 / - / 30	2,8	15	32

Locking bolts stainless steel

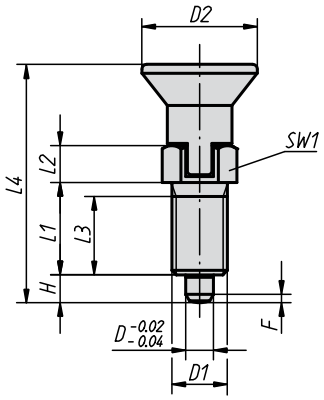
Form A
without locking slot
without locking nut



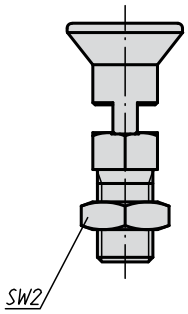
Form B
without locking slot
with locking nut



Form C
with locking slot
without locking nut



Form D
with locking slot
with locking nut



Material:
- Locking pin hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4034.
- Locking pin not hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4305.

Mushroom knob 1.4305, electrolytic-polish.

Surface finish:
Natural finish.
Locking pin ground.

Sample order:
K0632.001004

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged. Form C or D is recommended for applications in which gradual disengagement of the locking bolt is desired, without any relocking of the locking pin.

On request:
Special versions and spacer rings.

KIPP Locking bolts in stainless steel, locking pin hardened

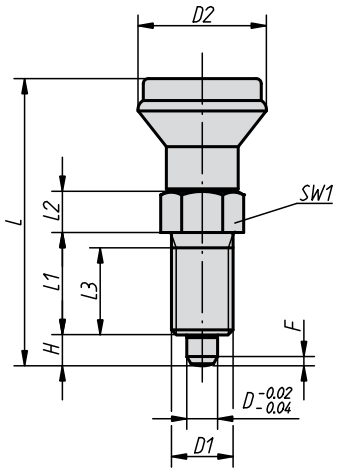
Order No. Form A	Order No. Form B	Order No. Form C	Order No. Form D	D	D1	D2	L	L1	L2	L3	L4	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0632.001903	K0632.002903	K0632.003903	K0632.004903	3	M6x0,75	14	34,5/34,5/-/-	12	5	10	-/-/31,5/31,5	3,5	8	-/10/-/10	0,8	4,5	10
K0632.001004	K0632.002004	K0632.003004	K0632.004004	4	M8x1	18	43/43/-/-	15	6	13	-/-/38,5/38,5	4	10	-/13/-/13	1	6	12
K0632.001105	K0632.002105	K0632.003105	K0632.004105	5	M10x1	21	50/50/-/-	17	7	15	-/-/43,5/43,5	5	13	-/17/-/17	1,3	5	12
K0632.001206	K0632.002206	K0632.003206	K0632.004206	6	M12x1,5	25	59/59/-/-	20	8	17	-/-/51,7/51,7	6	14	-/19/-/19	1,8	6	14
K0632.001308	K0632.002308	K0632.003308	K0632.004308	8	M16x1,5	33	77/77/-/-	26	10	23	-/-/68/68	8	19	-/24/-/24	2,3	15	35
K0632.001410	K0632.002410	K0632.003410	K0632.004410	10	M20x1,5	33	83/83/-/-	28	12	25	-/-/74/74	10	22	-/30/-/30	2,8	15	34
K0632.001412	K0632.002412	K0632.003412	K0632.004412	12	M20x1,5	33	87/87/-/-	28	14	25	-/-/78/78	12	22	-/30/-/30	2,8	15	39
K0632.001516	K0632.002516	K0632.003516	K0632.004516	16	M24x2	40	106/106/-/-	32	18	28	-/-/96/96	16	27	-/36/-/36	3,2	20	46

KIPP Locking bolts in stainless steel, locking pin not hardened

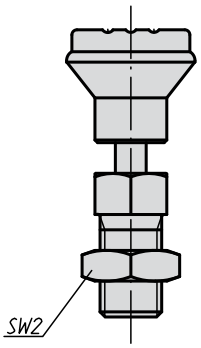
Order No. Form A	Order No. Form B	Order No. Form C	Order No. Form D	D	D1	D2	L	L1	L2	L3	L4	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0632.111903	K0632.112903	K0632.113903	K0632.114903	3	M6x0,75	14	34,5/34,5/-/-	12	5	10	-/-/31,5/31,5	3,5	8	-/10/-/10	0,8	4,5	10
K0632.111004	K0632.112004	K0632.113004	K0632.114004	4	M8x1	18	43/43/-/-	15	6	13	-/-/38,5/38,5	4	10	-/13/-/13	1	6	12
K0632.111105	K0632.112105	K0632.113105	K0632.114105	5	M10x1	21	50/50/-/-	17	7	15	-/-/43,5/43,5	5	13	-/17/-/17	1,3	5	12
K0632.111206	K0632.112206	K0632.113206	K0632.114206	6	M12x1,5	25	59/59/-/-	20	8	17	-/-/51,7/51,7	6	14	-/19/-/19	1,8	6	14
K0632.111308	K0632.112308	K0632.113308	K0632.114308	8	M16x1,5	33	77/77/-/-	26	10	23	-/-/68/68	8	19	-/24/-/24	2,3	15	35
K0632.111410	K0632.112410	K0632.113410	K0632.114410	10	M20x1,5	33	83/83/-/-	28	12	25	-/-/74/74	10	22	-/30/-/30	2,8	15	34
K0632.111412	K0632.112412	K0632.113412	K0632.114412	12	M20x1,5	33	87/87/-/-	28	14	25	-/-/78/78	12	22	-/30/-/30	2,8	15	39
K0632.111516	K0632.112516	K0632.113516	K0632.114516	16	M24x2	40	106/106/-/-	32	18	28	-/-/96/96	16	27	-/36/-/36	3,2	20	46

Locking bolts

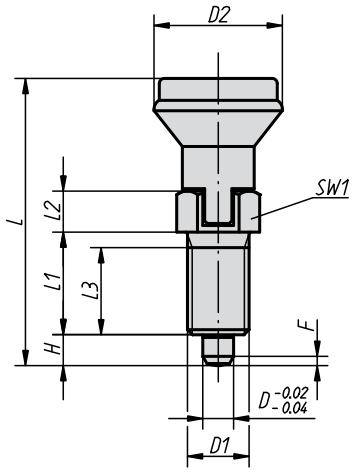
Form A
without locking slot
without locking nut



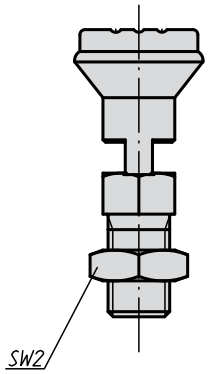
Form B
without locking slot
with locking nut



Form C
with locking slot
without locking nut



Form D
with locking slot
with locking nut



Material:
- Steel version, locking pin hardened:
  quality class 5.8.
- Stainless steel version, locking pin hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

Surface finish:
- Steel version, locking pin hardened:
  black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened:
  natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened:
  natural finish, locking pin ground.

Sample order:
K0339.04206

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged. Form C or D is recommended for applications in which gradual disengagement of the locking bolt is desired, without any relocking of the locking pin.

On request:
Special versions and spacer rings.

Locking bolts

KIPP Locking bolts, in steel, locking pin hardened

Order No. Form A	Order No. Form B	Order No. Form C	Order No. Form D	D	D1	D2	L	L1	L2	L3	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0339.1105	**K0339.2105**	**K0339.3105**	**K0339.4105**	5	M10x1	21	47	17	7	15	5	13	- / 17 / - / 17	1,3	5	12
K0339.1206	**K0339.2206**	**K0339.3206**	**K0339.4206**	6	M12x1,5	25	56	20	8	17	6	14	- / 19 / - / 19	1,8	6	14
K0339.1308	**K0339.2308**	**K0339.3308**	**K0339.4308**	8	M16x1,5	33	74	26	10	23	8	19	- / 24 / - / 24	2,3	15	35
K0339.1410	**K0339.2410**	**K0339.3410**	**K0339.4410**	10	M20x1,5	33	80	28	12	25	10	22	- / 30 / - / 30	2,8	15	34

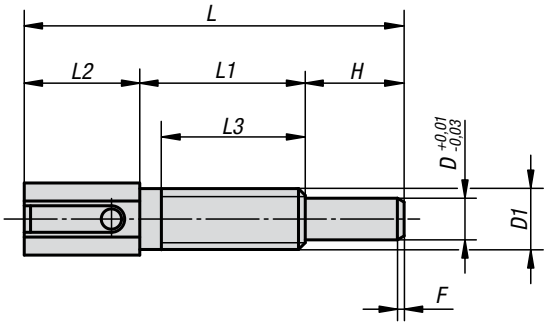
KIPP Locking bolts, in stainless steel, locking pin hardened

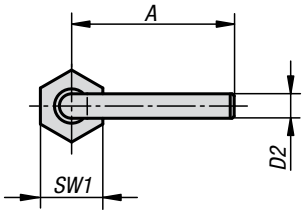
Order No. Form A	Order No. Form B	Order No. Form C	Order No. Form D	D	D1	D2	L	L1	L2	L3	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0339.01105	**K0339.02105**	**K0339.03105**	**K0339.04105**	5	M10x1	21	47	17	7	15	5	13	- / 17 / - / 17	1,3	5	12
K0339.01206	**K0339.02206**	**K0339.03206**	**K0339.04206**	6	M12x1,5	25	56	20	8	17	6	14	- / 19 / - / 19	1,8	6	14
K0339.01308	**K0339.02308**	**K0339.03308**	**K0339.04308**	8	M16x1,5	33	74	26	10	23	8	19	- / 24 / - / 24	2,3	15	35
K0339.01410	**K0339.02410**	**K0339.03410**	**K0339.04410**	10	M20x1,5	33	80	28	12	25	10	22	- / 30 / - / 30	2,8	15	34

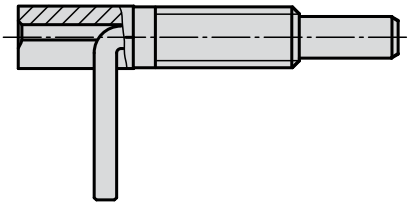
KIPP Locking bolts, in stainless steel, locking pin not hardened

Order No. Form A	Order No. Form B	Order No. Form C	Order No. Form D	D	D1	D2	L	L1	L2	L3	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0339.11105	**K0339.12105**	**K0339.13105**	**K0339.14105**	5	M10x1	21	47	17	7	15	5	13	- / 17 / - / 17	1,3	5	12
K0339.11206	**K0339.12206**	**K0339.13206**	**K0339.14206**	6	M12x1,5	25	56	20	8	17	6	14	- / 19 / - / 19	1,8	6	14
K0339.11308	**K0339.12308**	**K0339.13308**	**K0339.14308**	8	M16x1,5	33	74	26	10	23	8	19	- / 24 / - / 24	2,3	15	35
K0339.11410	**K0339.12410**	**K0339.13410**	**K0339.14410**	10	M20x1,5	33	80	28	12	25	10	22	- / 30 / - / 30	2,8	15	34

Locking bolts







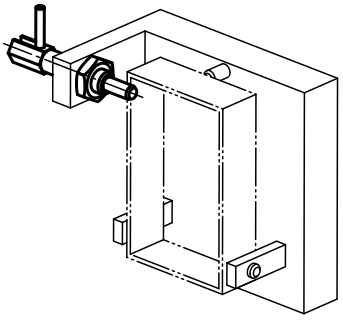
Material:
Steel quality class 5.8.

Surface finish:
Blue chromated.

Sample order:
K0340.1206

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.

On request:
Special versions.

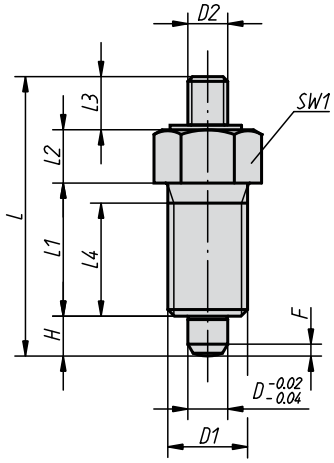


KIPP Locking bolts

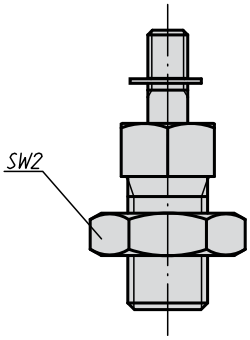
Order No.	D	D1	D2	L	L1	L2	L3	H	A	SW1	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Tightening torque max. Nm
K0340.1104	4	M6	2,3	41,5	20	12	17	9,5	15,5	6	0,7	3	10	1,6
K0340.1905	5	M8	3	54	27	15	24	12	19,2	8	0,9	3,5	13,5	4,5
K0340.1206	6	M10	3,5	65	33,5	17,5	30	14	22,9	10	1,1	4	16	10
K0340.1308	8	M12	4,7	73	31,8	22,2	28	19	31,2	12	1,3	4	22	13
K0340.1410	10	M16	4,7	102,5	50,5	27	44,5	25	32,7	16	1,6	4	23	42

Notes

Locking bolts



Form E
with threaded pin
without locking nut



Form F
with threaded pin
with locking nut

Material:
- Steel version, locking pin hardened:
  quality class 5.8.
- Stainless steel version, locking pin hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4305.

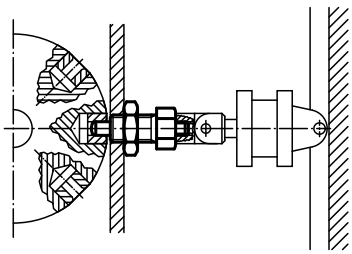
Surface finish:
- Steel version, locking pin hardened:
  black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened:
  natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened:
  natural finish, locking pin ground.

Sample order:
K0341.02308

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been disengaged. Special grips can be fitted on the projecting threaded pin.
This pin is also suitable for actuation of the locking bolt, for example automatically (programme-controlled) with the aid of a pneumatic cylinder or actuation by remote control with bowden cables.

On request:
Special versions and spacer rings.

example:



Locking bolts

KIPP Locking bolts, in steel, locking pin hardened

Order No. Form E	Order No. Form F	D	D1	D2	L	L1	L2	L3	L4	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0341.1903	**K0341.2903**	3	M6x0,75	M2	24	12	5	3,5	10	3,5	8	- / 10	0,8	4,5	10
K0341.1004	**K0341.2004**	4	M8x1	M3	32	15	6	7	13	4	10	- / 13	1	6	12
K0341.1105	**K0341.2105**	5	M10x1	M4	37	17	7	8	15	5	13	- / 17	1,3	5	12
K0341.1206	**K0341.2206**	6	M12x1,5	M6	42	20	8	8	17	6	14	- / 19	1,8	6	14
K0341.1308	**K0341.2308**	8	M16x1,5	M8	56	26	10	12	23	8	19	- / 24	2,3	15	35
K0341.1410	**K0341.2410**	10	M20x1,5	M8	62	28	12	12	25	10	22	- / 30	2,8	15	34
K0341.1412	**K0341.2412**	12	M20x1,5	M8	66	28	14	12	25	12	22	- / 30	2,8	15	39
K0341.1516	**K0341.2516**	16	M24x2	M10	80	32	18	14	28	16	27	- / 36	3,2	20	46

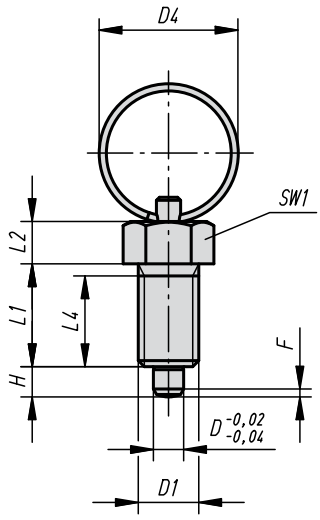
KIPP Locking bolts, in stainless steel, locking pin hardened

Order No. Form E	Order No. Form F	D	D1	D2	L	L1	L2	L3	L4	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0341.01903	**K0341.02903**	3	M6x0,75	M2	24	12	5	3,5	10	3,5	8	- / 10	0,8	4,5	10
K0341.01004	**K0341.02004**	4	M8x1	M3	32	15	6	7	13	4	10	- / 13	1	6	12
K0341.01105	**K0341.02105**	5	M10x1	M4	37	17	7	8	15	5	13	- / 17	1,3	5	12
K0341.01206	**K0341.02206**	6	M12x1,5	M6	42	20	8	8	17	6	14	- / 19	1,8	6	14
K0341.01308	**K0341.02308**	8	M16x1,5	M8	56	26	10	12	23	8	19	- / 24	2,3	15	35
K0341.01410	**K0341.02410**	10	M20x1,5	M8	62	28	12	12	25	10	22	- / 30	2,8	15	34
K0341.01412	**K0341.02412**	12	M20x1,5	M8	66	28	14	12	25	12	22	- / 30	2,8	15	39
K0341.01516	**K0341.02516**	16	M24x2	M10	80	32	18	14	28	16	27	- / 36	3,2	20	46

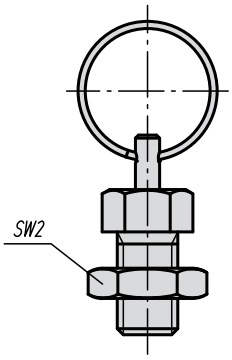
KIPP Locking bolts, in stainless steel, locking pin not hardened

Order No. Form E	Order No. Form F	D	D1	D2	L	L1	L2	L3	L4	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0341.11903	**K0341.12903**	3	M6x0,75	M2	24	12	5	3,5	10	3,5	8	- / 10	0,8	4,5	10
K0341.11004	**K0341.12004**	4	M8x1	M3	32	15	6	7	13	4	10	- / 13	1	6	12
K0341.11105	**K0341.12105**	5	M10x1	M4	37	17	7	8	15	5	13	- / 17	1,3	5	12
K0341.11206	**K0341.12206**	6	M12x1,5	M6	42	20	8	8	17	6	14	- / 19	1,8	6	14
K0341.11308	**K0341.12308**	8	M16x1,5	M8	56	26	10	12	23	8	19	- / 24	2,3	15	35
K0341.11410	**K0341.12410**	10	M20x1,5	M8	62	28	12	12	25	10	22	- / 30	2,8	15	34
K0341.11412	**K0341.12412**	12	M20x1,5	M8	66	28	14	12	25	12	22	- / 30	2,8	15	39
K0341.11516	**K0341.12516**	16	M24x2	M10	80	32	18	14	28	16	27	- / 36	3,2	20	46

Locking bolts



Form R
without locking nut



Form S
with locking nut

Material:
- Steel version, locking pin hardened:
  quality class 5.8.
- Stainless steel version, locking pin hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4305.

Key ring 1.4310, natural finish.

Surface finish:
- Steel version, locking pin hardened:
  black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened:
  natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened:
  natural finish, locking pin ground.

Sample order:
K0342.03308

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been disengaged.The key ring is also suitable for actuation of the locking bolt, for example automatically (programme-controlled) with the aid of a pneumatic cylinder or actuation by remote control with bowden cables.

On request:
Special versions and spacer rings.

Locking bolts

KIPP Locking bolts, in steel, locking pin hardened

Order No. Form R	Order No. Form S	D	D1	D4	L1	L2	L4	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0342.3004	**K0342.4004**	4	M8x1	15	15	6	13	4	10	- / 13	1	6	12
K0342.3105	**K0342.4105**	5	M10x1	23	17	7	15	5	13	- / 17	1,3	5	12
K0342.3206	**K0342.4206**	6	M12x1,5	23	20	8	17	6	14	- / 19	1,8	6	14
K0342.3308	**K0342.4308**	8	M16x1,5	28	26	10	23	8	19	- / 24	2,3	15	35
K0342.3410	**K0342.4410**	10	M20x1,5	28	28	12	25	10	22	- / 30	2,8	15	34

KIPP Locking bolts, in stainless steel, locking pin hardened

Order No. Form R	Order No. Form S	D	D1	D4	L1	L2	L4	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0342.03004	**K0342.04004**	4	M8x1	15	15	6	13	4	10	- / 13	1	6	12
K0342.03105	**K0342.04105**	5	M10x1	23	17	7	15	5	13	- / 17	1,3	5	12
K0342.03206	**K0342.04206**	6	M12x1,5	23	20	8	17	6	14	- / 19	1,8	6	14
K0342.03308	**K0342.04308**	8	M16x1,5	28	26	10	23	8	19	- / 24	2,3	15	35
K0342.03410	**K0342.04410**	10	M20x1,5	28	28	12	25	10	22	- / 30	2,8	15	34

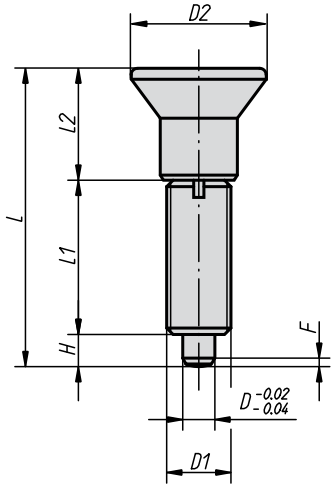
KIPP Locking bolts, in stainless steel, locking pin not hardened

Order No. Form R	Order No. Form S	D	D1	D4	L1	L2	L4	H	SW1	SW2	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0342.13004	**K0342.14004**	4	M8x1	15	15	6	13	4	10	- / 13	1	6	12
K0342.13105	**K0342.14105**	5	M10x1	23	17	7	15	5	13	- / 17	1,3	5	12
K0342.13206	**K0342.14206**	6	M12x1,5	23	20	8	17	6	14	- / 19	1,8	6	14
K0342.13308	**K0342.14308**	8	M16x1,5	28	26	10	23	8	19	- / 24	2,3	15	35
K0342.13410	**K0342.14410**	10	M20x1,5	28	28	12	25	10	22	- / 30	2,8	15	34

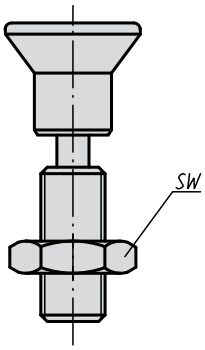
Locking bolts

without collar

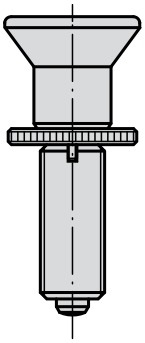
Form G
without locking nut



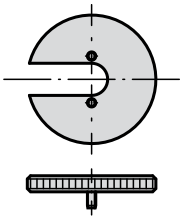
Form H
with locking nut



Locking bolt
with screw-in washer



screw-in washer



Material:
- Steel version, locking pin hardened:
  quality class 5.8.
- Stainless steel version, locking pin hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

Surface finish:
- Steel version, locking pin hardened:
  black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened:
  natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened:
  natural finish, locking pin ground.

Sample order:
K0343.02206

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.
In order to screw in the locking bolts, a screw-in washer can be supplied. The washer is slid beneath the disengaged mushroom knob so that the follower pins engage in the slot.

On request:
Special versions.

Locking bolts

without collar

KIPP Locking bolts without collar, in steel, locking pin hardened

Order No. Form G	Order No. Form H	D	D1	D2	L	L1	L2	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0343.1903	**K0343.2903**	3	M6x0,75	14	31,5	17	11	3,5	- / 10	0,8	4,5	10	K0344.99
K0343.1004	**K0343.2004**	4	M8x1	18	38,5	21	13,5	4	- / 13	1,3	6	12	K0344.90
K0343.1105	**K0343.2105**	5	M10x1	21	43,5	24	14,5	5	- / 17	1,3	5	12	K0344.91
K0343.1206	**K0343.2206**	6	M12x1,5	25	51,7	28	17,7	6	- / 19	1,8	6	14	K0344.92
K0343.1308	**K0343.2308**	8	M16x1,5	33	68	36	24	8	- / 24	2,3	15	35	K0344.93
K0343.1410	**K0343.2410**	10	M20x1,5	33	74	40	24	10	- / 30	2,8	15	34	K0344.94
K0343.1412	**K0343.2412**	12	M20x1,5	33	78	42	24	12	- / 30	2,8	15	39	K0344.94
K0343.1516	**K0343.2516**	16	M24x2	40	96	50	30	16	- / 36	3,2	20	46	K0344.95

KIPP Locking bolts without collar, in stainless steel, locking pin hardened

Order No. Form G	Order No. Form H	D	D1	D2	L	L1	L2	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0343.01903	**K0343.02903**	3	M6x0,75	14	31,5	17	11	3,5	- / 10	0,8	4,5	10	K0344.99
K0343.01004	**K0343.02004**	4	M8x1	18	38,5	21	13,5	4	- / 13	1,3	6	12	K0344.90
K0343.01105	**K0343.02105**	5	M10x1	21	43,5	24	14,5	5	- / 17	1,3	5	12	K0344.91
K0343.01206	**K0343.02206**	6	M12x1,5	25	51,7	28	17,7	6	- / 19	1,8	6	14	K0344.92
K0343.01308	**K0343.02308**	8	M16x1,5	33	68	36	24	8	- / 24	2,3	15	35	K0344.93
K0343.01410	**K0343.02410**	10	M20x1,5	33	74	40	24	10	- / 30	2,8	15	34	K0344.94
K0343.01412	**K0343.02412**	12	M20x1,5	33	78	42	24	12	- / 30	2,8	15	39	K0344.94
K0343.01516	**K0343.02516**	16	M24x2	40	96	50	30	16	- / 36	3,2	20	46	K0344.95

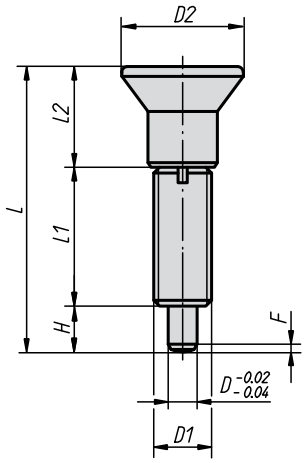
KIPP Locking bolts without collar, in stainless steel, locking pin not hardened

Order No. Form G	Order No. Form H	D	D1	D2	L	L1	L2	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0343.11903	**K0343.12903**	3	M6x0,75	14	31,5	17	11	3,5	- / 10	0,8	4,5	10	K0344.99
K0343.11004	**K0343.12004**	4	M8x1	18	38,5	21	13,5	4	- / 13	1,3	6	12	K0344.90
K0343.11105	**K0343.12105**	5	M10x1	21	43,5	24	14,5	5	- / 17	1,3	5	12	K0344.91
K0343.11206	**K0343.12206**	6	M12x1,5	25	51,7	28	17,7	6	- / 19	1,8	6	14	K0344.92
K0343.11308	**K0343.12308**	8	M16x1,5	33	68	36	24	8	- / 24	2,3	15	35	K0344.93
K0343.11410	**K0343.12410**	10	M20x1,5	33	74	40	24	10	- / 30	2,8	15	34	K0344.94
K0343.11412	**K0343.12412**	12	M20x1,5	33	78	42	24	12	- / 30	2,8	15	39	K0344.94
K0343.11516	**K0343.12516**	16	M24x2	40	96	50	30	16	- / 36	3,2	20	46	K0344.95

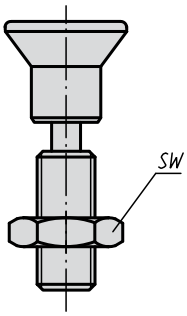
Locking bolts

without collar with extended locking pin

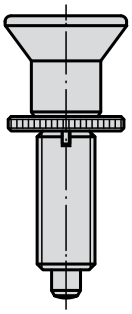
Form G
without locking nut



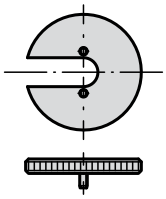
Form H
with locking nut



Locking bolt
with screw-in washer



screw-in washer



Material:
- Steel version, locking pin hardened:
  quality class 5.8.
- Stainless steel version, locking pin hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

Surface finish:
- Steel version, locking pin hardened:
  black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened:
  natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened:
  natural finish, locking pin ground.

Sample order:
K0633.21004

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.
In order to screw in the locking bolts, a screw-in washer can be supplied. The washer is slid beneath the disengaged mushroom knob so that the follower pins engage in the slot.

On request:
Special versions.

Locking bolts

without collar with extended locking pin

KIPP Locking bolts without collar with extended locking pin, in steel, locking pin hardened

Order No. Form G	Order No. Form H	D	D1	D2	L	L1	L2	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0633.21903	**K0633.22903**	3	M6x0,75	14	33	17	11	5	- / 10	0,8	4,5	12	K0344.99
K0633.21004	**K0633.22004**	4	M8x1	18	40,5	21	13,5	6	- / 13	1	6	15	K0344.90
K0633.21105	**K0633.22105**	5	M10x1	21	46,5	24	14,5	8	- / 17	1,3	5	16	K0344.91
K0633.21206	**K0633.22206**	6	M12x1,5	25	54,7	28	17,7	9	- / 19	1,8	6	18	K0344.92
K0633.21308	**K0633.22308**	8	M16x1,5	33	72	36	24	12	- / 24	2,3	15	45	K0344.93
K0633.21410	**K0633.22410**	10	M20x1,5	33	79	40	24	15	- / 30	2,8	15	43	K0344.94
K0633.21412	**K0633.22412**	12	M20x1,5	33	84	42	24	18	- / 30	2,8	15	51	K0344.94
K0633.21516	**K0633.22516**	16	M24x2	40	104	50	30	24	- / 36	3,2	20	60	K0344.95

KIPP Locking bolts without collar with extended locking pin, in stainless steel, locking pin hardened

Order No. Form G	Order No. Form H	D	D1	D2	L	L1	L2	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0633.201903	**K0633.202903**	3	M6x0,75	14	33	17	11	5	- / 10	0,8	4,5	12	K0344.99
K0633.201004	**K0633.202004**	4	M8x1	18	40,5	21	13,5	6	- / 13	1	6	15	K0344.90
K0633.201105	**K0633.202105**	5	M10x1	21	46,5	24	14,5	8	- / 17	1,3	5	16	K0344.91
K0633.201206	**K0633.202206**	6	M12x1,5	25	54,7	28	17,7	9	- / 19	1,8	6	18	K0344.92
K0633.201308	**K0633.202308**	8	M16x1,5	33	72	36	24	12	- / 24	2,3	15	45	K0344.93
K0633.201410	**K0633.202410**	10	M20x1,5	33	79	40	24	15	- / 30	2,8	15	43	K0344.94
K0633.201412	**K0633.202412**	12	M20x1,5	33	84	42	24	18	- / 30	2,8	15	51	K0344.94
K0633.201516	**K0633.202516**	16	M24x2	40	104	50	30	24	- / 36	3,2	20	60	K0344.95

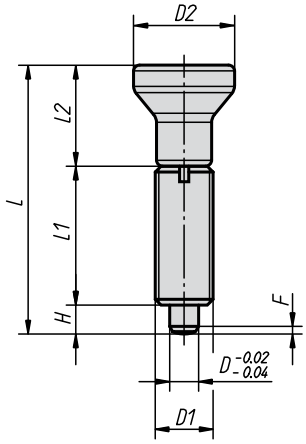
KIPP Locking bolts without collar with extended locking pin, in stainless steel, locking pin not hardened

Order No. Form G	Order No. Form H	D	D1	D2	L	L1	L2	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0633.211903	**K0633.212903**	3	M6x0,75	14	33	17	11	5	- / 10	0,8	4,5	12	K0344.99
K0633.211004	**K0633.212004**	4	M8x1	18	40,5	21	13,5	6	- / 13	1	6	15	K0344.90
K0633.211105	**K0633.212105**	5	M10x1	21	46,5	24	14,5	8	- / 17	1,3	5	16	K0344.91
K0633.211206	**K0633.212206**	6	M12x1,5	25	54,7	28	17,7	9	- / 19	1,8	6	18	K0344.92
K0633.211308	**K0633.212308**	8	M16x1,5	33	72	36	24	12	- / 24	2,3	15	45	K0344.93
K0633.211410	**K0633.212410**	10	M20x1,5	33	79	40	24	15	- / 30	2,8	15	43	K0344.94
K0633.211412	**K0633.212412**	12	M20x1,5	33	84	42	24	18	- / 30	2,8	15	51	K0344.94
K0633.211516	**K0633.212516**	16	M24x2	40	104	50	30	24	- / 36	3,2	20	60	K0344.95

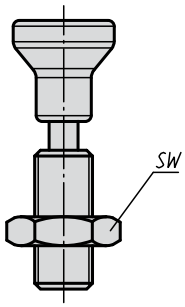
Locking bolts

in stainless steel without collar

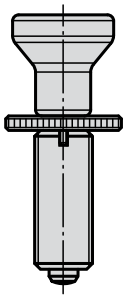
Form G
without locking nut



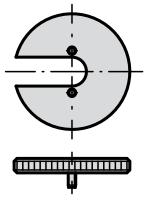
Form H
with locking nut



Locking Bolt
with screw-in washer



screw-in washer



Material:
- Locking pin hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4034.
- Locking pin not hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4305.

Mushroom knob 1.4305, electrolytic-polish.

Surface finish:
Natural finish.
Locking pin ground.

Sample order:
K0634.001004

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.
In order to screw in the locking bolts, a screw-in washer can be supplied. The washer is slid beneath the disengaged mushroom knob so that the follower pins engage in the slot.

On request:
Special versions.

KIPP Locking bolts in stainless steel, without collar, locking pin hardened

Order No. Form G	Order No. Form H	D	D1	D2	L	L1	L2	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0634.001903	**K0634.002903**	3	M6x0,75	14	34,5	17	14	3,5	- / 10	0,8	4,5	10	K0344.99
K0634.001004	**K0634.002004**	4	M8x1	18	43	21	18	4	- / 13	1	6	12	K0344.90
K0634.001105	**K0634.002105**	5	M10x1	21	50	24	21	5	- / 17	1,3	5	12	K0344.91
K0634.001206	**K0634.002206**	6	M12x1,5	25	59	28	25	6	- / 19	1,8	6	14	K0344.92
K0634.001308	**K0634.002308**	8	M16x1,5	33	77	36	33	8	- / 24	2,3	15	35	K0344.93
K0634.001410	**K0634.002410**	10	M20x1,5	33	83	40	33	10	- / 30	2,8	15	34	K0344.94
K0634.001412	**K0634.002412**	12	M20x1,5	33	87	42	33	12	- / 30	2,8	15	39	K0344.94
K0634.001516	**K0634.002516**	16	M24x2	40	106	50	40	16	- / 36	3,2	20	46	K0344.95

KIPP Locking bolts in stainless steel, without collar, locking pin not hardened

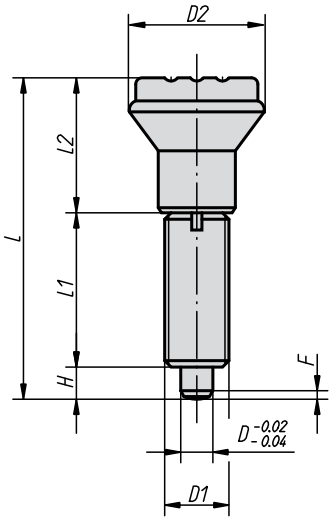
Order No. Form G	Order No. Form H	D	D1	D2	L	L1	L2	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0634.111903	**K0634.112903**	3	M6x0,75	14	34,5	17	14	3,5	- / 10	0,8	4,5	10	K0344.99
K0634.111004	**K0634.112004**	4	M8x1	18	43	21	18	4	- / 13	1	6	12	K0344.90
K0634.111105	**K0634.112105**	5	M10x1	21	50	24	21	5	- / 17	1,3	5	12	K0344.91
K0634.111206	**K0634.112206**	6	M12x1,5	25	59	28	25	6	- / 19	1,8	6	14	K0344.92
K0634.111308	**K0634.112308**	8	M16x1,5	33	77	36	33	8	- / 24	2,3	15	35	K0344.93
K0634.111410	**K0634.112410**	10	M20x1,5	33	83	40	33	10	- / 30	2,8	15	34	K0344.94
K0634.111412	**K0634.112412**	12	M20x1,5	33	87	42	33	12	- / 30	2,8	15	39	K0344.94
K0634.111516	**K0634.112516**	16	M24x2	40	106	50	40	16	- / 36	3,2	20	46	K0344.95

Notes

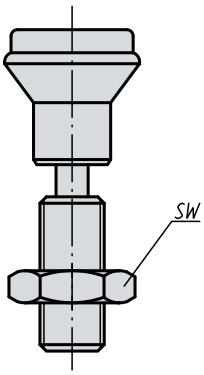
Locking bolts

without collar

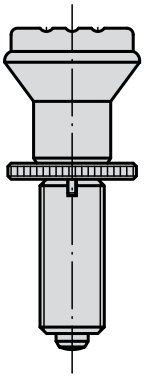
Form G
without locking nut



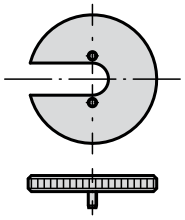
Form H
with locking nut



Locking bolt
with screw-in washer



screw-in washer



Material:
- Steel version, locking pin hardened:
  quality class 5.8.
- Stainless steel version, locking pin hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

Surface finish:
- Steel version, locking pin hardened:
  black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened:
  natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened:
  natural finish, locking pin ground.

Sample order:
K0344.02206

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.
In order to screw in the locking bolts, a screw-in washer can be supplied. The washer is slid beneath the disengaged mushroom knob so that the follower pins engage in the slot.

On request:
Special versions.

Locking bolts

without collar

KIPP Locking bolts without collar, in steel, locking pin hardened

Order No. Form G	Order No. Form H	D	D1	D2	L	L1	L2	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0344.1105	**K0344.2105**	5	M10x1	21	47	24	18	5	-/17	1,3	5	12	K0344.91
K0344.1206	**K0344.2206**	6	M12x1,5	25	56	28	22	6	-/19	1,8	6	14	K0344.92
K0344.1308	**K0344.2308**	8	M16x1,5	33	74	36	30	8	-/24	2,3	15	35	K0344.93
K0344.1410	**K0344.2410**	10	M20x1,5	33	80	40	30	10	-/30	2,8	15	34	K0344.94

KIPP Locking bolts without collar, in stainless steel, locking pin hardened

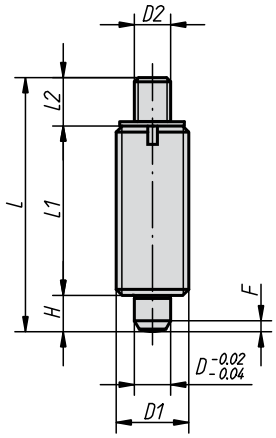
Order No. Form G	Order No. Form H	D	D1	D2	L	L1	L2	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0344.01105	**K0344.02105**	5	M10x1	21	47	24	18	5	-/17	1,3	5	12	K0344.91
K0344.01206	**K0344.02206**	6	M12x1,5	25	56	28	22	6	-/19	1,8	6	14	K0344.92
K0344.01308	**K0344.02308**	8	M16x1,5	33	74	36	30	8	-/24	2,3	15	35	K0344.93
K0344.01410	**K0344.02410**	10	M20x1,5	33	80	40	30	10	-/30	2,8	15	34	K0344.94

KIPP Locking bolts without collar, in stainless steel, locking pin not hardened

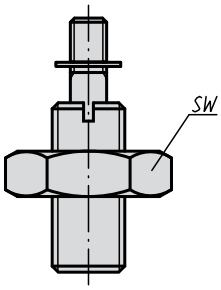
Order No. Form G	Order No. Form H	D	D1	D2	L	L1	L2	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0344.11105	**K0344.12105**	5	M10x1	21	47	24	18	5	-/17	1,3	5	12	K0344.91
K0344.11206	**K0344.12206**	6	M12x1,5	25	56	28	22	6	-/19	1,8	6	14	K0344.92
K0344.11308	**K0344.12308**	8	M16x1,5	33	74	36	30	8	-/24	2,3	15	35	K0344.93
K0344.11410	**K0344.12410**	10	M20x1,5	33	80	40	30	10	-/30	2,8	15	34	K0344.94

Locking bolts

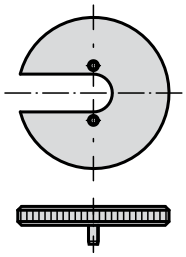
without collar



Form J
with threaded pin
without locking nut



Form K
with threaded pin
with locking nut



screw-in washer

Material:
- Steel version, locking pin hardened:
  quality class 5.8.
- Stainless steel version, locking pin hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4305.

Surface finish:
- Steel version, locking pin hardened:
  black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened:
  natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened:
  natural finish, locking pin ground.

Sample order:
K0345.01206

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been disengaged.
Special grips can be fitted on the projecting threaded pin. This pin is also suitable for actuation of the locking bolt, for example automatically (programme-controlled) with the aid of a pneumatic cylinder or actuation by remote control with bowden cables.
In order to screw in the locking bolts, a screw-in washer can be supplied. The washer is put on the threaded sleeve so that the follower pins engage in the slot.

On request:
Special versions.

Locking bolts

without collar

KIPP Locking bolts without collar, in steel, locking pin hardened

Order No. Form J	Order No. Form K	D	D1	D2	L	L1	L2	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0345.1903	**K0345.2903**	3	M6x0,75	M2	24	17	3,5	3,5	- / 10	0,8	4,5	9	K0344.99
K0345.1004	**K0345.2004**	4	M8x1	M3	32	21	7	4	- / 13	1	6	12	K0344.90
K0345.1105	**K0345.2105**	5	M10x1	M4	37	24	8	5	- / 17	1,3	5	12	K0344.91
K0345.1206	**K0345.2206**	6	M12x1,5	M6	42	28	8	6	- / 19	1,8	6	14	K0344.92
K0345.1308	**K0345.2308**	8	M16x1,5	M8	56	36	12	8	- / 24	2,3	15	35	K0344.93
K0345.1410	**K0345.2410**	10	M20x1,5	M8	62	40	12	10	- / 30	2,8	15	34	K0344.94
K0345.1412	**K0345.2412**	12	M20x1,5	M8	66	42	12	12	- / 30	2,8	15	39	K0344.94
K0345.1516	**K0345.2516**	16	M24x2	M10	80	50	14	16	- / 36	3,2	20	46	K0344.95

KIPP Locking bolts without collar, in stainless steel, locking pin hardened

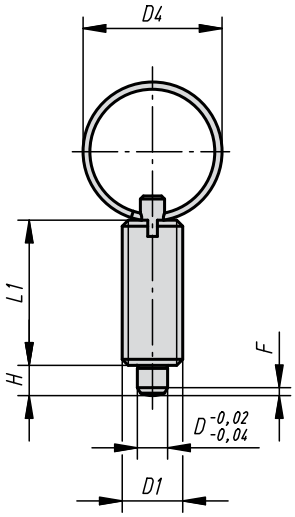
Order No. Form J	Order No. Form K	D	D1	D2	L	L1	L2	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0345.01903	**K0345.02903**	3	M6x0,75	M2	24	17	3,5	3,5	- / 10	0,8	4,5	9	K0344.99
K0345.01004	**K0345.02004**	4	M8x1	M3	32	21	7	4	- / 13	1	6	12	K0344.90
K0345.01105	**K0345.02105**	5	M10x1	M4	37	24	8	5	- / 17	1,3	5	12	K0344.91
K0345.01206	**K0345.02206**	6	M12x1,5	M6	42	28	8	6	- / 19	1,8	6	14	K0344.92
K0345.01308	**K0345.02308**	8	M16x1,5	M8	56	36	12	8	- / 24	2,3	15	35	K0344.93
K0345.01410	**K0345.02410**	10	M20x1,5	M8	62	40	12	10	- / 30	2,8	15	34	K0344.94
K0345.01412	**K0345.02412**	12	M20x1,5	M8	66	42	12	12	- / 30	2,8	15	39	K0344.94
K0345.01516	**K0345.02516**	16	M24x2	M10	80	50	14	16	- / 36	3,2	20	46	K0344.95

KIPP Locking bolts without collar, in stainless steel, locking pin not hardened

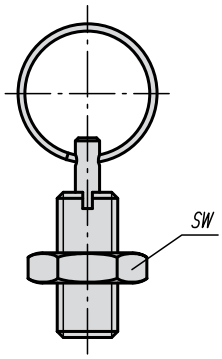
Order No. Form J	Order No. Form K	D	D1	D2	L	L1	L2	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0345.11903	**K0345.12903**	3	M6x0,75	M2	24	17	3,5	3,5	- / 10	0,8	4,5	9	K0344.99
K0345.11004	**K0345.12004**	4	M8x1	M3	32	21	7	4	- / 13	1	6	12	K0344.90
K0345.11105	**K0345.12105**	5	M10x1	M4	37	24	8	5	- / 17	1,3	5	12	K0344.91
K0345.11206	**K0345.12206**	6	M12x1,5	M6	42	28	8	6	- / 19	1,8	6	14	K0344.92
K0345.11308	**K0345.12308**	8	M16x1,5	M8	56	36	12	8	- / 24	2,3	15	35	K0344.93
K0345.11410	**K0345.12410**	10	M20x1,5	M8	62	40	12	10	- / 30	2,8	15	34	K0344.94
K0345.11412	**K0345.12412**	12	M20x1,5	M8	66	42	12	12	- / 30	2,8	15	39	K0344.94
K0345.11516	**K0345.12516**	16	M24x2	M10	80	50	14	16	- / 36	3,2	20	46	K0344.95

Locking bolts

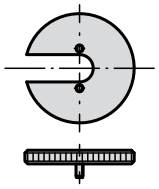
without collar



Form T
without locking nut



Form U
with locking nut



screw-in washer

Material:
- Steel version, locking pin hardened:
  quality class 5.8.
- Stainless steel version, locking pin hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:
  threaded sleeve 1.4305.
  Locking pin 1.4305.

Key ring 1.4310, natural finish.

Surface finish:
- Steel version, locking pin hardened:
  black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened:
  natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened:
  natural finish, locking pin ground.

Sample order:
K0635.03206

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been disengaged. The key ring is also suitable for actuation of the locking bolt, for example automatically (programme-controlled) with the aid of a pneumatic cylinder or actuation by remote control with bowden cables.
In order to screw in the locking bolts, a screw-in washer can be supplied. The washer is put on the threaded sleeve so that the follower pins engage in the slot.

On request:
Special versions.

Locking bolts

without collar

KIPP Locking bolts without collar, in steel, locking pin hardened

Order No. Form T	Order No. Form U	D	D1	D4	L1	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0635.3004	**K0635.4004**	4	M8x1	15	21	4	-/13	1	6	12	K0344.90
K0635.3105	**K0635.4105**	5	M10x1	23	24	5	-/17	1,3	5	12	K0344.91
K0635.3206	**K0635.4206**	6	M12x1,5	23	28	6	-/19	1,8	6	14	K0344.92
K0635.3308	**K0635.4308**	8	M16x1,5	28	36	8	-/24	2,3	15	35	K0344.93
K0635.3410	**K0635.4410**	10	M20x1,5	28	40	10	-/30	2,8	15	34	K0344.94

KIPP Locking bolts without collar, in stainless steel, locking pin hardened

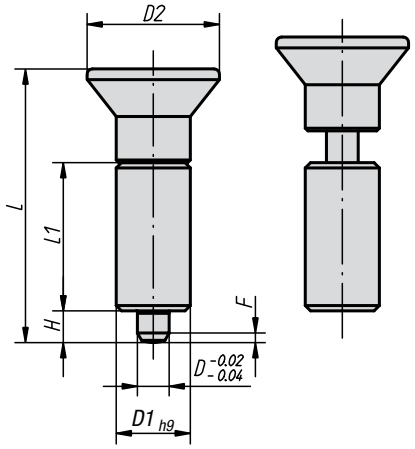
Order No. Form T	Order No. Form U	D	D1	D4	L1	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0635.03004	**K0635.04004**	4	M8x1	15	21	4	-/13	1	6	12	K0344.90
K0635.03105	**K0635.04105**	5	M10x1	23	24	5	-/17	1,3	5	12	K0344.91
K0635.03206	**K0635.04206**	6	M12x1,5	23	28	6	-/19	1,8	6	14	K0344.92
K0635.03308	**K0635.04308**	8	M16x1,5	28	36	8	-/24	2,3	15	35	K0344.93
K0635.03410	**K0635.04410**	10	M20x1,5	28	40	10	-/30	2,8	15	34	K0344.94

KIPP Locking bolts without collar, in stainless steel, locking pin not hardened

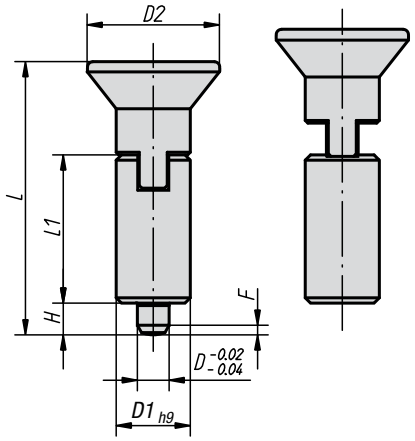
Order No. Form T	Order No. Form U	D	D1	D4	L1	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Order No. screw-in washer
K0635.13004	**K0635.14004**	4	M8x1	15	21	4	-/13	1	6	12	K0344.90
K0635.13105	**K0635.14105**	5	M10x1	23	24	5	-/17	1,3	5	12	K0344.91
K0635.13206	**K0635.14206**	6	M12x1,5	23	28	6	-/19	1,8	6	14	K0344.92
K0635.13308	**K0635.14308**	8	M16x1,5	28	36	8	-/24	2,3	15	35	K0344.93
K0635.13410	**K0635.14410**	10	M20x1,5	28	40	10	-/30	2,8	15	34	K0344.94

Locking bolts

without collar



Form L
without locking slot



Form M
with locking slot

Material:
- Steel version, locking pin hardened:
  sleeve 1.0403 weldable.
  Locking pin quality class 5.8.
- Stainless steel version, locking pin hardened:
  sleeve 1.4301 weldable.
  Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:
  sleeve 1.4301 weldable.
  Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

Surface finish:
- Steel version, locking pin hardened:
  black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened:
  natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened:
  natural finish, locking pin ground.

Sample order:
K0346.01206

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.
Form M is recommended for applications in which gradual disengagement of the locking bolt is desired, without any relocking of the pin.
In order to weld the locking bolts to another surface, we recommend inert gas-shielded welding with MIG welding equipment.

On request:
Special versions.

Locking bolts

without collar

KIPP Locking bolts without collar, in steel, locking pin hardened

Order No. Form L	Order No. Form M	D	D1	D2	L	L1	H	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0346.1004	K0346.2004	4	10	18	38,5	21	4	1	6	12
K0346.1105	K0346.2105	5	12	21	43,5	24	5	1,3	5	12
K0346.1206	K0346.2206	6	14	25	51,7	28	6	1,8	6	14
K0346.1308	K0346.2308	8	18	33	68	36	8	2,3	15	35
K0346.1410	K0346.2410	10	22	33	74	40	10	2,8	15	34

KIPP Locking bolts without collar, in stainless steel, locking pin hardened

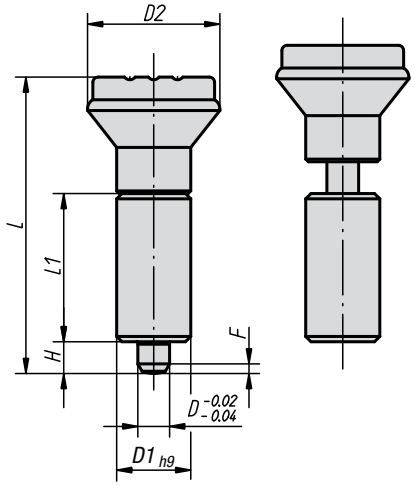
Order No. Form L	Order No. Form M	D	D1	D2	L	L1	H	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0346.01004	K0346.02004	4	10	18	38,5	21	4	1	6	12
K0346.01105	K0346.02105	5	12	21	43,5	24	5	1,3	5	12
K0346.01206	K0346.02206	6	14	25	51,7	28	6	1,8	6	14
K0346.01308	K0346.02308	8	18	33	68	36	8	2,3	15	35
K0346.01410	K0346.02410	10	22	33	74	40	10	2,8	15	34

KIPP Locking bolts without collar, in stainless steel, locking pin not hardened

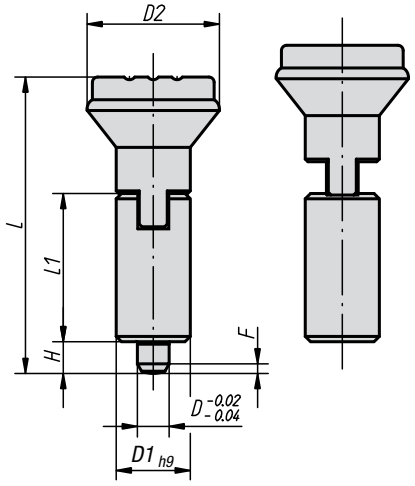
Order No. Form L	Order No. Form M	D	D1	D2	L	L1	H	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0346.11004	K0346.12004	4	10	18	38,5	21	4	1	6	12
K0346.11105	K0346.12105	5	12	21	43,5	24	5	1,3	5	12
K0346.11206	K0346.12206	6	14	25	51,7	28	6	1,8	6	14
K0346.11308	K0346.12308	8	18	33	68	36	8	2,3	15	35
K0346.11410	K0346.12410	10	22	33	74	40	10	2,8	15	34

Locking bolts

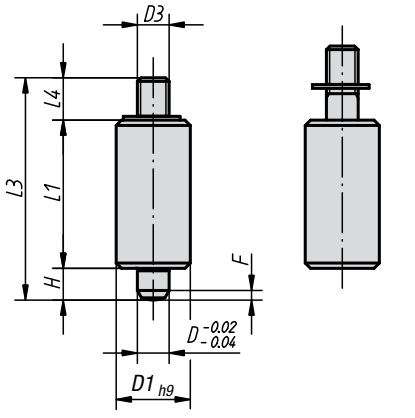
without collar



Form L
without locking slot



Form M
with locking slot



Form N
with threaded pin

Material:
- Steel version, locking pin hardened:
  sleeve 1.0403 weldable.
  Locking pin quality class 5.8.
- Stainless steel version, locking pin hardened:
  sleeve 1.4301 weldable.
  Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:
  sleeve 1.4301 weldable.
  Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

Surface finish:
- Steel version, locking pin hardened:
  black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened:
  natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened:
  natural finish, locking pin ground.

Sample order:
K0347.02206

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.
Form M is recommended for applications in which gradual disengagement of the locking bolt is desired, without any relocking of the pin.
Special grips can be fitted on the projecting threaded pin of form N. This pin is also suitable for actuation of the locking bolt, for example automatically (programme-controlled) with the aid of a pneumatic cylinder or actuation by remote control with bowden cables.
In order to weld the locking bolts to another surface, we recommend inert gas-shielded welding with TIG welding equipment.

On request:
Special versions.

Locking bolts

without collar

KIPP Locking bolts without collar, in steel, locking pin hardened

Order No. Form L	Order No. Form M	Order No. Form N	D	D1	D2	D3	L	L1	L3	L4	H	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0347.1105	**K0347.2105**	**K0347.3105**	5	12	21/21/-	-/-/M4	47/47/-	24	-/-/37	-/-/8	5	1,3	5	12
K0347.1206	**K0347.2206**	**K0347.3206**	6	14	25/25/-	-/-/M6	56/56/-	28	-/-/43	-/-/9	6	1,8	6	14
K0347.1308	**K0347.2308**	**K0347.3308**	8	18	33/33/-	-/-/M8	74/74/-	36	-/-/56	-/-/12	8	2,3	15	35
K0347.1410	**K0347.2410**	**K0347.3410**	10	22	33/33/-	-/-/M8	80/80/-	40	-/-/62	-/-/12	10	2,8	15	34

KIPP Locking bolts without collar, in stainless steel, locking pin hardened

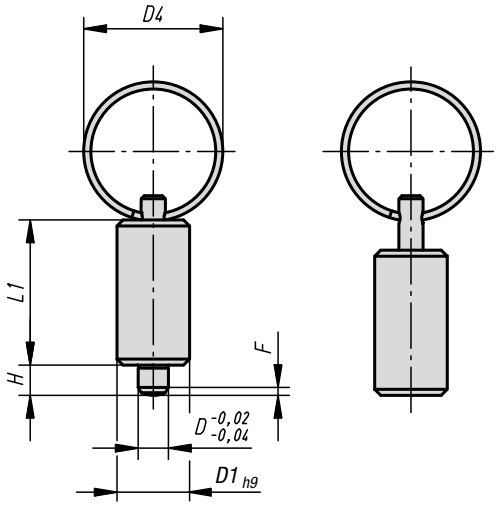
Order No. Form L	Order No. Form M	Order No. Form N	D	D1	D2	D3	L	L1	L3	L4	H	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0347.01105	**K0347.02105**	**K0347.03105**	5	12	21/21/-	-/-/M4	47/47/-	24	-/-/37	-/-/8	5	1,3	5	12
K0347.01206	**K0347.02206**	**K0347.03206**	6	14	25/25/-	-/-/M6	56/56/-	28	-/-/43	-/-/9	6	1,8	6	14
K0347.01308	**K0347.02308**	**K0347.03308**	8	18	33/33/-	-/-/M8	74/74/-	36	-/-/56	-/-/12	8	2,3	15	35
K0347.01410	**K0347.02410**	**K0347.03410**	10	22	33/33/-	-/-/M8	80/80/-	40	-/-/62	-/-/12	10	2,8	15	34

KIPP Locking bolts without collar, in stainless steel, locking pin not hardened

Order No. Form L	Order No. Form M	Order No. Form N	D	D1	D2	D3	L	L1	L3	L4	H	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0347.11105	**K0347.12105**	**K0347.13105**	5	12	21/21/-	-/-/M4	47/47/-	24	-/-/37	-/-/8	5	1,3	5	12
K0347.11206	**K0347.12206**	**K0347.13206**	6	14	25/25/-	-/-/M6	56/56/-	28	-/-/43	-/-/9	6	1,8	6	14
K0347.11308	**K0347.12308**	**K0347.13308**	8	18	33/33/-	-/-/M8	74/74/-	36	-/-/56	-/-/12	8	2,3	15	35
K0347.11410	**K0347.12410**	**K0347.13410**	10	22	33/33/-	-/-/M8	80/80/-	40	-/-/62	-/-/12	10	2,8	15	34

Locking bolts

without collar



Form V
with key ring

Material:
- Steel version, locking pin hardened:
  sleeve 1.0403 weldable.
  Locking pin quality class 5.8.
- Stainless steel version, locking pin hardened:
  sleeve 1.4301 weldable.
  Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:
  sleeve 1.4301 weldable.
  Locking pin 1.4305.

Key ring 1.4310, natural finish.

Surface finish:
- Steel version, locking pin hardened:
  black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened:
  natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened:
  natural finish, locking pin ground.

Sample order:
K0636.4206

Note:
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been disengaged.
The key ring is also suitable for actuation of the locking bolt, for example automatically (programme-controlled) with the aid of a pneumatic cylinder or actuation by remote control with bowden cables.
In order to weld the locking bolts to another surface, we recommend inert gas-shielded welding with TIG welding equipment.

On request:
Special versions.

KIPP Locking bolts without collar, in steel, locking pin hardened

Order No. Form V	D	D1	D4	L1	H	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0636.4004	4	10	15	21	4	1	6	12
K0636.4105	5	12	23	24	5	1,3	5	12
K0636.4206	6	14	23	28	6	1,8	6	14
K0636.4308	8	18	28	36	8	2,3	15	35
K0636.4410	10	22	28	40	10	2,8	15	34

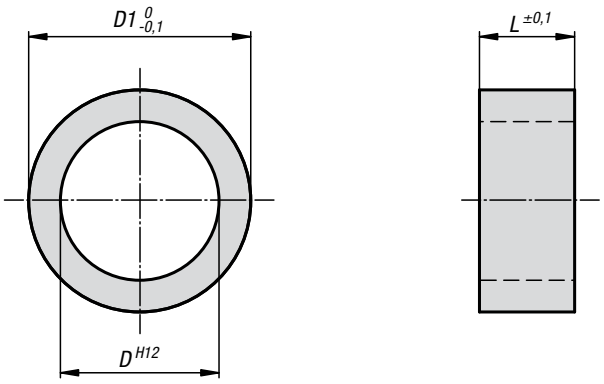
KIPP Locking bolts without collar, in stainless steel, locking pin hardened

Order No. Form V	D	D1	D4	L1	H	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0636.04004	4	10	15	21	4	1	6	12
K0636.04105	5	12	23	24	5	1,3	5	12
K0636.04206	6	14	23	28	6	1,8	6	14
K0636.04308	8	18	28	36	8	2,3	15	35
K0636.04410	10	22	28	40	10	2,8	15	34

KIPP Locking bolts without collar, in stainless steel, locking pin not hardened

Order No. Form V	D	D1	D4	L1	H	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0636.14004	4	10	15	21	4	1	6	12
K0636.14105	5	12	23	24	5	1,3	5	12
K0636.14206	6	14	23	28	6	1,8	6	14
K0636.14308	8	18	28	36	8	2,3	15	35
K0636.14410	10	22	28	40	10	2,8	15	34

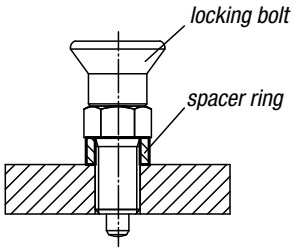
Spacer rings



Material, surface finish:
Stainless steel, natural finish.

Sample order:
K0665.90811021

Note:
Using the spacer rings, the locking bolt thread lengths can be adjusted to the requisite thread reach (wall thickness).

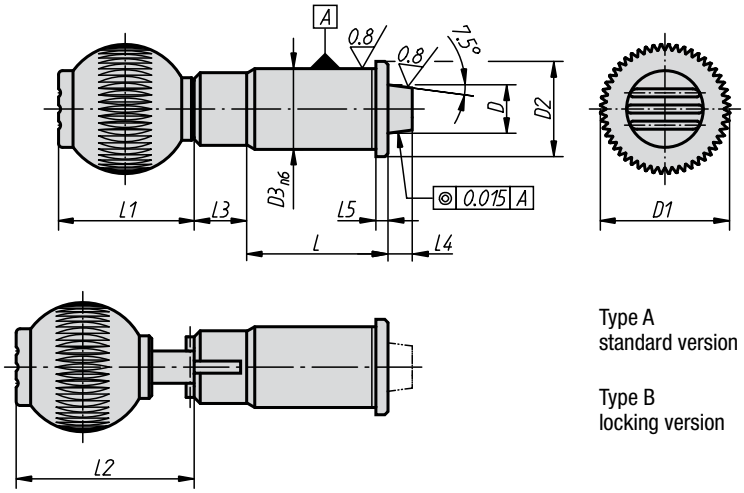


KIPP Spacer rings

Order No.	D	D1	L	Approx. weight g
K0665.90811021	8	11	2	0,6
K0665.90811031	8	11	3	0,9
K0665.90811041	8	11	4	1,3
K0665.90811061	8	11	6	2
K0665.90811081	8	11	8	2,6
K0665.91014021	10	14	2	1,1
K0665.91014031	10	14	3	1,7
K0665.91014041	10	14	4	2,2
K0665.91014061	10	14	6	3,4
K0665.91014081	10	14	8	4,5
K0665.91215021	12	15	2	0,9
K0665.91215041	12	15	4	1,9
K0665.91215051	12	15	5	2,4
K0665.91215061	12	15	6	2,8
K0665.91215081	12	15	8	3,8
K0665.91217021	12	17	2	1,6
K0665.91217041	12	17	4	3,4
K0665.91217051	12	17	5	4,3
K0665.91217061	12	17	6	5,2
K0665.91217081	12	17	8	6,9
K0665.91621041	16	21	4	4,4
K0665.91621051	16	21	5	5,5
K0665.91621061	16	21	6	6,6
K0665.91621081	16	21	8	8,8
K0665.91621101	16	21	10	11

Precision locking bolts

with tapered support



Type A
standard version

Type B
locking version

Material:
Steel.
Grip ball thermoplastic.

Surface finish:
Hardened and ground.
Grip ball anthracite grey.

Sample order:
K0359.020

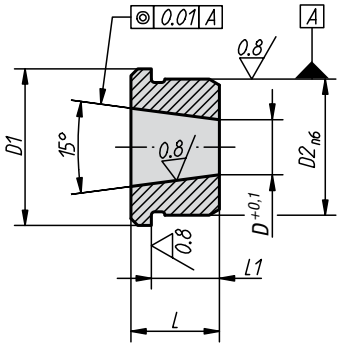
Note:
The locking bolts with sleeves are a perfect combination for rapid positioning and fixing. The precise finish of both the locking bolt and the sleeve guarantees high repeating accuracy when assembling two elements.

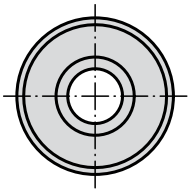
Technical Information see assembly and installation instructions.

KIPP Precision locking bolts with tapered support

Order No. Type A	Order No. Type B	D	D1	D2	D3	L	L1	L2	L3	L4 min.	L5	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Internal thread Grip Ball	Approx. weight kg
K0359.010	**K0359.110**	10	25	19	16	31	25	-/32,5	13	6	2,5	19	29	M6	0,067
K0359.012	**K0359.112**	12	32	23	20	35	33	-/40,5	13	6	3	22	35	M8	0,127
K0359.016	**K0359.116**	16	40	28	25	42	41,5	-/49	13	6	3	30	50	M10	0,221
K0359.020	**K0359.120**	20	40	33	30	50	41,5	-/49	13	6	3	46	63	M10	0,350
K0359.025	**K0359.125**	25	50	42	38	60	51	-/58,5	13	6	3	39	73	M10	0,655

Tapered sleeves





Material:
Steel.

Surface finish:
Hardened and ground.

Sample order:
K0360.20

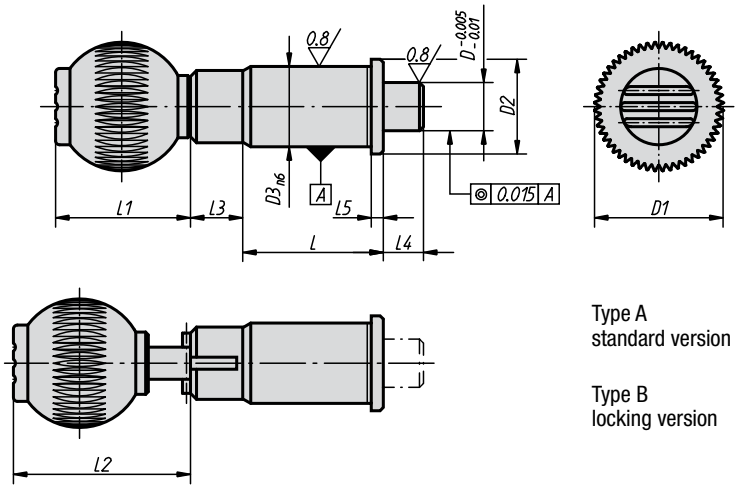
Note:
Sleeves suitable for precision locking bolts K0359.

KIPP Tapered sleeves

Order No.	D	D1	D2	L	L1	Approx. weight kg
K0360.10	7,1	19	16	11	8,5	0,013
K0360.12	8,28	23	20	13	10	0,021
K0360.16	11,52	28	25	17	14	0,048
K0360.20	15,49	33	30	16	13	0,056
K0360.25	19,7	42	38	19	16	0,115

Precision locking bolts

with cylindrical support



Type A
standard version

Type B
locking version

Material:
Steel.
Grip ball thermoplastic.

Surface finish:
Hardened and ground.
Grip ball anthracite grey.

Sample order:
K0361.020

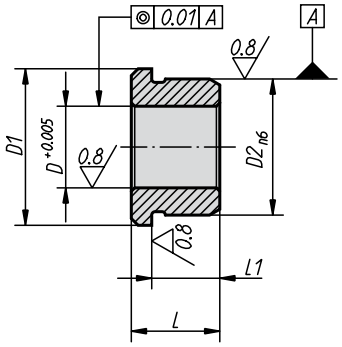
Note:
The locking bolts with sleeves are a perfect combination for rapid positioning and fixing. The precise finish of both the locking bolt and the sleeve guarantees high repeating accuracy when assembling two elements.

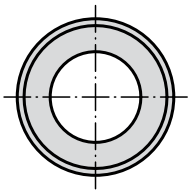
Technical Information see assembly and installation instructions.

KIPP Precision locking bolts with cylindrical support

Order No. Type A	Order No. Type B	D	D1	D2	D3	L	L1	L2	L3	L4 min.	L5	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Internal thread Grip Ball	Approx. weight kg
K0361.010	**K0361.110**	10	25	19	16	31	25	-/36,5	13	10	2,5	15	30	M6	0,067
K0361.012	**K0361.112**	12	32	23	20	35	33	-/44,5	13	10	3	15	35	M8	0,127
K0361.016	**K0361.116**	16	40	28	25	42	41,5	-/53	13	10	3	20	50	M10	0,221
K0361.020	**K0361.120**	20	40	33	30	50	41,5	-/53	13	10	3	36	63	M10	0,350
K0361.025	**K0361.125**	25	50	42	38	60	51	-/62,5	13	10	3	20	73	M10	0,655

Cylindrical sleeves



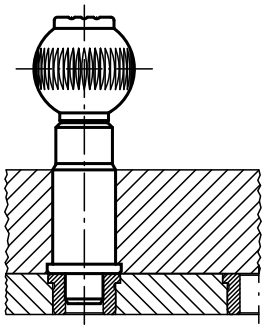


Material:
Steel.

Surface finish:
Hardened and ground.

Sample order:
K0362.20

Note:
Sleeves suitable for precision locking bolts K0361.

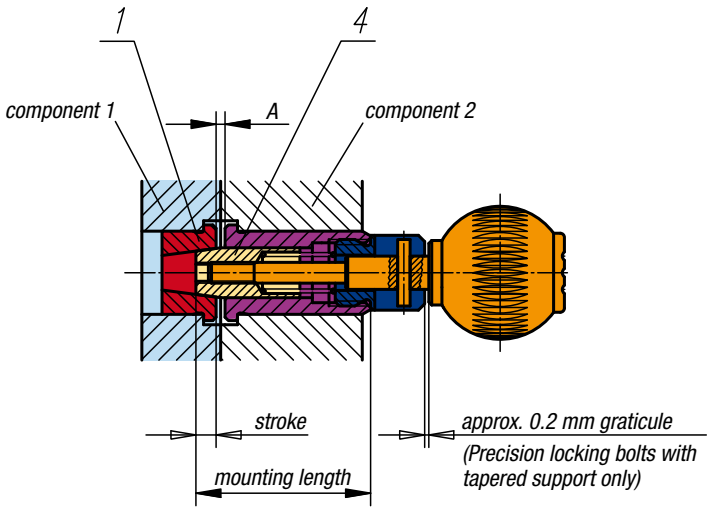


KIPP Cylindrical sleeves

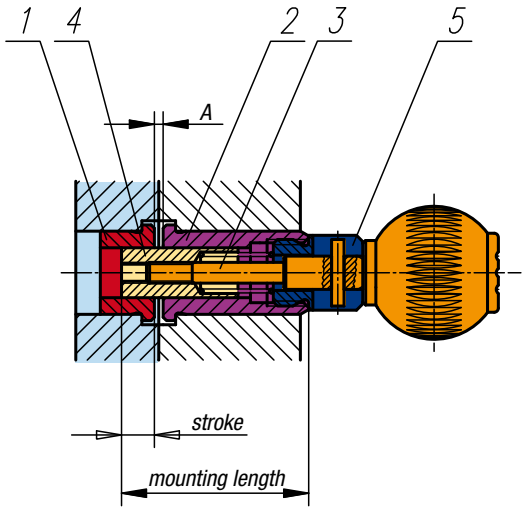
Order No.	D	D1	D2	L	L1	Approx. weight kg
K0362.10	10	19	16	11	8,5	0,012
K0362.12	12	23	20	13	10	0,015
K0362.16	16	28	25	17	14	0,041
K0362.20	20	33	30	16	13	0,045
K0362.25	25	42	38	19	16	0,100

Assembly and installation instructions for precision locking bolts

Precision locking bolts with tapered support



Precision locking bolts with cylindrical support



Assembly instructions:

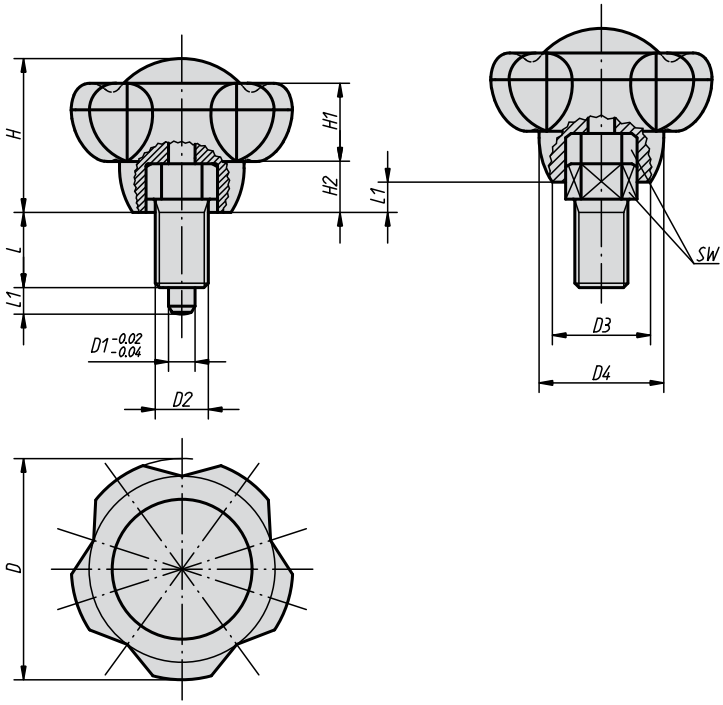
1. Fit tapered or cylindrical sleeve (No. 1) into component 1.
2. Fit sleeve (No. 2) into component 2.
3. Determine the mounting length (actual dimension). Mounting length = A + stroke + length of No. 2. Note the graticule of 0.2 mm with models with tapered support.
4. Glue threaded bolt (No. 3) and centering pin (No. 4) together grease-free with anaerobic adhesive. We recommend Loctite 638.
5. Screw centering pin with nut (No. 4) and handle into the mounted sleeve (No. 2). If necessary glue together grease-free with anaerobic adhesive.
6. Check whether the product is operational. Adhere to the release stroke in the catalogue with locking device versions.

Note:

The precision locking bolt is only ready for operation after the stated adhesive hardening time. When gluing the components, ensure that no adhesive enters into contact with movable parts.

Locking and clamp grips

NG

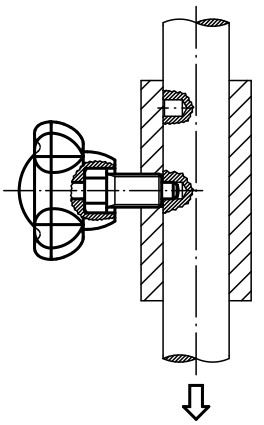


The Novo-Grip locking and clamp grip makes it possible: locking and clamping with one single product. The so-called telescopic adjustments can be positioned and clamped quickly, precisely and simply.

Material, surface finish:
Anthracite grey thermoplastic.
Locking pin and threaded bolt in steel 5.8, black oxide finish.
Locking pin hardened and ground.

Sample order:
K0245.11056 (cap colour traffic red)

Note:
Δ Add the desired cap colour here. No colour code is required with anthracite grey grip caps.

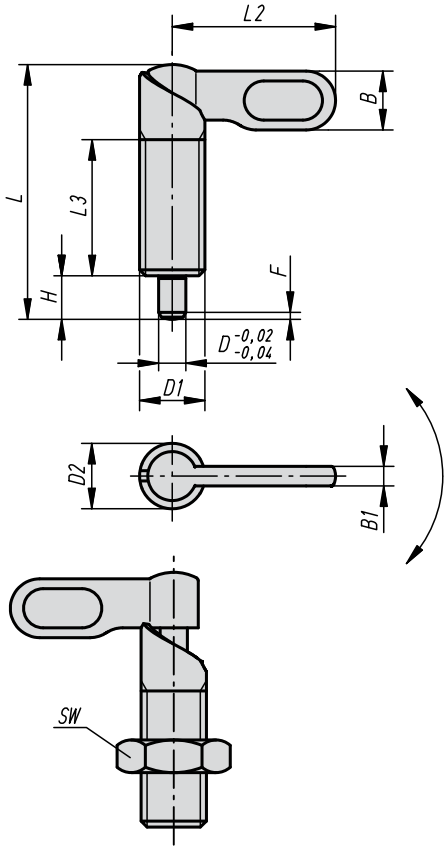


anthracite grey	light grey Δ = 5	traffic red Δ = 6	bright yellow Δ = 7
 RAL 7021	 RAL 7035	 RAL 3020	 RAL 1021

KIPP Locking and clamp grips

Order No.	Size	D	D1	D2	D3	D4	H	H1	H2	L	L1	SW	Approx. weight kg
K0245.1105Δ	1	50	5	M10x1	22,2	28,2	34,8	17,8	11,5	13	5	13	0,033
K0245.1206Δ	2	50	6	M12x1,5	22,2	28,2	34,8	17,8	11,5	17	6	14	0,040
K0245.1308Δ	3	63	8	M16x1,5	28	35,5	44	22,5	14,5	22	8	19	0,097
K0245.1410Δ	4	63	10	M20x1,5	28	35,5	44	22,5	14,5	24	10	22	0,135

Locking bolts with grip



Form A
grip uncoated
without nut

Form C
grip powder-coated
without nut

Form B
grip uncoated
with nut

Form D
grip powder-coated
with nut

Material:
Steel quality class 5.8.

Surface finish:
Black oxide finish.
Locking pin hardened and ground.

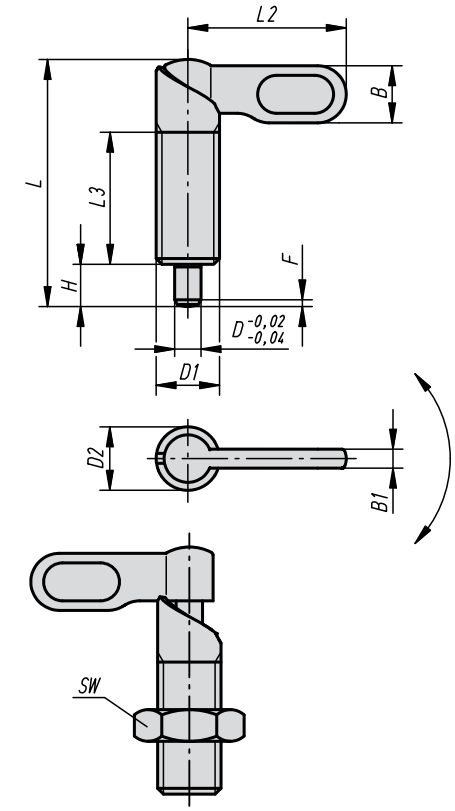
Sample order:
K0348.040616

Note:
Locking bolts with grip are used when the locking pin should not project at certain times. Turning the bolt through 180° pulls in the locking pin.
A locking notch ensures that the locking bolt is held in this position.

KIPP Locking bolts with grip

Order No. Form A	Order No. Form C	Order No. Form B	Order No. Form D	D	D1	D2	L	L2	L3	B	B1	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0348.040410	K0348.060410	K0348.050410	K0348.070410	4	M10	10	38	25	20	9	3	6	-/-/17/17	1	8	14
K0348.040510	K0348.060510	K0348.050510	K0348.070510	5	M10	10	38	25	20	9	3	6	-/-/17/17	1,3	8	14
K0348.040610	K0348.060610	K0348.050610	K0348.070610	6	M10	10	38	25	20	9	3	6	-/-/17/17	1,8	8	14
K0348.0404101	K0348.0604101	K0348.0504101	K0348.0704101	4	M10x1	10	38	25	20	9	3	6	-/-/17/17	1	8	14
K0348.0405101	K0348.0605101	K0348.0505101	K0348.0705101	5	M10x1	10	38	25	20	9	3	6	-/-/17/17	1,3	8	14
K0348.0406101	K0348.0606101	K0348.0506101	K0348.0706101	6	M10x1	10	38	25	20	9	3	6	-/-/17/17	1,8	8	14
K0348.040512	K0348.060512	K0348.050512	K0348.070512	5	M12	12	46,8	30	25	10,8	3,6	8	-/-/19/19	1,3	8	15
K0348.040612	K0348.060612	K0348.050612	K0348.070612	6	M12	12	46,8	30	25	10,8	3,6	8	-/-/19/19	1,8	8	15
K0348.040812	K0348.060812	K0348.050812	K0348.070812	8	M12	12	46,8	30	25	10,8	3,6	8	-/-/19/19	2,3	8	15
K0348.0405121	K0348.0605121	K0348.0505121	K0348.0705121	5	M12x1,5	12	46,8	30	25	10,8	3,6	8	-/-/19/19	1,3	8	15
K0348.0406121	K0348.0606121	K0348.0506121	K0348.0706121	6	M12x1,5	12	46,8	30	25	10,8	3,6	8	-/-/19/19	1,8	8	15
K0348.0408121	K0348.0608121	K0348.0508121	K0348.0708121	8	M12x1,5	12	46,8	30	25	10,8	3,6	8	-/-/19/19	2,3	8	15
K0348.040616	K0348.060616	K0348.050616	K0348.070616	6	M16	16	60,4	40	32	14,4	4,8	10	-/-/24/24	1,8	15	35
K0348.040816	K0348.060816	K0348.050816	K0348.070816	8	M16	16	60,4	40	32	14,4	4,8	10	-/-/24/24	2,3	15	35
K0348.041016	K0348.061016	K0348.051016	K0348.071016	10	M16	16	60,4	40	32	14,4	4,8	10	-/-/24/24	2,8	15	35
K0348.0406161	K0348.0606161	K0348.0506161	K0348.0706161	6	M16x1,5	16	60,4	40	32	14,4	4,8	10	-/-/24/24	1,8	15	35
K0348.0408161	K0348.0608161	K0348.0508161	K0348.0708161	8	M16x1,5	16	60,4	40	32	14,4	4,8	10	-/-/24/24	2,3	15	35
K0348.0410161	K0348.0610161	K0348.0510161	K0348.0710161	10	M16x1,5	16	60,4	40	32	14,4	4,8	10	-/-/24/24	2,8	15	35
K0348.040820	K0348.060820	K0348.050820	K0348.070820	8	M20	20	70	50	35	18	6	12	-/-/30/30	2,3	20	60
K0348.041020	K0348.061020	K0348.051020	K0348.071020	10	M20	20	70	50	35	18	6	12	-/-/30/30	2,8	20	60
K0348.041220	K0348.061220	K0348.051220	K0348.071220	12	M20	20	70	50	35	18	6	12	-/-/30/30	3	20	60
K0348.0408201	K0348.0608201	K0348.0508201	K0348.0708201	8	M20x1,5	20	70	50	35	18	6	12	-/-/30/30	2,3	20	60
K0348.0410201	K0348.0610201	K0348.0510201	K0348.0710201	10	M20x1,5	20	70	50	35	18	6	12	-/-/30/30	2,8	20	60
K0348.0412201	K0348.0612201	K0348.0512201	K0348.0712201	12	M20x1,5	20	70	50	35	18	6	12	-/-/30/30	3	20	60

Locking bolts with grip in stainless steel



Form A
grip uncoated
without nut

Form B
grip uncoated
with nut

Material:
Stainless steel 1.4305.

Surface finish:
Natural finish.
Locking pin ground, not hardened.

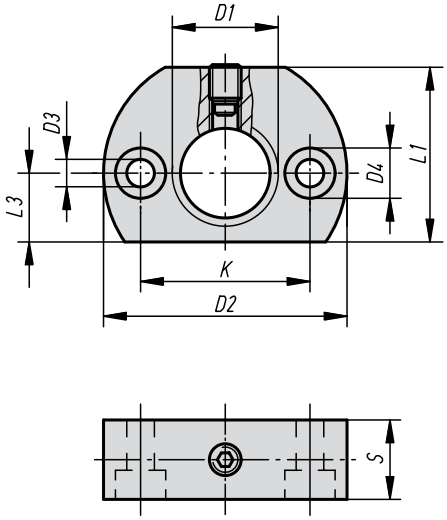
Sample order:
K0637.1040616

Note:
Locking bolts with grip are used when the locking pin should not project at certain times. Turning the bolt through 180° pulls in the locking pin.
A locking notch ensures that the locking bolt is held in this position.

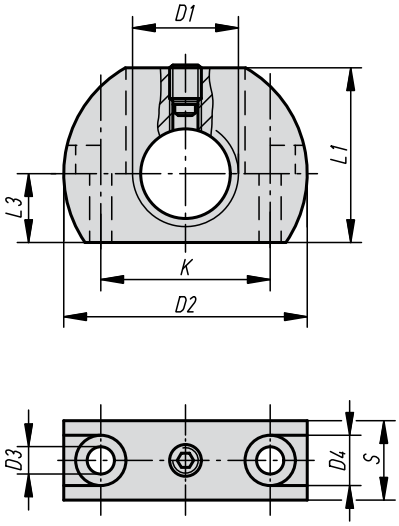
KIPP Locking bolts with grip in stainless steel

Order No. Form A	Order No. Form B	D	D1	D2	L	L2	L3	B	B1	H	SW	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0637.1040410	K0637.1050410	4	M10	10	38	25	20	9	3	6	-/17	1	8	14
K0637.1040510	K0637.1050510	5	M10	10	38	25	20	9	3	6	-/17	1,3	8	14
K0637.1040610	K0637.1050610	6	M10	10	38	25	20	9	3	6	-/17	1,8	8	14
K0637.10404101	K0637.10504101	4	M10x1	10	38	25	20	9	3	6	-/17	1	8	14
K0637.10405101	K0637.10505101	5	M10x1	10	38	25	20	9	3	6	-/17	1,3	8	14
K0637.10406101	K0637.10506101	6	M10x1	10	38	25	20	9	3	6	-/17	1,8	8	14
K0637.1040512	K0637.1050512	5	M12	12	46,8	30	25	10,8	3,6	8	-/19	1,3	8	15
K0637.1040612	K0637.1050612	6	M12	12	46,8	30	25	10,8	3,6	8	-/19	1,8	8	15
K0637.1040812	K0637.1050812	8	M12	12	46,8	30	25	10,8	3,6	8	-/19	2,3	8	15
K0637.10405121	K0637.10505121	5	M12x1,5	12	46,8	30	25	10,8	3,6	8	-/19	1,3	8	15
K0637.10406121	K0637.10506121	6	M12x1,5	12	46,8	30	25	10,8	3,6	8	-/19	1,8	8	15
K0637.10408121	K0637.10508121	8	M12x1,5	12	46,8	30	25	10,8	3,6	8	-/19	2,3	8	15
K0637.1040616	K0637.1050616	6	M16	16	60,4	40	32	14,4	4,8	10	-/24	1,8	15	35
K0637.1040816	K0637.1050816	8	M16	16	60,4	40	32	14,4	4,8	10	-/24	2,3	15	35
K0637.1041016	K0637.1051016	10	M16	16	60,4	40	32	14,4	4,8	10	-/24	2,8	15	35
K0637.10406161	K0637.10506161	6	M16x1,5	16	60,4	40	32	14,4	4,8	10	-/24	1,8	15	35
K0637.10408161	K0637.10508161	8	M16x1,5	16	60,4	40	32	14,4	4,8	10	-/24	2,3	15	35
K0637.10410161	K0637.10510161	10	M16x1,5	16	60,4	40	32	14,4	4,8	10	-/24	2,8	15	35
K0637.1040820	K0637.1050820	8	M20	20	70	50	35	18	6	12	-/30	2,3	20	60
K0637.1041020	K0637.1051020	10	M20	20	70	50	35	18	6	12	-/30	2,8	20	60
K0637.1041220	K0637.1051220	12	M20	20	70	50	35	18	6	12	-/30	3	20	60
K0637.10408201	K0637.10508201	8	M20x1,5	20	70	50	35	18	6	12	-/30	2,3	20	60
K0637.10410201	K0637.10510201	10	M20x1,5	20	70	50	35	18	6	12	-/30	2,8	20	60
K0637.10412201	K0637.10512201	12	M20x1,5	20	70	50	35	18	6	12	-/30	3	20	60

Bracing parts



Form A
fastening hole parallel
to locking bolt with grip



Form B
fastening hole vertical
to locking bolt with grip

Material, surface finish:
Steel, black oxide finish.

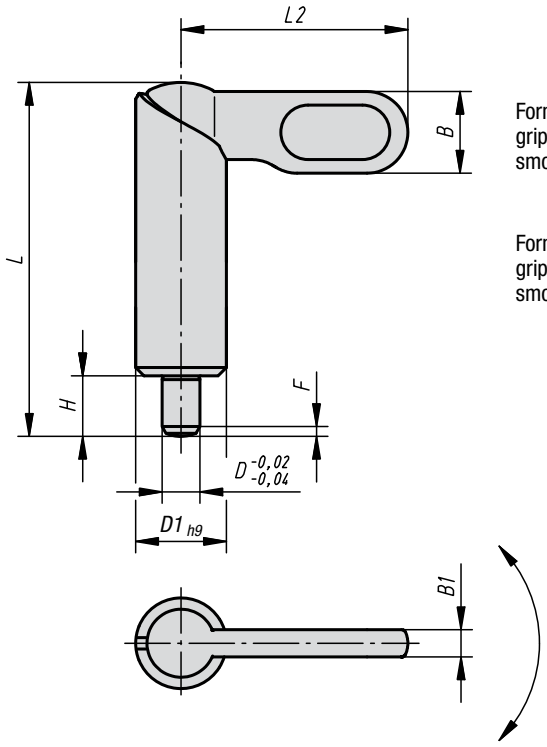
Sample order:
K0638.116

Note:
Bracing parts provide assistance with assembly for locking bolts with grips and extend their area of application. They can also be used for locking bolts.

KIPP Bracing parts

Order No.	Form	D1	D2	D3	D4	K	L1	L3	S
K0638.112	A	M12	36	5,5	10	24	25	10	12
K0638.1121	A	M12x1,5	36	5,5	10	24	25	10	12
K0638.116	A	M16	46	5,5	10	32	33	13	15
K0638.1161	A	M16x1,5	46	5,5	10	32	33	13	15
K0638.120	A	M20	46	5,5	10	32	33	13	15
K0638.1201	A	M20x1,5	46	5,5	10	32	33	13	15
K0638.212	B	M12	36	5,5	10	24	25	10	12
K0638.2121	B	M12x1,5	36	5,5	10	24	25	10	12
K0638.216	B	M16	46	5,5	10	32	33	13	15
K0638.2161	B	M16x1,5	46	5,5	10	32	33	13	15
K0638.220	B	M20	46	5,5	10	32	33	13	15
K0638.2201	B	M20x1,5	46	5,5	10	32	33	13	15

Locking bolts with grip



Form E
grip uncoated
smooth sleeve

Form F
grip powder-coated
smooth sleeve

Material:
Locking bar 1.0503.
Locking pin steel quality class 5.8.
Sleeve 1.0403 weldable.

Surface finish:
Black oxide finish.
Locking pin hardened and ground.

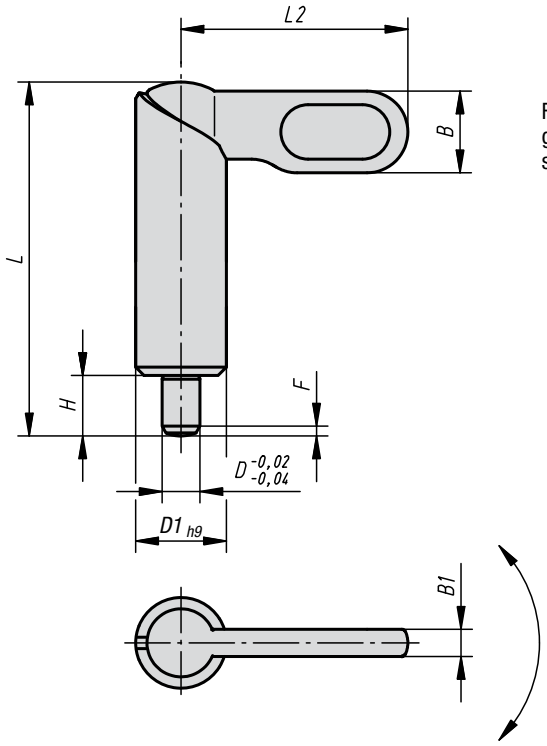
Sample order:
K0639.091220

Note:
Locking bolts with grip are used when the locking pin should not project at certain times. Turning the bolt through 180° pulls in the locking pin.
A locking notch ensures that the locking bolt is held in this position.
In order to weld the locking bolt with grip to another surface, we recommend inert gas-shielded welding with TIG welding equipment.

KIPP Locking bolts with grip

Order No. Form E	Order No. Form F	D	D1	L	L2	B	B1	H	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0639.080410	**K0639.090410**	4	10	38	25	9	3	6	1	8	14
K0639.080510	**K0639.090510**	5	10	38	25	9	3	6	1,3	8	14
K0639.080610	**K0639.090610**	6	10	38	25	9	3	6	1,8	8	14
K0639.080512	**K0639.090512**	5	12	46,8	30	10,8	3,6	8	1,3	8	15
K0639.080612	**K0639.090612**	6	12	46,8	30	10,8	3,6	8	1,8	8	15
K0639.080812	**K0639.090812**	8	12	46,8	30	10,8	3,6	8	2,3	8	15
K0639.080616	**K0639.090616**	6	16	60,4	40	14,4	4,8	10	1,8	15	35
K0639.080816	**K0639.090816**	8	16	60,4	40	14,4	4,8	10	2,3	15	35
K0639.081016	**K0639.091016**	10	16	60,4	40	14,4	4,8	10	2,8	15	35
K0639.080820	**K0639.090820**	8	20	70	50	18	6	12	2,3	20	60
K0639.081020	**K0639.091020**	10	20	70	50	18	6	12	2,8	20	60
K0639.081220	**K0639.091220**	12	20	70	50	18	6	12	3	20	60

Locking bolts with grip in stainless steel



Form E
grip uncoated
smooth sleeve

Material:
Locking bar 1.4308.
Locking pin 1.4305.
Sleeve 1.4301 weldable.

Surface finish:
Natural finish.
Locking pin ground, not hardened.

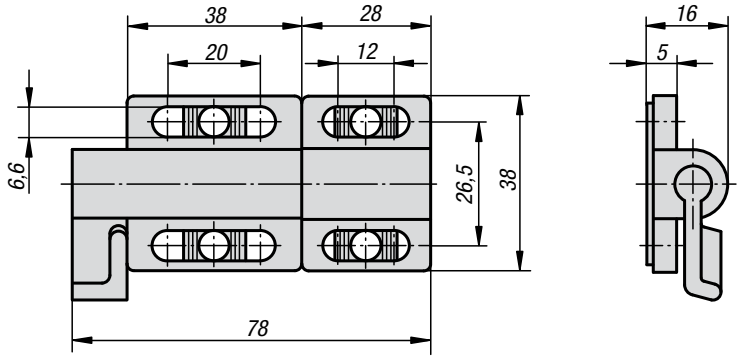
Sample order:
K0640.1081220

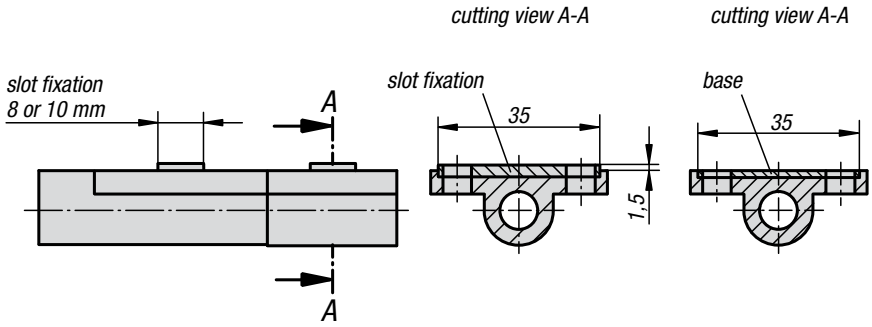
Note:
Locking bolts with grip are used when the locking pin should not project at certain times. Turning the bolt through 180° pulls in the locking pin.
A locking notch ensures that the locking bolt is held in this position.
In order to weld the locking bolt with grip to another surface, we recommend inert gas-shielded welding with TIG welding equipment.

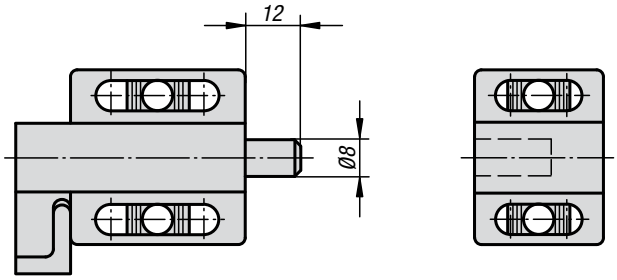
KIPP Locking bolts with grip in stainless steel

Order No.	Form	D	D1	L	L2	B	B1	H	F x 30°	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N
K0640.1080410	E	4	10	38	25	9	3	6	1	8	14
K0640.1080510	E	5	10	38	25	9	3	6	1,3	8	14
K0640.1080610	E	6	10	38	25	9	3	6	1,8	8	14
K0640.1080512	E	5	12	46,8	30	10,8	3,6	8	1,3	8	15
K0640.1080612	E	6	12	46,8	30	10,8	3,6	8	1,8	8	15
K0640.1080812	E	8	12	46,8	30	10,8	3,6	8	2,3	8	15
K0640.1080616	E	6	16	60,4	40	14,4	4,8	10	1,8	15	35
K0640.1080816	E	8	16	60,4	40	14,4	4,8	10	2,3	15	35
K0640.1081016	E	10	16	60,4	40	14,4	4,8	10	2,8	15	35
K0640.1080820	E	8	20	70	50	18	6	12	2,3	20	60
K0640.1081020	E	10	20	70	50	18	6	12	2,8	20	60
K0640.1081220	E	12	20	70	50	18	6	12	3	20	60

Locking bar







Material:
Housing in die cast zinc.
Grip, support and slot fixation thermoplastic PA.
Bolt in stainless steel.

Surface finish:
Housing silver painted.
Grip, support and slot fixation black.
Bolt natural finish.

Sample order:
K0349.38038028

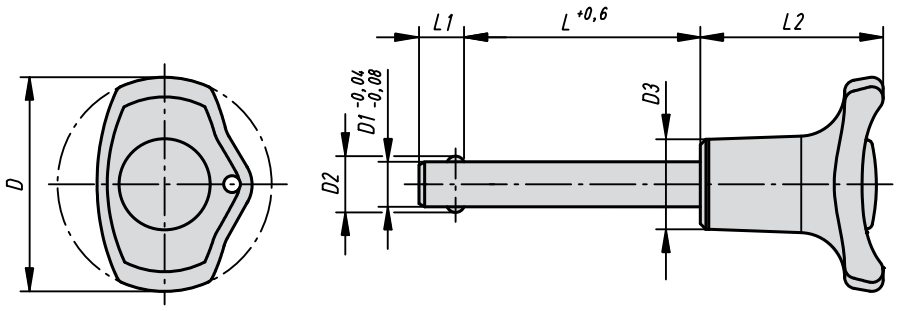
Note:
Spring-loaded closing pin.
Included in delivery are:
- for assembly on flat surfaces, 2 bases.
- for assembly on profiles with slot, 2 slotted fixtures each (for 8 and 10 mm slot).

KIPP Locking bar

Order No.	Spring force initial pressure F1 approx. N	Spring force final pressure F2 approx. N	Approx. weight kg
K0349.38038028	5	15	0,120

Ball locking bolts

self-locking



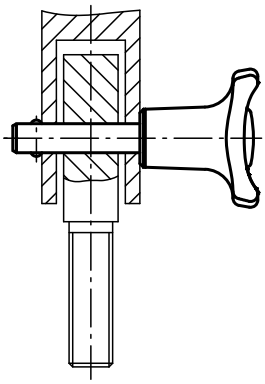
Material, surface finish:
Grip black thermoplastic.
Push button red thermoplastic.
Steel parts in stainless steel, natural finish.

Sample order:
K0363.3806050
(Please also indicate dimension L, e.g. 050 for L = 50 mm.)

Note:
Ball locking bolts are used for fast and easy fixing and joining of parts and workpieces.
The two balls can be disengaged by depressing the push button, so that the parts to be joined can be pegged. When the push button is released the balls lock the connection safely and permanently.

Shearing force double-edged (F) = S · τ aB max.

Accessory:
Safety helix cable K0367.10200
Restraining cable with eye K0367. .....
Key ring K0367.15/19/23

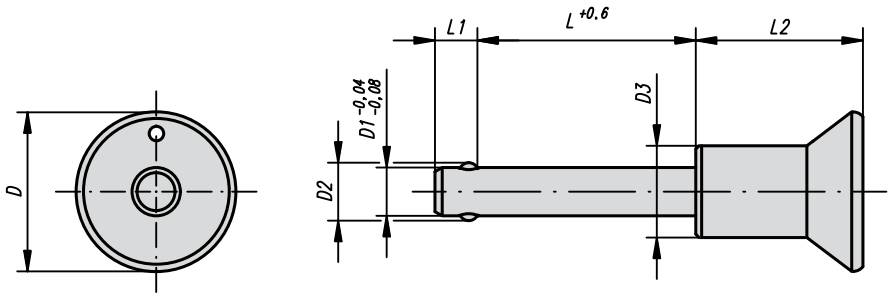


KIPP Ball locking bolts self-locking

Order No.	D	D1	D2	D3	L	L1	L2	Receiving hole H11	Shearing force double-edged max. kN
K0363.3805* **	38	5	5,5	16	10/15/20/25/30	6	32,5	5	15
K0363.3806* **	38	6	6,85	16	10/15/20/25/30/35/40/45/50	7	32,5	6	22
K0363.3808* **	38	8	9,5	16	20/25/30/35/40/45/50	8	32,5	8	38
K0363.4710* **	47	10	12	23	20/25/30/35/40/45/50/60	9	40	10	60
K0363.4712* **	47	12	14,5	23	25/30/35/40/45/50/60/70/80	10	40	12	86
K0363.4716* **	47	16	19	23	30/35/40/45/50/60/70/80	13	40	16	153

Ball locking bolts

in stainless steel self-locking



Material, surface finish:
Steel parts in stainless steel, natural finish.

Sample order:
K0364.3110030
(Please also indicate dimension L, e.g. 030 for L = 30 mm.)

Note:
Ball locking bolts are used for fast and easy fixing and joining of parts and workpieces.
The two balls can be disengaged by depressing the push button, so that the parts to be joined can be pegged. When the push button is released the balls lock the connection safely and permanently.
Corrosion resistant. Fixing option forrestraining cable.
Temperature range of application max. +250 °C.

Shearing force double-edged (F) = S · τ aB max.

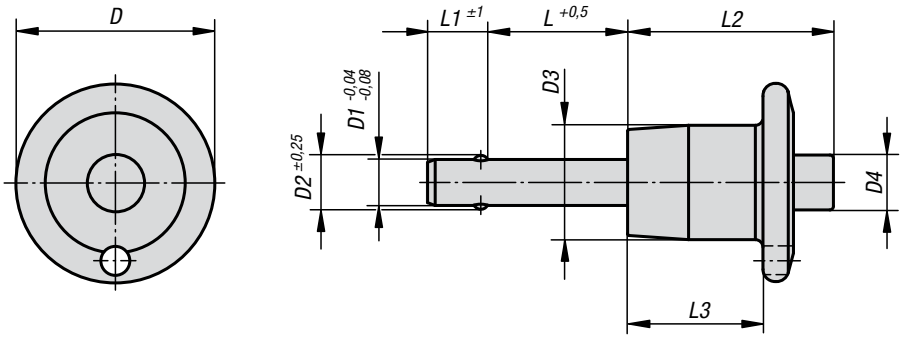
Accessory:
Safety helix cable K0367.10200
Restraining cable with eye K0367. .....
Key ring K0367.15/19/23

KIPP Ball locking bolts in stainless steel self-locking

Order No.	D	D1	D2	D3	L	L1	L2	Receiving hole H11	Shearing force double-edged max. kN
K0364.2305* **	25	5	5,5	14	10/15/20/25/30	6	26,5	5	15
K0364.2306* **	25	6	6,85	14	10/15/20/25/30/35/40/45/50	7	26,5	6	22
K0364.2308* **	25	8	9,5	14	20/25/30/35/40/45/50	8	26,5	8	38
K0364.3110* **	33	10	12	19	20/25/30/35/40/45/50/60	9	34,6	10	60
K0364.3112* **	33	12	14,5	19	25/30/35/40/45/50/60/70/80	10	34,6	12	86
K0364.3116* **	33	16	19	20	30/35/40/45/50/60/70/80	13,3	34,6	16	153

Ball locking bolts with mushroom knob

in stainless steel, self-locking



Material:
Bolt in stainless steel 1.4542.
Mushroom knob and push button in stainless steel 1.4305.
Balls in stainless steel 1.4125.
Compression spring in stainless steel.

Surface finish:
Bolt, hardened min. 40 HRC and passivated.
Passivated mushroom knob and push button.
Balls hardened 58 +4 HRC and passivated.
Passivated compression spring.

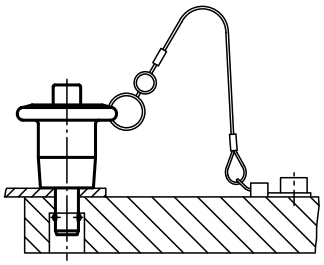
Sample order:
K0641.02105030
(Please also indicate dimension L, e.g. 030 for L = 30 mm.)

Note:
Ball locking bolts are used for fast and easy fixing and joining of parts and workpieces. The two balls can be disengaged by depressing the push button, so that the parts to be joined can be pegged. When the push button is released the balls lock the connection safely and permanently. If required, the ball locking bolts can be provided with a holding rope.

The bolt made of high-strength, hardened stainless steel is suitable for extreme loads and provides a very high level of wear protection. 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.

Shearing force double-edged (F) = S · τ aB max.

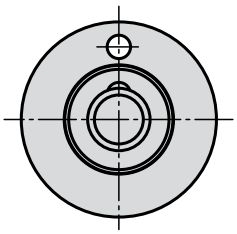
Accessory:
Safety helix cable K0367.10200
Restraining cable with eye K0367. .....
Key ring K0367.15/19/23

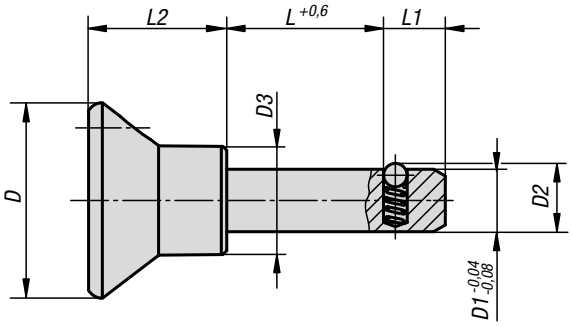


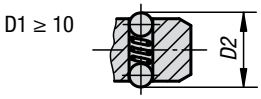
KIPP Ball locking bolts with mushroom knob in stainless steel, self-locking

Order No.	D	D1	D2	D3	D4	L	L1	L2	L3	Receiving hole H11	Shearing force double-edged max.kN
K0641.02105* **	20,6	5	5,54	11,9	5,8	10/15/20/25/30/35/40/50/60/70	6	23,4	16	5	24,40
K0641.02106* **	20,6	6	6,99	11,9	5,8	10/15/20/25/30/35/40/50/60/70/80	7	23,4	16	6	35,64
K0641.02108* **	20,6	8	9,42	11,9	5,8	10/15/20/25/30/35/40/50/60/70/80	8	23,4	16	8	63,80
K0641.02510* **	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	10	100,10
K0641.03512* **	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	12	144,06

Locking pins







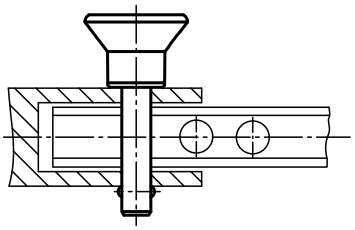
Material, surface finish:
Grip black thermoplastic.
Steel parts in stainless steel, natural finish.

Sample order:
K0365.2508020
(Please also indicate dimension L, e.g. 020 for L = 20 mm.)

Note:
Locking pins are used for fast and easy fixing and joining of parts and workpieces.

Shearing force double-edged (F) = S · τ aB max.

Accessory:
Safety helix cable K0367.10200
Restraining cable with eye K0367. .....
Key ring K0367.15/19/23

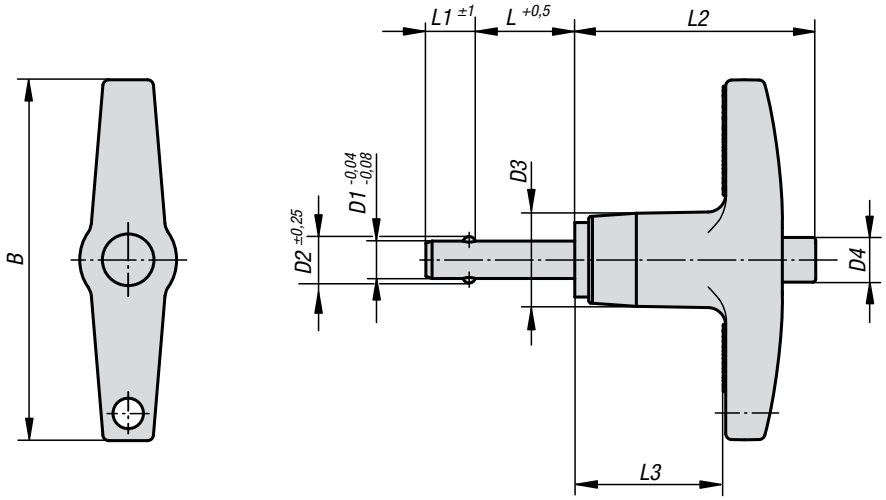


KIPP Locking pins

Order No.	D	D1	D2	D3	L	L1	L2	Receiving hole H11	Shearing force double-edged max.kN
K0365.2506* **	25	6	6,5	14	10/15/20/25/30/40/50	7	17,7	6	22
K0365.2508* **	25	8	8,75	14	15/20/25/30/40/50	8	17,7	8	38
K0365.3310* **	33	10	12	19	15/20/25/30/40/50	9	24	10	60
K0365.3312* **	33	12	14,5	19	20/30/40/50	10	24	12	86

Ball locking bolts with T-grip

self-locking



Material:
Bolt in stainless steel 1.4542.
Grip aluminium die casting EN-AC 46000.
Push button in aluminium EN-AW 2024 T4.
Balls in stainless steel 1.4125.
Compression spring in stainless steel.

Surface finish:
Bolt, hardened min. 40 HRC and passivated.
Grip black anodised.
Push button blue anodised.
Balls hardened 58 +4 HRC and passivated.
Passivated compression spring.

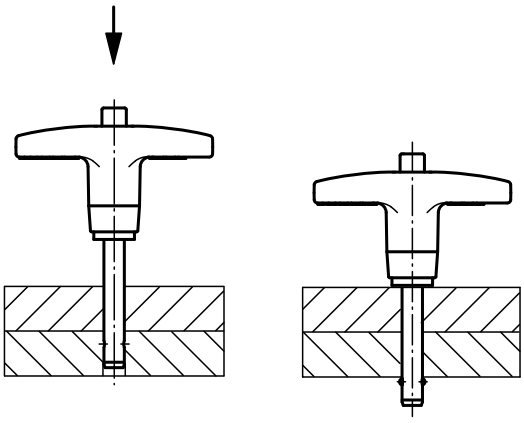
Sample order:
K0366.24605030
(Please also indicate dimension L, e.g. 030 for L = 30 mm.)

Note:
Ball locking bolts are used for fast and easy fixing and joining of parts and workpieces. The two balls can be disengaged by depressing the push button, so that the parts to be joined can be pegged. When the push button is released the balls lock the connection safely and permanently. If required, the ball locking bolts can be provided with a holding rope.

The bolt made of high-strength, hardened stainless steel is suitable for extreme loads and provides a very high level of wear protection.

Shearing force double-edged (F) = S · τ aB max.

Accessory:
Safety helix cable K0367.10200
Restraining cable with eye K0367. .....
Key ring K0367.15/19/23

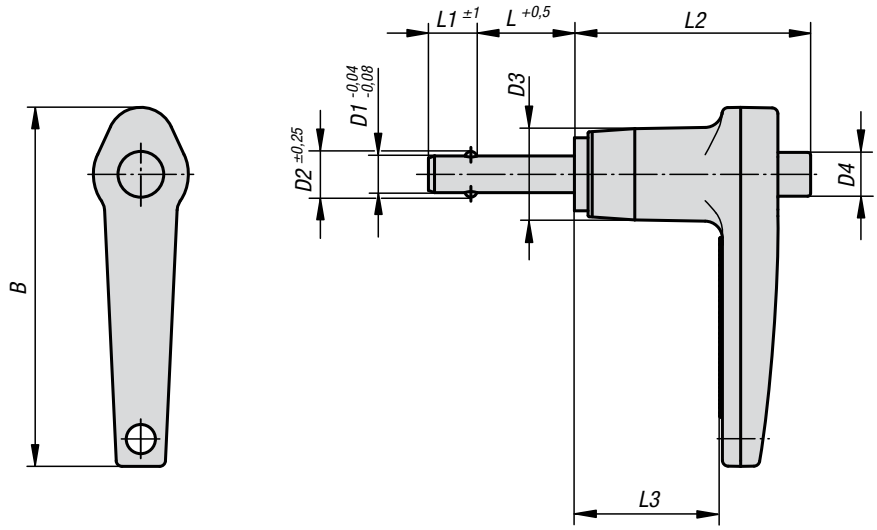


KIPP Ball locking bolts with T-grip self-locking

Order No.	B	D1	D2	D3	D4	L	L1	L2	L3	Receiving hole H11	Shearing force double-edged max.kN
K0366.24605* **	46	5	5,54	11,9	5,8	10/15/20/25/30/35/40/50/60/70	6	30,7	19,3	5	24,40
K0366.24606* **	46	6	6,99	11,9	5,8	10/15/20/25/30/35/40/50/60/70/80	7	30,7	19,3	6	35,64
K0366.24608* **	46	8	9,42	11,9	5,8	10/15/20/25/30/35/40/50/60/70/80	8	30,7	19,3	8	63,80
K0366.25110* **	50,8	10	11,86	14,2	7,4	15/20/25/30/35/40/50/60/70/80/90/100	9	34,8	22,1	10	100,10
K0366.25812* **	57,2	12	14,45	18,3	10,7	20/25/30/35/40/50/60/70/80/90/100	10	40,6	25,4	12	144,06
K0366.27816* **	78	16	19	23,9	13,7	25/30/35/40/50/60/70/80/90/100	14	45	28,2	16	257,18

Ball locking bolts with L-grip

self-locking



Material:
Bolt in stainless steel 1.4542.
Grip aluminium die casting EN-AC 46000.
Push button in aluminium EN-AW 2024 T4.
Balls in stainless steel 1.4125.
Compression spring in stainless steel.

Surface finish:
Bolt, hardened min. 40 HRC and passivated.
Grip black anodized.
Push button blue anodized.
Balls hardened 58 +4 HRC and passivated.
Compression spring passivated.

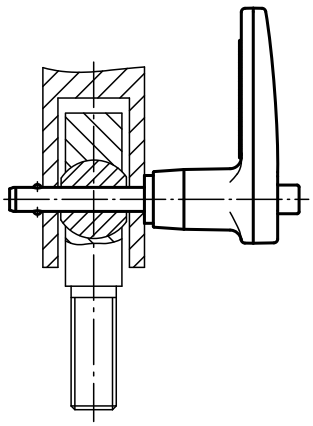
Sample order:
K0642.14405030
(please also indicate dimension L, e.g. 030 for L = 30 mm)

Note:
Ball locking bolts are used for fast and easy fixing and joining of parts and workpieces. The two balls can be disengaged by depressing the push button, so that the parts to be joined can be pegged. When the push button is released the balls lock the connection safely and permanently. If required, the ball locking bolts can be provided with a holding rope.

The bolt made of high-strength, hardened stainless steel is suitable for extreme loads and provides a very high level of wear protection.

Shearing force double-edged (F) = S · τ aB max.

Accessory:
Safety helix cable K0367.10200
Restraining cable with eye K0367. .....
Key ring K0367.15/19/23

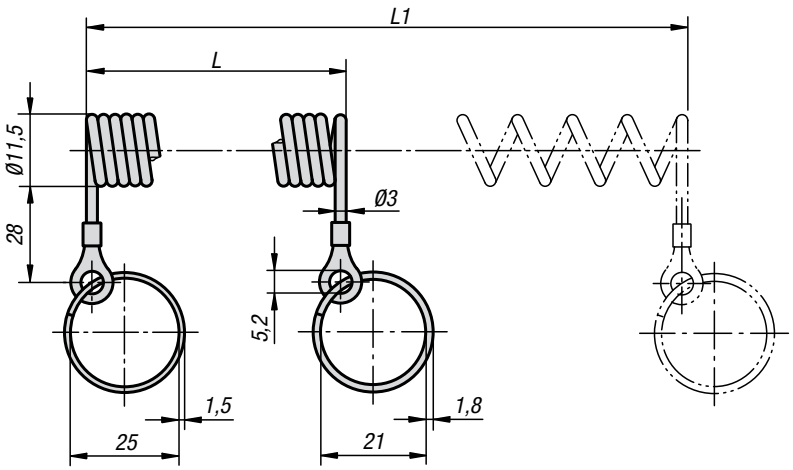


KIPP Ball locking bolts with L-grip self-locking

Order No.	B	D1	D2	D3	D4	L	L1	L2	L3	Receiving hole H11	Shearing force double-edged max.kN
K0642.14405* **	46,7	5	5,54	11,9	5,8	10/15/20/25/30/35/40/50/60/70	6	30,7	19,3	5	24,40
K0642.14406* **	46,7	6	6,99	11,9	5,8	10/15/20/25/30/35/40/50/60/70/80	7	30,7	19,3	6	35,64
K0642.14408* **	46,7	8	9,42	11,9	5,8	10/15/20/25/30/35/40/50/60/70/80	8	30,7	19,3	8	63,80
K0642.15110* **	54,1	10	11,86	14,2	7,4	15/20/25/30/35/40/50/60/70/80/90/100	9	34,8	22,1	10	100,10
K0642.15712* **	60,2	12	14,45	18,3	10,7	20/25/30/35/40/50/60/70/80/90/100	10	40,6	25,4	12	144,06
K0642.16816* **	68,3	16	19	23,9	13,7	25/30/35/40/50/60/70/80/90/100	14	45	28,2	16	257,18

K0367

Safety helix cable



Material, surface finish:
Copper litz wire coated in PUR, black.
Eye in galvanized copper.
Key ring in steel, chromium-plated.

Sample order:
K0367.10200

Note:
Elastic helix cable to secure equipment parts. Very good reset force, robust and wear-resistant.

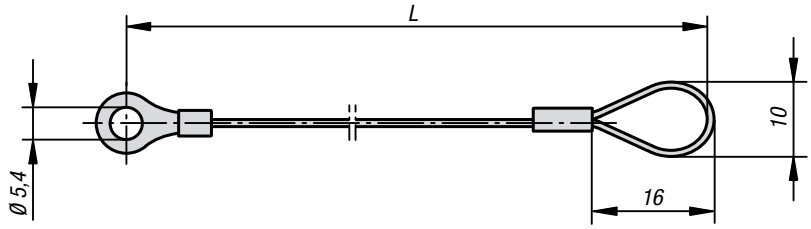
KIPP Safety helix cable

Order No.	L	L1
K0367.10200	200	1000

K0367

Restraining cables

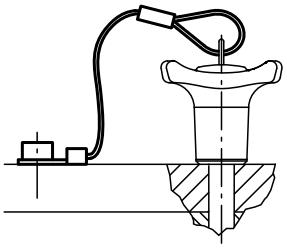
with eye



Material, surface finish:
Stainless steel restraining cable with plastic casing.
Clip and eye in aluminium.

Sample order:
K0367.0200

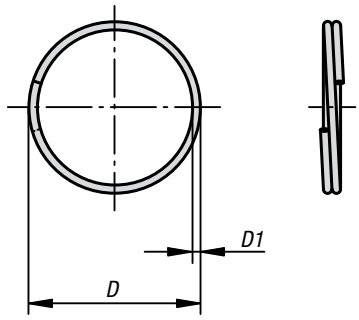
Note:
With the restraining cable and key ring (K0367) the ball lock pins (K0363, K0364, K0641, K0366, K0642 and K0365) can be secured so that they cannot be lost. A screw M5 is used to secure the retaining cable.
Application temperature: +80 °C.



KIPP Restraining cables with eye

Order No.	L
K0367.0150	150
K0367.0200	200
K0367.0300	300

Key rings



Material, surface finish:
Stainless steel 1.4310, natural finish.

Sample order:
K0367.23

Note:
Suitable for restraining cable with eye K0367, ball locking bolts K0363, K0364, K0641, K0366, K0642, locking pins K0365 and locking bolts K0342, K0635, K0636.

KIPP Key rings

Order No.	D	D1
K0367.15	15	1
K0367.19	19	1
K0367.23	23	1,2
K0367.28	28	1,7

Notes