Bearing block, Series AB7-HD

- Suitable for robust mechanical engineering applications, with fixed bearing
- Cylinder mounting in accordance with ISO 15552
- Suitable piston Ø 32 40 50 63 80 100 125 160 200 250 mm



Standards ISO 15552

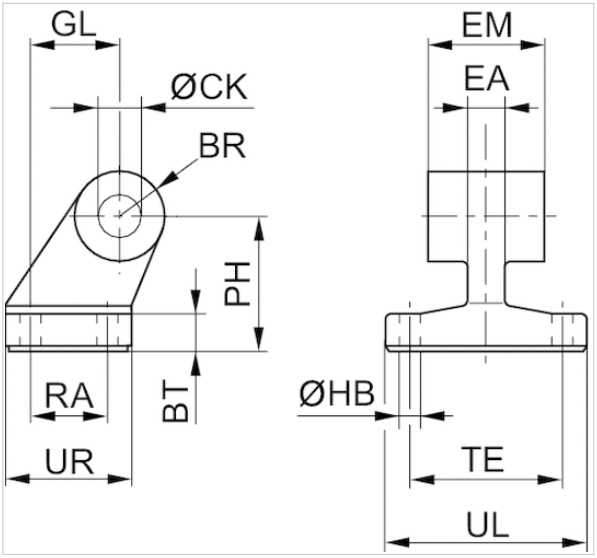
Technical data

Part No.	Piston Ø	Swivel bearing Ø
1825805275	32 mm	10 mm
1825805276	40 mm	12 mm
1825805277	50 mm	12 mm
1825805278	63 mm	16 mm
1825805279	80 mm	16 mm
1825805280	100 mm	20 mm
1825805281	125 mm	25 mm
1825805282	160 mm	30 mm
1825805283	200 mm	30 mm
1825805284	250 mm	40 mm

Technical information

Material	
Material	Nodular graphite iron
	galvanized
Screws	galvanized steel

Dimensions



Dimensions

Part No.	Piston Ø	BR	BT	Ø CK H9	Ø HB H13	EM	GL JS14	EA 1)	PH JS15
1825805275	32 mm	10	8	10	6.6	26 –0,2/–0,6	21	10	32
1825805276	40 mm	11	10	12	6.6	28 -0,2/-0,6	24	12	36
1825805277	50 mm	13	12	12	9	32 –0,2/–0,6	33	16	45
1825805278	63 mm	15	12	16	9	40 –0,2/–0,6	37	16	50
1825805279	80 mm	15	14	16	11	50 -0,2/–0,6	47	20	63
1825805280	100 mm	19	15	20	11	60 –0,2/–0,6	55	20	71
1825805281	125 mm	22,5	20	25	14	70 –0,5/–1,5	70	30	90
1825805282	160 mm	31.5	25	30	14	90 –0,5/–1,5	97	36	115
1825805283	200 mm	31.5	30	30	18	90 –0,5/–1,5	105	40	135
1825805284	250 mm	40	35	40	22	110 –0,5/–1,5	128	45	165

RA JS14	TE JS14	UL 1)	UR 1)
18	38	51	31
22	41	54	35
30	50	65	45
35	52	67	50
40	66	86	60
50	76	96	70
60	94	124	90
88	118	156	126
90	122	162	130
110	150	200	160

1) Max.

Bearing block, Series CS7

- With ball joint and foot
- Cylinder mounting in accordance with VDMA 24562 part 2
- Suitable piston Ø 32 40 50 63 80 100 125 160 200 250 mm



Standards VDMA 24562 part 2

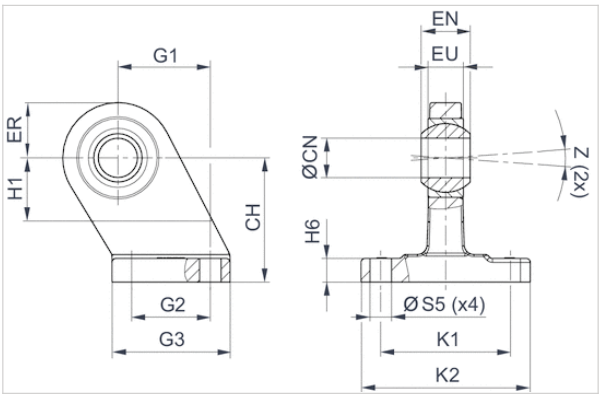
Technical data

Part No.	Piston Ø	Swivel bearing Ø
1827001784	32 mm	10 mm
1827001785	40 mm	12 mm
1827001786	50 mm	16 mm
1827001787	63 mm	16 mm
1827001788	80 mm	20 mm
1827001789	100 mm	20 mm
1827001790	125 mm	30 mm
1827001791	160 mm	35 mm
1827001792	200 mm	35 mm
1827001793	250 mm	40 mm

Technical information

Material	
Material	Nodular graphite iron
	galvanized

Dimensions



Dimensions

Part No.	Piston Ø	CH JS15	ØCN H7	EU 1)	EN -1,0	ER 1)	G1 JS14	G2 JS14	G3 1)	H1 2)
1827001784	32 mm	32	10	10.5	14	16	21	18	31	16
1827001785	40 mm	36	12	12	16	18	24	22	35	20
1827001786	50 mm	45	16	15	21	21	33	30	45	22
1827001787	63 mm	50	16	15	21	23	37	35	50	27
1827001788	80 mm	63	20	18	25	28	47	40	60	31
1827001789	100 mm	71	20	18	25	30	55	50	70	38
1827001790	125 mm	90	30	25	37	40	70	60	90	40
1827001791	160 mm	115	35	28	43	44	97	88	126	45
1827001792	200 mm	135	35	28	43	47	105	90	130	45
1827001793	250 mm	165	40	33	49	53	128	110	160	50

H6	K1 JS14	K2 1)	ØS5 H13	Z 2)
9 ±1	38	51	6.6	4°
9 ±1	41	54	6.6	4°
11 ±1	50	65	9	4°
11 ±1	52	67	9	4°
12 ±1,5	66	86	11	4°
13 ±1,5	76	96	11	4°
17 ±1,5	94	124	14	4°
22 ±1,5	118	156	14	4°
27 ±2	122	162	18	4°
31 ±2	150	200	22	4°

1) Max.

2) Min.

Clevis mounting, Series AB6

- Cylinder mounting in accordance with ISO 15552
- Suitable piston Ø 32 40 50 63 80 100 125 160 200 250 mm



Standards ISO 15552

Technical data

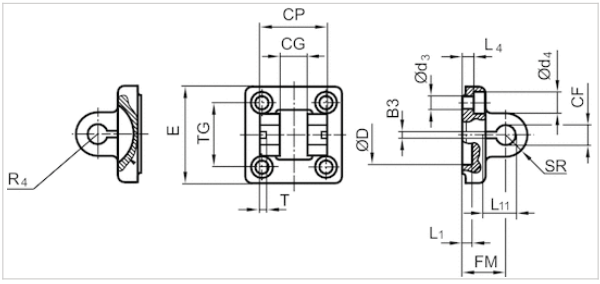
Part No.	Piston Ø	Swivel bearing Ø	Housing material	Surface
1827001593	32 mm	10 mm	Aluminum (forged)	-
1827001594	40 mm	12 mm	Aluminum (forged)	-
1827001595	50 mm	16 mm	Aluminum (forged)	-
1827002024	63 mm	16 mm	Aluminum (forged)	-
1827001597	80 mm	20 mm	Aluminum (forged)	-
1827001598	100 mm	20 mm	Aluminum (forged)	-
1827001599	125 mm	30 mm	Aluminum (forged)	-
1827001600	160 mm	35 mm	Nodular graphite iron	galvanized
1827001601	200 mm	35 mm	Nodular graphite iron	galvanized
1827001602	250 mm	40 mm	Nodular graphite iron	galvanized

Scope of delivery: clevis mounting incl. pivot pins and mounting screws

Technical information

Material	
Material	Aluminum (forged) Nodular graphite iron
	galvanized
Screws	Steel
	galvanized

Dimensions



Dimensions

Part No.	Piston Ø	B3 ±0,2	Ø CF F7	CG D10	CP d12	Ø d3	Ø d4	Ø D	E	FM ±0,2	L1 1)
1827001593	32 mm	3.3	10	14	34	6.6	11	30	49	22	4.5
1827001594	40 mm	4.3	12	16	40	6.6	11	35	55	25	4.5
1827001595	50 mm	4.3	16	21	45	9	15	40	67	27	4.5
1827002024	63 mm	4.3	16	21	51	9	15	45	77	32	4.5
1827001597	80 mm	4.3	20	25	65	11	18	45	97	36	4.5
1827001598	100 mm	4.3	20	25	75	11	18	55	117	41	4.5
1827001599	125 mm	6.3	30	37	97	14	20	60	140	50	7
1827001600	160 mm	6.3	35	43	122	18	26	65	180	55	10
1827001601	200 mm	6.3	35	43	122	18	26	75	220	60	10
1827001602	250 mm	8.3	40	49	125	22	33	90	280	70	12

L4 ±0,5	L11 –0,5	R4	SR	T ±0,2	TG
5.5	16.5	17	11	3	32,5 ±0,2
5.5	18	20	12	4	38 ±0,2
6.5	23	22	15	4	46,5 ±0,2
6.5	23	25	15	4	56,5 ±0,2
10	27	30	20	4	72 ±0,2
10	27	32	20	4	89 ±0,2
10	40	42	26	6	110 ±0,3
10	45	46	32.5	6	140 ±0,3
11	45	49	32.5	6	175 ±0,3
11	53	55	40	8	220 ±0,3

1) Min.

Clevis mounting MP2-HD

- Suitable for robust mechanical engineering applications
- Cylinder mounting in accordance with ISO 15552
- Suitable piston Ø 32 40 50 63 80 100 125 160 200 250 mm



Standards ISO 15552

Technical data

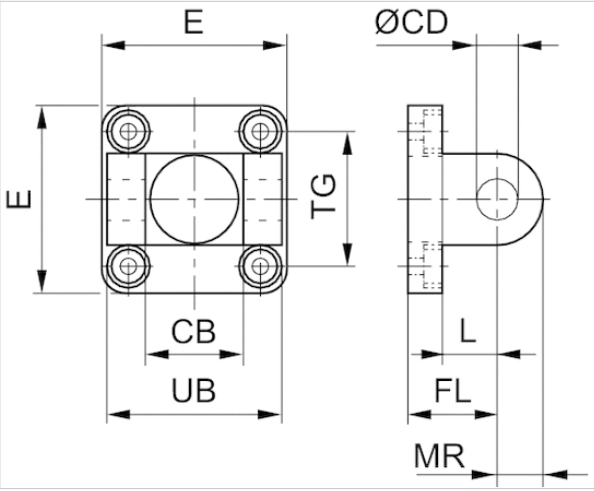
Part No.	Piston Ø	Swivel bearing Ø	Housing material	Surface
1827001289	32 mm	10 mm	Aluminum (forged)	-
1827001290	40 mm	12 mm	Aluminum (forged)	-
1827001291	50 mm	12 mm	Aluminum (forged)	-
1827001500	63 mm	16 mm	Aluminum (forged)	-
1827001293	80 mm	16 mm	Aluminum (forged)	-
1827001294	100 mm	20 mm	Aluminum (forged)	-
1827004862	125 mm	25 mm	Aluminum (forged)	-
1827004863	160 mm	30 mm	Nodular graphite iron	galvanized
1827004864	200 mm	30 mm	Nodular graphite iron	galvanized
1827004865	250 mm	40 mm	Nodular graphite iron	galvanized

Scope of delivery: clevis mounting incl. mounting screws

Technical information

Material	
Material	Aluminum (forged) Nodular graphite iron
	galvanized
Screws	Steel
	galvanized

Dimensions



Dimensions

Part No.	Piston Ø	CB H14	Ø CD H9	E	FL ±0.2	L 1)	MR 2)	UB h13	TG
1827001289	32 mm	26	10	49 ±1	22	12	10	45	32.5 ±0.2
1827001290	40 mm	28	12	53 ±1	25	15	13	52	38 ±0.2
1827001291	50 mm	32	12	63 ±1	27	15	13	60	46.5 ±0.2
1827001500	63 mm	40	16	73 ±1	32	18	17	70	56.5 ±0.2
1827001293	80 mm	50	16	98 ±1	36	20	17	90	72.0 ±0.2
1827001294	100 mm	60	20	115 ±1	41	25	18	110	89.0 ±0.2
1827004862	125 mm	70	25	140	50	30	26	130	110 ±0.3
1827004863	160 mm	90	30	177	55	35	31	170	140 ±0.3
1827004864	200 mm	90	30	216	60	35	31	170	175 ±0.3
1827004865	250 mm	110	40	276	70	45	41	200	220 ±0.3

1) Min.

2) Max.

Rear eye, Series MP4-HD

- Suitable for robust mechanical engineering applications, for clevis mounting MP2 and AB3
- Cylinder mounting in accordance with ISO 15552
- Suitable piston Ø 32 40 50 63 80 100 125 160 200 250 mm



Standards ISO 15552

Technical data

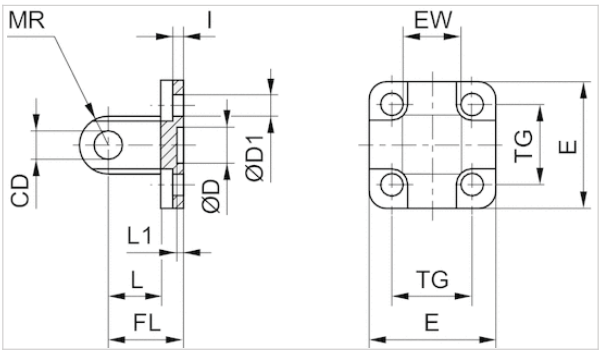
Part No.	Piston Ø	Swivel bearing Ø	Housing material	Surface
1827001283	32 mm	10 mm	Aluminum (forged)	-
1827001284	40 mm	12 mm	Aluminum (forged)	-
1827001285	50 mm	12 mm	Aluminum (forged)	-
1827020086	63 mm	16 mm	Aluminum (forged)	-
1827001287	80 mm	16 mm	Aluminum (forged)	-
1827001288	100 mm	20 mm	Aluminum (forged)	-
1827004866	125 mm	25 mm	Aluminum (forged)	-
1827004867	160 mm	30 mm	Nodular graphite iron	galvanized
1827004868	200 mm	30 mm	Nodular graphite iron	galvanized
1827004869	250 mm	40 mm	Nodular graphite iron	galvanized

Scope of delivery: clevis incl. mounting screws

Technical information

Material	
Material	Aluminum (forged) Nodular graphite iron
	galvanized
Screws	Steel
	galvanized

Dimensions



Dimensions

Part No.	Piston Ø	CD H9	Ø D	Ø D1	E	EW	FL ±0,2	I ±0,5	L 1)	L1 1)
1827001283	32 mm	10	30 H11	6.6	48	26 –0,2/–0,6	22	5.5	12	4.5
1827001284	40 mm	12	35 H11	6.6	53	28 –0,2/–0,6	25	5.5	15	4.5
1827001285	50 mm	12	40 H11	9	63	32 –0,2/–0,6	27	6.5	15	4.5
1827020086	63 mm	16	45 H11	9	73	40 –0,2/–0,6	32	6.5	20	4.5
1827001287	80 mm	16	45 H11	11	98	50 –0,2/–0,6	36	10	20	4.5
1827001288	100 mm	20	55 H11	11	115	60 –0,2/–0,6	41	10	25	4.5
1827004866	125 mm	25	60 H11	14	140	70 –0,5/–1,2	50	10	30	7
1827004867	160 mm	30	65 H11	18	180	90 –0,5/–1,2	55	10	35	7
1827004868	200 mm	30	75 H11	18	220	90 –0,5/–1,2	60	11	35	7
1827004869	250 mm	40	90 H11	22	280	110 –0,5/–1,2	70	11	45	11

MR 2)	TG
10	32,5 ±0,2
12	38 ±0,2
12	46,5 ±0,2
16	56,5 ±0,2
16	72 ±0,2
20	89 ±0,2
26	110 ±0,3
31	140 ±0,3
31	175 ±0,3
41	220 ±0,3

1) Min.

2) Max.

Rear eye, Series MP6

- With ball joint and foot
- Cylinder mounting in accordance with ISO 15552
- Suitable piston Ø 32 40 50 63 80 100 125 mm



Standards	ISO 15552
Weight	See table below

Technical data

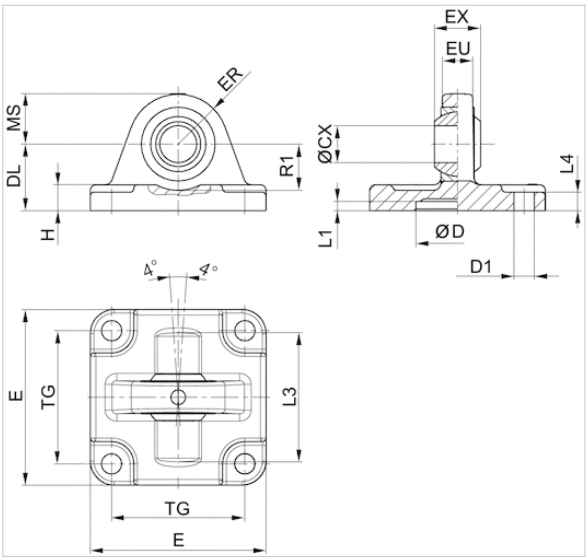
Part No.	Piston Ø	Swivel bearing Ø	Bearing material, inner ring	Bearing material, outer ring	Weight
1827001619	32 mm	10 mm	Stainless steel	Brass with PTFE coating	0,1 kg
1827001620	40 mm	12 mm	Stainless steel	Brass with PTFE coating	0,1 kg
1827001621	50 mm	16 mm	Stainless steel	Brass with PTFE coating	0,2 kg
1827020087	63 mm	16 mm	Stainless steel	Brass with PTFE coating	0,3 kg
1827001623	80 mm	20 mm	Stainless steel	Brass with PTFE coating	0,6 kg
1827001624	100 mm	20 mm	Stainless steel	Brass with PTFE coating	0,8 kg
1827001625	125 mm	30 mm	Stainless steel	Brass with PTFE coating	1,4 kg

Scope of delivery: clevis incl. mounting screws

Technical information

Material	
Material	Aluminum (forged)
Screws	galvanized steel
Bearing	Stainless steel

Dimensions



Dimensions

Part No.	Piston Ø	ØCX H7	ØD H11	ØD1 H13	DL ±0,2	E	EX –0,1	ER	EU	H	L1 1)	L3
1827001619	32 mm	10	30	6.6	22	47	14	15	10.5	9	4.5	36
1827001620	40 mm	12	35	6.6	25	53	16	18	12	9	4.5	42
1827001621	50 mm	16	40	9	27	65	21	20	15	10.5	4.5	48
1827020087	63 mm	16	45	9	32	75	21	23	15	10.5	4.5	55
1827001623	80 mm	20	45	11	36	95	25	27	18	14	4.5	70
1827001624	100 mm	20	55	11	41	115	25	30	18	15	4.5	80
1827001625	125 mm	30	60	14	50	140	37	40	25	16	7	100

L4	MS -0,5	R1 1)	TG
5.5	15	12	32,5 ±0,2
5.5	18	15	38 ±0,2
6.5	21	19	46,5 ±0,2
6.5	23	21	56,5 ±0,2
10	27	24	72 ±0,2
10	30	25	89 ±0,2
10	40	33	110 ±0,3

1) Min.

Rear eye, Series MP9

- With rubber bushing
- Cylinder mounting in accordance with ISO 15552
- Suitable piston Ø 32 40 50 63 80 100 mm



Standards	See table below
Weight	See table below

Technical data

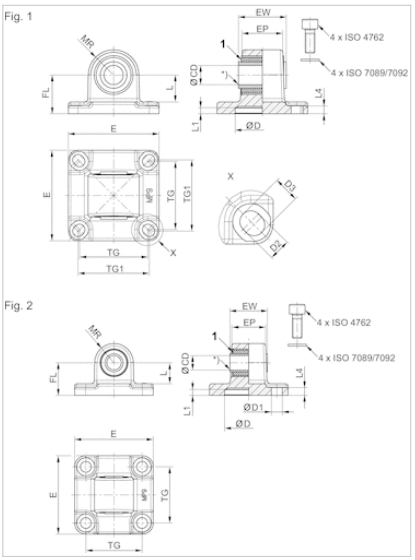
Part No.	Piston Ø	Swivel bearing Ø	Standardization	Weight	Fig.
3683203000	32 mm	10 mm	ISO 15552	0,092 kg	Fig. 2
3683204000	40 mm	12 mm	ISO 15552	0,143 kg	Fig. 1
3683205000	50 mm	12 mm	ISO 15552	0,217 kg	Fig. 2
3683206000	63 mm	16 mm	ISO 15552	0,411 kg	Fig. 1
3683208000	80 mm	16 mm	ISO 15552	0,64 kg	Fig. 2
3683210000	100 mm	20 mm	ISO 15552	0,956 kg	Fig. 1
3663208000	80 mm	16 mm	-	0,619 kg	Fig. 2

Scope of delivery: clevis incl. mounting screws

Technical information

Material	
Material	Aluminum (forged)
	Plain bearing material: bronze (Ø125: steel, galvanized)

Dimensions



1) Rubber bushing

Dimensions

Part No.	Piston Ø	CD H11	CD H9	E	EW	EP	TG	TG1 ±0,2	FL ±0,2	L 1)	MR	L1	L4
3683203000	32 mm	10	-	46	25.5	18,9	32.5	–	22	13.8	12.5	5	5.5
3683204000	40 mm	-	12	53	27	23,5	38	40	25	16.3	15	5	5.5
3683205000	50 mm	-	12	65	31	28	46.5	–	27	17.3	16	5	6.5
3683206000	63 mm	-	16	75	39.5	33.5	56.5	59	32	22.3	21	5	6.5
3683208000	80 mm	-	16	94.5	49.5	43	72	–	36	21.8	22	5	10
3683210000	100 mm	-	20	114	59.5	54	89	90	41	25.8	25	5	10

D H11	D1 H13	D2 -0,2	D3 -0,2	Fig.
30	6.6	–	–	Fig. 2
35	–	6.6	8	Fig. 1
40	9	–	–	Fig. 2
45	6.6	–	–	Fig. 1
45	11	–	–	Fig. 2
55	–	11	11.7	Fig. 1

1) Min.

2) CAD files *_iso.* (suitable for cylinders according to ISO 21287) and *_167.* (suitable for 167 series cylinders)

3) suitable for 167 series cylinders

Trunnion mounting, front or rear, Series MT5, MT6

- Suitable piston Ø 32 40 50 63 80 100 125 160 200 250 mm



Weight

See table below

The delivered product may vary from that in the illustration.

Technical data

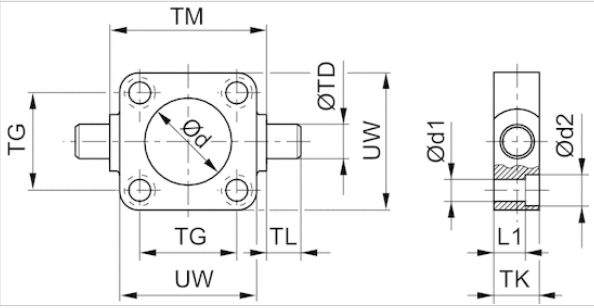
Part No.	Piston Ø	For series	Weight
1827001609	32 mm	CCI CVI CCL-IC/-IS PRA/TRB	0,29 kg
1827001610	40 mm	CCI CVI CCL-IC/-IS PRA/TRB	0,5 kg
1827001611	50 mm	CCI CVI CCL-IC/-IS PRA/TRB	0,7 kg
1827002046	63 mm	CCI CVI CCL-IC/-IS PRA/TRB	1,1 kg
1827001613	80 mm	CCI CVI CCL-IC/-IS PRA/TRB	1,5 kg
1827001614	100 mm	CCI CVI CCL-IC/-IS PRA/TRB	2,7 kg
1827001615	125 mm	CVI CCL-IS PRA TRB	3,8 kg
1827001616	160 mm	ITS TRB	5,5 kg
1827001617	200 mm	ITS TRB	9,7 kg
1827001618	250 mm	ITS TRB	15,7 kg

Scope of delivery: trunnion mounting incl. mounting screws

Technical information

Material	
Material	Nodular graphite iron
	galvanized
Screws	Steel
	galvanized

Dimensions



Dimensions

Part No.	Piston Ø	Ø d H11	Ø d1	Ø d2	L1	TD e9	TG ±0,2	TK	TL h14	TM h14	UW
1827001609	32 mm	30	6.6	11	7.5	12	32.5	16	12	50	48
1827001610	40 mm	35	6.6	11	7.5	16	38	20	16	63	56
1827001611	50 mm	40	9	15	10	16	46.5	24	16	75	65
1827002046	63 mm	45	9	15	10	20	56.5	24	20	90	75
1827001613	80 mm	45	11	18	16	20	72	28	20	110	100
1827001614	100 mm	55	11	18	25.5	25	89	38	25	132	120
1827001615	125 mm	60	14	20	34	25	110	46	25	160	145
1827001616	160 mm	65	18	26	38	32	140	50	32	200	184
1827001617	200 mm	75	18	26	40	32	175	60	32	250	224
1827001618	250 mm	90	22	33	57	40	220	70	40	320	286

Eye brackets

- Suitable piston Ø 32 40 50 63 80 100 125 mm



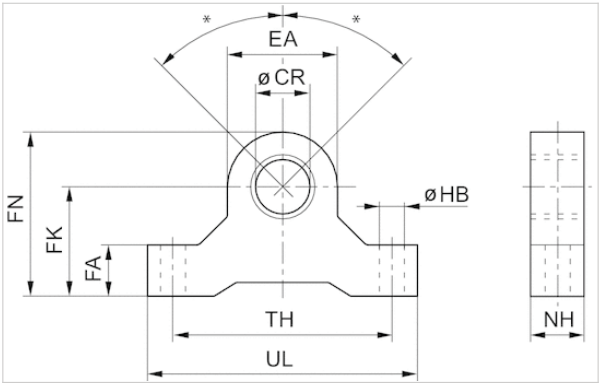
Technical data

Part No.	Piston Ø	Swivel bearing Ø	Scope of delivery
3671203000	32 mm	12 mm	2 piece
3671204000	40 50 mm	16 mm	2 piece
3671206000	63 80 mm	20 mm	2 piece
3671210000	100 125 mm	25 mm	2 piece

Technical information

Material	
Material	Aluminum

Dimensions



* Max. pendulum movement for cylinders with rear eye MP6 with ball joint: ±45°

Dimensions

Part No.	Ø CR H8	EA	FA	FK ±0,1	FN	HB	NH	TH	UL
3671203000	12	19	11	22	32	6.6	11	44	55
3671204000	16	28	16	35	49	9	16	65	82
3671206000	20	38	19	40	59	9	19	80	99
3671210000	25	46	22	48	71	11	22	96	118

Bearing brackets MT4, MT5, MT6, Series AT4

- Cylinder mounting in accordance with ISO 15552
- Suitable piston Ø 20 25 32 40 50 63 80 100 125 mm



Standards ISO 15552

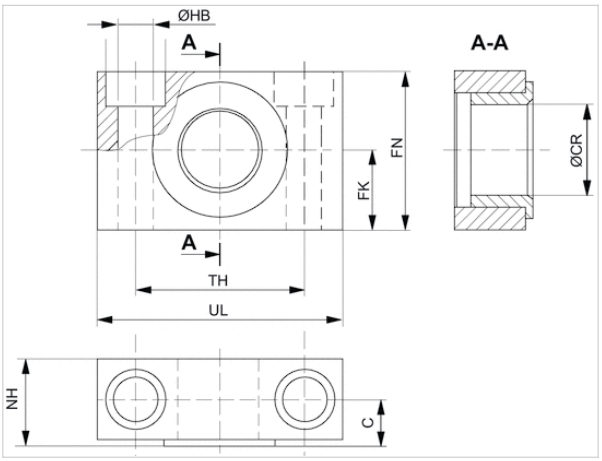
Technical data

Part No.	Piston Ø	Swivel bearing Ø	For series	Scope of delivery
1827001603	20 25 32 mm	12 mm	CCI CCL-IC ICL KPZ PRA/TRB	2 piece
1827001604	40 50 mm	16 mm	CCI CCL-IC KPZ PRA/TRB	2 piece
1827001605	63 80 mm	20 mm	CCI CCL-IC KPZ PRA/TRB	2 piece
1827001606	100 125 mm	25 mm	CCI CCL-IC KPZ PRA/TRB	2 piece

Technical information

Material	
Material	Steel
	galvanized
Guide bushing	Sintered bronze

Dimensions



Dimensions

Part No.	Piston Ø	UL	NH	TH	C	CR H9	HB H13	FN	FK	Plain bearing
1827001603	20 25 32 mm	46	18	32 ±0,2	10.5	12	6.6	30	15 ±0,1	Sintered bronze
1827001604	40 50 mm	55	21	36 ±0,2	12	16	9	36	18 ±0,1	Sintered bronze
1827001605	63 80 mm	65	23	42 ±0,2	13	20	11	40	20 ±0,1	Sintered bronze
1827001606	100 125 mm	75	28.5	50 ±0,2	16	25	14	50	25 ±0,1	Sintered bronze

Flange mounting, Series MF1, MF2

- Cylinder mounting in accordance with ISO 15552
- Suitable piston Ø 32 40 50 63 80 100 125 160 200 250 mm



Standards ISO 15552

Technical data

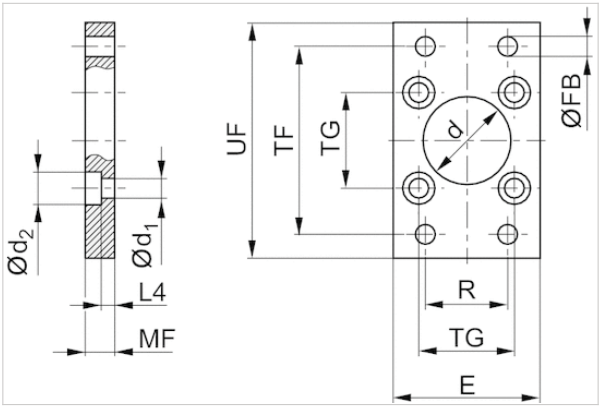
Part No.	Piston Ø	Swivel bearing Ø
1827001277	32 mm	30 mm
1827001278	40 mm	35 mm
1827001279	50 mm	40 mm
1827001499	63 mm	45 mm
1827001281	80 mm	45 mm
1827001282	100 mm	55 mm
1827004861	125 mm	60 mm
1827001460	160 mm	65 mm
1827001461	200 mm	75 mm
1827001462	250 mm	90 mm

Scope of delivery: flange mounting incl. mounting screws

Technical information

Material	
Material	Steel
	galvanized
Screws	Steel
	galvanized

Dimensions



Dimensions

Part No.	Piston Ø	Ød H11	Ød1	Ød2	E 1)	ØFB	L4	MF	R	TF	TG	UF
1827001277	32 mm	30	6.6	11	50	7	4.5	10	32	64	32,5 ±0,2	80
1827001278	40 mm	35	6.6	11	55	9	4.5	10	36	72	38 ±0,2	90
1827001279	50 mm	40	9	15	65	9	6	12	45	90	46,5 ±0,2	110
1827001499	63 mm	45	9	15	75	9	6	12	50	100	56,5 ±0,2	125
1827001281	80 mm	45	11	18	100	12	9	16	63	126	72 ±0,2	154
1827001282	100 mm	55	11	18	120	14	9	16	75	150	89 ±0,2	186
1827004861	125 mm	60	14	20	140	16	10.5	20	90	180	110 ±0,3	220
1827001460	160 mm	65	18	26	180	18	9.5	20	115	230	140 ±0,3	275
1827001461	200 mm	75	18	26	220	22	12.5	25	135	270	175 ±0,3	312
1827001462	250 mm	90	22	33	280	26	10.5	25	165	330	220 ±0,3	380

1) Max.

Intermediate flange, Series JP1

- for multi-position cylinders
- Suitable piston Ø 32 40 50 63 80 100 125 mm



Technical data

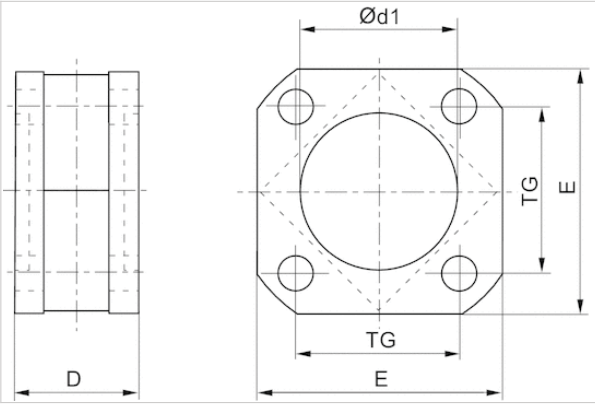
Part No.	Piston Ø
1827020247	32 mm
1827020248	40 mm
1827020249	50 mm
1827020250	63 mm
1827020251	80 mm
1827020252	100 mm
1827020253	125 mm

Scope of delivery incl. mounting screws

Technical information

Material	
Material	Aluminum

Dimensions



Dimensions

Part No.	Piston Ø	D	Ø d1 N7	E	TG
1827020247	32 mm	27	30	47	32.5
1827020248	40 mm	27	35	53	38
1827020249	50 mm	32	40	65	46.5
1827020250	63 mm	28	45	75	56.5
1827020251	80 mm	38	45	95	72
1827020252	100 mm	38	55	115	89
1827020253	125 mm	44	60	140	110

Foot mounting, Series MS1

- to mount on cylinder PRA, TRB, CCL-IS/-IC, CCI, KPZ, 167, CVI, ITS
- Cylinder mounting in accordance with ISO 15552
- Suitable piston Ø 32 40 50 63 80 100 125 160 200 250 mm



Standards ISO 15552

Technical data

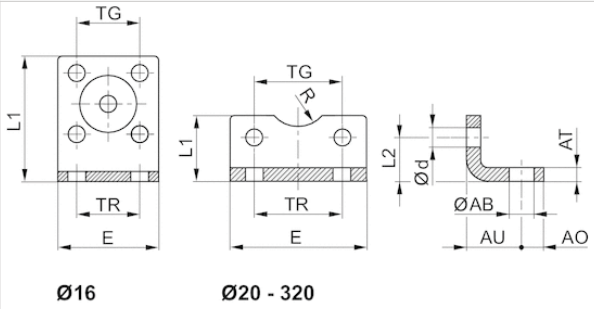
Part No.	Piston Ø	For series
1827001271	32 mm	-
1827001272	40 mm	-
1827001273	50 mm	-
1827001498	63 mm	-
1827001275	80 mm	-
1827001276	100 mm	CCI CCL-IC/-IS PRA/TRB CVI
1827001310	125 mm	-
1827001457	160 mm	-
1827001458	200 mm	-
1827001459	250 mm	-

Scope of delivery: 2 foot mountings incl. mounting screws

Technical information

Material	
Material	Steel
	galvanized
Screws	Steel
	galvanized

Dimensions



Dimensions

Part No.	Piston Ø	ØAB	AO	AT	AU ±0,2	Ød	E	L1	L2	R	TG	TR
1827001271	32 mm	7	8	4 ±0,3	24	6.6	48	25	15.5	15	32,5 ±0,2	32
1827001272	40 mm	10	10	4 ±0,3	28	6.6	56	26	17	17.5	38 ±0,2	36
1827001273	50 mm	10	11	5 ±0,3	32	9	68	32	21.5	20	46,5 ±0,2	45
1827001498	63 mm	10	13	5 ±0,3	32	9	78	34	21.5	22.5	56,5 ±0,2	50
1827001275	80 mm	12	16	6 ±0,5	41	11	98	47	27	22.5	72 ±0,2	63
1827001276	100 mm	14.5	19	6 ±0,5	41	11	117	52	26.5	27.5	89 ±0,2	75
1827001310	125 mm	16.5	20	8 ±1,0	45	13.5	144	69	35	30	110 ±0,3	90
1827001457	160 mm	18.5	23	10 ±1,0	60	17.5	185	100	45	32.5	140 ±0,3	115
1827001458	200 mm	24	26	12 ±1,0	70	17.5	220	120	47.5	37.5	175 ±0,3	135
1827001459	250 mm	28	33	20 ±1,0	75	22	280	135	55	45	220 ±0,3	165

Bolts, AA4

- Cylinder mounting in accordance with ISO 15552
- Suitable piston Ø 32 40 50 63 80 100 125 160 200 250 320 mm



Standards	See table below
Weight	See table below

Technical data

Part No.	Piston Ø	Standardization	Weight	Fig.
1823120020	32 mm	-	0,03 kg	Fig. 1
1823120021	40 mm	-	0,05 kg	Fig. 1
1823120022	50 mm	-	0,06 kg	Fig. 1
1823120023	63 mm	-	0,12 kg	Fig. 1
1823120024	80 mm	-	0,15 kg	Fig. 1
1823120025	100 mm	-	0,29 kg	Fig. 1
5236000092	125 mm	ISO 15552	0,53 kg	Fig. 2
5237000092	160 200 mm	ISO 15552	0,99 kg	Fig. 2
5239000092	250 mm	ISO 15552	2,12 kg	Fig. 2
5239010092	320 mm	ISO 15552	3,01 kg	Fig. 2

Scope of delivery: pivot pins incl. circlips

Technical information

Material	
Material	Steel
	galvanized

Dimensions

Fig. 1

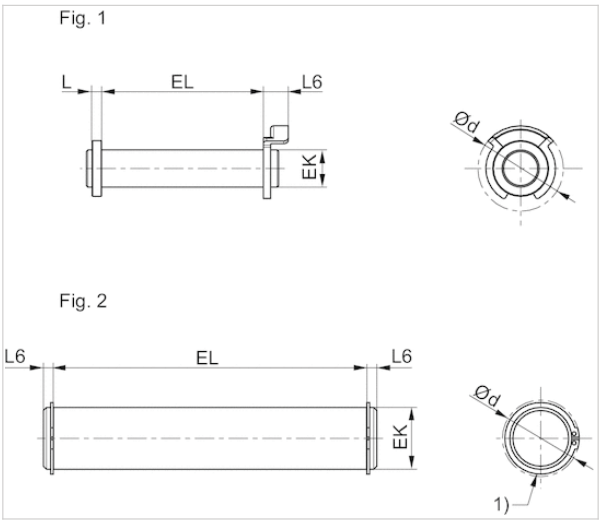


Fig. 2

1) circlip DIN 471

Dimensions

Part No.	Piston Ø	Ø d 1)	EK e8	EL	L 1)	L6 1)	Fig.
1823120020	32 mm	20	10	45.2 +0,3	3.5	9	Fig. 1
1823120021	40 mm	22	12	52.2 +0,3	4	9	Fig. 1
1823120022	50 mm	22	12	60.2 +0,3	4	9	Fig. 1
1823120023	63 mm	28	16	70.2 +0,3	4.5	11	Fig. 1
1823120024	80 mm	28	16	90.2 +0,3	4.5	11	Fig. 1
1823120025	100 mm	38	20	110.2 +0,3	5	11	Fig. 1
5236000092	125 mm	34.2	25	132 +0,5	-	3.75	Fig. 2
5237000092	160 200 mm	40.5	30	172 +0,5	-	4.25	Fig. 2
5239000092	250 mm	52.6	40	202 +0,5	-	6.75	Fig. 2
5239010092	320 mm	59.1	45	222 +0,5	-	7.25	Fig. 2

1) Max.

Guide unit, Series GU1

- Ø 32-100 mm
- Plain bearing
- For standard cylinders ISO 15552



Bearing type	Plain bearing
Ambient temperature min./max.	-20 ... 80 °C

Technical data

Suitable piston Ø	32 mm	40 mm	50 mm	63 mm	80 mm	100 mm
Stroke 50	0821401010	0821401020	0821401030	0821401480	0821401050	0821401060
100	0821401011	0821401021	0821401031	0821401481	0821401051	0821401061
160	0821401012	0821401022	0821401032	0821401482	0821401052	0821401062
200	0821401013	0821401023	0821401033	0821401483	0821401053	0821401063
250	0821401014	0821401024	0821401034	0821401484	0821401054	0821401064
320	0821401015	0821401025	0821401035	0821401485	0821401055	0821401065
400	0821401016	0821401026	0821401036	0821401486	0821401056	0821401066
500	0821401017	0821401027	0821401037	0821401487	0821401057	0821401067
600	0821401018	0821401028	0821401038	0821401488	0821401058	0821401068
800	0821401019	0821401029	0821401039	0821401489	0821401059	0821401069
1000	0821401500	0821401502	0821401504	0821401490	0821401508	0821401510
1200	0821401501	0821401503	0821401505	0821401491	0821401509	0821401511

For use with hybrid inch cylinders with metric piston rod thread

Technical data

Suitable piston Ø	32 mm	40 mm	50 mm	63 mm	80 mm	100 mm
Weight 0 mm stroke	0,63 kg	0,946 kg	1,36 kg	1,66 kg	3,45 kg	4,69 kg
+10 mm stroke	0,012 kg	0,018 kg	0,018 kg	0,018 kg	0,022 kg	0,022 kg

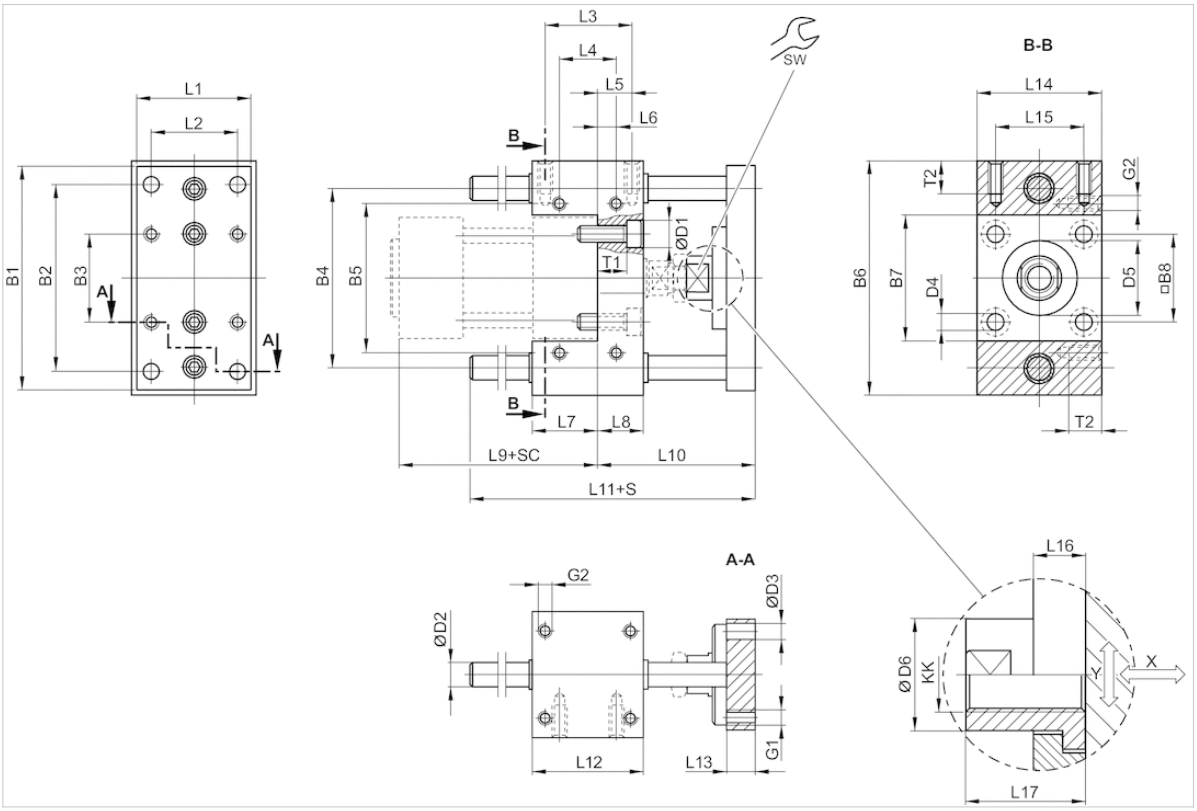
Technical information

Material	
Bearing housings	Aluminum, colorless anodized
Bearing type	Sintered bronze
Carrying plate	Aluminum, colorless anodized

Material	
Flexible coupling in carrying plate	Stainless steel
Guide rods	smooth rolled, Stainless steel

Dimensions

Ø 32 ... 100 mm



S = stroke
SC = cylinder stroke
X = max. play (axial)
Y = min. play (radial)

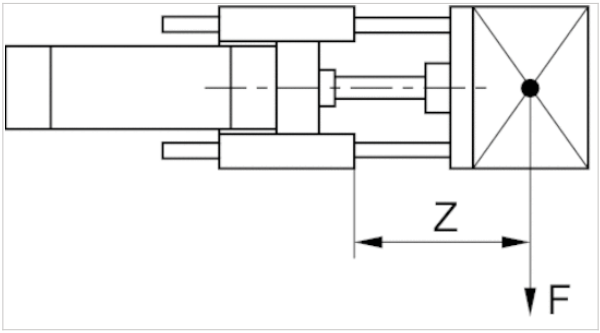
Dimensions

Piston Ø	B1	B2	B3	B4	B5	B6	B7	B8	D1	D2	D3	D4	D5	D6	G1	G2	KK	L1
32 mm	90	78	32.5	74	58	100	48	32.5	11	10	6.6	6.6	30 M8	18	M6	M6	M10x1,25	45
40 mm	100	84	38	80	64	106	54	38	11	12	6.6	6.6	35 M8	18	M6	M6	M12x1,25	50
50 mm	120	100	46.5	96	80	125	66	46.5	15	12	9	9	40 M8	24	M8	M8	M16x1,5	60
63 mm	125	105	56.5	104	95	132	76	56.5	15	12	9	9	45 M8	24	M8	M8	M16x1,5	70
80 mm	155	130	72	130	130	165	98	72	18	16	11	11	45 M8	30	M10	M10	M20x1,5	90
100 mm	175	150	89	150	150	185	118	89	18	16	11	11	55 M8	30	M10	M10	M20x1,5	110

Piston Ø	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17	SW	T1	T2
32 mm	32.5	32.5	32.5	9.25	9.25	31	17	94	69	106	48	12	48	32.5	14	22	15	10	14
40 mm	38	38	38	11	11	37	21	105	74	117	58	12	56	38	14	22	15	14	14
50 mm	46.5	46.5	46.5	18.75	18.75	34	25	106	89	129	59	15	66	46.5	14	26	22	16	16
63 mm	56.5	56.5	56.5	15.25	15.25	51	25	121	89	146	76	15	76	56.5	14	26	22	16	16
80 mm	72	72	50	25	14	56	34	128	106	170	90	16	98	72	14	32	27	24	20
100 mm	89	89	70	28.5	19	71	39	138	111	190	110	16	118	89	14	32	27	29	20

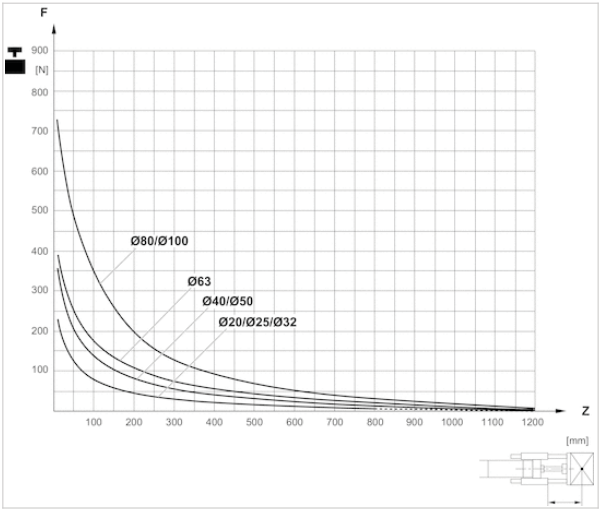
Diagrams

Useful load



F = Useful load, Z = Projection

Useful load



F = Useful load, Z = Projection

Guide unit, Series GH1

- Ø 32-100 mm
- Plain bearing
- For standard cylinders ISO 15552



Bearing type	Plain bearing
Ambient temperature min./max.	-20 ... 80 °C

Technical data

Suitable piston Ø	32 mm	40 mm	50 mm	63 mm	80 mm	100 mm
Stroke 50	0821401220	0821401230	0821401240	0821401280	-	-
100	0821401221	0821401231	0821401241	0821401281	0821401260	0821401270
160	0821401222	0821401232	0821401242	0821401285	-	-
200	0821401223	0821401233	0821401243	0821401282	0821401261	0821401271
250	0821401224	0821401234	0821401244	0821401286	-	-
320	0821401225	0821401235	0821401245	0821401283	0821401262	0821401272
400	0821401226	0821401236	0821401246	0821401287	-	-
500	0821401227	0821401237	0821401247	0821401284	0821401263	0821401273
600	0821401228	0821401238	0821401249	0821401288	0821401264	0821401274
800	0821401229	0821401239	0821401474	0821401289	0821401265	0821401275
1000	0821401470	0821401472	0821401475	0821401290	0821401266	0821401276
1200	0821401471	0821401473	0821401476	0821401291	0821401267	0821401277

Inch dimensions rounded to the nearest whole number., For use with hybrid inch cylinders with metric piston rod thread

Technical data

Suitable piston Ø	32 mm	40 mm	50 mm	63 mm	80 mm	100 mm
Weight 0 mm stroke	1,3 kg	2,3 kg	3,7 kg	4,7 kg	8,8 kg	11,1 kg
+10 mm stroke	0,009 kg	0,016 kg	0,025 kg	0,025 kg	0,039 kg	0,039 kg

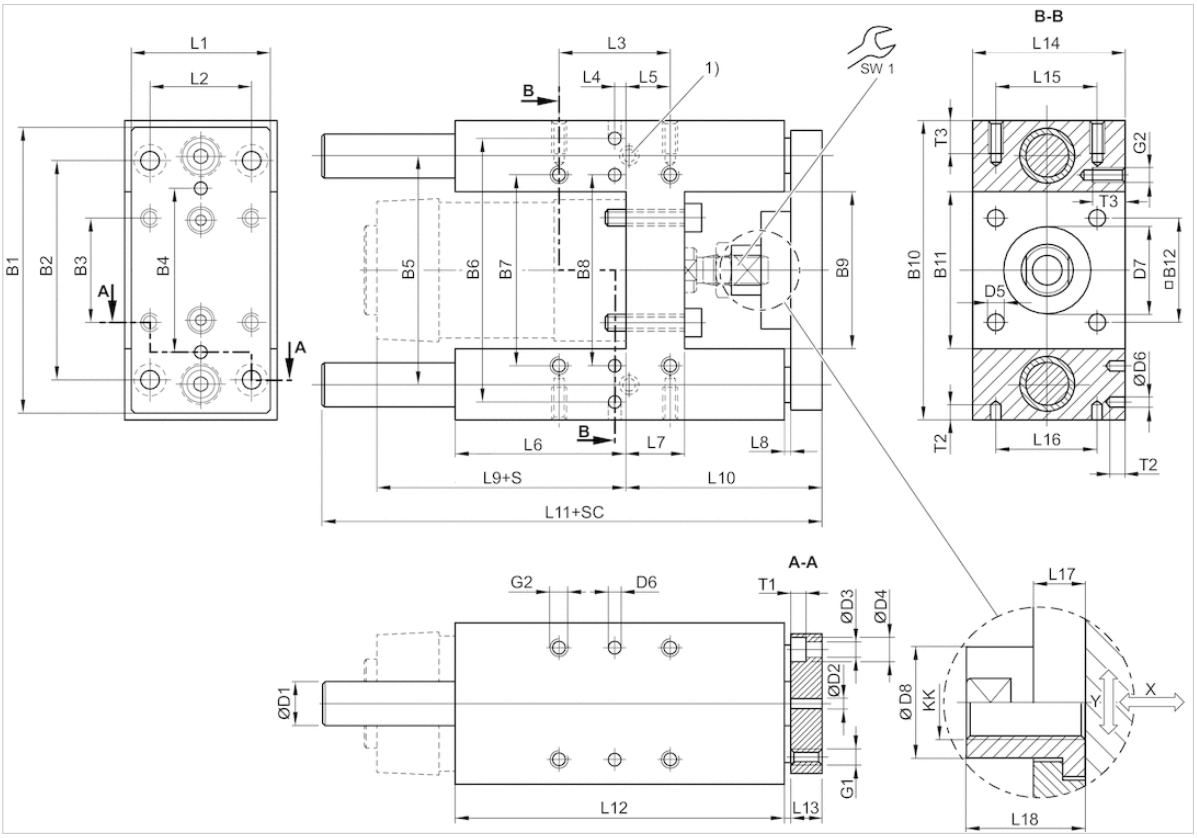
Technical information

Material	
Bearing housings	Aluminum, colorless anodized
Bearing type	Sintered bronze
Carrying plate	Aluminum, colorless anodized

Material	
Flexible coupling in carrying plate	Stainless steel
Guide rods	smooth rolled, Stainless steel

Dimensions

Ø 32 ... 100 mm



1) Lube nipple
S = stroke
SC = cylinder stroke
X = max. play (axial)
Y = min. play (radial)

Dimensions

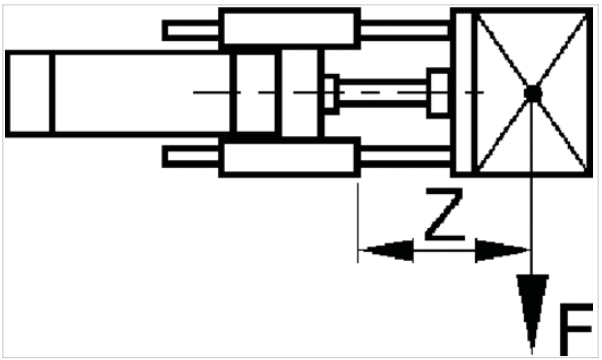
Piston Ø	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	D1	D2 H7	D3	D4	D5	D6 H7
32 mm	90	78	32.5	50	74	81	61	61	50.2	97	50.2	32.5	12	6	6.6	11	6.6	6
40 mm	110	84	38	54	87	99	69	69	58.2	115	58.2	38	16	6	6.6	11	6.6	6
50 mm	130	100	46.5	72	104	119	85	85	70.2	137	70.2	46.5	20	6	9	15	9	6
63 mm	145	105	56.5	82	119	132	100	100	85.2	152	85.2	56.5	20	6	9	15	9	6
80 mm	180	130	72	106	148	166	130	130	105.4	189	105.4	72	25	6	11	18	11	6
100 mm	200	150	89	131	172	190	150	150	130.4	213	130.4	89	25	6	11	18	11	6

Piston Ø	D7 M8	D8	G1	G2	KK	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12
32 mm	30	14.5	M6	M6	M10x1,25	45	32.5	32.5	12	4.25	76	17	3	94	64	177.5	125
40 mm	35	18	M6	M6	M12x1,25	54	38	38	8	11	81	21	3	105	74	192.5	140
50 mm	40	24	M8	M8	M16x1,5	63	46.5	46.5	4.5	18.75	79	26	3	106	89	205	150
63 mm	45	24	M8	M8	M16x1,5	80	56.5	56.5	13	15.25	111	26	3	121	89	237	182
80 mm	45	30	M10	M10	M20x1,5	100	72	72	15	21	128	34	3	128	110	280	215
100 mm	55	30	M10	M10	M20x1,5	120	89	89	20	24.5	128	39	3	138	115	280	220

Piston Ø	L13	L14	L15	L16	L17	L18	T1	T2	T3	SW1
32 mm	12	50	32.5	32.5	6	17	6.5	10	15	13
40 mm	12	58	38	38	14	22	6.5	10	15	15
50 mm	15	70	46.5	46.5	14	26	9	10	16	22
63 mm	15	85	56.5	56.5	14	26	9	10	16	22
80 mm	20	105	72	72	14	32	11	10	20	27
100 mm	20	130	89	89	14	32	11	10	20	27

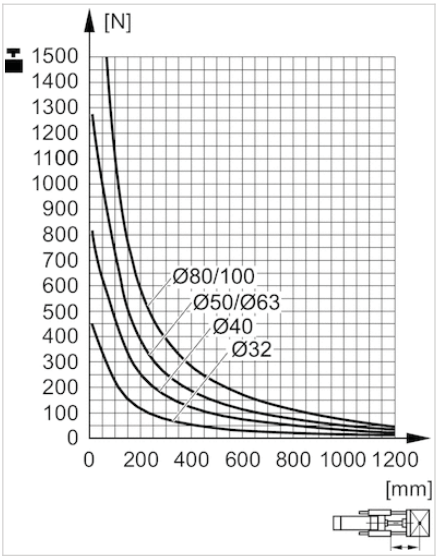
Diagrams

Useful load



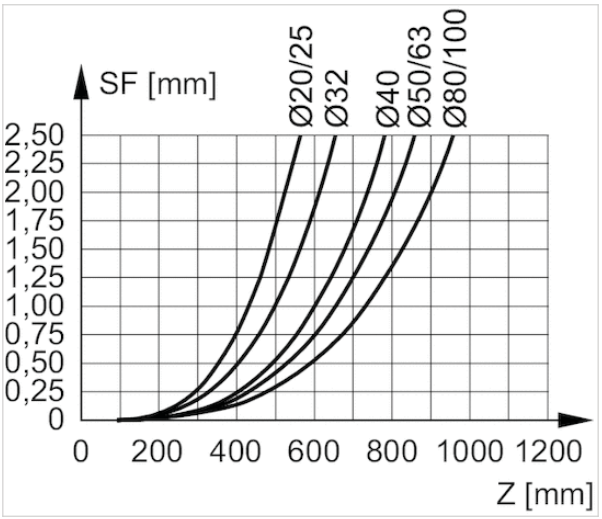
F = Useful load, Z = Projection

Useful load



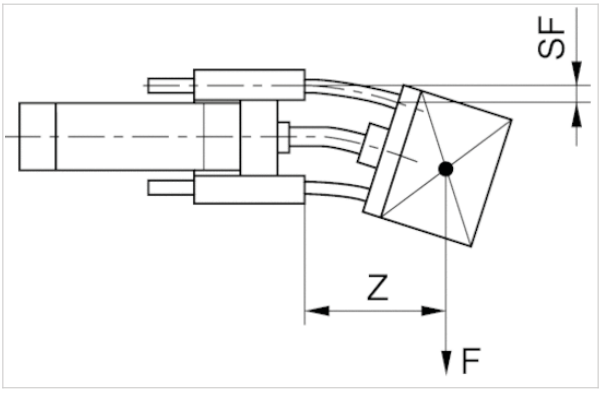
F = Useful load, Z = Projection

Bending due to own load



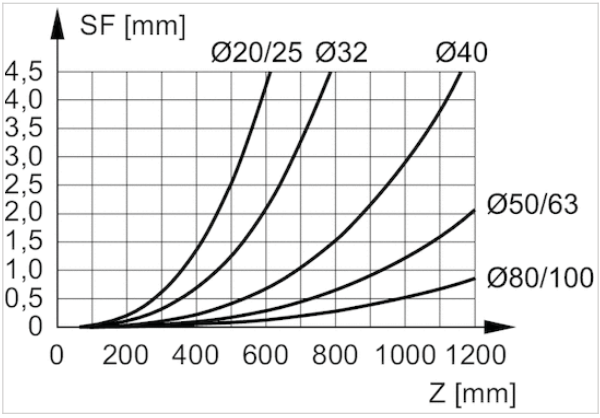
F = useful load (at the load center), SF = bending, Z = projection

Bending due to 10 N load



F = useful load (at the load center), SF = bending, Z = projection

Bending due to 10 N load



F = useful load (at the load center), SF = bending, Z = projection

Guide unit, Series GH2

- Ø 32-100 mm
- Linear ball bearing
- For standard cylinders ISO 15552



Bearing type	Linear ball bearing
Ambient temperature min./max.	-20 ... 80 °C

Technical data

Suitable piston Ø	32 mm	40 mm	50 mm	63 mm	80 mm	100 mm
Stroke 50	0821401320	0821401330	0821401340	0821401380	-	-
100	0821401321	0821401331	0821401341	0821401381	0821401360	0821401370
200	0821401322	0821401332	0821401342	0821401382	0821401361	0821401371
320	0821401323	0821401333	0821401343	0821401383	0821401362	0821401372
500	0821401324	0821401334	0821401344	0821401384	0821401363	0821401373
600	0821401325	0821401335	0821401345	0821401385	0821401364	0821401374
800	0821401326	0821401336	0821401346	0821401386	0821401365	0821401375
1000	0821401327	0821401337	0821401347	0821401387	0821401366	0821401376
1200	0821401328	0821401338	0821401348	0821401388	0821401367	0821401377

For use with hybrid inch cylinders with metric piston rod thread

Technical data

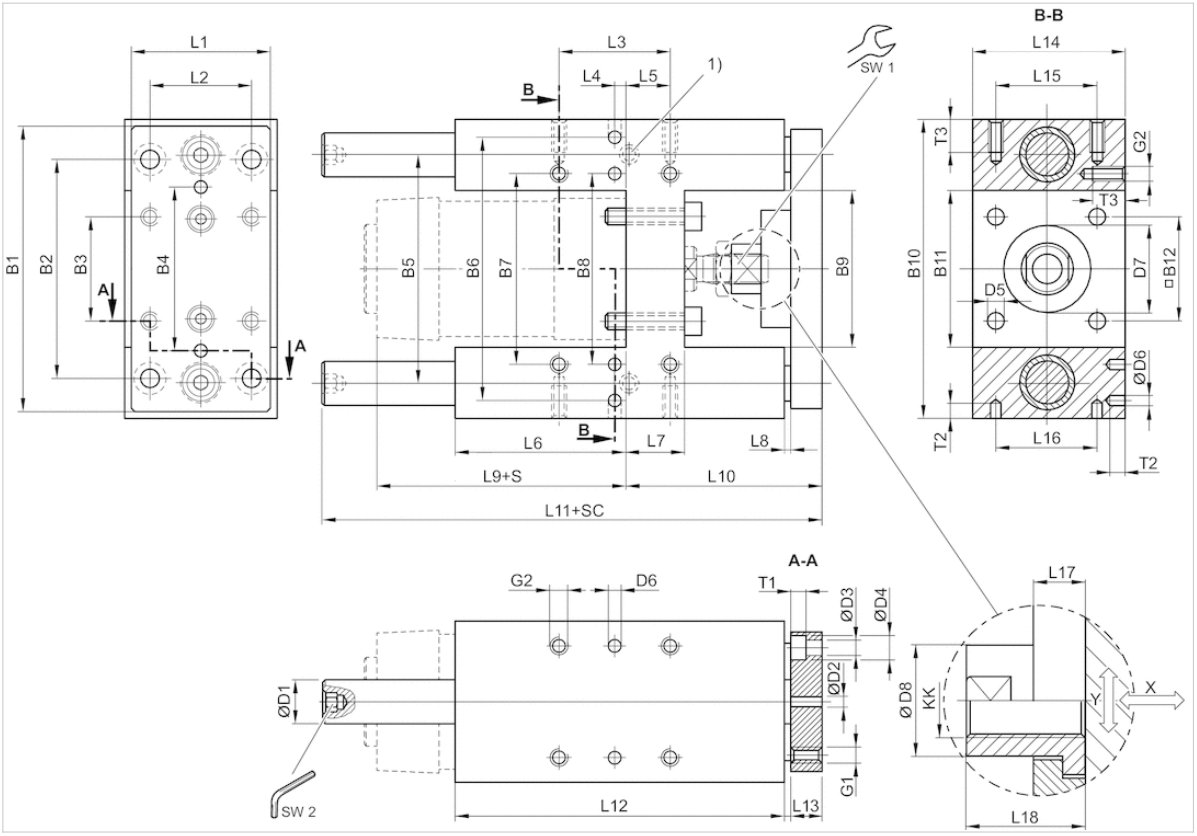
Suitable piston Ø	32 mm	40 mm	50 mm	63 mm	80 mm	100 mm
Weight 0 mm stroke	1,3 kg	2,3 kg	3,7 kg	4,7 kg	8,8 kg	11,1 kg
+10 mm stroke	0,009 kg	0,016 kg	0,025 kg	0,025 kg	0,039 kg	0,039 kg

Technical information

Material	
Bearing housings	colorless anodized
Bearing type	Steel
Carrying plate	Aluminum, colorless anodized
Flexible coupling in carrying plate	Stainless steel
Guide rods	ground and hardened, Steel

Dimensions

Ø 32 ... 100 mm



1) Lube nipple
S = stroke
SC = cylinder stroke
X = max. play (axial)
Y = min. play (radial)
Hexagon in guide rod

Dimensions

Piston Ø	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	D1	D2 H7	D3	D4	D5	D6 H7
32 mm	90	78	32.5	50	74	81	61	61	50.2	97	50.2	32.5	12	6	6.6	11	6.6	6
40 mm	110	84	38	54	87	99	69	69	58.2	115	58.2	38	16	6	6.6	11	6.6	6
50 mm	130	100	46.5	72	104	119	85	85	70.2	137	70.2	46.5	20	6	9	15	9	6
63 mm	145	105	56.5	82	119	132	100	100	85.2	152	85.2	56.5	20	6	9	15	9	6
80 mm	180	130	72	106	148	166	130	130	105.4	189	105.4	72	25	6	11	18	11	6
100 mm	200	150	89	131	172	190	150	150	130.4	213	130.4	89	25	6	11	18	11	6

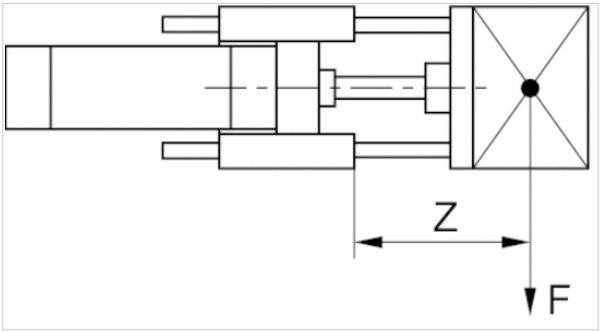
Piston Ø	D7 M8	D8	G1	G2	KK	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12
32 mm	30	14.5	M6	M6	M10x1,25	45	32.5	32.5	12	4.25	76	17	3	94	64	177.5	125
40 mm	35	18	M6	M6	M12x1,25	54	38	38	8	11	81	21	3	105	74	192.5	140

Piston Ø	D7 M8	D8	G1	G2	KK	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12
50 mm	40	24	M8	M8	M16x1,5	63	46.5	46.5	4.5	18.75	79	26	3	106	89	237	150
63 mm	45	24	M8	M8	M16x1,5	80	56.5	56.5	13	15.25	111	26	3	121	89	237	182
80 mm	45	30	M10	M10	M20x1,5	100	72	72	15	21	128	34	3	128	110	280	215
100 mm	55	30	M10	M10	M20x1,5	120	89	89	20	24.5	128	39	3	138	115	280	220

Piston Ø	L13	L14	L15	L16	L17	L18	T1	T2	T3	SW1	SW2
32 mm	12	50	32.5	32.5	6	17	6.5	10	15	13	5
40 mm	12	58	38	38	14	22	6.5	10	15	15	6
50 mm	15	70	46.5	46.5	14	26	9	10	16	22	6
63 mm	15	85	56.5	56.5	14	26	9	10	16	22	6
80 mm	20	105	72	72	14	32	11	10	20	27	8
100 mm	20	130	89	89	14	32	11	10	20	27	8

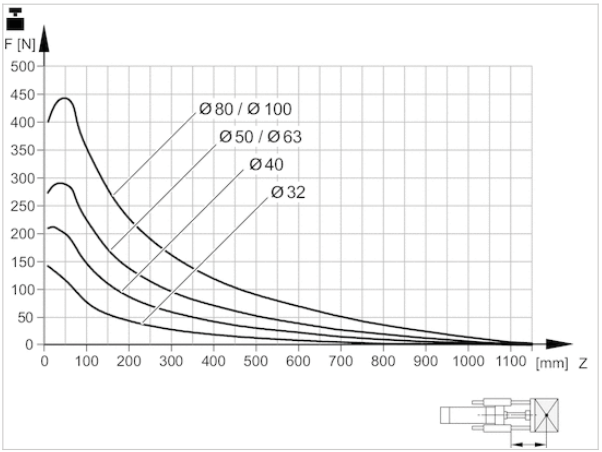
Diagrams

Useful load



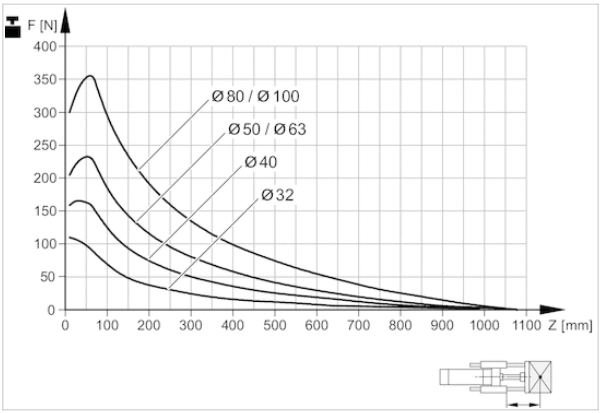
F = Useful load, Z = Projection

Useful load



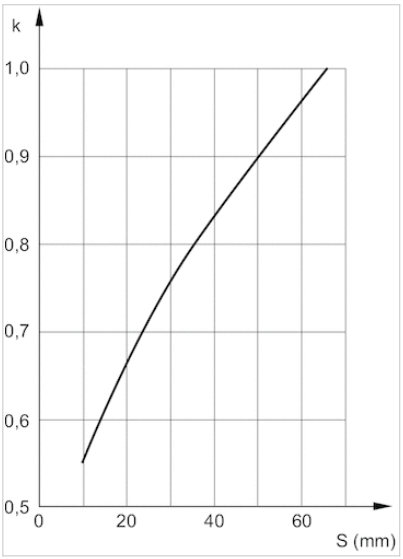
Service life $2x10^6$ m
F = Useful load, Z = Projection

Useful load



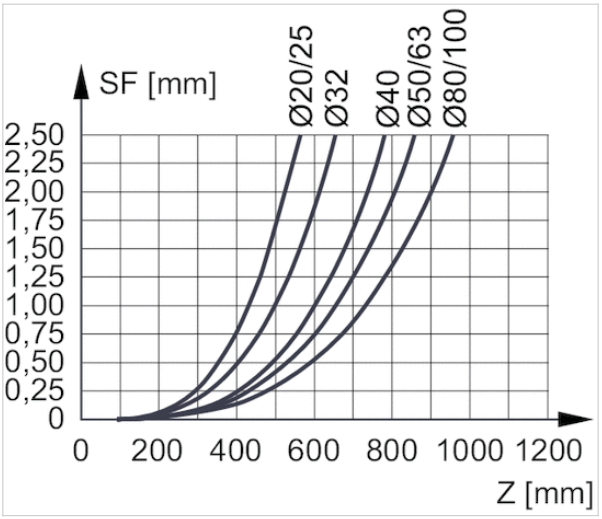
Service life $5x10^6$ m
F = Useful load, Z = Projection

Reduction of useful load for short-stroke



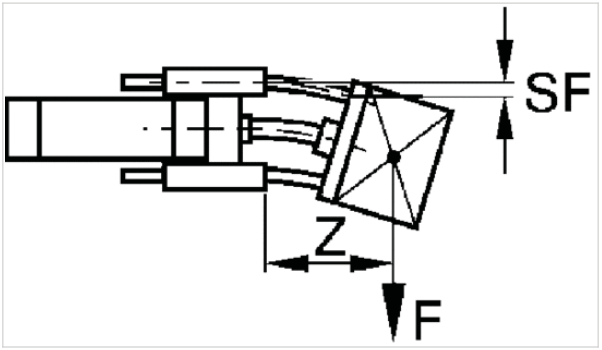
S = stroke
k=correction factor: normal=1, shock loaded=2
With a short stroke, the useful load figures determined from the diagram must be multiplied by the correction factor k.
These short-stroke adjustments are already included in the load diagram for a displacement of up to 60 mm.

Bending due to own load



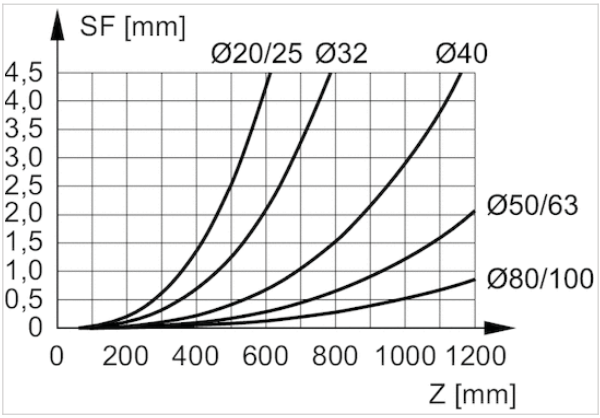
F = useful load (at the load center), SF = bending, Z = projection

Bending due to 10 N load



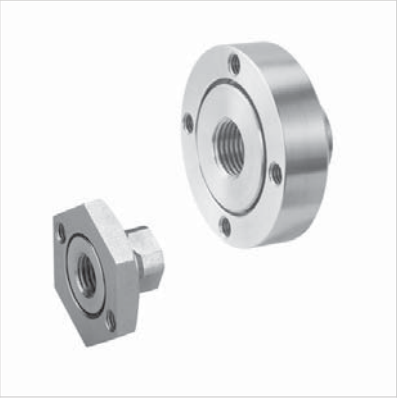
F = useful load (at the load center), SF = bending, Z = projection

Bending due to 10 N load



F = useful load (at the load center), SF = bending, Z = projection

Flexible coupling form B, Series GU3



Technical data

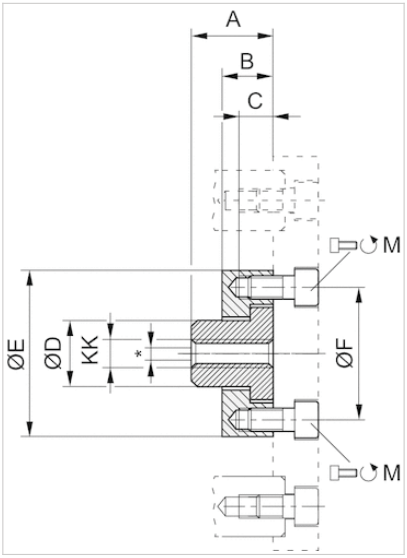
Part No.	Suitable piston rod thread
R413000283	M8
R413000284	M10x1,25
R413000285	M20x1,5

Scope of delivery: flexible coupling incl. mounting screws

Technical information

Material	
	Stainless steel
	Steel

Dimensions



* Radial joint from 1,5 ... 1,8 mm

Dimensions

Part No.	KK	Ø	M	A	B	C	D	ØE	ØF
R413000283	M8	20	2x M5x12	22	6	6	14.5	SW 30	26
R413000284	M10x1,25	25/32	2x M5x12	17	6	6	14.5	SW 30	26
R413000285	M20x1,5	80/100	4x M6x20	32	14	9.5	30	60	51

Flexible coupling form C, Series GU3



Technical data

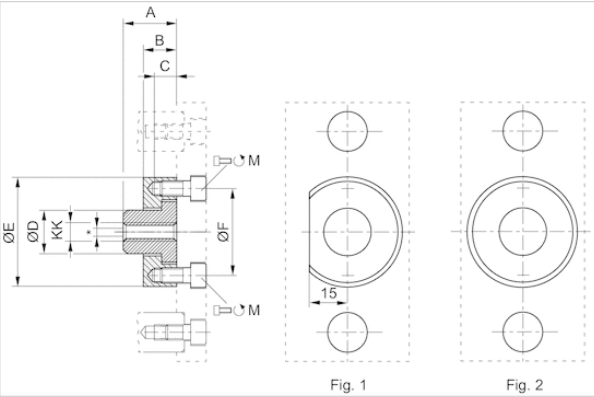
Part No.	Suitable piston rod thread
R413000276	M6
R413000280	M12x1,25
R413000281	M16x1,5

Scope of delivery: flexible coupling incl. mounting screws

Technical information

Material	
	Stainless steel
	Steel

Dimensions



* Radial joint from 1,0 ... 2,5 mm

Dimensions

Part No.	KK	Ø	M	A	B	C	D	ØE	ØF
R413000276	M6	12/16	2x M4x10	18	7	7	10	22	15
R413000280	M12x1,25	40	2x M6x12	22	14	8	18	45	36
R413000281	M16x1,5	50/63	4x M6x14	26	14	8	24	54	45

Flange mounting

- Suitable piston Ø 32 40 50 63 80 100 mm



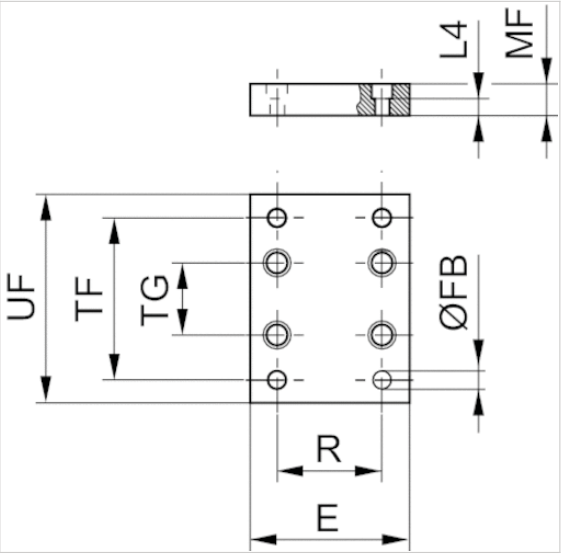
Technical data

Part No.	Piston Ø	For series
1821038079	32 mm	CG1
1821038080	40 mm	CG1
1821038081	50 mm	CG1
1821038082	63 mm	CG1
1821038083	80 mm	CG1
1821038084	100 mm	CG1

Technical information

Material	
Material	Steel
	galvanized

Dimensions



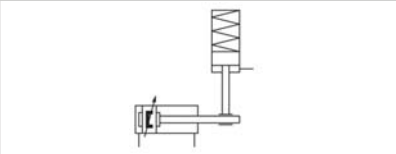
Dimensions

Part No.	Piston Ø	E	Ø FB	L4	MF	R	TF	TG	UF
1821038079	32 mm	50	6.6	4.5	10	32.5	116	61	130
1821038080	40 mm	55	9	4.5	10	38	140	69	160
1821038081	50 mm	70	9	6	12	46.5	160	85	180
1821038082	63 mm	80	9	6	12	56.5	175	100	195
1821038083	80 mm	100	12	9	16	72	218	130	242
1821038084	100 mm	120	14	9	16	89	245	150	272

Holding unit, Series HU1

- Ø 32-100 mm
- hold: spring force, release: compressed air





Function	Hold with clamping jaws
Release pressure	4 ... 8 bar
Ambient temperature min./max.	-10 ... 60 °C
Medium temperature min./max.	-10 ... 60 °C
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Weight	See table below

Technical data

Part No.	Piston Ø	suitable piston rod Ø	Piston rod extension	Compressed air connection	Static holding force	Weight
0821401165	32 mm	12 mm	42 mm	M5	650 N	0,2 kg
0821401166	40 mm	16 mm	45 mm	G 1/8	1100 N	0,27 kg
0821401167	50 mm	20 mm	57 mm	G 1/8	1600 N	0,57 kg
0821401168	63 mm	20 mm	57 mm	G 1/8	2500 N	0,8 kg
0821401169	80 mm	25 mm	77 mm	G 1/8	4000 N	1,85 kg
0821401170	100 mm	25 mm	77 mm	G 1/8	6300 N	2,9 kg

Holding force at 0 bar

Technical information

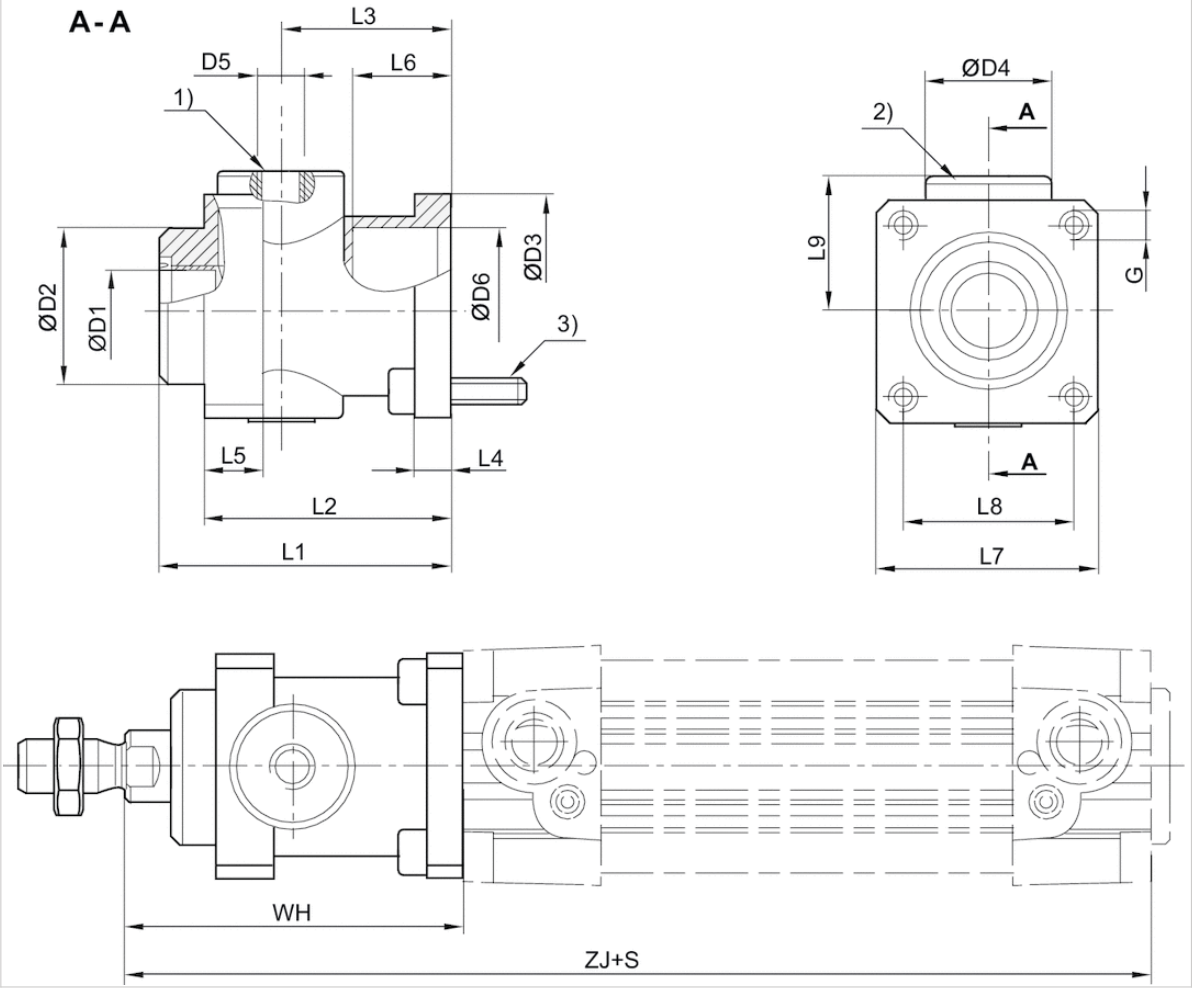
Warning: The holding unit may not be used for the following applications:
1) for dynamic holding
2) in or as safety equipment
Holding unit may only be unlocked when turned off.
Make sure that the load direction does not change during a holding interval. A change in the direction of force, as well as external forces such as impacts, strong vibrations, or torsional forces, will briefly release the piston rod and may destroy the HU1 holding unit.
When clamped, there must be no residual pressure on the holding unit (0 bar).
Note:
The minimum control pressure is >= the working pressure of the cylinder!

Technical information

Material	
Housing	Aluminum, black anodized

Dimensions

Dimensions



1) air connection
2) Holding cartridge
3) mounting screws 4x
S = stroke

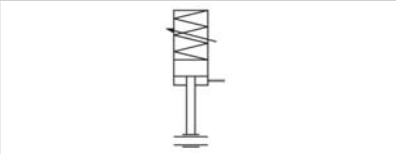
Dimensions

Piston Ø	Ø D1	Ø D2	Ø D3	Ø D4	D5	L1	L2	L3	L4	L5	L6	L7	L8	L9	G	WH	ZJ
32 mm	12	30	35	25	M5	58	48	34	8	13	20.5	45	32.5	25.5	M6	68	162
40 mm	16	35	40	28	G 1/8	65	55	38	8	13	22.5	50	38	30	M6	75	180
50 mm	20	40	50	35	G 1/8	82	70	48	15	16	29.5	60	46.5	36	M8	94	200
63 mm	20	45	60	38	G 1/8	82	70	49.5	15	16	29.5	70	56.5	40	M8	94	215
80 mm	25	45	80	48	G 1/8	110	90	61	18	20	35	90	72	50	M10	123	251
100 mm	25	55	100	58	G 1/8	115	100	69	18	20	–	105	89	58	M10	128	266

Locking unit, Series LU1

- Ø 32-100 mm
- Hold: adjustable spring force, Release: compressed air





Function	Clamp with eccentric tappet
Release pressure	2 ... 8 bar
Ambient temperature min./max.	-20 ... 80 °C
Medium temperature min./max.	-20 ... 80 °C
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Weight	See table below

Technical data

Part No.	Piston Ø	suitable piston rod Ø	Piston rod extension	Compressed air connection	Static holding force
0821401130	32 32 mm	12 mm	79 mm	G 1/8	840 N
0821401131	40 40 mm	16 mm	81 mm	G 1/8	1100 N
0821401132	50 63 mm	20 mm	100 mm	G 1/8	2700 N
0821401133	80 100 mm	25 mm	140 mm	G 1/8	5800 N

Part No.	Weight
0821401130	1,75 kg
0821401131	1,75 kg
0821401132	3 kg
0821401133	8,8 kg

Holding force at 0 bar, Mounting elements LU3, LU4, LU5 are required for assembly and must be ordered separately as accessories.

Technical information

Warning:
The Locking unit may not be used for the following applications:
- for dynamic holding
- in or as safety equipment

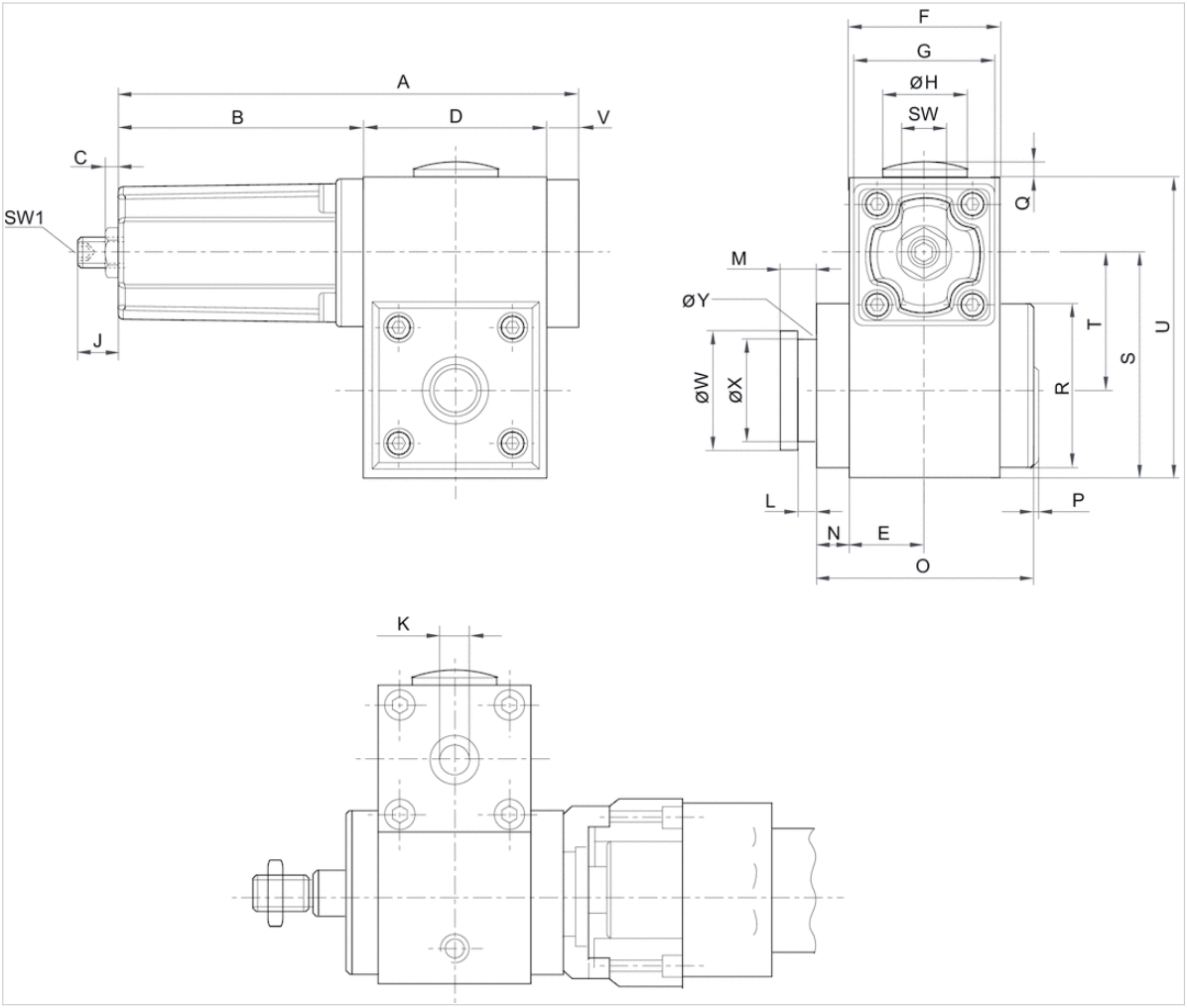
Locking unit may only be unlocked when turned off.
Note:
The minimum release pressure is >= the working pressure of the cylinder!
The holding force is dependent on the set spring force

Technical information

Material	
Housing	Aluminum, anodized
Cap	Die-cast aluminum

Dimensions

Dimensions



Dimensions

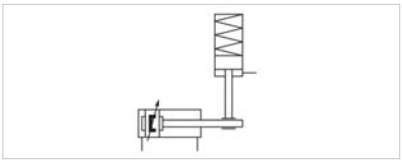
Part No.	A	B	C	D	E	F	G	ØH	J	K	L	M	N	O	P	Q	R	S	SW	SW1	T	U
0821401130	135	69	10	56	23	46	45	30	19	G 1/8	4.1	8	9	65	3	2.5	50	69	15	5	41.9	92
0821401131	135	69	10	56	23	46	45	30	18	G 1/8	5.1	10	9	65	3	2.5	50	69	15	5	40.5	92
0821401132	169	90	10	69	30	60	55	30	17	G 1/8	5.1	10	9	84	3	2.5	60	80	15	5	48	111
0821401133	208	98	16.7	100	40	80	65	37.5	15	G 1/8	8.1	16	13	118	3	2	90	119	24	8	72	155

V	ØW	ØX	ØY
10	29.9	24	3
10	39.9	30	3
10	39.9	30	3
10	54.9	40	5

Locking unit, Series LU1

- Ø 32-100 mm
- hold: spring force, release: compressed air





Function	Clamp with eccentric tappet
Release pressure	See table below
Ambient temperature min./max.	-20 ... 80 °C
Medium temperature min./max.	-20 ... 80 °C
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Weight	See table below

Technical data

Part No.	Piston Ø	suitable piston rod Ø	Piston rod extension	Compressed air connection	Release pressure
R412003730	32 mm	12 mm	79 mm	G 1/8	4,5 ... 8 bar
R412003731	40 mm	16 mm	81 mm	G 1/8	4,5 ... 8 bar
R412003732	50 63 mm	20 mm	100 mm	G 1/8	4,5 ... 8 bar
R412003733	80 100 mm	25 mm	140 mm	G 1/8	4,5 ... 8 bar
0821401134	32 mm	12 mm	79 mm	G 1/8	5,5 ... 8 bar
0821401135	40 mm	16 mm	81 mm	G 1/8	5,5 ... 8 bar
0821401136	50 63 mm	20 mm	100 mm	G 1/8	5,5 ... 8 bar
0821401137	80 100 mm	25 mm	140 mm	G 1/8	5,5 ... 8 bar

Part No.	Static holding force	Weight
R412003730	740 N	1,52 kg
R412003731	1000 N	1,5 kg
R412003732	2300 N	2,56 kg
R412003733	4000 N	7,7 kg
0821401134	840 N	1,52 kg
0821401135	1100 N	1,5 kg
0821401136	2700 N	2,56 kg
0821401137	5800 N	7,7 kg

Holding force at 0 bar, Mounting elements LU3, LU4, LU5 are required for assembly and must be ordered separately as accessories.

Technical information

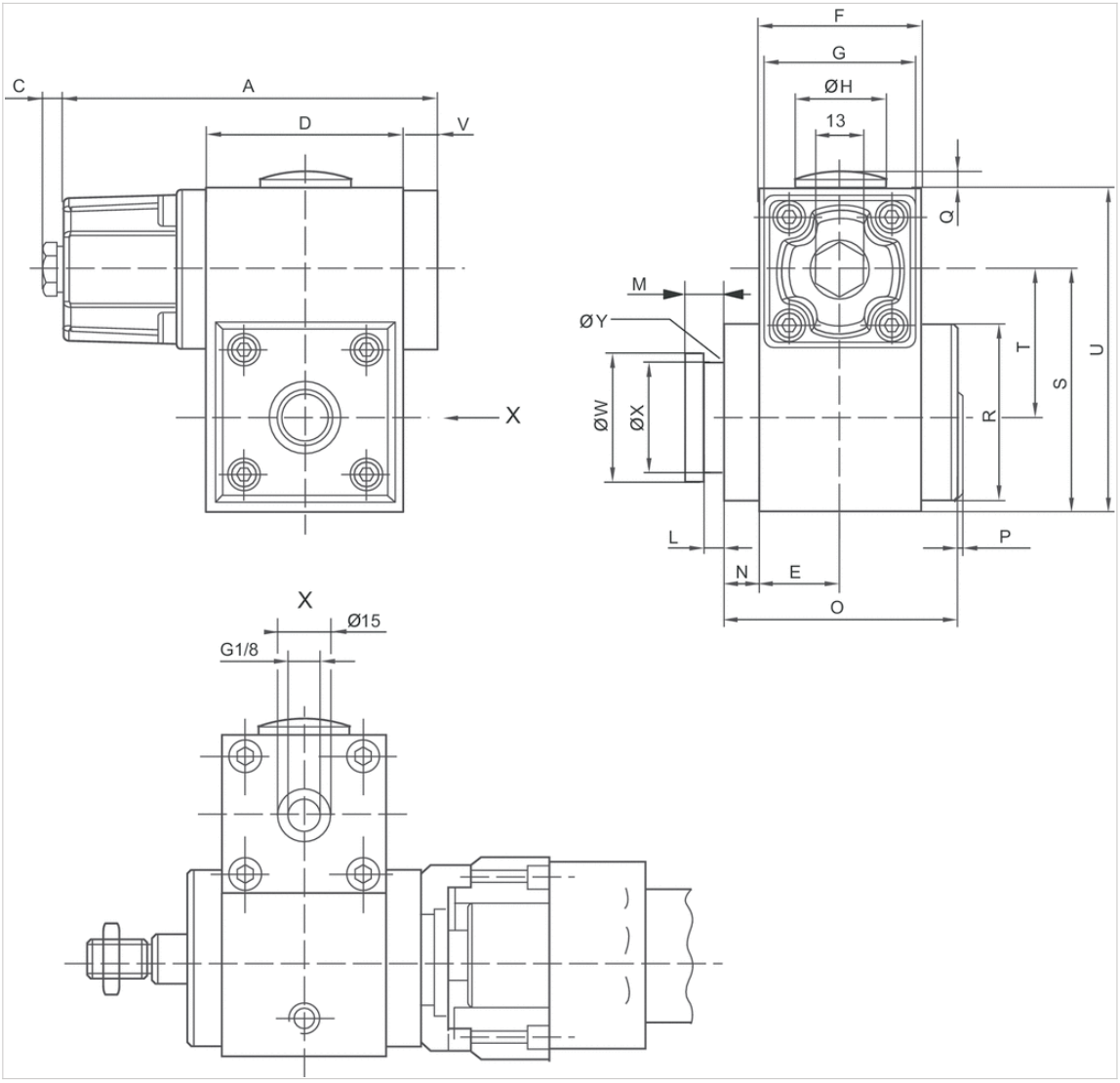
Warning:
The Locking unit may not be used for the following applications:
- for dynamic holding
- in or as safety equipment
Locking unit may only be unlocked when turned off.

Technical information

Material	
Housing	Aluminum, anodized
Cap	Die-cast aluminum

Dimensions

Dimensions



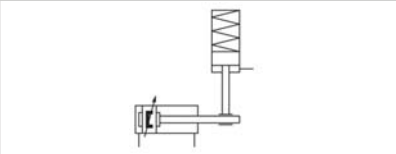
Dimensions

Part No.	A	C	D	E	F	G	Ø H	L	M	N	O	P	Q	R	S	T	U	V	Ø W	Ø X	Ø Y
R412003730	106	6	56	23	46	45	30	4.1	8	9	65	3	2.5	50	68.5	41.9	91.5	10	29.9	24	3
R412003731	106	6	56	23	46	45	30	5.1	10	9	65	3	2.5	50	68.5	40.5	91.5	10	39.9	30	3
R412003732	139.5	6	69	30	60	55	30	5.1	10	9	83.5	3	2.5	60	79.5	48	110	10	39.9	30	3
R412003733	176.5	6	100	40	80	65	37.5	8.1	16	13	118	3	2	90	119	72	155	10	54.9	40	5
0821401134	106	6	56	23	46	45	30	4.1	8	9	65	3	2.5	50	68.5	41.9	91.5	10	29.9	24	3
0821401135	106	6	56	23	46	45	30	5.1	10	9	65	3	2.5	50	68.5	40.5	91.5	10	39.9	30	3
0821401136	139.5	6	69	30	60	55	30	5.1	10	9	83.5	3	2.5	60	79.5	48	110	10	39.9	30	3
0821401137	176.5	6	100	40	80	65	37.5	8.1	16	13	118	3	2	90	119	72	155	10	54.9	40	5

Locking unit, Series LU6

- Ø 32-125 mm
- Holding and braking: non-adjustable spring, Release: compressed air





Version	Clamping jaw lock
Function	Static holding Dynamic braking
Release pressure	4 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m³
Weight	See table below

Technical data

Part No.	Piston Ø	suitable piston rod Ø	Piston rod extension	Compressed air connection	Required flow rate Qn
5230996402	32 mm	12 mm	125 mm	G 1/8	50 l/min
5231996402	40 mm	16 mm	125 mm	G 1/8	70 l/min
5232996402	50 mm	20 mm	145 mm	G 1/8	140 l/min
5233996402	63 mm	20 mm	165 mm	G 1/8	240 l/min
5234996402	80 mm	25 mm	185 mm	G 1/8	450 l/min
5235996402	100 mm	25 mm	220 mm	G 1/8	700 l/min
5236996402	125 mm	32 mm	220 mm	G 1/4	1200 l/min

Part No.	Max. torsional moment of piston rod	B10d value static	B10d value dynamic
5230996402	0,5 Nm	5.000.000	2.000.000
5231996402	1 Nm	5.000.000	2.000.000
5232996402	2 Nm	5.000.000	2.000.000
5233996402	2,5 Nm	5.000.000	2.000.000
5234996402	5 Nm	5.000.000	2.000.000
5235996402	9 Nm	5.000.000	2.000.000
5236996402	15 Nm	5.000.000	2.000.000

Part No.	Buckling protection of the piston rod 1)		Weight	
	Max. cylinder stroke for Euler case 1	Max. cylinder stroke for Euler case 2		
5230996402	750 mm	400 mm	0,8 kg	1)
5231996402	1100 mm	550 mm	1 kg	1)
5232996402	1350 mm	700 mm	1,8 kg	1)
5233996402	950 mm	500 mm	2,8 kg	1)

Part No.	Buckling protection of the piston rod 1)		Weight	
	Max. cylinder stroke for Euler case 1	Max. cylinder stroke for Euler case 2		
5234996402	1350 mm	700 mm	5,5 kg	1)
5235996402	950 mm	500 mm	9,5 kg	1)
5236996402	1500 mm	800 mm	13,8 kg	2)

1) Only applies in dynamic cases, and only retracting, DGUV certified

2) Only applies in dynamic cases, and only retracting

Technical data

Piston Ø	32 mm	40 mm	50 mm
Max. holding/braking force FLU6	760 N	1200 N	1900 N
Max. moving mass, external mmax	77 kg	122 kg	194 kg
Max. piston speed vmax	1 m/s	1 m/s	1 m/s
Max. total braking energy (MJ) Etotal	3,2 MJ	6 MJ	10 MJ
Max. braking energy per hour PLU6	720 J	1350 J	2250 J
Max. braking energy per braking cycle ELU6	4,8 J	9 J	15 J
Braking energy per braking cycle related to B10d EB10d	1,6 J	3 J	5 J
Brake response time (4 bar) tbrake	0,08 s	0,08 s	0,08 s
Brake response time (6.3 bar) tbrake	0,1 s	0,1 s	0,1 s
Brake response time (10 bar) tbrake	0,12 s	0,12 s	0,12 s

Piston Ø	63 mm	80 mm	100 mm
Max. holding/braking force FLU6	3000 N	5000 N	8000 N
Max. moving mass, external mmax	306 kg	510 kg	815 kg
Max. piston speed vmax	1 m/s	1 m/s	1 m/s
Max. total braking energy (MJ) Etotal	18 MJ	36 MJ	58 MJ
Max. braking energy per hour PLU6	4050 J	8100 J	13200 J
Max. braking energy per braking cycle ELU6	27 J	54 J	88 J
Braking energy per braking cycle related to B10d EB10d	9 J	18 J	29 J
Brake response time (4 bar) tbrake	0,08 s	0,08 s	0,09 s
Brake response time (6.3 bar) tbrake	0,1 s	0,1 s	0,11 s
Brake response time (10 bar) tbrake	0,12 s	0,12 s	0,13 s

Piston Ø	125 mm
Max. holding/braking force FLU6	12000 N
Max. moving mass, external mmax	1223 kg
Max. piston speed vmax	1 m/s
Max. total braking energy (MJ) Etotal	93 MJ
Max. braking energy per hour PLU6	21000 J
Max. braking energy per braking cycle ELU6	140 J
Braking energy per braking cycle related to B10d EB10d	47 J
Brake response time (4 bar) tbrake	0,09 s
Brake response time (6.3 bar) tbrake	0,11 s
Brake response time (10 bar) tbrake	0,13 s

The values for the max. braking energy per braking cycle are equivalent to the cushioning energy for cylinder series PRA and TRB.

Technical information

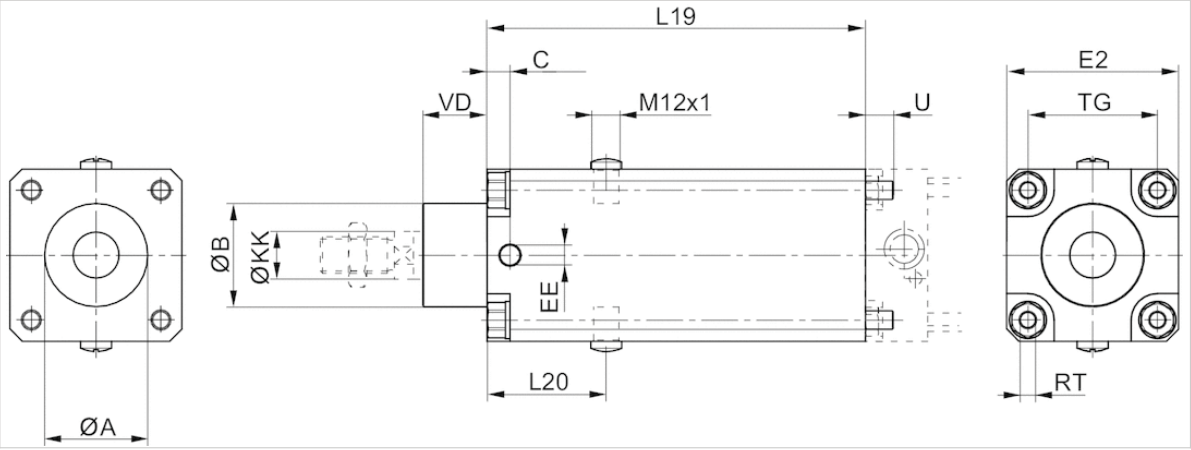
The maximum ambient and medium temperature is + 70 °C for the dynamic braking function.
Note:
Before pressurizing the locking unit, make sure that there is a balance of forces at the piston on the drive cylinder. Please see the operating instructions for further safety-relevant information. The locking unit can be used in controls with a max. performance level e in accordance with DIN EN ISO 13849-1 ("basic and well-tried safety principles"). For applications in category 2 to 4 controls, additional control measures according to DIN EN ISO 13849-1 are required.
The locking unit can be used as an individual component or pre-mounted on a cylinder..
Scope of delivery: LU6, each with 4 flange nuts, washers, and tie rods
For technical reasons, formulas and sample calculations have been moved to the MediaCentre (link to operating instructions).

Technical information

Material	
Housing	Aluminum, anodized
Seal	Nitrile butadiene rubber
Scraper	Nitrile butadiene rubber

Dimensions

Dimensions

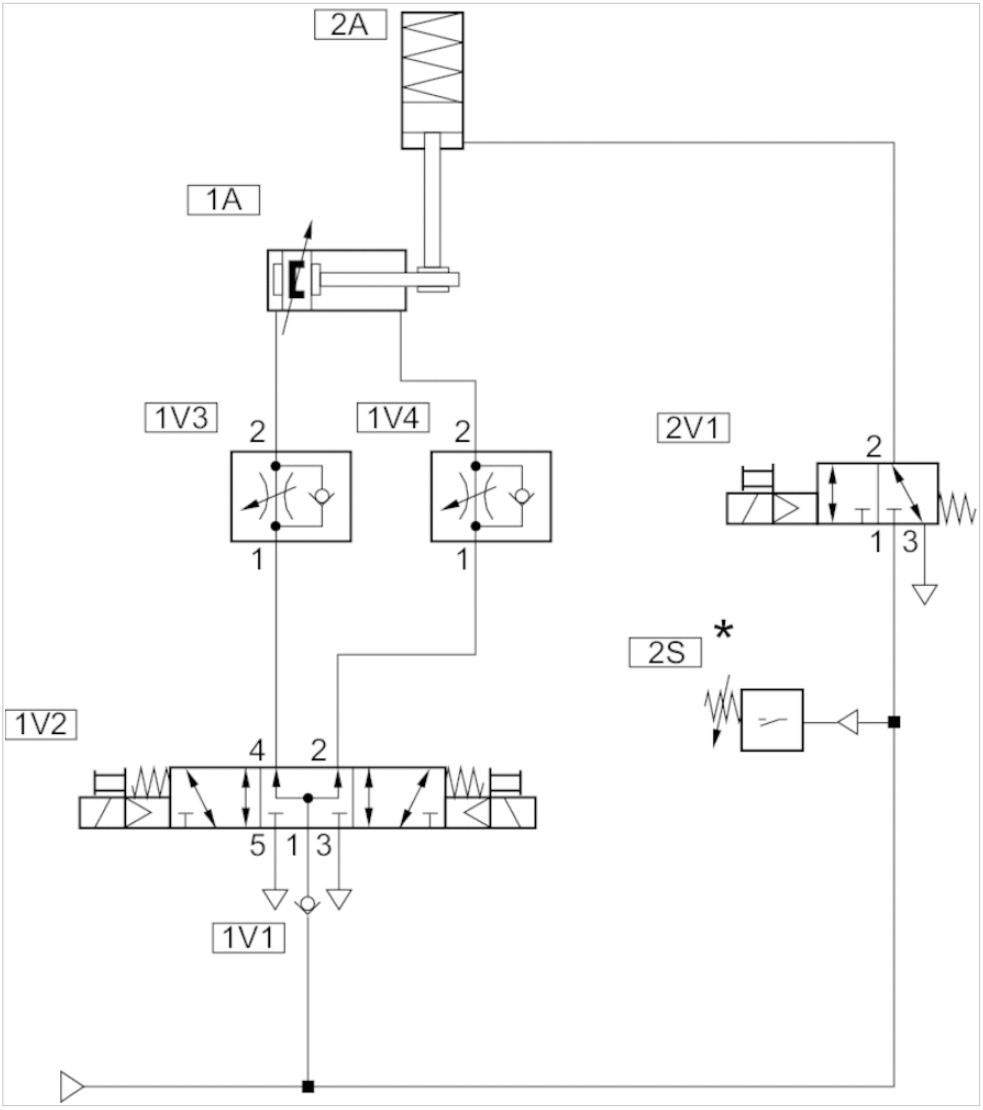


Dimensions

Piston Ø	ØA	ØB d11	C	EE	E2	L19	L20	ØKK e8-h9	TG	RT	U	VD
32 mm	30,5	30	9	G1/8	48	125	44	12	32,5	M6	10	19
40 mm	35,5	35	9	G1/8	53	125	44	16	38	M6	10	21
50 mm	40,5	40	9	G1/8	63	145	49	20	46,5	M8	11	28
63 mm	45,5	45	10	G1/8	75	165	52	20	56,5	M8	11	28
80 mm	45,5	45	11	G1/8	98	185	61.5	25	72	M10	16	34
100 mm	55,5	55	13	G1/8	118	220	68	25	89	M10	16	37
125 mm	60,5	60	13	G1/4	142	220	75	32	110	M12	16	45

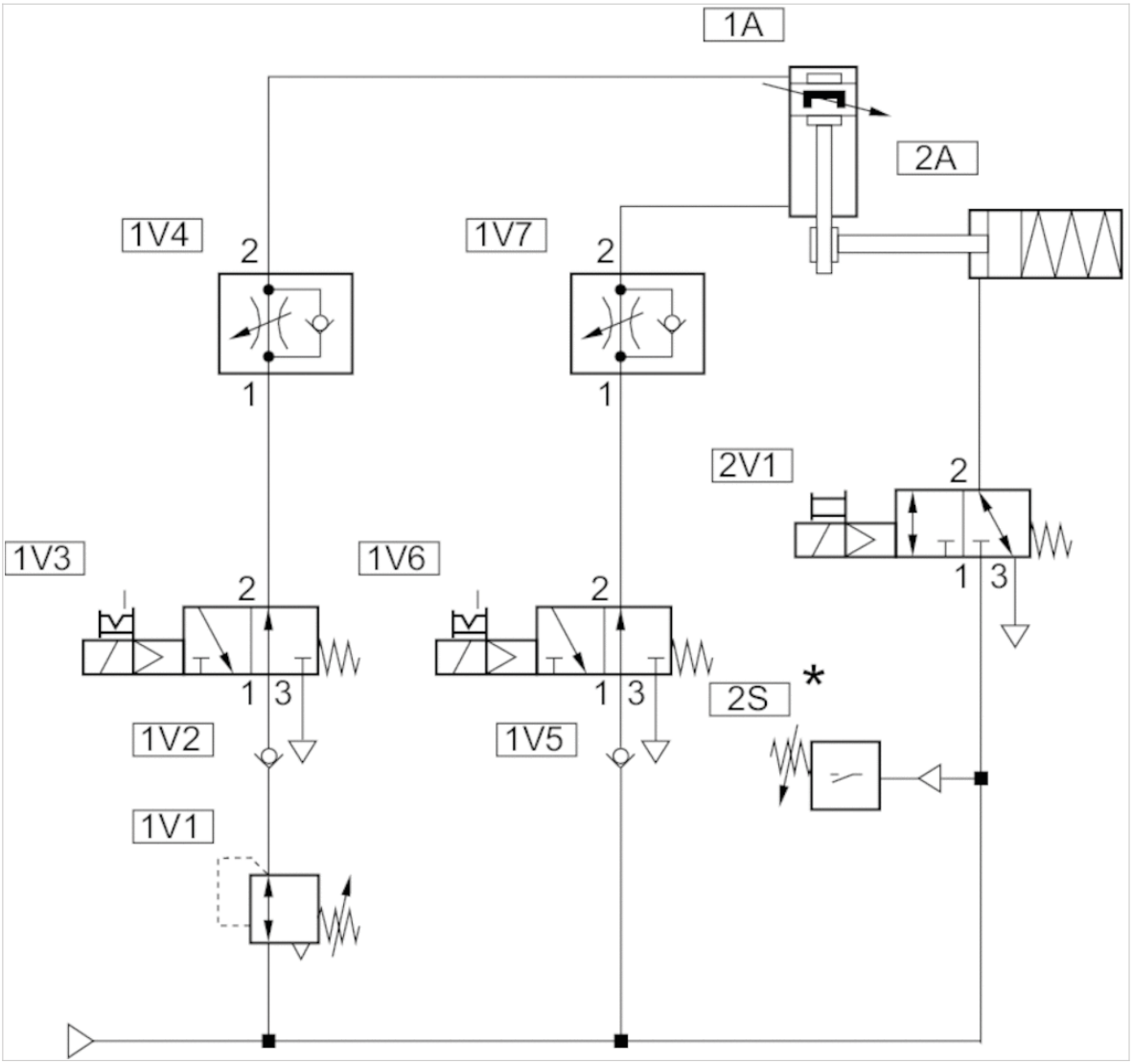
Circuit diagram

Circuit example for non-safety relevant functions: horizontal installation position



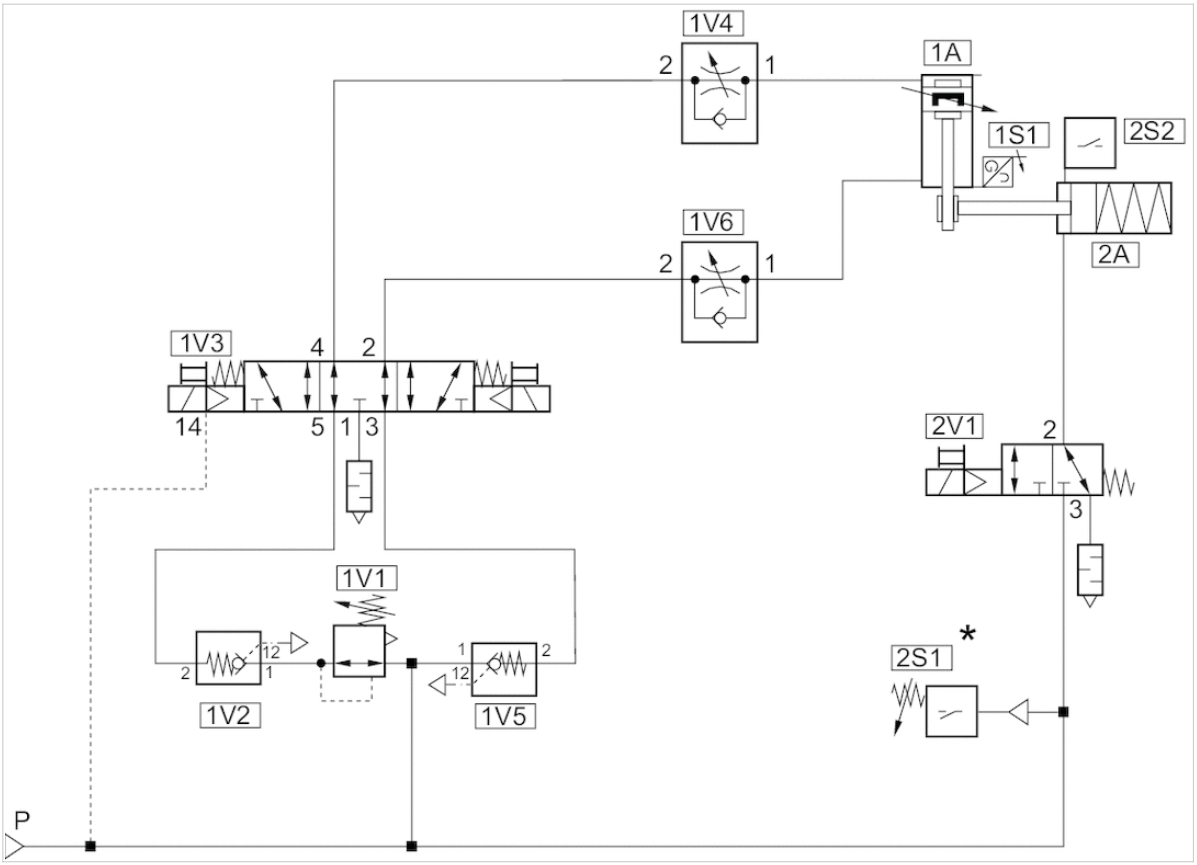
* From 4 bar : release of 2V1

Circuit example for non-safety relevant functions: Vertical mounting orientation



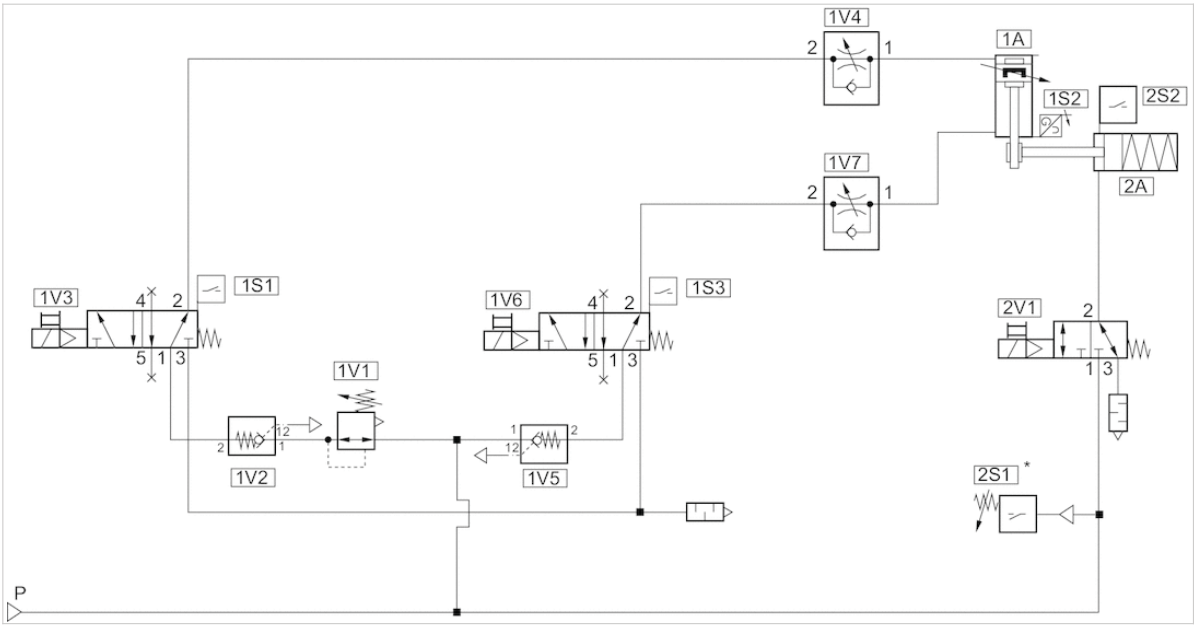
* From 4 bar : release of 2V1

Circuit example for safety-related stop functions: horizontal installation position



Channel 1: Safe stopping and closing
Channel 2: Safe brake control
* From 4 bar : release of 2V1

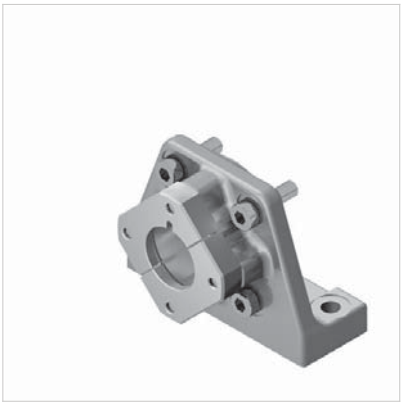
Circuit example for safety-related stop functions: Vertical mounting orientation



Channel 1: Safe stopping and closing
Channel 2: Safe brake control
* From 4 bar : release of 2V1

Foot mounting, Series LU4

- for cylinders with locking units



Ambient temperature min./max.	-20 ... 80 °C
Medium temperature min./max.	-20 ... 80 °C
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³

Technical data

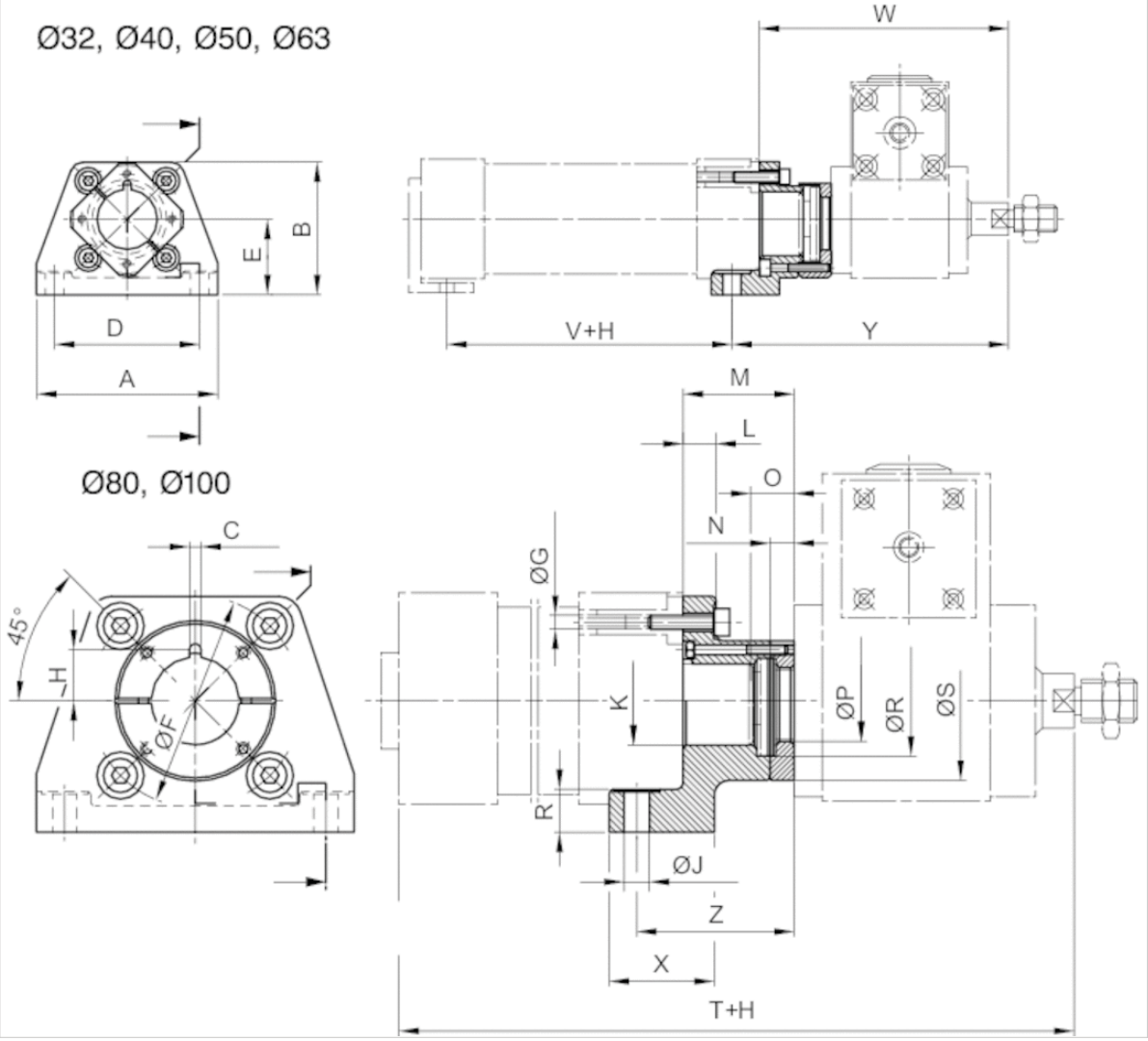
Part No.
1827001520
1827001521
1827001522
1827001526
1827001524
1827002152

Technical information

Material	
Housing	Nodular graphite iron, galvanized

Dimensions

Dimensions



H = stroke
The locking unit can be rotated by 4x90°.

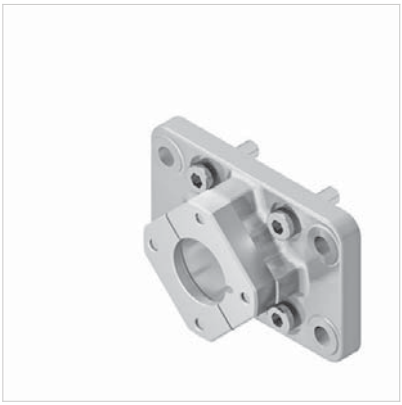
Dimensions

Part No.	A	B	C ±0,1	D ±0,1	E	Ø F	Ø G H13	I	J H8	K H10	L	M	N	O	Ø P	R
1827001520	79	57	3.6	65	32	46	6.6	13.2	6.6	30	7	27	3.9	–	24.2	9
1827001521	90	64	3.6	75	36	54	6.6	18.2	6.6	35	9.5	33	4.9	13	30.2	11
1827001522	110	80	3.6	90	45	66	8.4	18.2	9	40	11	38	4.9	–	30.2	15
1827001526	120	90	3.6	100	50	80	8.4	18.2	9	45	11	38	4.9	–	30.2	15
1827001524	153	113	6	128	63	102	10.5	24.5	11	45	15	52	7.9	18	40.2	19.5
1827002152	176	133	6	148	71	126	10.5	24.6	11	55	15	57	7.9	–	40.2	19.5

Ø R	Ø S	T	V	W	X	Y	Z
30	46.5	199	68	105	32	118	40
40	55.5	216	79	111	32	124	46
40	66	243	74	137	41	153	54
40	71	258	89	137	41	153	54
55	75	314	84	186	50	208	74
55	80	329	94	191	50	213	79

Flange mounting, Series LU5

- for cylinders with locking units



Ambient temperature min./max.	-20 ... 80 °C
Medium temperature min./max.	-20 ... 80 °C
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³

Technical data

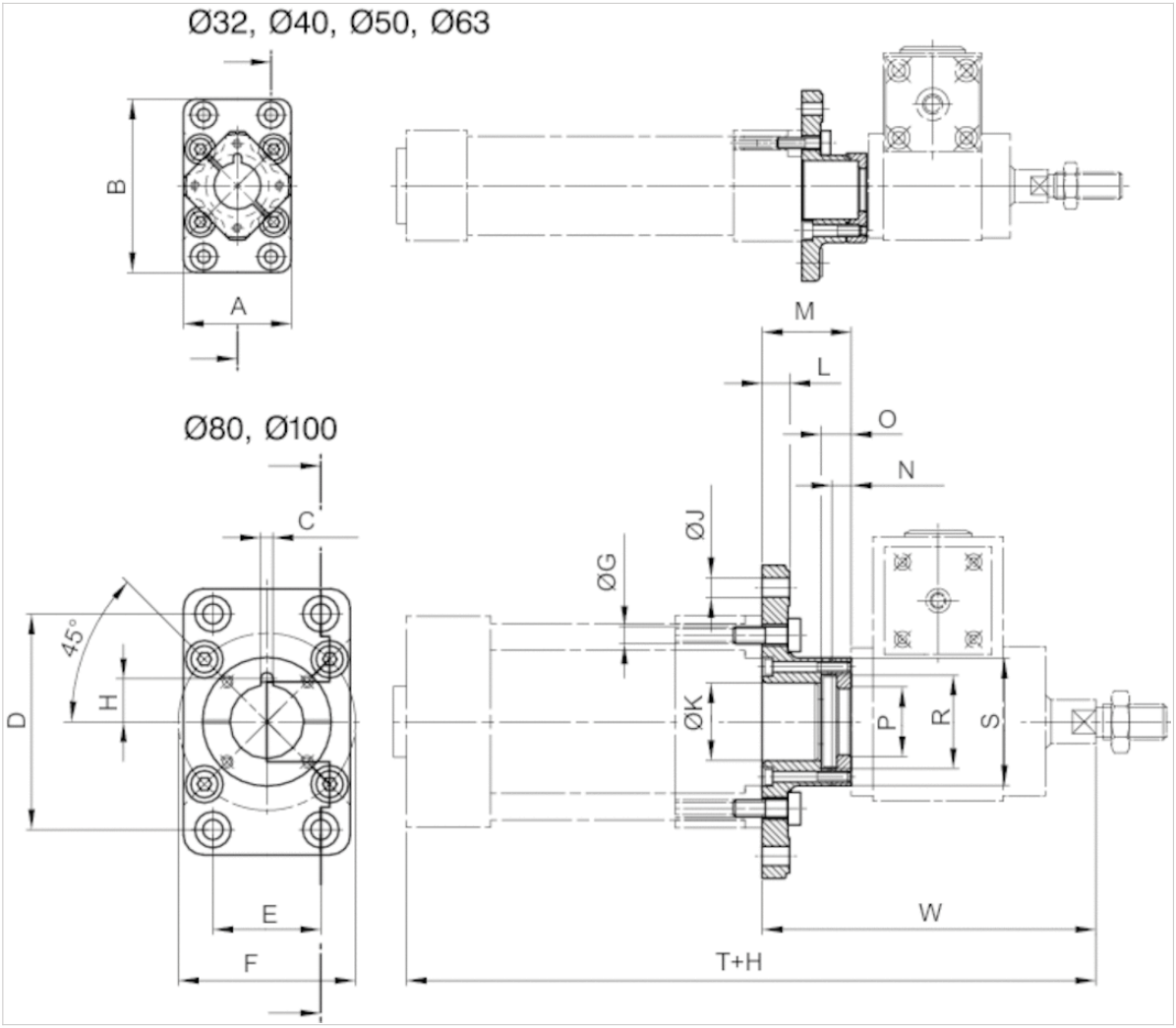
Part No.
1827001512
1827001513
1827001514
1827001503
1827001516
1827001517

Technical information

Material	
Housing	Nodular graphite iron, galvanized

Dimensions

Dimensions



Dimensions

A	B	C ±0,1	D ±0,1	E ±0,1	Ø F ±0,2	Ø G H13	H	Ø J H13	Ø K H10	L	M	N ±0,1
50	79	3.6	64	32	46	6.6	13.2	7	30	8	27	3.9
56	91	3.6	72	36	54	6.6	18.2	9	35	10	33.3	4.9
70	111	3.6	90	45	66	8.4	18.2	9	40	12	38.3	4.9
80	120	3.6	100	50	80	8.4	18.2	9	45	12	38.3	4.9
100	153	6	126	63	102	10.5	24.5	12	45	16	52	7.9
120	178	6	150	75	126	10.5	24.6	14	55	16	57	7.9

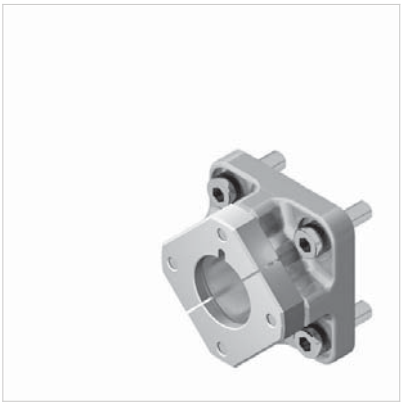
O 1)	Ø P +0,2	Ø R +0,5	Ø S	W
8	24.2	33	50	105
10	30.2	40	55.5	111

O 1)	Ø P +0,2	Ø R +0,5	Ø S	W
10	30.2	40	66	137
10	30.2	40	71	137
16	40.2	55	75	186
16	40.2	55	80	191

1) Min.

Mounting flange, Series LU3

- for cylinders with locking units



Ambient temperature min./max.	-20 ... 80 °C
Medium temperature min./max.	-20 ... 80 °C
Max. particle size	5 µm
Oil content of compressed air	0 ... 5 mg/m³
Weight	See table below

Technical data

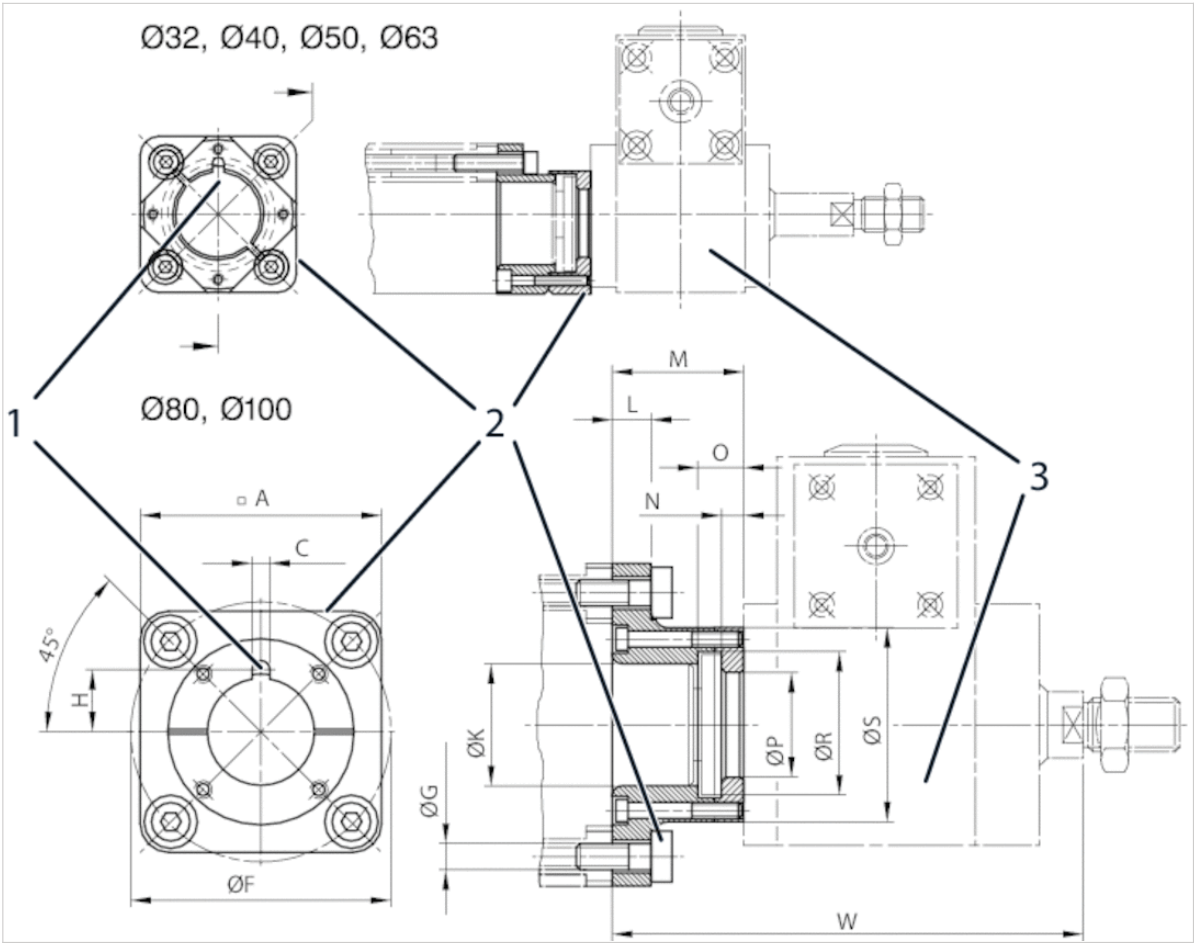
Part No.	Weight
1827001504	0,235 kg
1827001505	0,36 kg
1827001506	0,635 kg
1827001508	0,84 kg
1827001433	1,62 kg
1827001434	2,27 kg

Technical information

Material	
Housing	Nodular graphite iron, galvanized

Dimensions

Dimensions



Screws included in scope of delivery
The locking unit can be rotated by 4x90°.

Dimensions

A	C +0,1	Ø F ±0,2	G H13	H	Ø K H10	L	M	N -0,1	O 1)	Ø P +0,2	Ø R +0,5	Ø S
50	3.6	46	6.6	13.2	30	7	27.2	3.9	8	24.2	33	46.5
57	3.6	54	6.6	18.2	35	9.5	33.3	4.9	10	30.2	40	55.5
68	3.6	66	8.4	18.2	40	11	38.3	4.9	10	30.2	40	66
75	3.6	80	8.4	18.2	45	11	38.3	4.9	10	30.2	40	71
95	6	102	10.5	24.5	45	15	52	7.9	16	40.2	55	75
115	6	126	10.5	24.6	55	15	57	7.9	16	40.2	55	80

W
105
111

W
137
137
186
191

1) Min.

Modular sealing system

- Ø 32 mm ... 125 mm
- For series PRA TRB CCL-IS



Working pressure min./max.	1,5 ... 10 bar
Ambient temperature min./max.	See table below
Medium	Compressed air
Oil content of compressed air	0 ... 5 mg/m³

Technical data

Part No.	Piston Ø	Piston rod seal	Scraper
0496400704	32 mm	Acrylonitrile butadiene rubber	Polyester elastomer
0496401107	32 mm	Acrylonitrile butadiene rubber	Polytetrafluorethylene
0496401700	32 mm	Fluorocaoutchouc	Polytetrafluorethylene
0496400402	40 mm	Acrylonitrile butadiene rubber	Brass
0496401409	40 mm	Fluorocaoutchouc	Brass
0496400801	40 mm	Acrylonitrile butadiene rubber	Polyester elastomer
0496401204	40 mm	Acrylonitrile butadiene rubber	Polytetrafluorethylene
0496401808	40 mm	Fluorocaoutchouc	Polytetrafluorethylene
0496400518	50 63 mm	Acrylonitrile butadiene rubber	Brass
0496401506	50 63 mm	Fluorocaoutchouc	Brass
0496400909	50 63 mm	Acrylonitrile butadiene rubber	Polyester elastomer
0496402103	50 63 mm	Acrylonitrile butadiene rubber	Polytetrafluorethylene
0496401905	50 63 mm	Fluorocaoutchouc	Polytetrafluorethylene
0496400607	80 100 mm	Acrylonitrile butadiene rubber	Brass
0496401603	80 100 mm	Fluorocaoutchouc	Brass
0496401018	80 100 mm	Acrylonitrile butadiene rubber	Polyester elastomer
0496402200	80 100 mm	Acrylonitrile butadiene rubber	Polytetrafluorethylene
0496402006	80 100 mm	Fluorocaoutchouc	Polytetrafluorethylene
0496301404	125 mm	Acrylonitrile butadiene rubber	Brass
0496303105	125 mm	Fluorocaoutchouc	Brass
0496301307	125 mm	Acrylonitrile butadiene rubber	Polyester elastomer
0496301706	125 mm	Acrylonitrile butadiene rubber	Polytetrafluorethylene
0496303202	125 mm	Fluorocaoutchouc	Polytetrafluorethylene

Part No.	Ambient temperature min./max.	Application area
0496400704	-20 ... 80 °C	1)
0496401107	-20 ... 80 °C	2)
0496401700	-10 ... 150 °C	2)

Part No.	Ambient temperature min./max.	Application area
0496400402	-20 ... 80 °C	3)
0496401409	-10 ... 150 °C	3)
0496400801	-20 ... 80 °C	1)
0496401204	-20 ... 80 °C	2)
0496401808	-10 ... 150 °C	2)
0496400518	-20 ... 80 °C	3)
0496401506	-10 ... 150 °C	3)
0496400909	-20 ... 80 °C	1)
0496402103	-20 ... 80 °C	2)
0496401905	-10 ... 150 °C	2)
0496400607	-20 ... 80 °C	3)
0496401603	-10 ... 150 °C	3)
0496401018	-20 ... 80 °C	1)
0496402200	-20 ... 80 °C	2)
0496402006	-10 ... 150 °C	2)
0496301404	-20 ... 80 °C	3)
0496303105	-10 ... 150 °C	3)
0496301307	-20 ... 80 °C	1)
0496301706	-20 ... 80 °C	2)
0496303202	-10 ... 150 °C	2)

1)Application area Paper/printing industry Textile industry

2)Application area Textile industry Food industry Chemical industry Sugar production

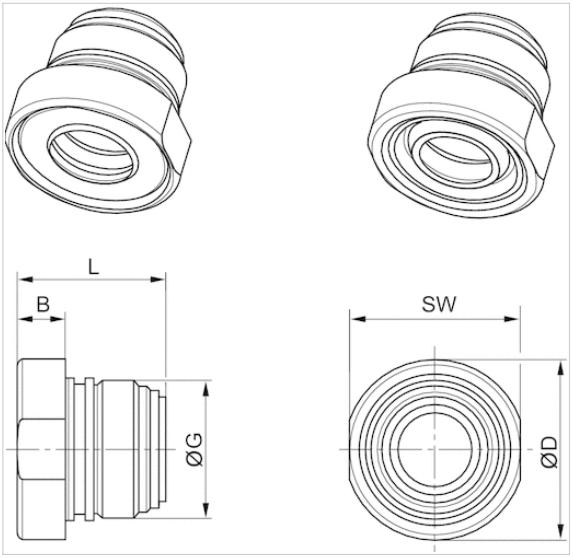
3)Application area Chemical industry Sugar production Steel construction Automotive industry Woodworking industry

Technical information

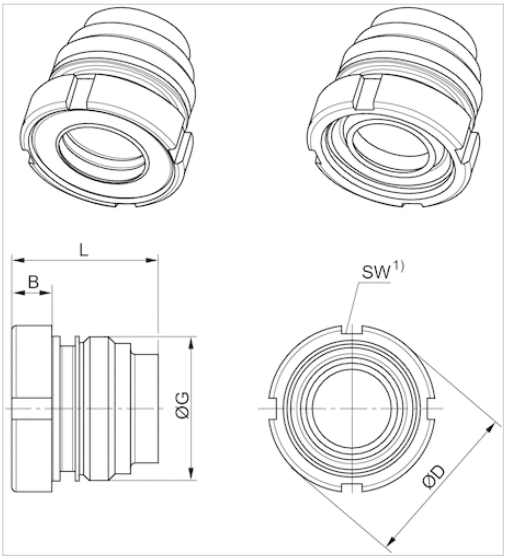
Material	
Housing	Aluminum, anodized

Dimensions

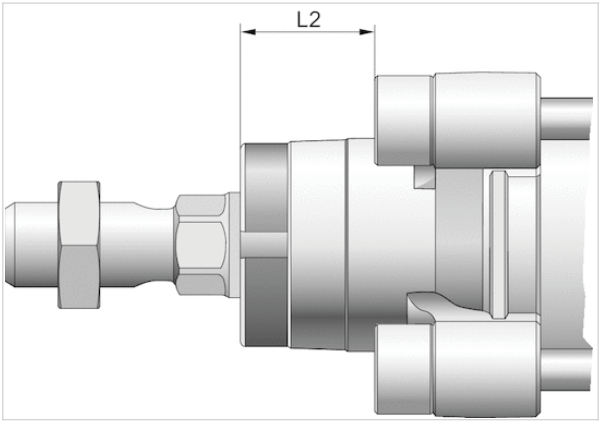
For cylinder diameters: 32-40 mm Dimensions in mm



For cylinder diameters: 50 ... 125 mm Dimensions in mm



1) Can be mounted with hook wrench in accordance with DIN 1810 A

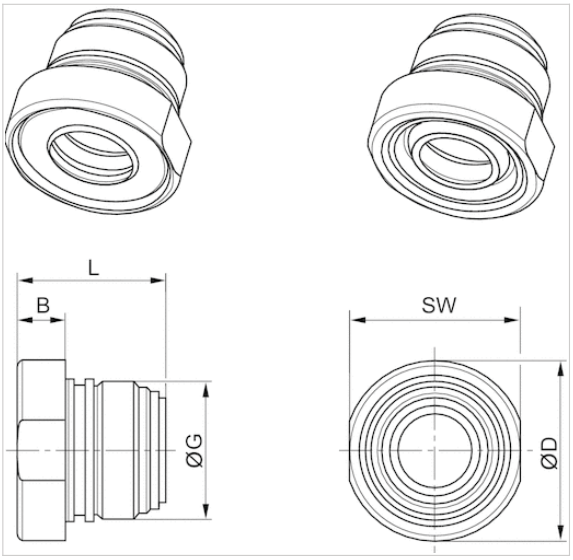


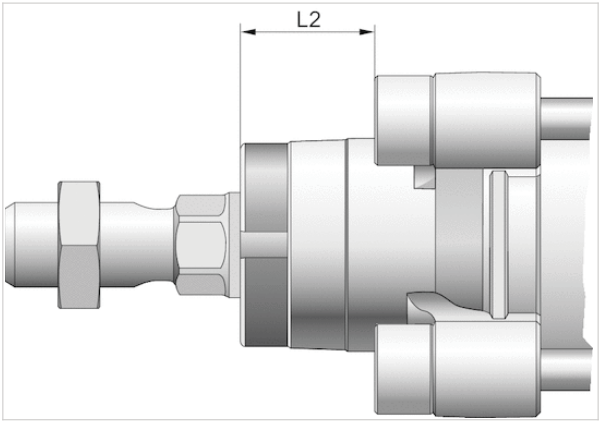
Dimensions

Piston Ø	B	ØD	G	L	L2	SW
32	6.7	24.5	M22x1	23	16.25	23
40	9.2	34	M26x1,5	28.1	18.25	32
50, 63	9	38.5	M33x2	33.5	25	40-42
80, 100	10	44	M40x2	44	33	45-50
125	12	57	M50x2	56	45	58-62

Dimensions

For cylinder diameters: 32-40 mm Dimensions in mm



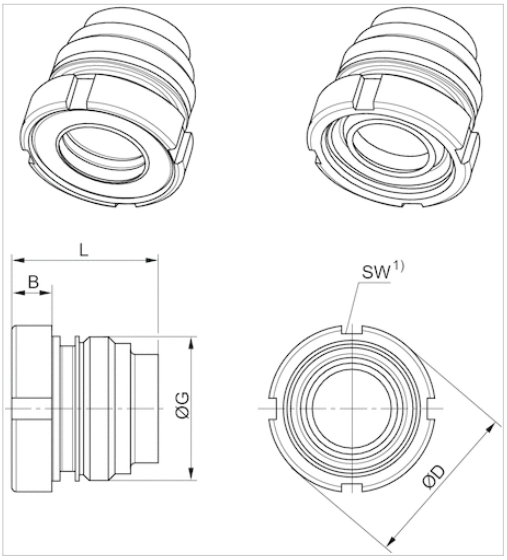


Dimensions

Piston Ø	B	ØD	G	L	L2	SW
32	6.7	24.5	M22x1	23	16.25	23
40	9.2	34	M26x1,5	28.1	18.25	32
50, 63	9	38.5	M33x2	33.5	25	40-42
80, 100	10	44	M40x2	44	33	45-50
125	12	57	M50x2	56	45	58-62

Dimensions

For cylinder diameters: 50 ... 125 mm Dimensions in mm



1) Can be mounted with hook wrench in accordance with DIN 1810 A

Sensor mounting, Series CB1

- for series ST6 SM6 SN1 SN2
- to mount on cylinder TRB, C12P, CVI, 523



Weight 0,031 kg

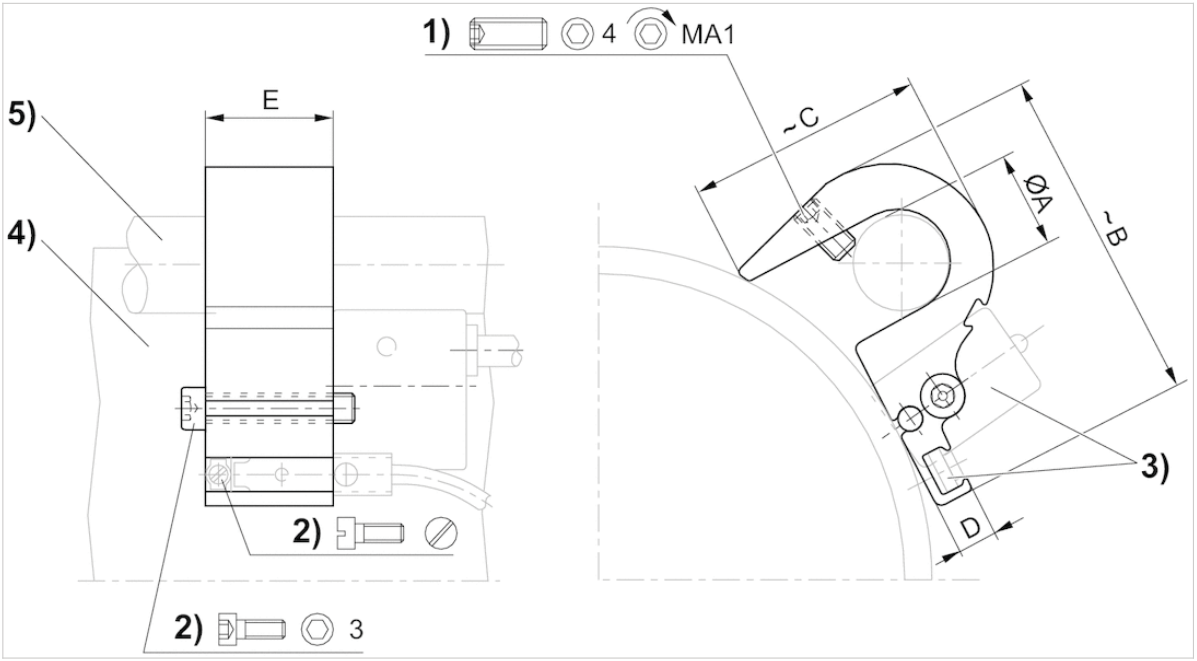
Technical data

Part No.	Cylinders Ø	Cylinders Ø	for series
	min.	max.	
1827020292	125 mm	125 mm	ST6 SM6 SN1 SN2

Technical information

Material	
	Aluminum

Dimensions



1) Clamping threaded pin 2) Mounting screw for sensor 3) Sensor 4) Cylinder profile 5) Tie rod

Dimensions

Part No.	Ø A	B	C	D	E	1)	MA1 [Nm]
1827020292	12	45	29	6.5	21	M5x10	2

Sensor mounting, Series CB1

- for series ST6 SM6
- to mount on cylinder TRB, C12P, 167, CVI, TRR, 523



Weight See table below

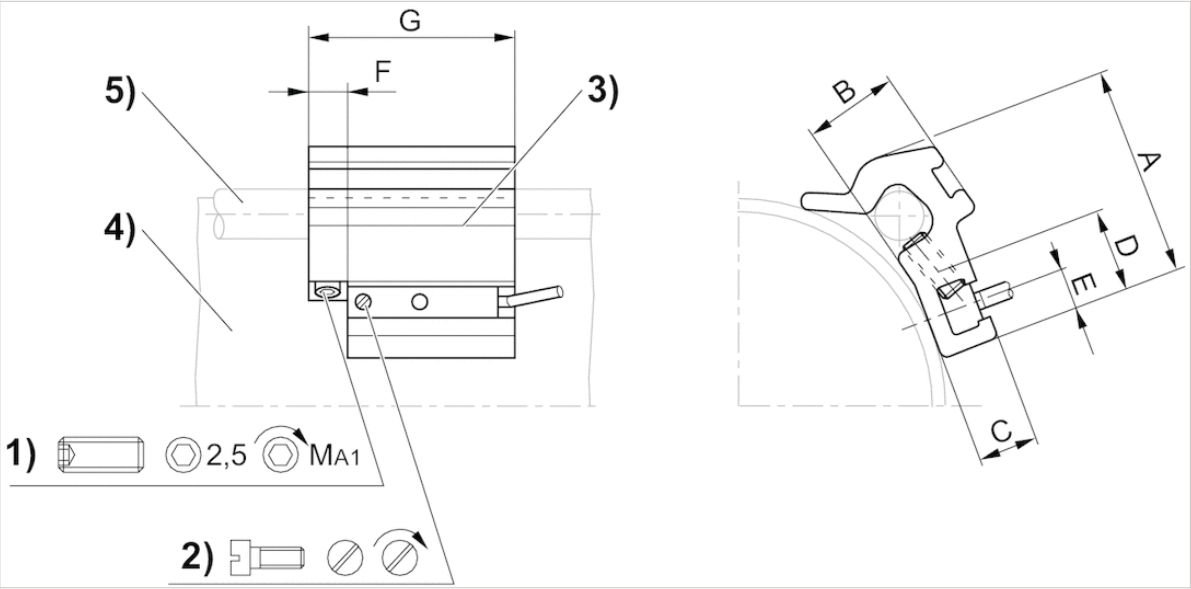
Technical data

Part No.	Cylinders Ø min.	Cylinders Ø max.	for series	Weight
1827020282	32 mm	40 mm	ST6 SM6	0,016 kg
1827020283	50 mm	63 mm	ST6 SM6	0,029 kg
1827020284	80 mm	100 mm	ST6 SM6	0,042 kg

Technical information

Material	
	Aluminum

Dimensions



1) Clamping threaded pin 2) Mounting screw for sensor 3) Sensor 4) Cylinder profile 5) Tie rod

Dimensions

Part No.	A	B	C	D	E	F	G	1)	MA1 [Nm]
1827020282	26	10	7	14	5	8	40	M5x8	2 ±0,2
1827020283	32.5	15.5	7	14	5	8	40	M5x10	2 ±0,2
1827020284	43	17	6.9	14	5	8	40	M5x16	2 ±0,2

Sensor mounting, Series CB1

- for series SN6
- to mount on cylinder TRB, C12P, CVI, 523



Weight 0,034 kg

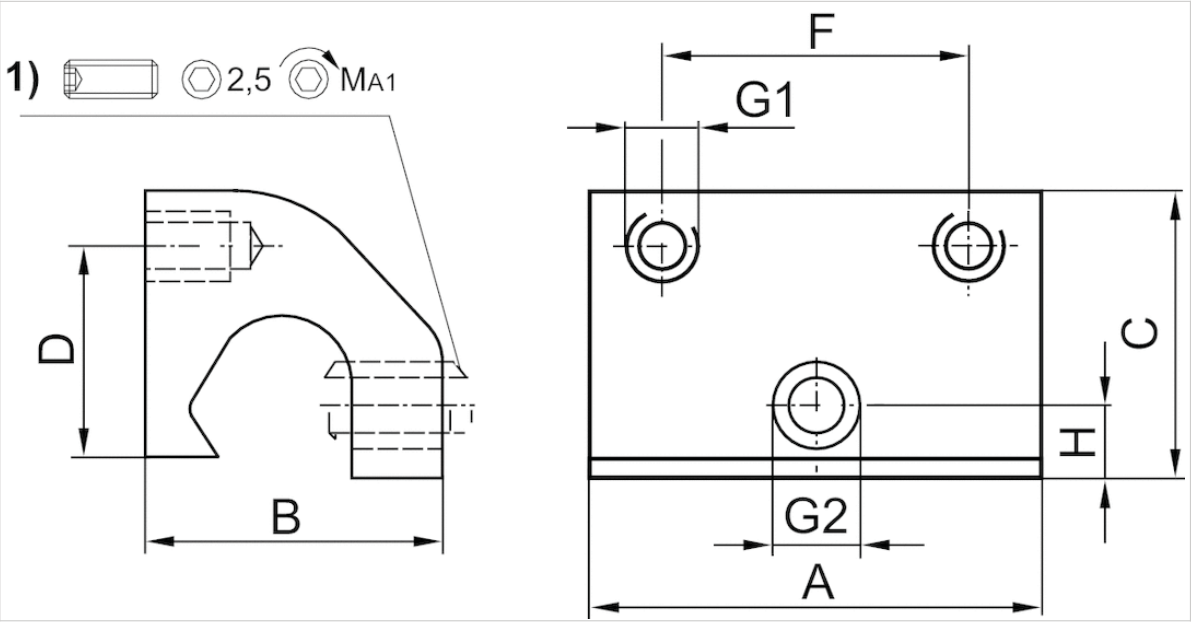
Technical data

Part No.	Cylinders Ø min.	Cylinders Ø max.	for series
3220643562	80 mm	125 mm	SN6

Technical information

Material	
	Aluminum

Dimensions



1) Clamping threaded pin

Dimensions

Part No.	Cylinders Ø	A	B	C	D	F	G1	G2	H	MA1 [Nm]
3220643562	125 mm	35	22	21	12	23	M4	M5	5	1,8 +0,4

Sensor mounting, Series CB1

- for series SN6
- to mount on cylinder TRB, CVI, 523



Weight 0,028 kg

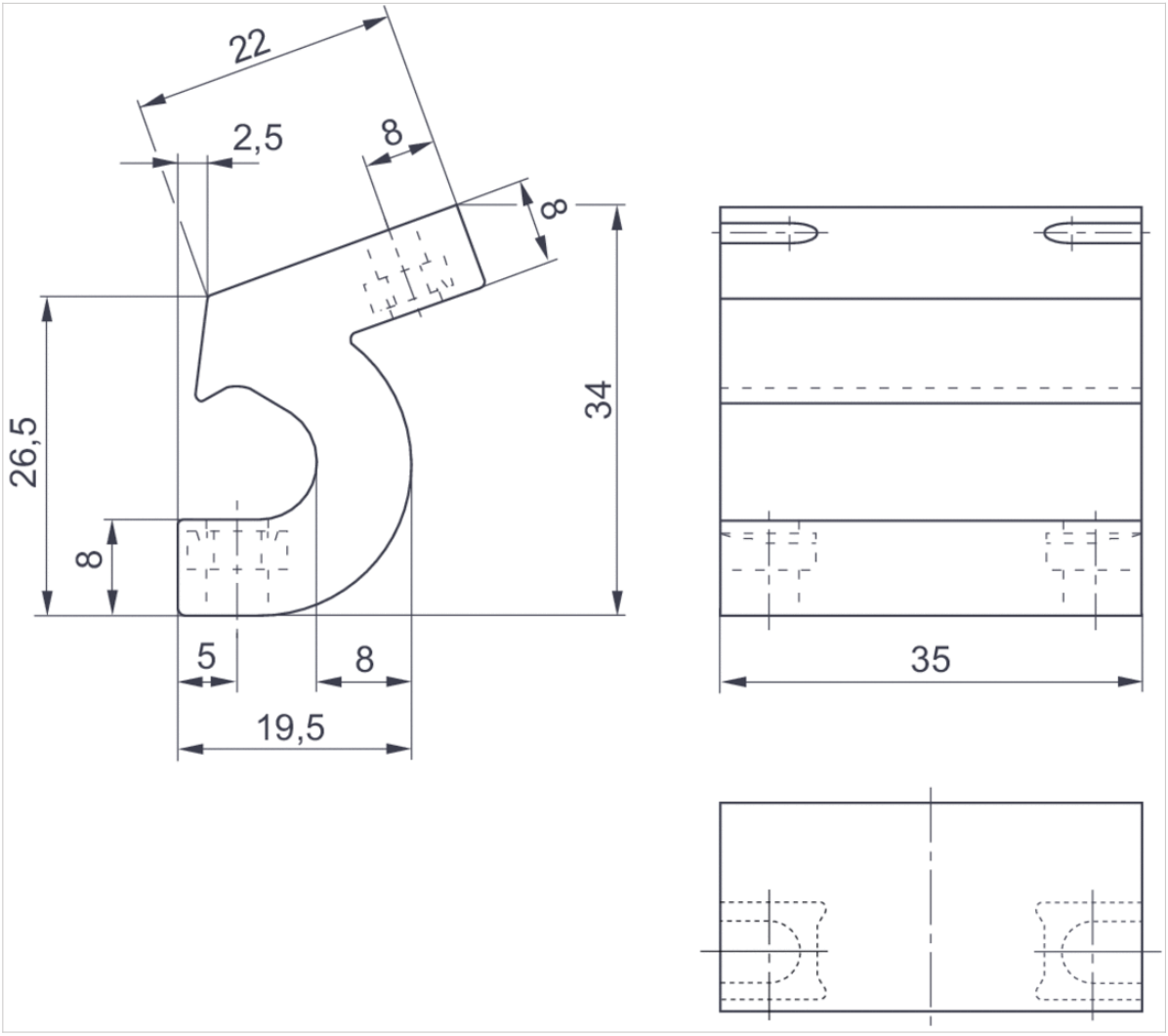
Technical data

Part No.	Cylinders Ø	Cylinders Ø	for series
	min.	max.	
5230033502	32 mm	63 mm	SN6

Technical information

Material	
	Polyamide

Dimensions



Dimensions

Part No.	Cylinders Ø
5230033502	32 63 mm

Sensor, Series ST6

- 6 mm T-slot
- with cable
- open cable ends, 2-pin open cable ends, 3-pin
- UL certification
- Reed electronic PNP electronic NPN
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67, IP69K
Switching point precision	±0,1 mT
Nominal current, actuated state	30 mA
Quiescent current (without load)	8 mA
Min./max. DC operating voltage	See table below
Min./max. AC operating voltage	See table below
Hysteresis	≥ 0,2 mT
Switching logic	NO (make contact)
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Technical data

Part No.		for	Type of contact	Cable length L
R412022866		PRA PRE CCI KPZ SSI GPC CVI	Reed	3 m
R412027170		PRA PRE CCI KPZ SSI GPC CVI	Reed	5 m
R412022869		PRA PRE CCI KPZ SSI GPC CVI	Reed	3 m
R412022870		PRA PRE CCI KPZ SSI GPC CVI	Reed	5 m
R412022871		PRA PRE CCI KPZ SSI GPC CVI	Reed	10 m
R412022853		PRA PRE CCI KPZ SSI GPC CVI	electronic PNP	3 m
R412022855		PRA PRE CCI KPZ SSI GPC CVI	electronic PNP	5 m
R412022857		PRA PRE CCI KPZ SSI GPC CVI	electronic PNP	10 m
R412022849		PRA PRE CCI KPZ SSI GPC CVI	electronic NPN	3 m
R412022850		PRA PRE CCI KPZ SSI GPC CVI	electronic NPN	5 m

Part No.	Min./max. DC operating voltage	Min./max. AC operating voltage
R412022866	10 ... 230 V DC	10 ... 230 V AC
R412027170	10 ... 230 V DC	10 ... 230 V AC
R412022869	10 ... 30 V DC	10 ... 30 V AC
R412022870	10 ... 30 V DC	10 ... 30 V AC
R412022871	10 ... 30 V DC	10 ... 30 V AC
R412022853	10 ... 30 V DC	-
R412022855	10 ... 30 V DC	-
R412022857	10 ... 30 V DC	-
R412022849	10 ... 30 V DC	-
R412022850	10 ... 30 V DC	-

Part No.	Voltage drop U at Imax	DC switching current, max.
R412022866	≤ 3,5 V	0,13 A
R412027170	≤ 3,5 V	0,13 A
R412022869	I*Rs	0,3 A
R412022870	≤ 0,1 V	0,3 A
R412022871	I*Rs	0,3 A
R412022853	≤ 2,5 V	0,13 A
R412022855	≤ 2,5 V	0,13 A
R412022857	≤ 2,5 V	0,13 A
R412022849	≤ 2,5 V	0,13 A
R412022850	≤ 2,5 V	0,13 A

Part No.	AC switching current, max.	Switching capacity
R412022866	0,13 A	Reed, 2-pin: max. 10 W
R412027170	0,13 A	Reed, 2-pin: max. 10 W
R412022869	0,5 A	Reed, 3-pin: max. 6 W
R412022870	0,5 A	Reed, 3-pin: max. 6 W
R412022871	0,5 A	Reed, 3-pin: max. 6 W
R412022853	-	-
R412022855	-	-
R412022857	-	-
R412022849	-	-
R412022850	-	-

Part No.	Max. switching frequency	Operating current, not switched
R412022866	400 Hz	-
R412027170	400 Hz	-
R412022869	400 Hz	-
R412022870	400 Hz	-
R412022871	400 Hz	-
R412022853	1000 Hz	8 mA
R412022855	1000 Hz	8 mA
R412022857	1000 Hz	8 mA
R412022849	1000 Hz	8 mA
R412022850	1000 Hz	8 mA

Part No.	Operating current, switched
R412022866	-
R412027170	-
R412022869	-
R412022870	-
R412022871	-
R412022853	30 mA
R412022855	30 mA
R412022857	30 mA

Part No.	Operating current, switched
R412022849	30 mA
R412022850	30 mA

Part No.	Version	Fig.	
R412022866	Protected against polarity reversal	Fig. 1	1)
R412027170	Protected against polarity reversal	Fig. 1	1)
R412022869	Protected against polarity reversal	Fig. 2	2)
R412022870	Protected against polarity reversal	Fig. 2	2)
R412022871	Protected against polarity reversal	Fig. 2	2)
R412022853	short circuit resistant Protected against polarity reversal	Fig. 2	3)
R412022855	short circuit resistant Protected against polarity reversal	Fig. 2	3)
R412022857	short circuit resistant Protected against polarity reversal	Fig. 2	3)
R412022849	short circuit resistant Protected against polarity reversal	Fig. 2	3)
R412022850	short circuit resistant Protected against polarity reversal	Fig. 2	3)

1) open cable ends, 2-pin, The product of operating voltage and continuous current must not exceed the maximum switching capacity.
2) open cable ends, 3-pin, The product of operating voltage and continuous current must not exceed the maximum switching capacity.
3) open cable ends, 3-pin

Technical information

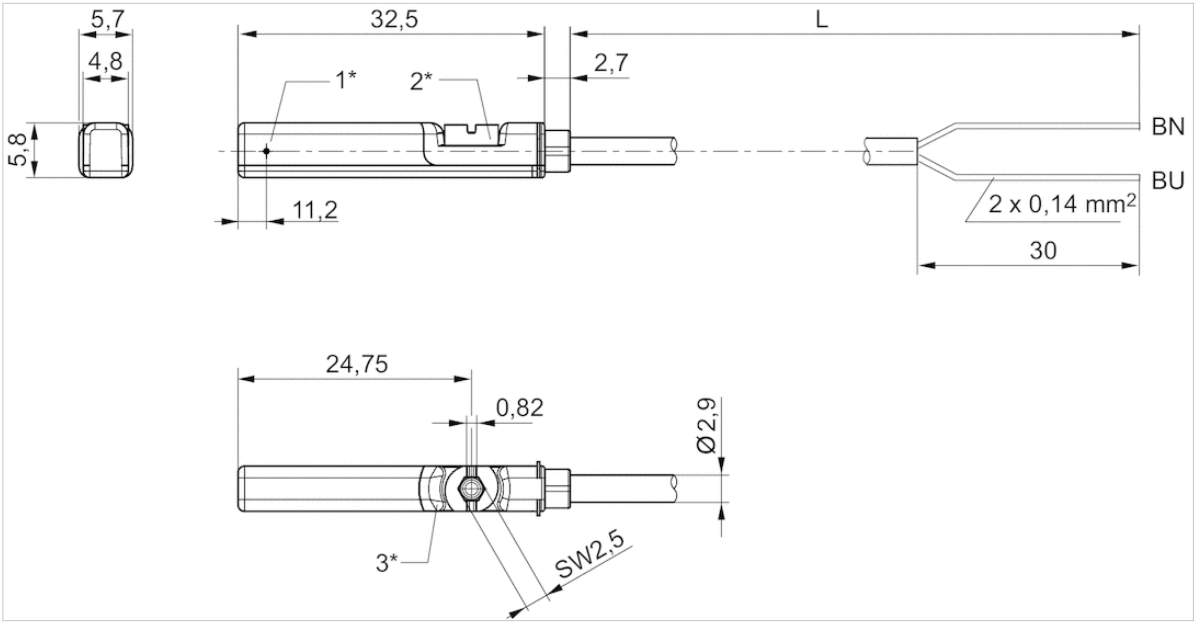
No cULus certification for 230 V variant.

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

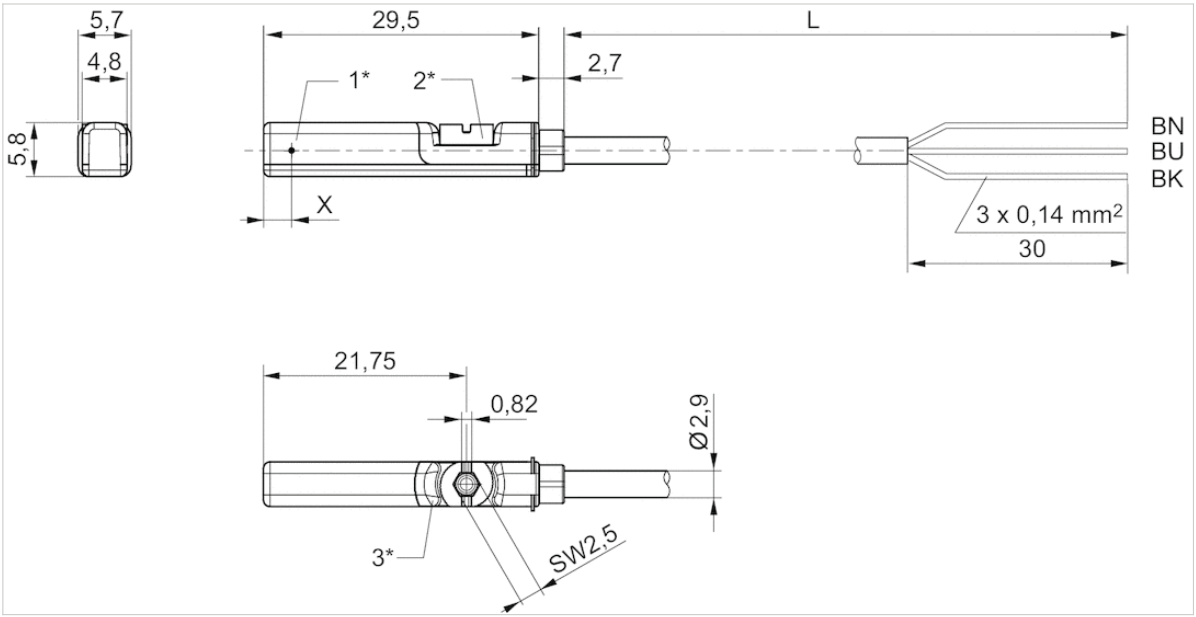
Dimensions

Fig. 1



1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
BN=brown, BU=blue

Fig. 2

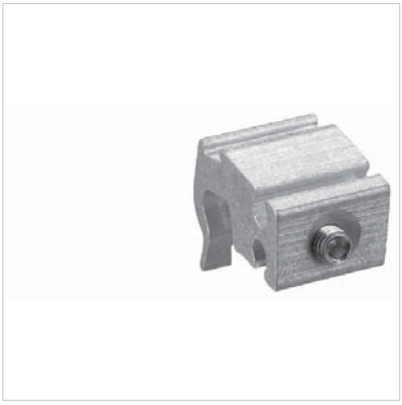


1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length

BN = brown, BK = black, BU = blue
X = electronic: 11.6 mm

Sensor mounting, Series CB1

- for series SN1 SN2
- to mount on cylinder TRB, TRR



Weight — See table below

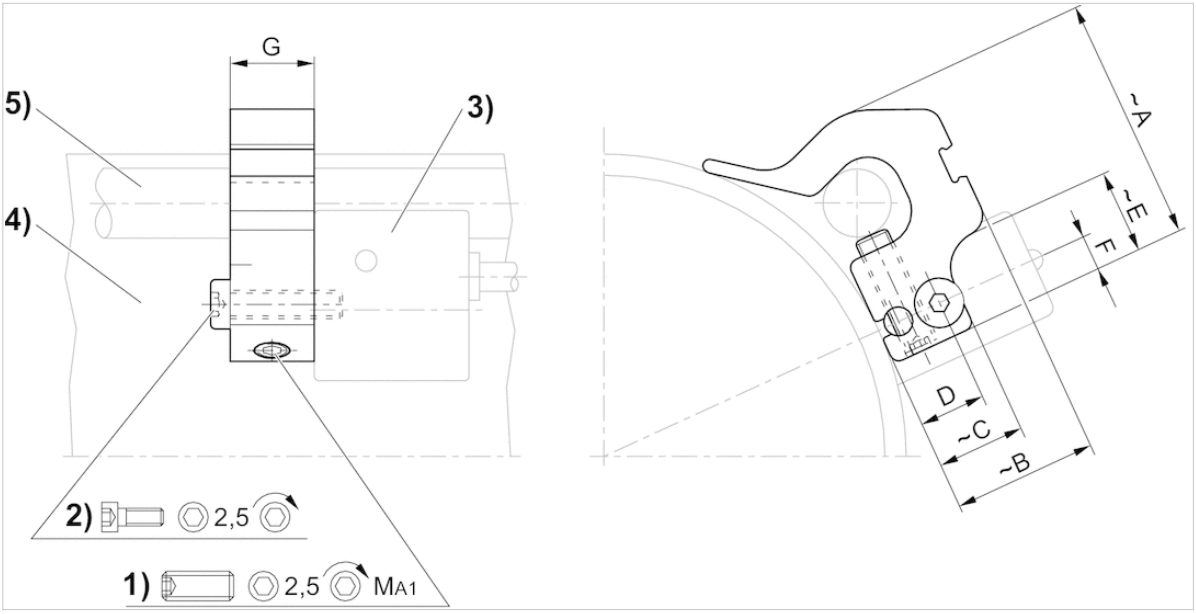
Technical data

Part No.	Cylinders Ø min.	Cylinders Ø max.	for series	Weight
1827020081	32 mm	40 mm	SN1 SN2	0,015 kg
1827020082	50 mm	63 mm	SN1 SN2	0,013 kg
1827020083	80 mm	100 mm	SN1 SN2	0,018 kg

Technical information

Material	
	Aluminum

Dimensions



1) Clamping threaded pin 2) Mounting screw for sensor 3) Sensor 4) Cylinder profile 5) Tie rod

Dimensions

Part No.	Cylinders Ø mm	A	B	C	D	E	F	G	1)	MA1 [Nm]
1827020081	32 mm	25.3	12.5	12.5	9.5	–	5	16	M5x16	1 +0,3
1827020082	50 mm	28.7	15.6	12.5	9.5	12	5	12	M5x16	1 +0,3
1827020083	80 mm	33.8	23	12.5	9.5	12	5	12	M5x16	1 +0,3

Sensor, Series IN1

- for locking unit, series LU6



Standardization	DIN EN 60947-5-2
Certificates	cULus
Ambient temperature min./max.	-20 ... 65 °C
Protection class	IP67
Hysteresis	5 - 15%, adjustable
Temperature drift	± 10 %
Residual ripple	≤ 10 %
Reproducibility	≤ 2 %
Switching logic	NO (make contact)
LED status display	Yellow

Technical data

Part No.	Operational voltage	Switching distance max.	Power consumption	Continuous current
R412010426	10 ... 30 V DC	2 mm	10 mA	0,2 A

Part No.	Short circuit resistance
R412010426	short circuit resistant Protected against polarity reversal

Technical information

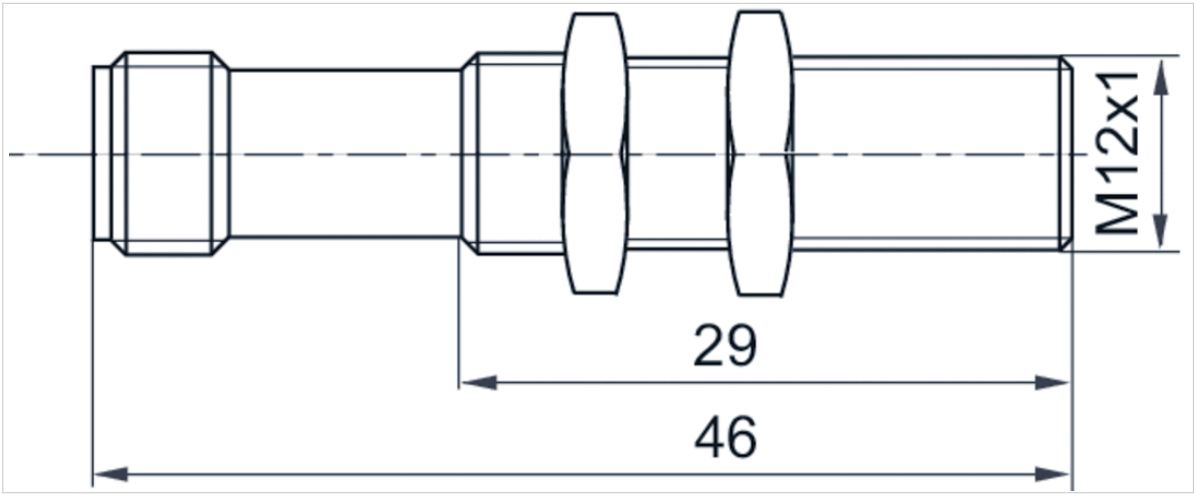
Flush installation
Switching states:
1. Pressure applied to locking unit, clamping pliers are open, sensor does not emit a signal (normally open)
2. No pressure applied to locking unit, clamping pliers are closed, sensor emits a signal (feedback that LU6 is clamping)

Technical information

Material	
Housing	Brass

Dimensions

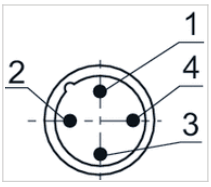
Dimensions



2) not assigned

Pin assignments

Pin assignments M12x1



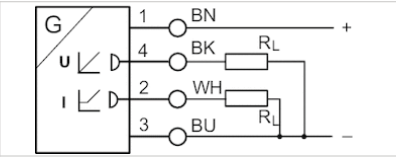
Pin	1	2	3
Allocation	operational voltage + UB	not assigned	m = mass

4
switch output Out

Sensors, Series SM6

- 6 mm groove
- with cable
- without wire end ferrule, tin-plated, 4-pin
- with distance measuring sensor, measurement range 32 ... 256 mm
- Analog
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, 167, MNI, ICM, TRR





Certificates	cULus
Ambient temperature min./max.	-20 ... 70 °C
Protection class	IP67
Output signal	0 - 10 V DC, 4 - 20 mA
Quiescent current (without load)	25 mA
Maximum load (analog current output)	500 Ω
Residual ripple	≤ 10 %
sampling interval	1 ms
Resolution max. measuring range	0,05 mm
Repetitive precision max. measuring range	0.1 mm
Linearity deviation	0,3 mm
Sampling speed	3 m/s
Display	LED
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Technical data

Part No.	for	Type of contact	Cable length L
R412010141	PRA PRE CCI KPZ SSI GPC CVI	Analog	2 m
R412010143	PRA PRE CCI KPZ SSI GPC CVI	Analog	2 m
R412010262	PRA PRE CCI KPZ SSI GPC CVI	Analog	2 m
R412010264	PRA PRE CCI KPZ SSI GPC CVI	Analog	2 m
R412010411	PRA PRE CCI KPZ SSI GPC CVI	Analog	2 m
R412010413	PRA PRE CCI KPZ SSI GPC CVI	Analog	2 m
R412010415	PRA PRE CCI KPZ SSI GPC CVI	Analog	2 m
R412010417	PRA PRE CCI KPZ SSI GPC CVI	Analog	2 m

Part No.	max. measuring range	Overall length Sensor A
R412010141	32 mm	45 mm
R412010143	64 mm	77 mm
R412010262	96 mm	109 mm
R412010264	128 mm	141 mm
R412010411	160 mm	173 mm
R412010413	192 mm	205 mm

Part No.	max. measuring range	Overall length Sensor A
R412010415	224 mm	237 mm
R412010417	256 mm	269 mm

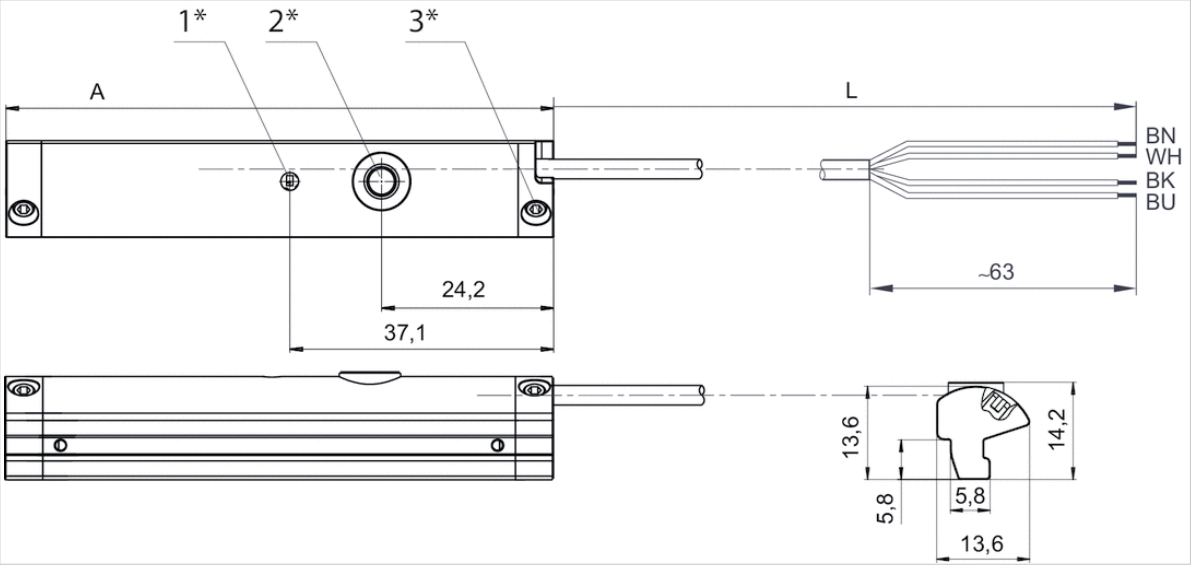
Part No.	Version
R412010141	short circuit resistant Protected against polarity reversal Overload protection
R412010143	short circuit resistant Protected against polarity reversal Overload protection
R412010262	short circuit resistant Protected against polarity reversal Overload protection
R412010264	short circuit resistant Protected against polarity reversal Overload protection
R412010411	short circuit resistant Protected against polarity reversal Overload protection
R412010413	short circuit resistant Protected against polarity reversal Overload protection
R412010415	short circuit resistant Protected against polarity reversal Overload protection
R412010417	short circuit resistant Protected against polarity reversal Overload protection

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane

Dimensions

Dimensions



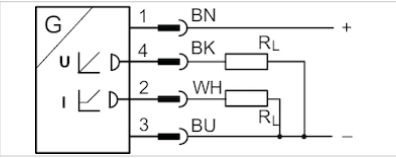
1* = LED 2* = teach button 3* = threaded pin M3x11
L = cable length
(1) BN=brown
(2) WH=white
(3) BU=blue

(4) BK=black
A = sensor length

Sensors, Series SM6

- 6 mm groove
- with cable
- Plug, M8x1, 4-pin, with knurled screw
- with distance measuring sensor, measurement range 32 ... 256 mm
- Analog
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, 167, MNI, ICM, TRR





Certificates	cULus
Ambient temperature min./max.	-20 ... 70 °C
Protection class	IP67
Output signal	0 - 10 V DC, 4 - 20 mA
Quiescent current (without load)	25 mA
Min./max. DC operating voltage	15 ... 30 V DC
sampling interval	1 ms
Resolution max. measuring range	0,05 mm
Repetitive precision max. measuring range	0.1 mm
Linearity deviation	0,3 mm
Sampling speed	3 m/s
Display	LED
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Technical data

Part No.	for	Type of contact	Cable length L
R412010142	PRA PRE CCI KPZ SSI GPC CVI	Analog	0,3 m
R412010144	PRA PRE CCI KPZ SSI GPC CVI	Analog	0,3 m
R412010263	PRA PRE CCI KPZ SSI GPC CVI	Analog	0,3 m
R412010265	PRA PRE CCI KPZ SSI GPC CVI	Analog	0,3 m
R412010410	PRA PRE CCI KPZ SSI GPC CVI	Analog	0,3 m
R412010412	PRA PRE CCI KPZ SSI GPC CVI	Analog	0,3 m
R412010414	PRA PRE CCI KPZ SSI GPC CVI	Analog	0,3 m
R412010416	PRA PRE CCI KPZ SSI GPC CVI	Analog	0,3 m

Part No.	max. measuring range	Overall length Sensor A
R412010142	32 mm	45 mm
R412010144	64 mm	77 mm
R412010263	96 mm	109 mm
R412010265	128 mm	141 mm
R412010410	160 mm	173 mm
R412010412	192 mm	205 mm

Part No.	max. measuring range	Overall length Sensor A
R412010414	224 mm	237 mm
R412010416	256 mm	269 mm

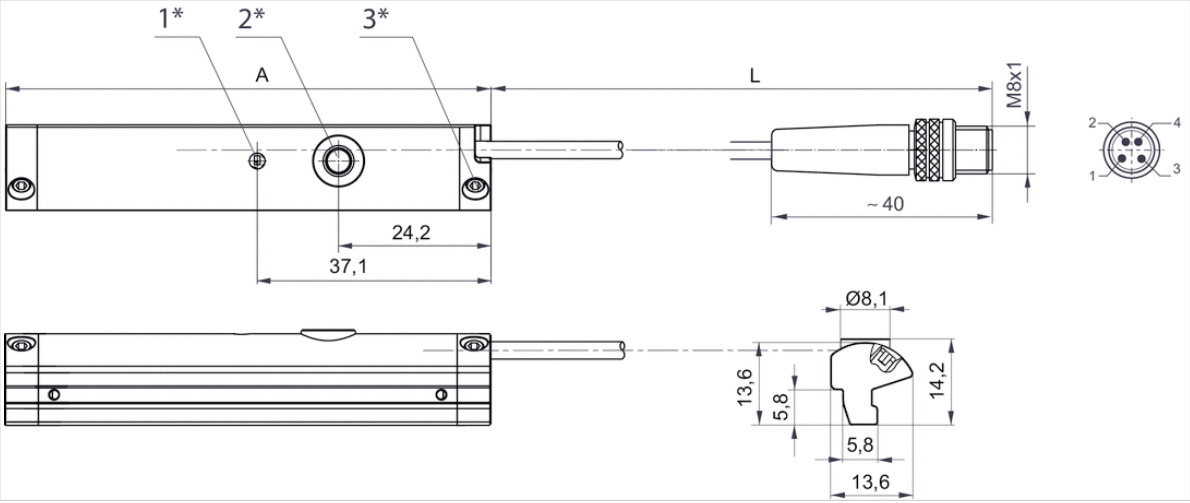
Part No.	Version
R412010142	short circuit resistant Protected against polarity reversal Overload protection
R412010144	short circuit resistant Protected against polarity reversal Overload protection
R412010263	short circuit resistant Protected against polarity reversal Overload protection
R412010265	short circuit resistant Protected against polarity reversal Overload protection
R412010410	short circuit resistant Protected against polarity reversal Overload protection
R412010412	short circuit resistant Protected against polarity reversal Overload protection
R412010414	short circuit resistant Protected against polarity reversal Overload protection
R412010416	short circuit resistant Protected against polarity reversal Overload protection

Technical information

Material	
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane

Dimensions

Dimensions



1* = LED 2* = teach button 3* = threaded pin M3x11
L = cable length
Pin assignment: 1 = (+), 2 = (OUT 1) 3 = (GND), 4 = (OUT 2), EN 60947-5-7
A = sensor length

Sensor, Series SN2

- with cable
- without wire end ferrule, tin-plated, 2-pin without wire end ferrule, tin-plated, 3-pin
- Heat resistant
- Reed electronic PNP
- Indirect mounting for series TRB, PRA, ITS, MNI, CSL-RD, ICM, RPC, TRR, FLT, CVI



Ambient temperature min./max.	See table below
Protection class	IP67
Switching point precision	±0,1 mT
Nominal current, actuated state	15 mA
Quiescent current (without load)	10 mA
Min./max. DC operating voltage	See table below
Min./max. AC operating voltage	See table below
LED status display	See table below

Technical data

Part No.		Type of contact	Cable sheath	Cable length L
0830100315		Reed	Polyvinyl chloride	3 m
0830100365		Reed	Polyvinyl chloride	3 m
0830100368		Reed	Polyvinyl chloride	3 m
0830100370		Reed	Polyurethane	3 m
0830100316		Reed	-	3 m
0830100373		Reed	-	3 m
0830100367		Reed	Polyurethane	3 m
0830100317		Reed	Thermoplastic elastomer	3 m
0830100366		Reed	Polyvinyl chloride	5 m
0830100369		Reed	Polyvinyl chloride	5 m
0830100327		Reed	Polyvinyl chloride	7 m
0830100325		Reed	Polyvinyl chloride	10 m
0830100326		Reed	Thermoplastic elastomer	11 m
R412004848		Reed	Polyvinyl chloride	20 m
0830100371		Reed	Polyvinyl chloride	3 m
0830100372		Reed	Polyvinyl chloride	5 m
0830100375		electronic PNP	Polyvinyl chloride	3 m
0830100378		electronic PNP	Thermoplastic elastomer	3 m
0830100377		electronic PNP	Polyurethane	3 m
0830100376		electronic PNP	Polyvinyl chloride	5 m

Part No.	Min./max. DC operating voltage	Min./max. AC operating voltage
0830100315	0 ... 60 V DC	0 ... 240 V AC
0830100365	12 ... 60 V DC	12 ... 240 V AC
0830100368	12 ... 60 V DC	12 ... 240 V AC
0830100370	12 ... 60 V DC	12 ... 240 V AC
0830100316	0 ... 60 V DC	0 ... 240 V AC
0830100373	0 ... 60 V DC	0 ... 240 V AC
0830100367	12 ... 60 V DC	12 ... 240 V AC
0830100317	12 ... 60 V DC	12 ... 240 V AC
0830100366	12 ... 60 V DC	12 ... 240 V AC
0830100369	12 ... 60 V DC	12 ... 240 V AC
0830100327	12 ... 60 V DC	12 ... 240 V AC
0830100325	12 ... 60 V DC	12 ... 240 V AC
0830100326	12 ... 60 V DC	12 ... 240 V AC
R412004848	12 ... 60 V DC	12 ... 240 V AC
0830100371	12 ... 42 V DC	12 ... 42 V AC
0830100372	12 ... 42 V DC	12 ... 42 V AC
0830100375	10 ... 30 V DC	10 ... 30 V AC
0830100378	10 ... 30 V DC	-
0830100377	10 ... 30 V DC	10 ... 30 V AC
0830100376	10 ... 30 V DC	10 ... 30 V AC

Part No.	Voltage drop U at Imax	DC switching current, max.
0830100315	Rs*Imax.	0,13 A
0830100365	2,1 V + I*Rs	0,13 A
0830100368	2,1 V + I*Rs	0,3 A
0830100370	2,1 V + I*Rs	0,3 A
0830100316	Rs*Imax.	0,13 A
0830100373	Rs*Imax.	0,13 A
0830100367	2,1 V + I*Rs	0,13 A
0830100317	2,1 V + I*Rs	0,12 A
0830100366	2,1 V + I*Rs	0,13 A
0830100369	2,1 V + I*Rs	0,3 A
0830100327	2,1 V + I*Rs	0,3 A
0830100325	2,1 V + I*Rs	0,13 A
0830100326	2,1 V + I*Rs	0,12 A
R412004848	2,1 V + I*Rs	0,13 A
0830100371	I*Rs	0,13 A
0830100372	I*Rs	0,13 A
0830100375	≤ 2,0 V	0,13 A
0830100378	2,1 V + I*Rs	0,12 A
0830100377	≤ 2,0 V	0,13 A
0830100376	≤ 2,0 V	0,13 A

Part No.	AC switching current, max.	Ambient temperature min./max.	Switching capacity
0830100315	0,13 A	-20 ... 80 °C	10 W / 10 VA
0830100365	0,13 A	-20 ... 80 °C	10 W / 10 VA
0830100368	0,5 A	-20 ... 80 °C	10 W / 10 VA
0830100370	0,5 A	-20 ... 80 °C	10 W / 10 VA
0830100316	-	-20 ... 80 °C	10 W / 10 VA
0830100373	-	-20 ... 80 °C	10 W / 10 VA
0830100367	0,13 A	-20 ... 80 °C	10 W / 10 VA
0830100317	0,12 A	-20 ... 120 °C	10 W / 10 VA
0830100366	0,13 A	-20 ... 80 °C	10 W / 10 VA
0830100369	0,5 A	-20 ... 80 °C	10 W / 10 VA
0830100327	0,5 A	-20 ... 80 °C	10 W / 10 VA
0830100325	0,13 A	-20 ... 80 °C	10 W / 10 VA
0830100326	0,12 A	-20 ... 120 °C	10 W / 10 VA
R412004848	0,13 A	-20 ... 80 °C	10 W / 10 VA
0830100371	0,13 A	-20 ... 80 °C	5,5 W / 5,5 VA
0830100372	0,13 A	-20 ... 80 °C	5,5 W / 5,5 VA
0830100375	-	-10 ... 70 °C	-
0830100378	-	-20 ... 120 °C	10 W / 10 VA
0830100377	-	-10 ... 70 °C	-
0830100376	-	-10 ... 70 °C	-

Part No.	Protective resistor for reed	Vibration resistance	Shock resistance
0830100315	27 Ω	-	-

Part No.	Protective resistor for reed	Vibration resistance	Shock resistance
0830100365	27 Ω	30 g (50 - 1000 Hz)	50 g / 11 ms
0830100368	1,3 Ω	30 g (50 - 1000 Hz)	50 g / 11 ms
0830100370	1,3 Ω	30 g (50 - 1000 Hz)	50 g / 11 ms
0830100316	1,3 Ω	-	-
0830100373	100 Ω	-	-
0830100367	27 Ω	30 g (50 - 1000 Hz)	50 g / 11 ms
0830100317	27 Ω	30 g (50 - 1000 Hz)	100 g / 11 ms
0830100366	27 Ω	30 g (50 - 1000 Hz)	50 g / 11 ms
0830100369	1,3 Ω	30 g (50 - 1000 Hz)	50 g / 11 ms
0830100327	1,3 Ω	30 g (50 - 1000 Hz)	50 g / 11 ms
0830100325	27 Ω	30 g (50 - 1000 Hz)	50 g / 11 ms
0830100326	27 Ω	30 g (50 - 1000 Hz)	100 g / 11 ms
R412004848	27 Ω	30 g (50 - 1000 Hz)	50 g / 11 ms
0830100371	27 Ω	30 g (50 - 1000 Hz)	100 g / 11 ms
0830100372	27 Ω	30 g (50 - 1000 Hz)	100 g / 11 ms
0830100375	-	-	-
0830100378	27 Ω	30 g (50 - 1000 Hz)	100 g / 11 ms
0830100377	-	-	-
0830100376	-	-	-

Part No.	Max. switching frequency	Operating current, not switched
0830100315	300 Hz	-
0830100365	-	-
0830100368	-	-
0830100370	-	-
0830100316	300 Hz	-
0830100373	300 Hz	-
0830100367	-	-
0830100317	-	-
0830100366	-	-
0830100369	-	-
0830100327	-	-
0830100325	-	-
0830100326	-	-
R412004848	-	-
0830100371	-	-
0830100372	-	-
0830100375	2000 Hz	10 mA
0830100378	-	-
0830100377	2000 Hz	10 mA
0830100376	2000 Hz	10 mA

Part No.	Operating current, switched	Material Housing	LED status display
0830100315	-	Polyamide	-
0830100365	-	Polyamide	Yellow

Part No.	Operating current, switched	Material Housing	LED status display
0830100368	-	Polyamide	Yellow
0830100370	-	Polyamide	Yellow
0830100316	-	Polyamide	-
0830100373	-	Polyamide	-
0830100367	-	Polyamide	Yellow
0830100317	-	Polyamide	-
0830100366	-	Polyamide	Yellow
0830100369	-	Polyamide	Yellow
0830100327	-	Polyamide	Yellow
0830100325	-	Polyamide	Yellow
0830100326	-	Polyamide	-
R412004848	-	epoxy resin	Yellow
0830100371	-	Polyamide	Yellow
0830100372	-	Polyamide	Yellow
0830100375	15 mA	Polyamide	Yellow
0830100378	-	Polyamide	-
0830100377	15 mA	Polyamide	Yellow
0830100376	15 mA	Polyamide	Yellow

Part No.	Version	
0830100315	Protected against polarity reversal	1)
0830100365	Protected against polarity reversal	1)
0830100368	Protected against polarity reversal	1)
0830100370	Protected against polarity reversal	1)
0830100316	Protected against polarity reversal	1)
0830100373	Protected against polarity reversal	1)
0830100367	Protected against polarity reversal	1)
0830100317	Protected against polarity reversal	1)
0830100366	Protected against polarity reversal	1)
0830100369	Protected against polarity reversal	1)
0830100327	Protected against polarity reversal	1)
0830100325	Protected against polarity reversal	1)
0830100326	Protected against polarity reversal	1)
R412004848	Protected against polarity reversal	1)
0830100371	Protected against polarity reversal	1)
0830100372	Protected against polarity reversal	1)
0830100375	short circuit resistant Protected against polarity reversal	2)
0830100378	Protected against polarity reversal	2)
0830100377	short circuit resistant Protected against polarity reversal	2)
0830100376	short circuit resistant Protected against polarity reversal	2)

1) without wire end ferrule, tin-plated, 2-pin

2) without wire end ferrule, tin-plated, 3-pin

Technical information

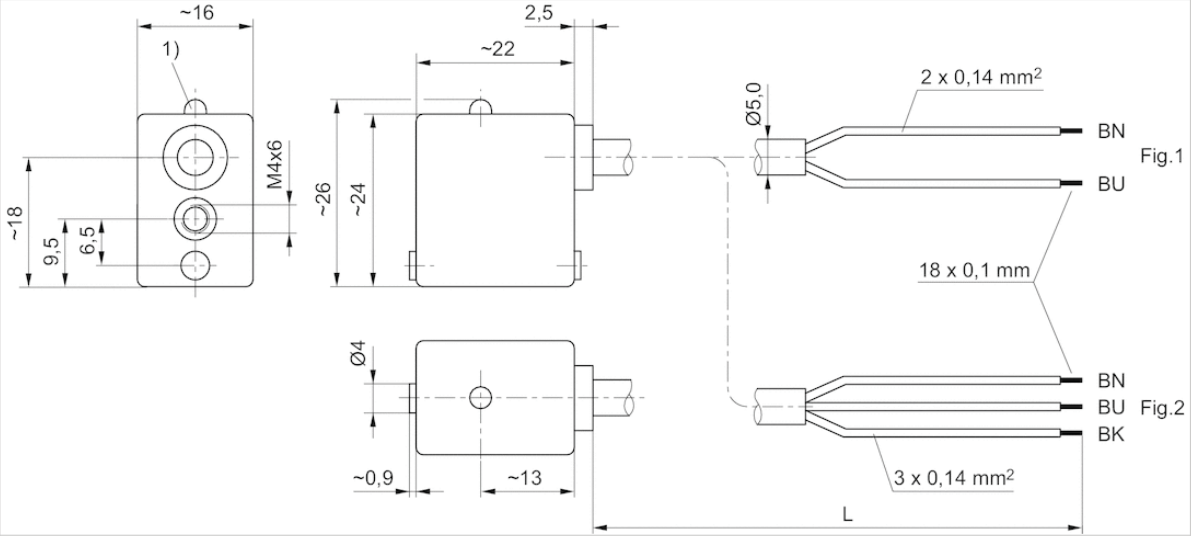
If reed sensors are used, we recommend using a short-circuit protective device (SCPD).

Technical information

Material	
Housing	Polyamide epoxy resin
Cable sheath	Polyvinyl chloride Polyurethane Thermoplastic elastomer

Dimensions

Dimensions



1) LED
L = cable length
BN = brown, BK = black, BU = blue

Sensor, Series SN2

- Plug, M8, 2-pin Plug, M8, 3-pin Plug, M8, 4-pin
- Reed 2-Wire Reed 3-Wire Reed 3-Wire, with pulse stretching Reed 4-Wire electronic PNP
- With stretched impulse
- With stretched impulse
- Reed electronic PNP
- Indirect mounting for series TRB, PRA, ITS, MNI, CSL-RD, ICM, RPC, TRR, FLT, CVI



Ambient temperature min./max.	See table below
Protection class	IP67
Switching point precision	±0,1 mT
Nominal current, actuated state	15 mA
Quiescent current (without load)	10 mA
Min./max. DC operating voltage	See table below
Min./max. AC operating voltage	See table below
LED status display	See table below

Technical data

Part No.		Type of contact	Min./max. DC operating voltage
0830100465		Reed	12 ... 36 V DC
0830100468		Reed	12 ... 36 V DC
R412004299		Reed	12 ... 36 V DC
0830100466		Reed	12 ... 36 V DC
0830100469		Reed	12 ... 36 V DC
R412004820		Reed	12 ... 36 V DC
0830100472		Reed	12 ... 36 V DC
0830100467		Reed	12 ... 36 V DC
0830100480		electronic PNP	10 ... 30 V DC
R412004800		electronic PNP	10 ... 30 V DC

Part No.	Min./max. AC operating voltage	Voltage drop U at Imax
0830100465	12 ... 30 V AC	2,1 V + I*Rs
0830100468	12 ... 30 V AC	2,1 V + I*Rs
R412004299	12 ... 30 V AC	2,1 V + I*Rs
0830100466	12 ... 30 V AC	2,1 V + I*Rs
0830100469	12 ... 30 V AC	≤ 0,5 V
R412004820	12 ... 30 V AC	I*Rs
0830100472	12 ... 30 V AC	≤ 1,5 V
0830100467	12 ... 30 V AC	≤ 3,5 V
0830100480	12 ... 30 V AC	≤ 2,0 V
R412004800	-	≤ 2,0 V

Part No.	DC switching current, max.	AC switching current, max.
0830100465	0,13 A	0,13 A
0830100468	0,3 A	0,5 A
R412004299	0,13 A	0,13 A
0830100466	0,13 A	0,13 A
0830100469	0,13 A	0,13 A
R412004820	0,13 A	0,13 A
0830100472	0,2 A	0,13 A
0830100467	0,13 A	0,13 A
0830100480	0,13 A	-
R412004800	0,13 A	-

Part No.	Function	Ambient temperature min./max.
0830100465	Reed 2-Wire	-20 ... 80 °C
0830100468	Reed 2-Wire	-20 ... 80 °C
R412004299	Reed 3-Wire	-20 ... 80 °C
0830100466	Reed 3-Wire	-20 ... 80 °C
0830100469	Reed 3-Wire	-20 ... 80 °C

Part No.	Function	Ambient temperature min./max.
R412004820	Reed 3-Wire	-20 ... 80 °C
0830100472	Reed 3-Wire, with pulse stretching	-20 ... 70 °C
0830100467	Reed 4-Wire	-20 ... 80 °C
0830100480	electronic PNP	-10 ... 70 °C
R412004800	electronic PNP	-10 ... 70 °C

Part No.	Switching capacity	Protective resistor for reed	Vibration resistance
0830100465	10 W / 10 VA	27 Ω	30 g (50 - 2000 Hz)
0830100468	10 W / 10 VA	1,3 Ω	30 g (50 - 2000 Hz)
R412004299	10 W / 10 VA	27 Ω	30 g (50 - 2000 Hz)
0830100466	10 W / 10 VA	100 Ω	30 g (50 - 2000 Hz)
0830100469	5,5 W / 5,5 VA	27 Ω	30 g (50 - 1000 Hz)
R412004820	10 W / 10 VA	27 Ω	30 g (50 - 2000 Hz)
0830100472	5 W / 5 VA	-	35 g (50 - 2000 Hz)
0830100467	10 W / 10 VA	27 Ω	35 g (50 - 2000 Hz)
0830100480	-	-	-
R412004800	-	-	-

Part No.	Shock resistance	Max. switching frequency	Operating current, not switched
0830100465	100 g / 11 ms	-	-
0830100468	100 g / 11 ms	-	-
R412004299	100 g / 11 ms	-	-
0830100466	100 g / 11 ms	-	-
0830100469	100 g / 11 ms	-	-
R412004820	100 g / 11 ms	-	-
0830100472	50 g / 11 ms	-	-
0830100467	50 g / 11 ms	-	-
0830100480	-	2000 Hz	10 mA
R412004800	-	2000 Hz	10 mA

Part No.	Operating current, switched	Material Housing	LED status display
0830100465	-	Polyamide	Yellow
0830100468	-	Polyamide	Yellow
R412004299	-	Polyamide	Yellow
0830100466	-	Polyamide	Yellow
0830100469	-	Polyamide	Yellow
R412004820	-	epoxy resin	Yellow
0830100472	-	-	Red
0830100467	-	epoxy resin	Red
0830100480	15 mA	Polyamide	Yellow
R412004800	15 mA	epoxy resin	Yellow

Part No.	Version
0830100465	Protected against polarity reversal
0830100468	Protected against polarity reversal
R412004299	Protected against polarity reversal
0830100466	Protected against polarity reversal
0830100469	Protected against polarity reversal
R412004820	Protected against polarity reversal
0830100472	Protected against polarity reversal
0830100467	Protected against polarity reversal
0830100480	short circuit resistant Protected against polarity reversal
R412004800	short circuit resistant Protected against polarity reversal

1) Plug M8, 2-pin
2) Plug M8, 3-pin
3) Plug M8, 4-pin

Technical information

If reed sensors are used, we recommend using a short-circuit protective device (SCPD).

Technical information

Material	
Housing	Polyamide epoxy resin

Dimensions

Fig. 1

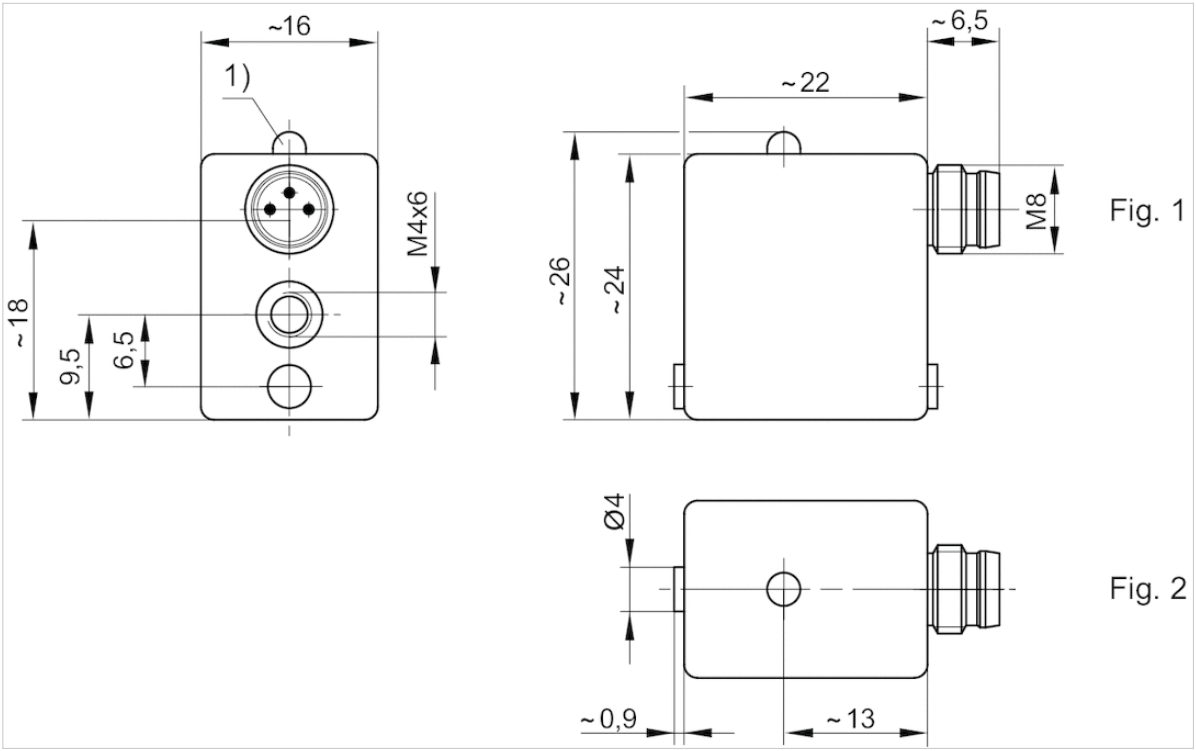
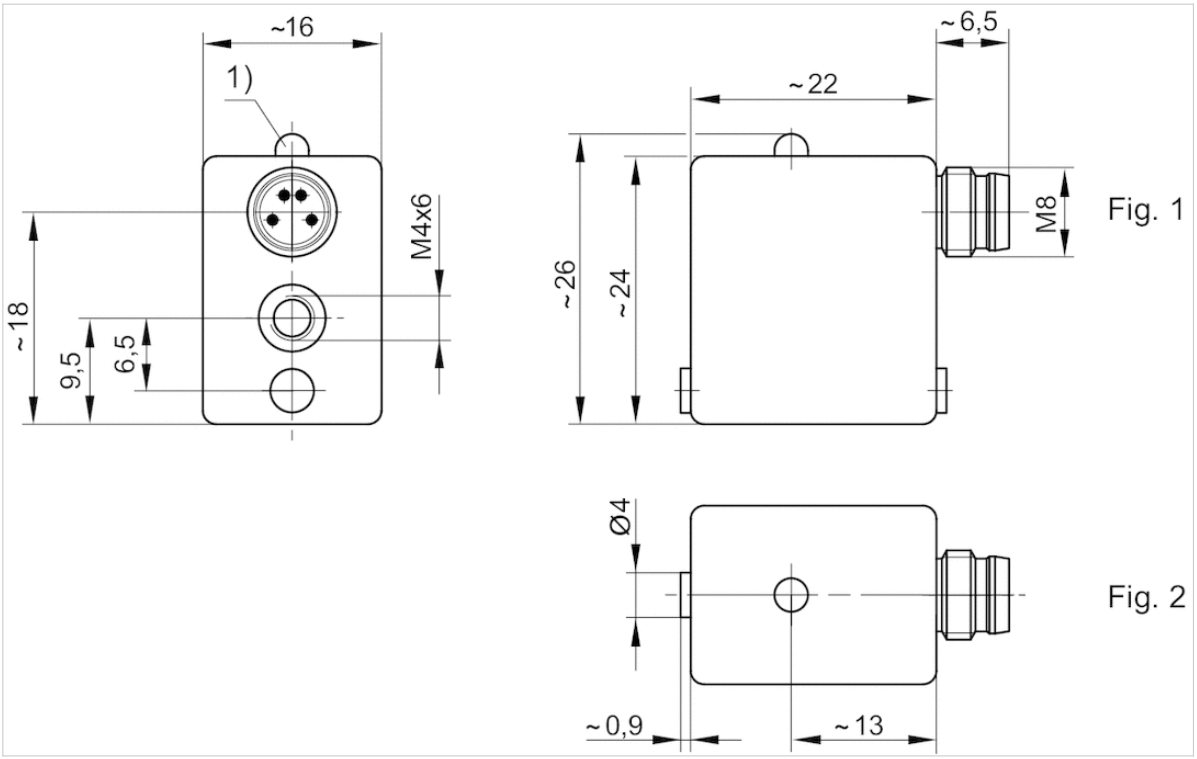


Fig. 1

Fig. 2

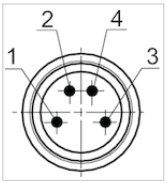
1) LED
M8: combination plug can be combined with valve plug connectors Ø6.5 mm and M8.
Pin assignments: 1 = (+), 3 = (-), 4 = (OUT), EN 60947-5-2:1998

Fig. 2



1) LED
M8: combination plug can be combined with valve plug connectors Ø6.5 mm and M8.

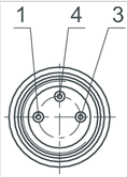
Pin assignments



Pin	1	3	4
Allocation	(+)	(-)	(OUT)
			EN 60947-5-2:1998

Pin assignments

Pin assignments



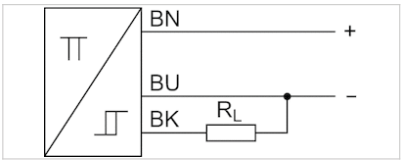
Pin	1	3	4
Allocation	(+)	(-)	(OUT)

Sensor, Series SN5-X

- 3-pin
- welding-proof
- With stretched impulse
- Sensor responds to ferromagnetic material., welding-proof, With stretched impulse
- electronic PNP
- Indirect mounting for series TRB, ITS



Ambient temperature min./max.	-10 ... 70 °C
Protection class	IP65
Nominal current, actuated state	25 mA
Quiescent current (without load)	14 mA
LED status display	See table below
Weight	0,05 kg



Technical data

Part No.	Type of contact	Voltage drop U at Imax	LED status display
0830100500	electronic PNP	≤ 2,0 V	Red
0830100502	electronic PNP	≤ 2,0 V	Red Green

Part No.	Version	Switch signal	welding-proof
0830100500	Protected against polarity reversal	With stretched impulse	welding-proof
0830100502	Protected against polarity reversal	With stretched impulse	welding-proof

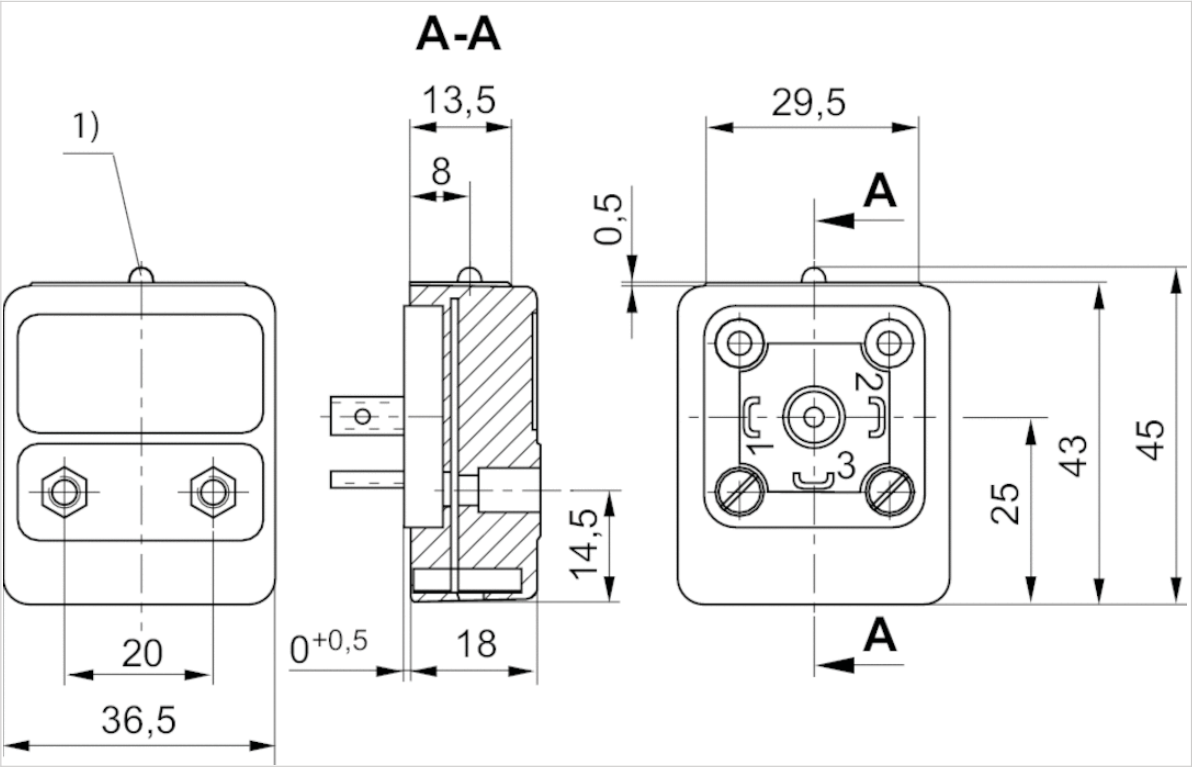
Technical information

Sensor responds to ferromagnetic material.

Technical information

Material	
Housing	epoxy resin

Dimensions

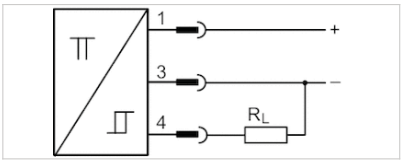


1) LED

Sensor, Series SN5-X

- Socket, M12, 3-pin
- With stretched impulse Time delay
- Sensor responds to ferromagnetic material., Time delay, With stretched impulse
- electronic PNP
- Indirect mounting for series TRB, ITS





Ambient temperature min./max.	-10 ... 70 °C
Protection class	IP67
Switching point precision	±0,1 mT
Nominal current, actuated state	25 mA
Quiescent current (without load)	14 mA
Min./max. DC operating voltage	15 ... 30 V DC
Display	LED
LED status display	See table below

Technical data

Part No.	Type of contact	Voltage drop U at Imax	DC switching current, max.
0830100525	electronic PNP	≤ 2,0 V	0,2 A
0830100534	electronic PNP	≤ 2,0 V	0,2 A

Part No.	LED status display	Version
0830100525	Yellow	Protected against polarity reversal
0830100534	Yellow Green	short circuit resistant Protected against polarity reversal

Part No.	Switch signal	
0830100525	With stretched impulse	-
0830100534	Time delay	1)

1) Delivery incl. protective cap 1823317014

Technical information

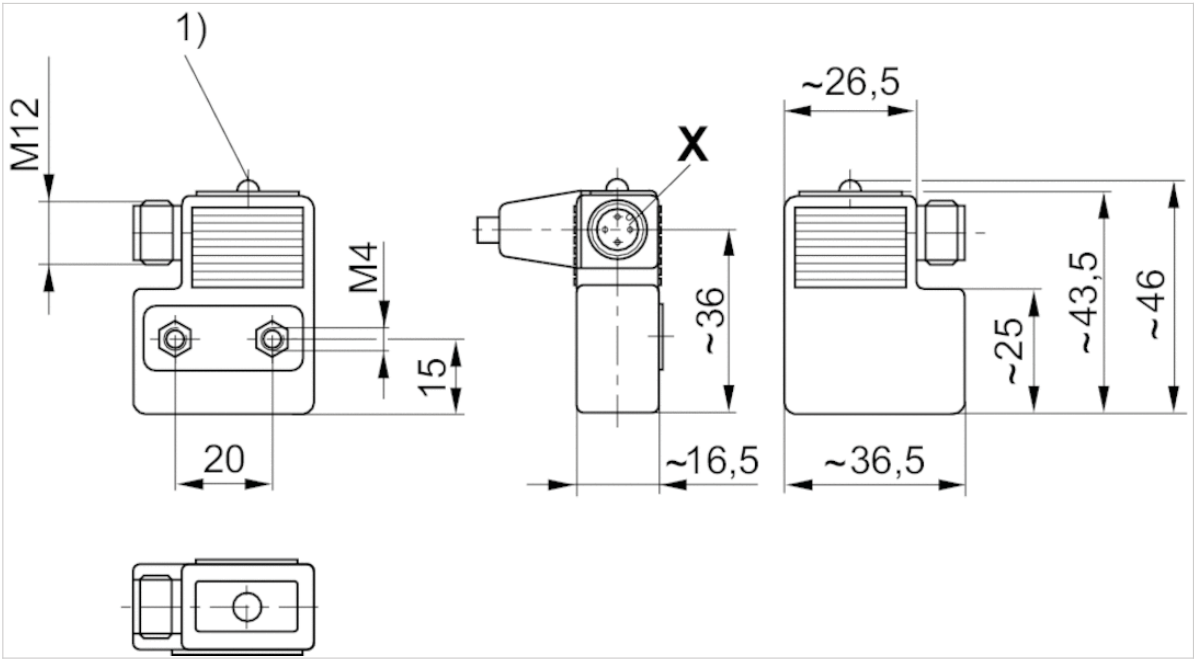
Sensor responds to ferromagnetic material.

Technical information

Material	
Housing	epoxy resin

Dimensions

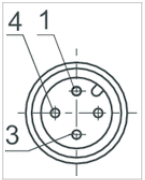
Dimensions



1) LED

Pin assignments

Pin assignments



Pin	1	3	4
Allocation	(+)	(-)	(OUT)

Sensor, Series SN6

- Plug, Form B, industry, 2-pin
- Reed
- Indirect mounting for series TRB, ITS, 523



Ambient temperature min./max.	-25 ... 75 °C
Protection class	IP65
Switching point precision	±0,1 mT
Min./max. DC operating voltage	10 ... 250 V DC
Min./max. AC operating voltage	10 ... 250 V AC
LED status display	See table below
Vibration resistance	35 g (50 - 2000 Hz)
Shock resistance	50 g / 11 ms

Technical data

Part No.		Type of contact	DC switching current, max.
8940410602		Reed	3 A
8940410612		Reed	0,5 A

Part No.	AC switching current, max.	Switching capacity	LED status display
8940410602	3 A	60 W / 60 VA	-
8940410612	0,5 A	50 W / 50 VA	Yellow

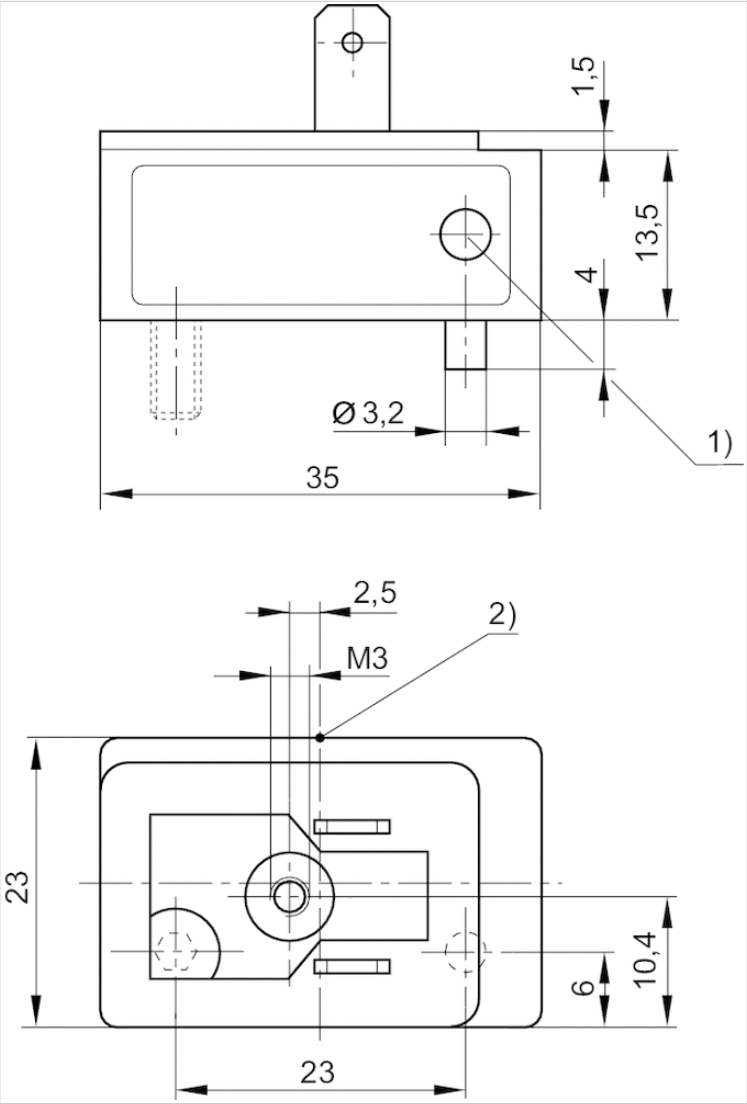
Part No.	Version
8940410602	-
8940410612	Protected against polarity reversal

Technical information

Material	
Housing	Polyester amide

Dimensions

Dimensions



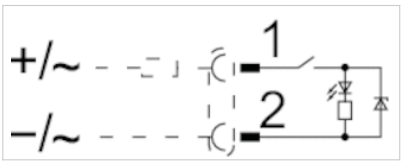
1) LED
2) Switching point

Sensor, Series SN6

- Plug, Form B, industry, 2-pin
- ATEX
- Reed
- Indirect mounting for series TRB, ITS



Certificates	ATEX
ATEX class G	II 3G Ex nC nA IIC T4 Gc
ATEX class D	II 3D Ex tc IIIB/IIIC T125°C Dc
Ambient temperature min./max.	-10 ... 50 °C
Protection class	IP65
Switching point precision	±0,1 mT
Min./max. DC operating voltage	21,6 ... 26,4 V DC
Min./max. AC operating voltage	210 ... 240 V AC
LED status display	Yellow



Technical data

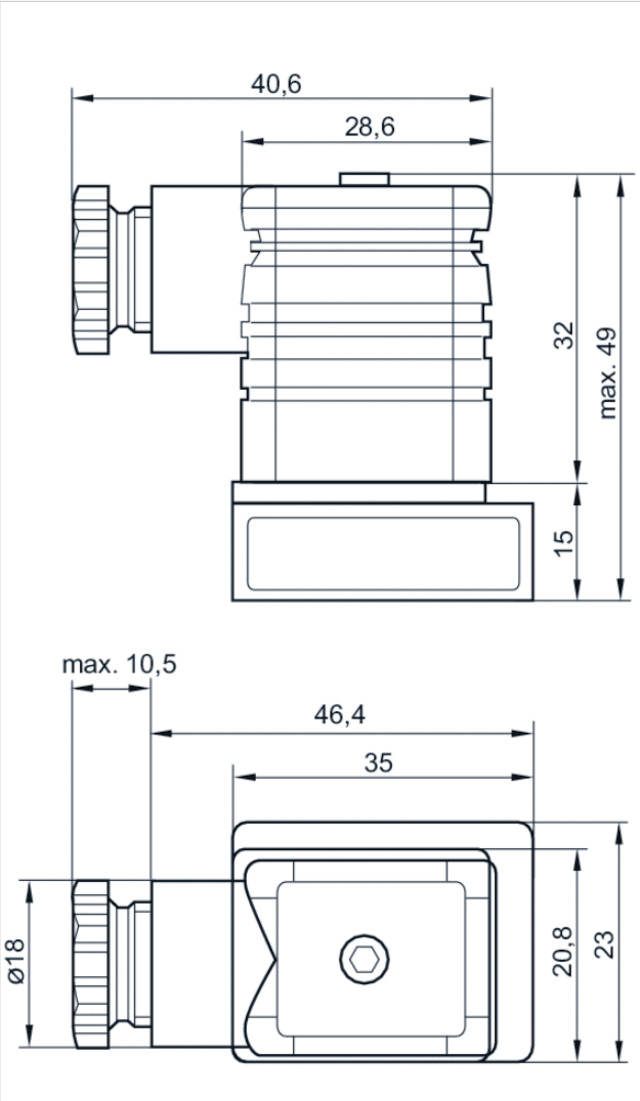
Part No.	Type of contact	DC switching current, max.	AC switching current, max.
R412000823	Reed	0,1 A	0,1 A

Part No.	Version
R412000823	Protected against polarity reversal

Technical information

Material	
Housing	Polyester amide

Dimensions



Sensor, Series SN6

- with cable
- without wire end ferrule, tin-plated, 2-pin
- heat resistant up to 120 °C
- Reed
- Indirect mounting for series TRB, ITS



Ambient temperature min./max.	See table below
Protection class	IP67, IP65
Switching point precision	±0,1 mT
Min./max. DC operating voltage	10 ... 250 V DC
Min./max. AC operating voltage	10 ... 250 V AC
LED status display	Yellow
Vibration resistance	35 g (50 - 2000 Hz)
Shock resistance	50 g / 11 ms

Technical data

Part No.		Type of contact	Cable length L	DC switching current, max.
8940412022		Reed	2,5 m	0,5 A
8940412032		Reed	6 m	0,5 A
8940411902		Reed	2,5 m	3 A

Part No.	AC switching current, max.	Ambient temperature min./max.	Switching capacity
8940412022	0,5 A	-25 ... 75 °C	50 W / 50 VA
8940412032	0,5 A	-25 ... 75 °C	50 W / 50 VA
8940411902	3 A	-20 ... 120 °C	60 W / 60 VA

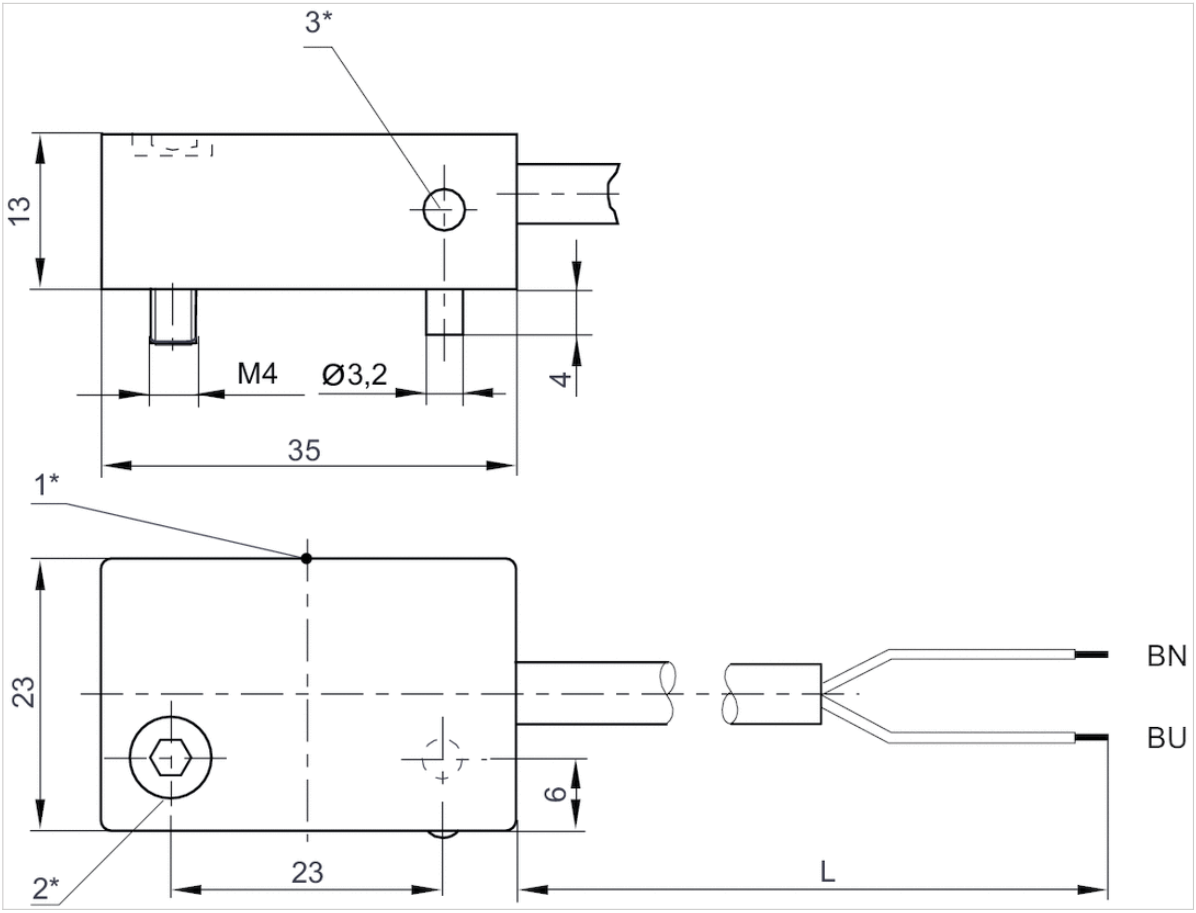
Part No.	Version
8940412022	Protected against polarity reversal
8940412032	Protected against polarity reversal
8940411902	Protected against polarity reversal

Technical information

Material	
Housing	Polyester amide
Cable sheath	Polyvinyl chloride

Dimensions

Dimensions

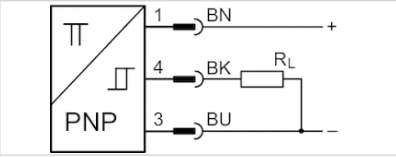


1* = switching point 2* = clamping screw 3* = LED
L = cable length
BN=brown, BU=blue

Sensor, Series ST6

- 6 mm T-slot
- with cable
- open cable ends, 3-pin
- ATEX
- UL certification, ATEX
- electronic PNP
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR





Certificates	ATEX CE declaration of conformity cULus RoHS
ATEX class G	II 3G Ex nA IIC T4 Gc X
ATEX class D	II 3D Ex tc IIIC T135°C Dc X
Ambient temperature min./max.	-20 ... 50 °C
Protection class	IP67
Switching point precision	±0,1 mT
Quiescent current (without load)	10 mA
Min./max. DC operating voltage	10 ... 30 V DC
Switching logic	NO (make contact)
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Technical data

Part No.	for	Type of contact	Cable length L
R412022854	PRA PRE CCI KPZ SSI GPC CVI	electronic PNP	3 m
R412022856	PRA PRE CCI KPZ SSI GPC CVI	electronic PNP	5 m

Part No.	Voltage drop U at Imax	DC switching current, max.
R412022854	≤ 2,5 V	0,1 A
R412022856	≤ 2,5 V	0,1 A

Part No.	Max. switching frequency
R412022854	1000 Hz
R412022856	1000 Hz

Part No.	Version
R412022854	short circuit resistant Protected against polarity reversal

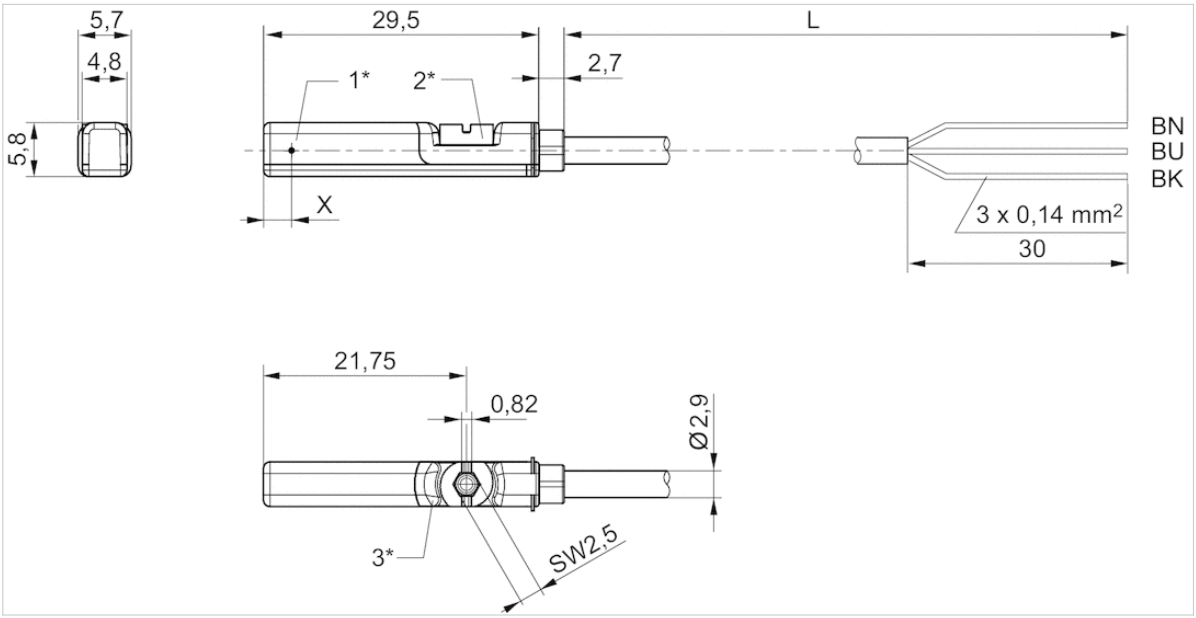
Part No.	Version
R412022856	short circuit resistant Protected against polarity reversal

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Dimensions

Fig. 2



1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
BN = brown, BK = black, BU = blue
X = electronic: 11.6 mm

Sensor, Series ST6

- 6 mm T-slot
- with cable
- Plug, M8, 3-pin, with knurled screw
- UL certification
- Reed electronic PNP electronic NPN
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Certificates	CE declaration of conformity cULus RoHS
Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67
Switching point precision	±0,1 mT
Nominal current, actuated state	30 mA
Quiescent current (without load)	8 mA
Min./max. DC operating voltage	10 ... 30 V DC
Min./max. AC operating voltage	See table below
Hysteresis	≥ 0,2 mT
Switching logic	NO (make contact)
Switching capacity	Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Technical data

Part No.		for	Type of contact
R412022873		PRA PRE CCI KPZ SSI GPC CVI	Reed
R412022875		PRA PRE CCI KPZ SSI GPC CVI	Reed
R412022874		PRA PRE CCI KPZ SSI GPC CVI	Reed
R412022859		PRA PRE CCI KPZ SSI GPC CVI	electronic PNP
R412022862		PRA PRE CCI KPZ SSI GPC CVI	electronic PNP
R412022861		PRA PRE CCI KPZ SSI GPC CVI	electronic PNP
R412022852		PRA PRE CCI KPZ SSI GPC CVI	electronic NPN

Part No.	Cable sheath	Cable length L	Min./max. AC operating voltage
R412022873	Polyurethane	0,3 m	10 ... 30 V AC
R412022875	Polyvinyl chloride	0,3 m	10 ... 30 V AC
R412022874	Polyurethane	0,5 m	10 ... 30 V AC
R412022859	Polyurethane	0,3 m	-
R412022862	Polyvinyl chloride	0,3 m	-
R412022861	Polyurethane	0,5 m	-
R412022852	Polyurethane	0,3 m	-

Part No.	Voltage drop U at Imax	DC switching current, max.

Part No.	Voltage drop U at Imax	DC switching current, max.
R412022873	I*Rs	0,3 A
R412022875	I*Rs	0,3 A
R412022874	I*Rs	0,3 A
R412022859	≤ 2,5 V	0,13 A
R412022862	≤ 2,5 V	0,13 A
R412022861	≤ 2,5 V	0,13 A
R412022852	≤ 2,5 V	0,13 A

Part No.	AC switching current, max.	Max. switching frequency
R412022873	0,5 A	400 Hz
R412022875	0,5 A	400 Hz
R412022874	0,5 A	400 Hz
R412022859	-	1000 Hz
R412022862	-	1000 Hz
R412022861	-	1000 Hz
R412022852	-	1000 Hz

Part No.	Operating current, not switched	Operating current, switched
R412022873	-	-
R412022875	-	-
R412022874	-	-
R412022859	8 mA	30 mA
R412022862	8 mA	30 mA
R412022861	8 mA	30 mA
R412022852	8 mA	30 mA

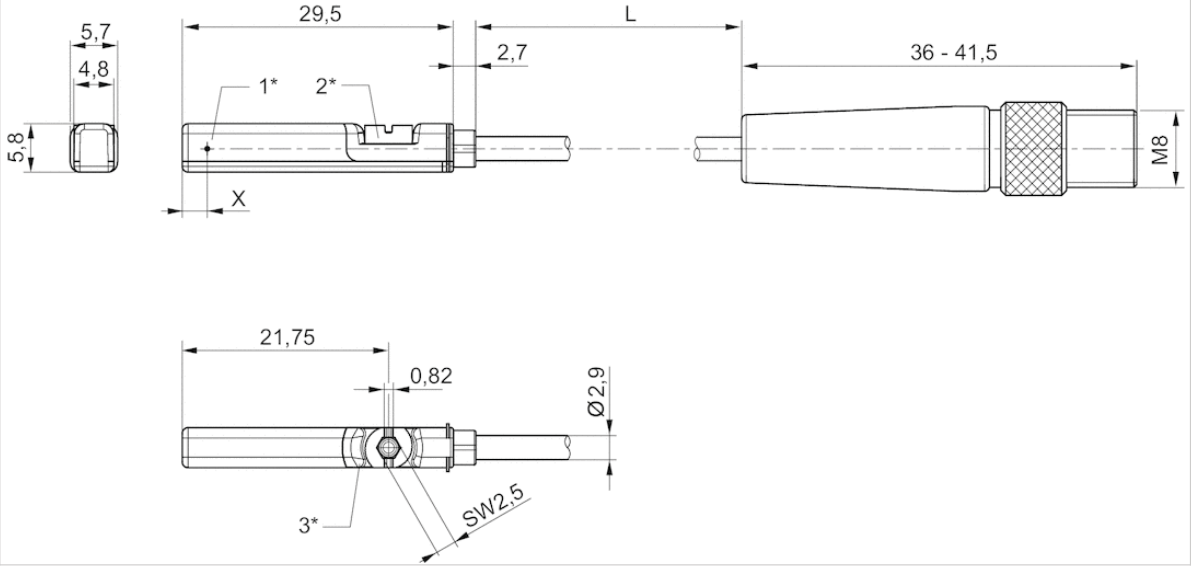
Part No.	Version
R412022873	Protected against polarity reversal
R412022875	Protected against polarity reversal
R412022874	Protected against polarity reversal
R412022859	short circuit resistant Protected against polarity reversal
R412022862	short circuit resistant Protected against polarity reversal
R412022861	short circuit resistant Protected against polarity reversal
R412022852	short circuit resistant Protected against polarity reversal

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane Polyvinyl chloride
Locking screw	Stainless steel

Dimensions

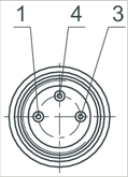
Dimensions



1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = electronic: 11,6 mm, Reed: 8,3 mm

Pin assignments

Pin assignments



Pin	1	3	4
Allocation	(+)	(-)	(OUT)

Sensor mounting, Series CB1

- for series SN5-X
- to mount on cylinder TRB



Weight See table below

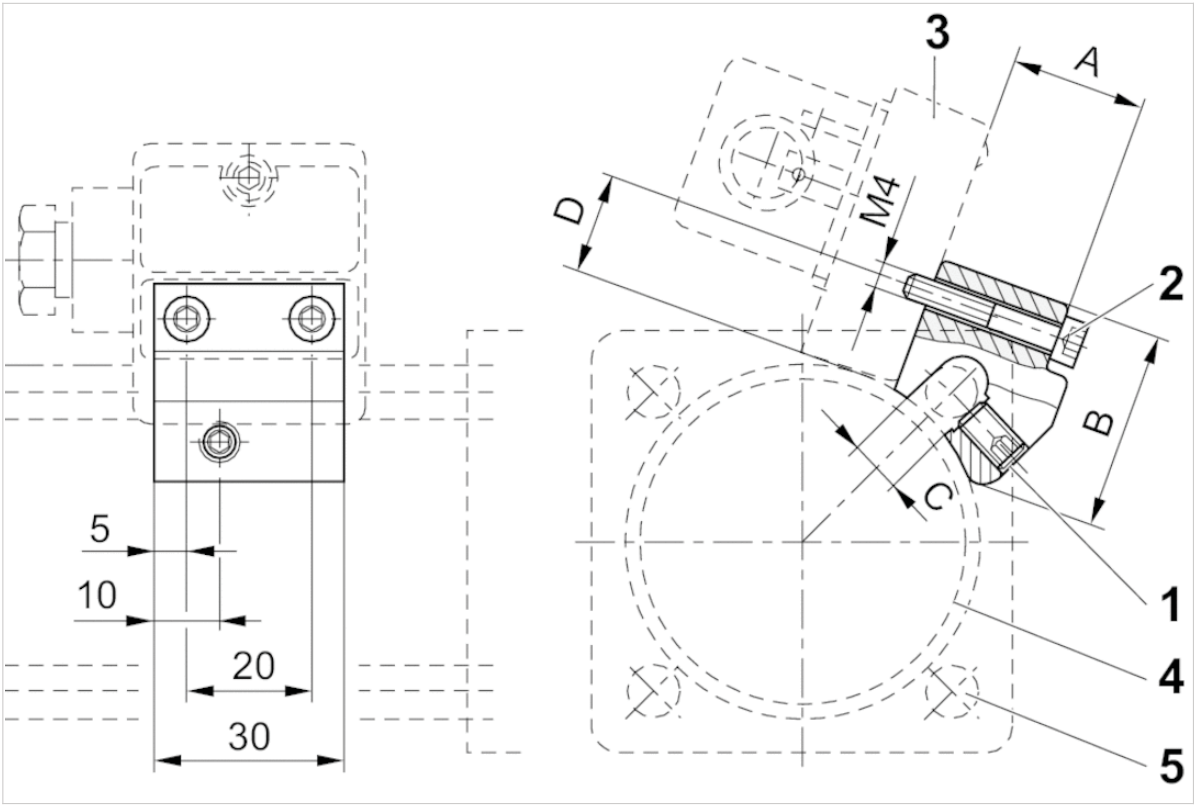
Technical data

Part No.	Cylinders Ø min.	Cylinders Ø max.	for series	Weight
1827020056	32 mm	40 mm	SN5-X	0,03 kg
1827020057	50 mm	63 mm	SN5-X	0,035 kg
1827020058	80 mm	100 mm	SN5-X	0,4 kg

Technical information

Material	
	Aluminum

Dimensions



1) Clamping threaded pin 2) Mounting screw for sensor 3) Sensor 4) Cylinder profile 5) Tie rod

Dimensions

Part No.	A	B	C	D	SW
1827020056	19.5	30	6	15	3
1827020057	24.5	30	8	15	3
1827020058	29.5	31	10	15	3

Sensor mounting, Series CB1

- for series SN5-X
- to mount on cylinder TRB, ITS



Weight See table below

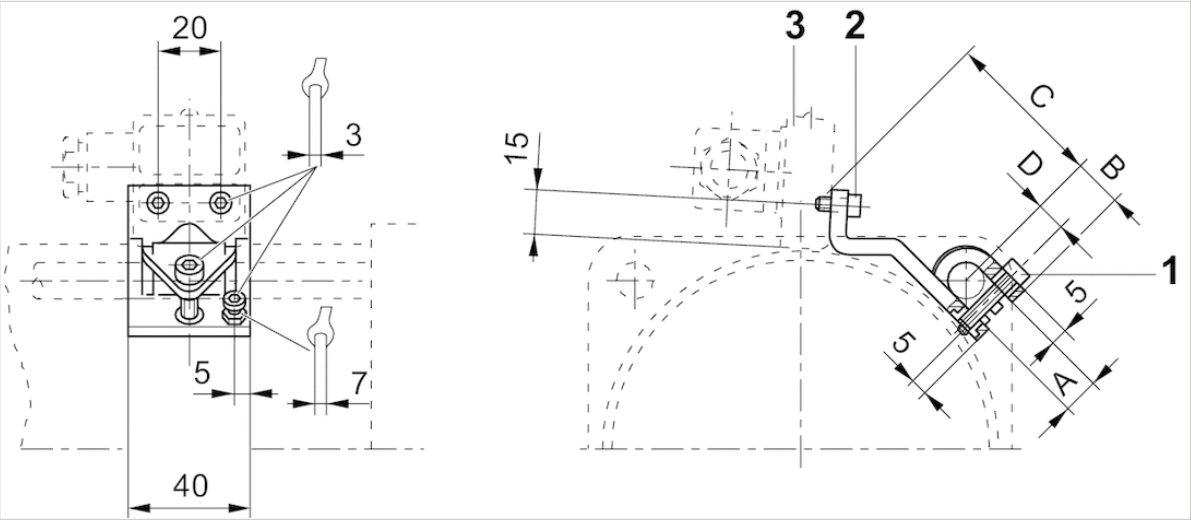
Technical data

Part No.	Cylinders Ø min.	Cylinders Ø max.	for series	Weight
1827020076	125 mm	125 mm	SN5-X	0,075 kg
1827020077	160 mm	200 mm	SN5-X	0,083 kg
1827020078	250 mm	250 mm	SN5-X	0,094 kg

Technical information

Material	
	Aluminum

Dimensions



1) Mounting screw 2) Mounting screw for sensor 3) Sensor

Dimensions

Part No.	A +0,5	B ±1	C ±2	D
1827020076	12	15	54	9
1827020077	16	17	53	11
1827020078	20	19	60	13

Sensor, Series ST6

- 6 mm T-slot
- with cable
- Plug, M8, 3-pin Plug, M8, 2-pin
- UL certification
- Reed electronic PNP electronic NPN
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Certificates	CE declaration of conformity cULus RoHS
Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67
Switching point precision	±0,1 mT
Nominal current, actuated state	30 mA
Quiescent current (without load)	8 mA
Min./max. DC operating voltage	10 ... 30 V DC
Min./max. AC operating voltage	See table below
Hysteresis	≥ 0,2 mT
Switching logic	NO (make contact)
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Technical data

Part No.		for	Type of contact	Cable length L
R412022868		PRA PRE CCI KPZ SSI GPC CVI	Reed	0,3 m
R412027172		PRA PRE CCI KPZ SSI GPC CVI	Reed	0,3 m
R412022872		PRA PRE CCI KPZ SSI GPC CVI	Reed	0,3 m
R412022858		PRA PRE CCI KPZ SSI GPC CVI	electronic PNP	0,3 m
R412022851		PRA PRE CCI KPZ SSI GPC CVI	electronic NPN	0,3 m

Part No.	Min./max. AC operating voltage	Voltage drop U at Imax
R412022868	10 ... 30 V AC	≤ 3,5 V
R412027172	10 ... 30 V AC	≤ 3,5 V
R412022872	10 ... 30 V AC	≤ 0,1 V
R412022858	-	≤ 2,5 V
R412022851	-	≤ 2,5 V

Part No.	DC switching current, max.	AC switching current, max.
R412022868	0,13 A	0,13 A
R412027172	0,13 A	0,13 A
R412022872	0,3 A	0,5 A
R412022858	0,13 A	-
R412022851	0,13 A	-

Part No.	Switching capacity	Max. switching frequency
R412022868	Reed, 2-pin: max. 10 W	400 Hz
R412027172	Reed, 2-pin: max. 10 W	400 Hz
R412022872	Reed, 3-pin: max. 6 W	400 Hz
R412022858	-	1000 Hz
R412022851	-	1000 Hz

Part No.	Operating current, not switched	Operating current, switched
R412022868	-	-
R412027172	-	-
R412022872	-	-
R412022858	8 mA	30 mA
R412022851	8 mA	30 mA

Part No.	Version	
R412022868	Protected against polarity reversal	1)
R412027172	Protected against polarity reversal	1)
R412022872	Protected against polarity reversal	1)
R412022858	short circuit resistant Protected against polarity reversal	-
R412022851	short circuit resistant Protected against polarity reversal	-

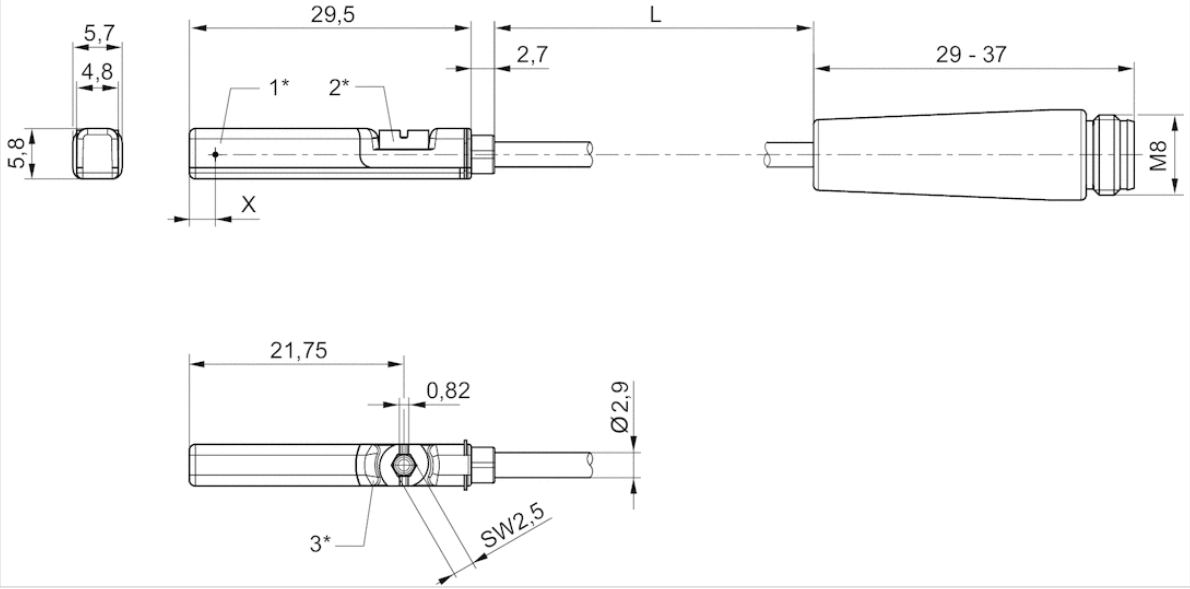
1) The product of operating voltage and continuous current must not exceed the maximum switching capacity.

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Dimensions

Dimensions

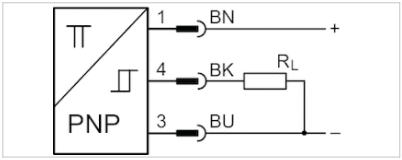


1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = electronic: 11,6 mm, Reed: 8,3 mm

Sensor, Series ST6

- 6 mm T-slot
- with cable
- Plug, M8, 3-pin, with knurled screw
- ATEX
- UL certification, ATEX
- electronic PNP
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR





Certificates	ATEX CE declaration of conformity cULus RoHS
ATEX class G	II 3G Ex nA IIC T4 Gc X
ATEX class D	II 3D Ex tc IIIC T135°C Dc X
Ambient temperature min./max.	-20 ... 50 °C
Protection class	IP65, IP67
Switching point precision	±0,1 mT
Quiescent current (without load)	10 mA
Min./max. DC operating voltage	10 ... 30 V DC
Switching logic	NO (make contact)
LED status display	Yellow Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Technical data

Part No.	for	Type of contact	Cable length L
R412022860	PRA PRE CCI KPZ SSI GPC CVI	electronic PNP	0,3 m

Part No.	Voltage drop U at Imax	DC switching current, max.
R412022860	≤ 2,5 V	0,1 A

Part No.	Max. switching frequency
R412022860	1000 Hz

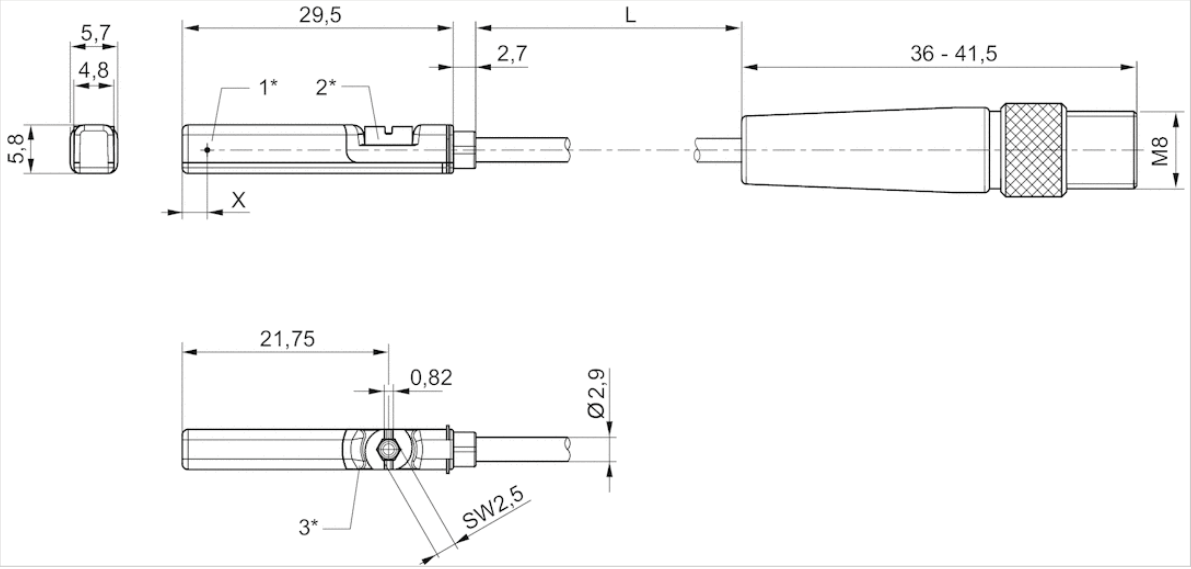
Part No.	Version
R412022860	short circuit resistant Protected against polarity reversal

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Dimensions

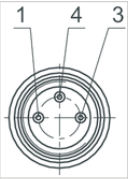
Dimensions



1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = electronic: 11,6 mm, Reed: 8,3 mm

Pin assignments

Pin assignments



Pin	1	3	4
Allocation	(+)	(-)	(OUT)

Sensor, Series ST6

- 6 mm T-slot
- with cable
- Plug, M12, 2-pin, with knurled screw Plug, M12, 4-pin, with knurled screw
- UL certification
- Reed electronic PNP
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Certificates	CE declaration of conformity cULus RoHS
Ambient temperature min./max.	-30 ... 80 °C
Protection class	See table below
Switching point precision	±0,1 mT
Nominal current, actuated state	30 mA
Quiescent current (without load)	8 mA
Min./max. DC operating voltage	10 ... 30 V DC
Min./max. AC operating voltage	See table below
Hysteresis	≥ 0,2 mT
Switching logic	NO (make contact)
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Technical data

Part No.		for	Type of contact	Cable length L
R412027171		PRA PRE CCI KPZ SSI GPC CVI	Reed	0,3 m
R412022876		PRA PRE CCI KPZ SSI GPC CVI	Reed	0,3 m
R412022879		PRA PRE CCI KPZ SSI GPC CVI	electronic PNP	0,1 m
R412022863		PRA PRE CCI KPZ SSI GPC CVI	electronic PNP	0,3 m
R412022877		PRA PRE CCI KPZ SSI GPC CVI	electronic PNP	3 m
R412022878		PRA PRE CCI KPZ SSI GPC CVI	electronic PNP	5 m

Part No.	Min./max. AC operating voltage	Voltage drop U at Imax
R412027171	10 ... 30 V AC	≤ 3,5 V
R412022876	10 ... 30 V AC	≤ 0,1 V
R412022879	-	≤ 2,5 V
R412022863	-	≤ 2,5 V
R412022877	-	≤ 2,5 V
R412022878	-	≤ 2,5 V

Part No.	DC switching current, max.	AC switching current, max.
R412027171	0,13 A	0,13 A
R412022876	0,3 A	0,5 A
R412022879	0,13 A	-

Part No.	DC switching current, max.	AC switching current, max.
R412022863	0,13 A	-
R412022877	0,13 A	-
R412022878	0,13 A	-

Part No.	Switching capacity	Max. switching frequency
R412027171	Reed, 2-pin: max. 10 W	400 Hz
R412022876	Reed, 3-pin: max. 6 W	400 Hz
R412022879	-	1000 Hz
R412022863	-	1000 Hz
R412022877	-	1000 Hz
R412022878	-	1000 Hz

Part No.	Operating current, not switched	Operating current, switched	Protection class
R412027171	-	-	IP65, IP67
R412022876	-	-	IP65, IP67
R412022879	8 mA	30 mA	IP65, IP67
R412022863	8 mA	30 mA	IP65, IP67, IP69K
R412022877	8 mA	30 mA	IP65, IP67
R412022878	8 mA	30 mA	IP65, IP67

Part No.	Version	
R412027171	Protected against polarity reversal	1)
R412022876	Protected against polarity reversal	1)
R412022879	short circuit resistant Protected against polarity reversal	-
R412022863	short circuit resistant Protected against polarity reversal	-
R412022877	short circuit resistant Protected against polarity reversal	-
R412022878	short circuit resistant Protected against polarity reversal	-

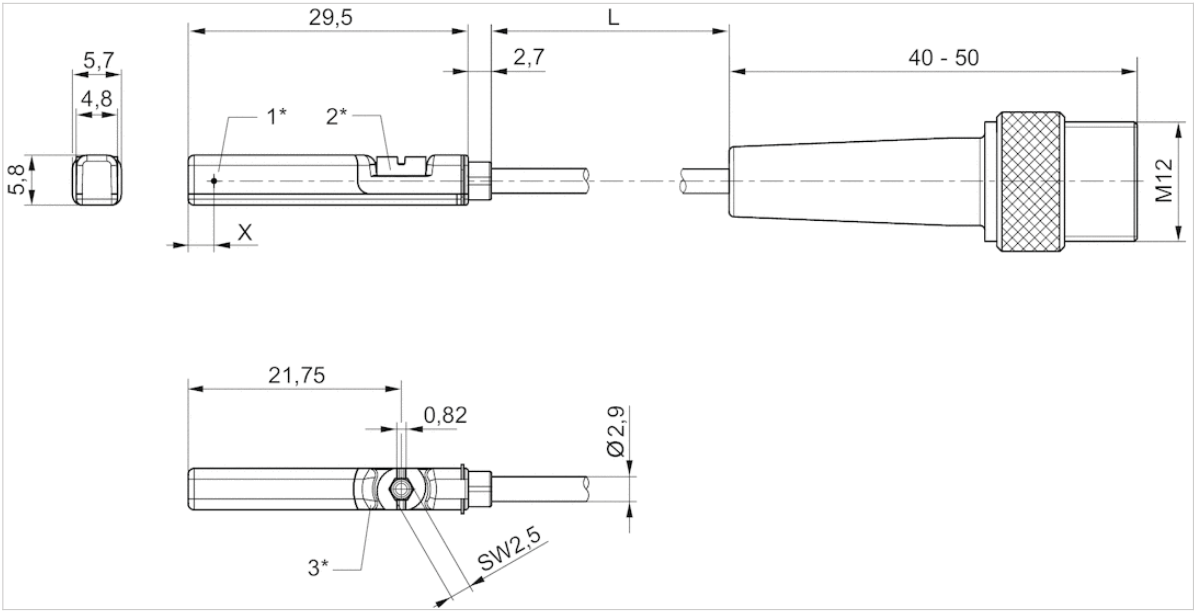
1) The product of operating voltage and continuous current must not exceed the maximum switching capacity.

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Dimensions

Dimensions

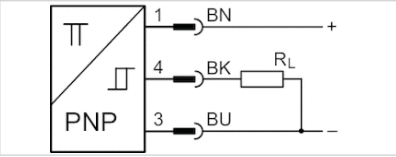


1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = PNP: 11,6 mm, reed: 8,3 mm

Sensor, Series ST6

- 6 mm T-slot
- with cable
- Plug, M12, 3-pin, with knurled screw
- ATEX
- UL certification, ATEX
- electronic PNP
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR





Certificates	ATEX CE declaration of conformity cULus RoHS
ATEX class G	II 3G Ex nA IIC T4 Gc X
ATEX class D	II 3D Ex tc IIIC T135°C Dc X
Ambient temperature min./max.	-20 ... 50 °C
Protection class	IP67
Switching point precision	±0,1 mT
Quiescent current (without load)	10 mA
Min./max. DC operating voltage	10 ... 30 V DC
Switching logic	NO (make contact)
LED status display	Yellow Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Technical data

Part No.	for	Type of contact	Cable length L
R412022864	PRA PRE CCI KPZ SSI GPC CVI	electronic PNP	0,3 m

Part No.	Voltage drop U at Imax	DC switching current, max.
R412022864	≤ 2,5 V	0,1 A

Part No.	Max. switching frequency
R412022864	1000 Hz

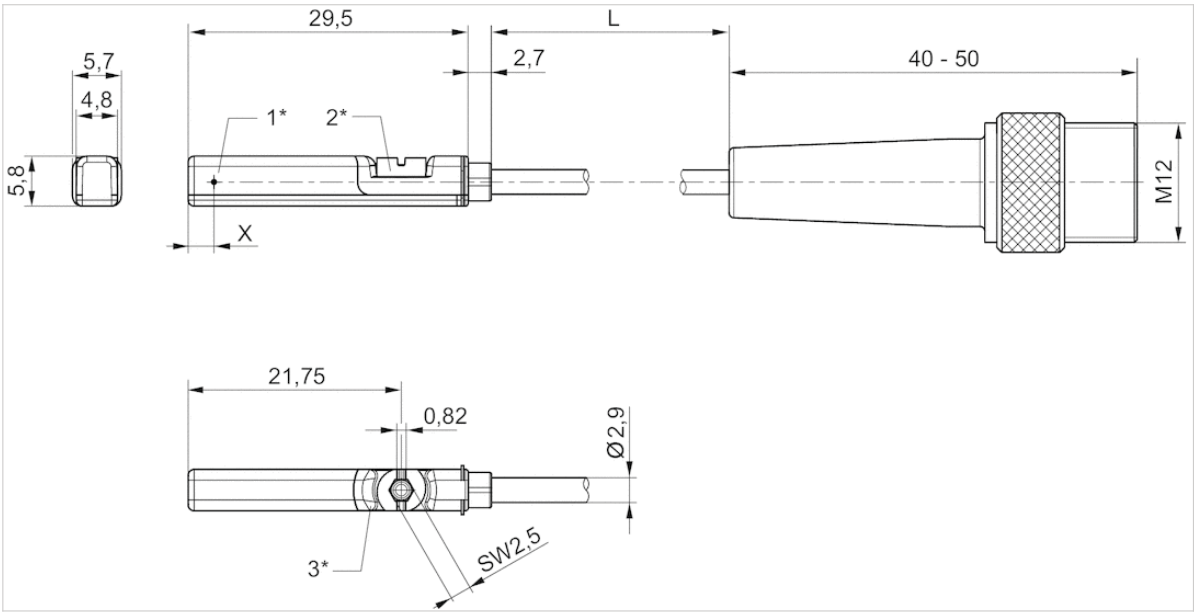
Part No.	Version
R412022864	short circuit resistant Protected against polarity reversal

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Dimensions

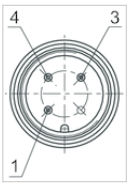
Dimensions



1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = PNP: 11,6 mm, reed: 8,3 mm

Pin assignments

Pin assignments



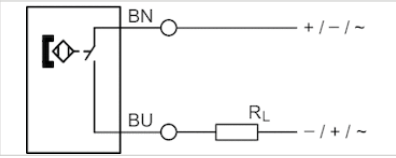
Pin	1	3	4
Allocation	(+)	(-)	(OUT)

Sensor, Series ST6-HT

- 6 mm T-slot
- with cable
- open cable ends, 2-pin
- Heat resistant
- UL certification
- Reed
- Direct mounting for series PRA PRE CCI KPZ SSI GPC CVI
- Indirect mounting for series TRB, ITS, CCL-IS, MNI, CSL-RD, ICM, KHZ, TRR



Certificates	CE declaration of conformity RoHS
Ambient temperature min./max.	-20 ... 120 °C
Protection class	IP65, IP67
Switching point precision	±0,1 mT
Min./max. DC operating voltage	0 ... 30 V DC
Min./max. AC operating voltage	0 ... 30 V AC
Switching logic	NO (make contact)
Switching capacity	Reed, 2-pin: max. 10 W
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms



Technical data

Part No.	for	Type of contact	Cable length L
R412022865	PRA PRE CCI KPZ SSI GPC CVI	Reed	3 m
R412022867	PRA PRE CCI KPZ SSI GPC CVI	Reed	10 m

Part No.	Voltage drop U at Imax	DC switching current, max.
R412022865	≤ 3,5 V	0,13 A
R412022867	≤ 3,5 V	0,13 A

Part No.	AC switching current, max.	Max. switching frequency
R412022865	0,13 A	400 Hz
R412022867	0,13 A	400 Hz

Part No.	Version	Temperature resistance
R412022865	Protected against polarity reversal	Heat resistant

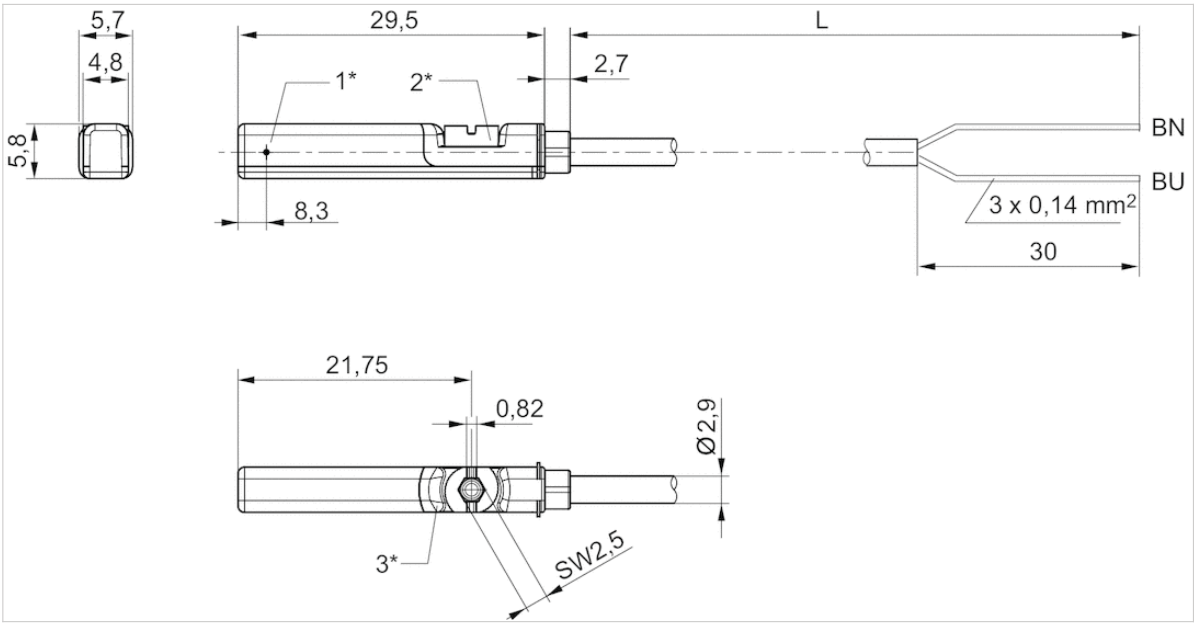
Part No.	Version	Temperature resistance
R412022867	Protected against polarity reversal	Heat resistant

Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Dimensions

Dimensions

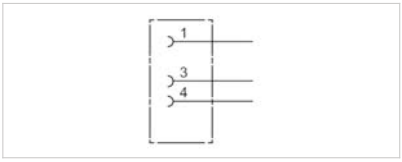


1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
BN=brown, BU=blue

Round plug connector, Series CON-RD

- Socket, M8x1, 3-pin, A-coded, straight, 180°
- UL (Underwriters Laboratories)
- unshielded





Connection type	Soldering
Ambient temperature min./max.	-25 ... 80 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0,009 kg

Technical data

Part No.	Max. current	suitable cable-Ø min./max
1834484173	4 A	3,5 mm

Technical information

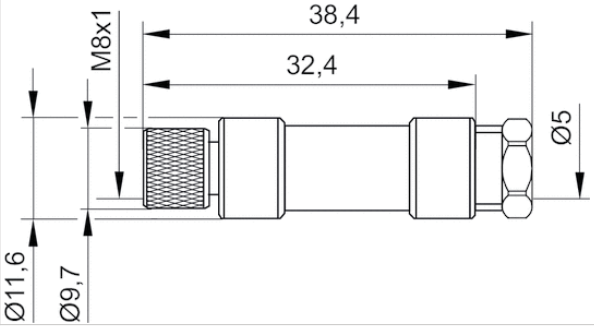
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyamide

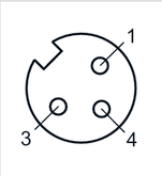
Dimensions

Dimensions



Pin assignments

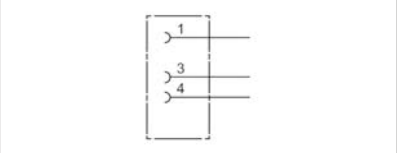
Pin assignment socket



Round plug connector, Series CON-RD

- Socket, M8x1, 3-pin, A-coded, angled, 90°
- UL (Underwriters Laboratories)
- unshielded





Connection type	Soldering
Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Weight	0,01 kg

Technical data

Part No.	Max. current	Contact assignment	suitable cable-Ø min./max
1834484174	4 A	3	3,5 / 5 mm

Technical information

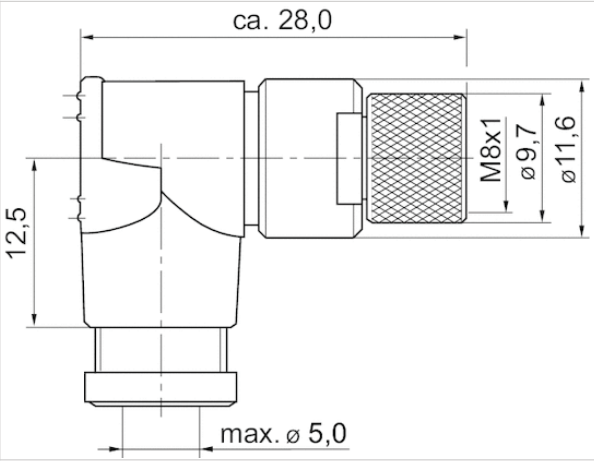
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyamide

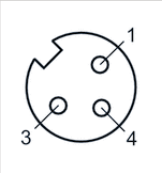
Dimensions

Dimensions



Pin assignments

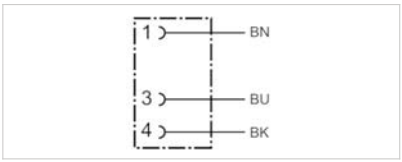
Pin assignment socket



Round plug connector, Series CON-RD

- Socket M8x1 3-pin A-coded straight 180°
- open cable ends
- with cable
- UL (Underwriters Laboratories)
- unshielded





Ambient temperature min./max.	-25 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Wire cross-section	0,24 mm²
Weight	See table below

Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Certification	Weight
1834484166	4 A	3	4,5 mm	3 m	UL (Underwriters Laboratories)	0,087 kg
1834484168	4 A	3	4,5 mm	5 m	UL (Underwriters Laboratories)	0,141 kg
1834484247	4 A	3	4,5 mm	10 m	UL (Underwriters Laboratories)	0,277 kg

Technical information

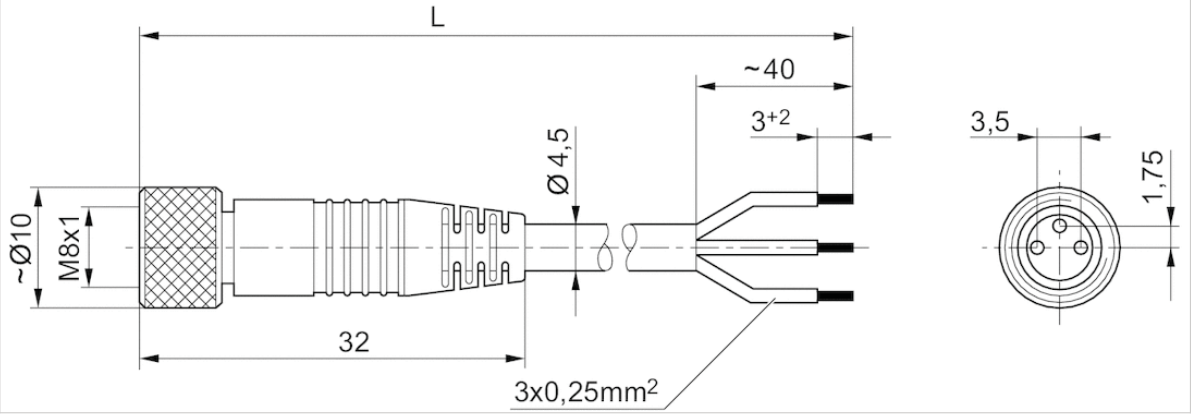
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyurethane
Cable sheath	Polyurethane

Dimensions

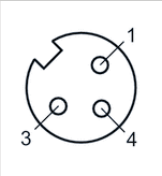
Dimensions



L = length

Pin assignments

Pin assignment socket



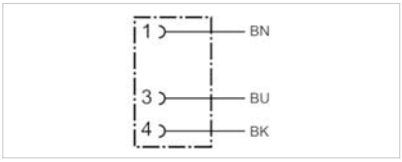
(1) BN=brown
(3) BU=blue
(4) BK=black

Round plug connector, Series CON-RD

- Socket M8x1 3-pin A-coded angled 90°
- open cable ends
- with cable
- unshielded



Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP67
Wire cross-section	0,24 mm²
Weight	See table below



Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
1834484167	4 A	3	4,5 mm	3 m	0,087 kg
1834484169	4 A	3	4,5 mm	5 m	0,139 kg
1834484248	4 A	3	4,5 mm	10 m	0,279 kg

Technical information

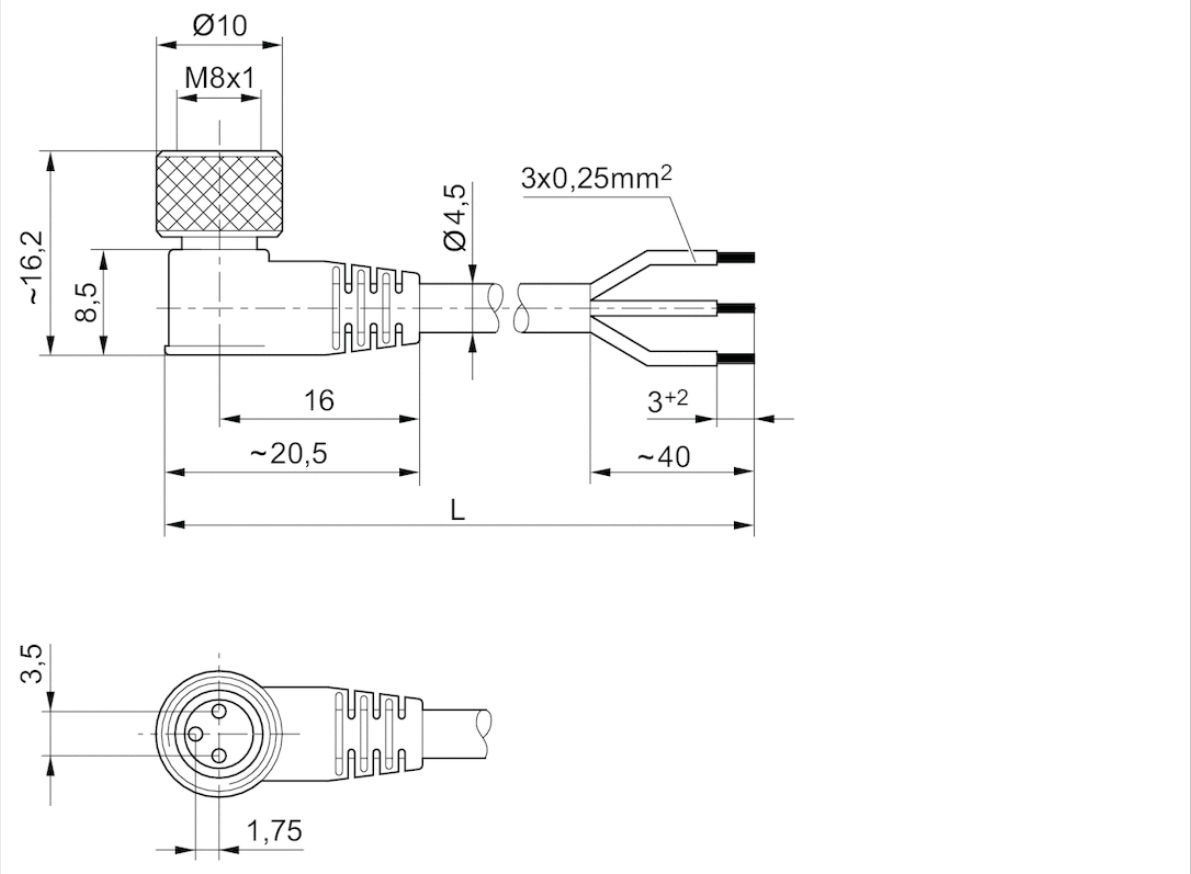
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Housing	Polyurethane
Cable sheath	Polyurethane

Dimensions

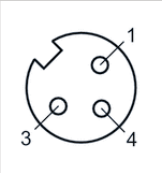
Dimensions



L = length

Pin assignments

Pin assignment socket

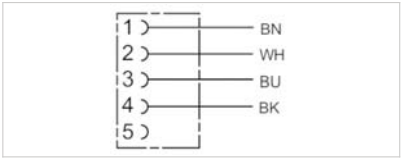


(1) BN=brown
(3) BU=blue
(4) BK=black

Round plug connector, Series CON-RD

- Socket M12x1 5-pin A-coded angled 90°
- open cable ends
- for DeviceNet
- with cable
- unshielded





Ambient temperature min./max.	-40 ... 85 °C
Operational voltage	48 V AC/DC
Protection class	IP65
Wire cross-section	0,34 mm²
Weight	See table below

Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
1834484259	4 A	4	5,2 mm	3 m	0,126 kg
1834484260	4 A	4	5,2 mm	5 m	0,195 kg
1834484261	4 A	4	5,2 mm	10 m	0,38 kg

Technical information

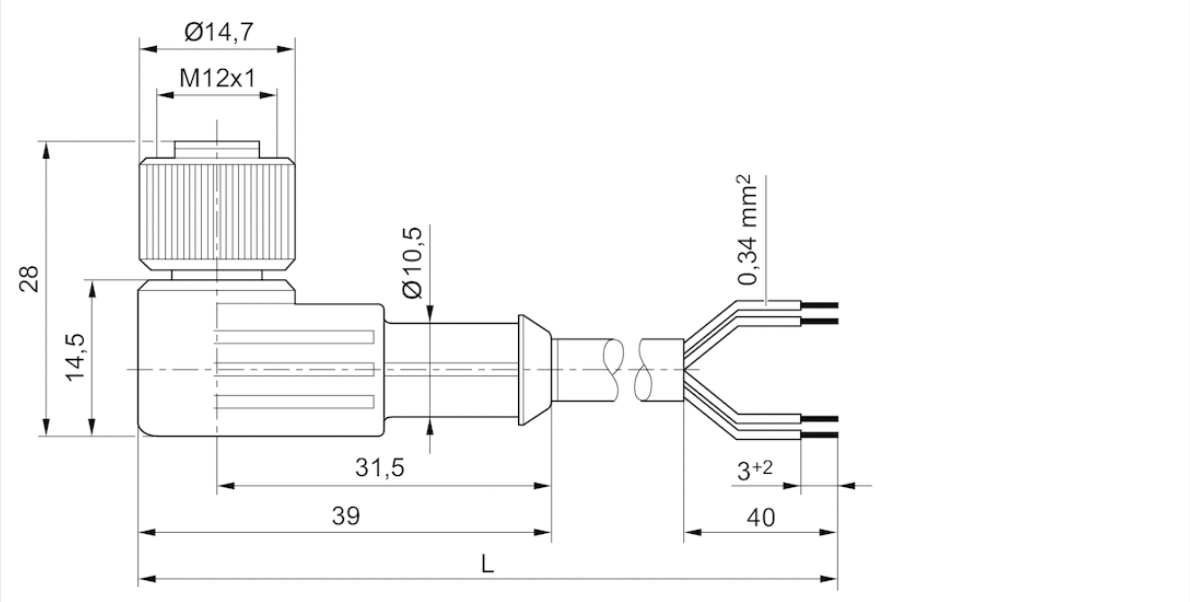
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Cable sheath	Polyurethane

Dimensions

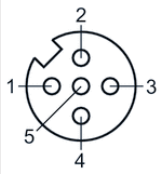
Dimensions



L = length

Pin assignments

Pin assignment socket



(1) BN=brown
(2) WH=white
(3) BU=blue
(4) BK=black
(5) not assigned