

Series KPZ



AVENTICS™

**AVENTICS Series KPZ Compact
cylinders**


EMERSON™

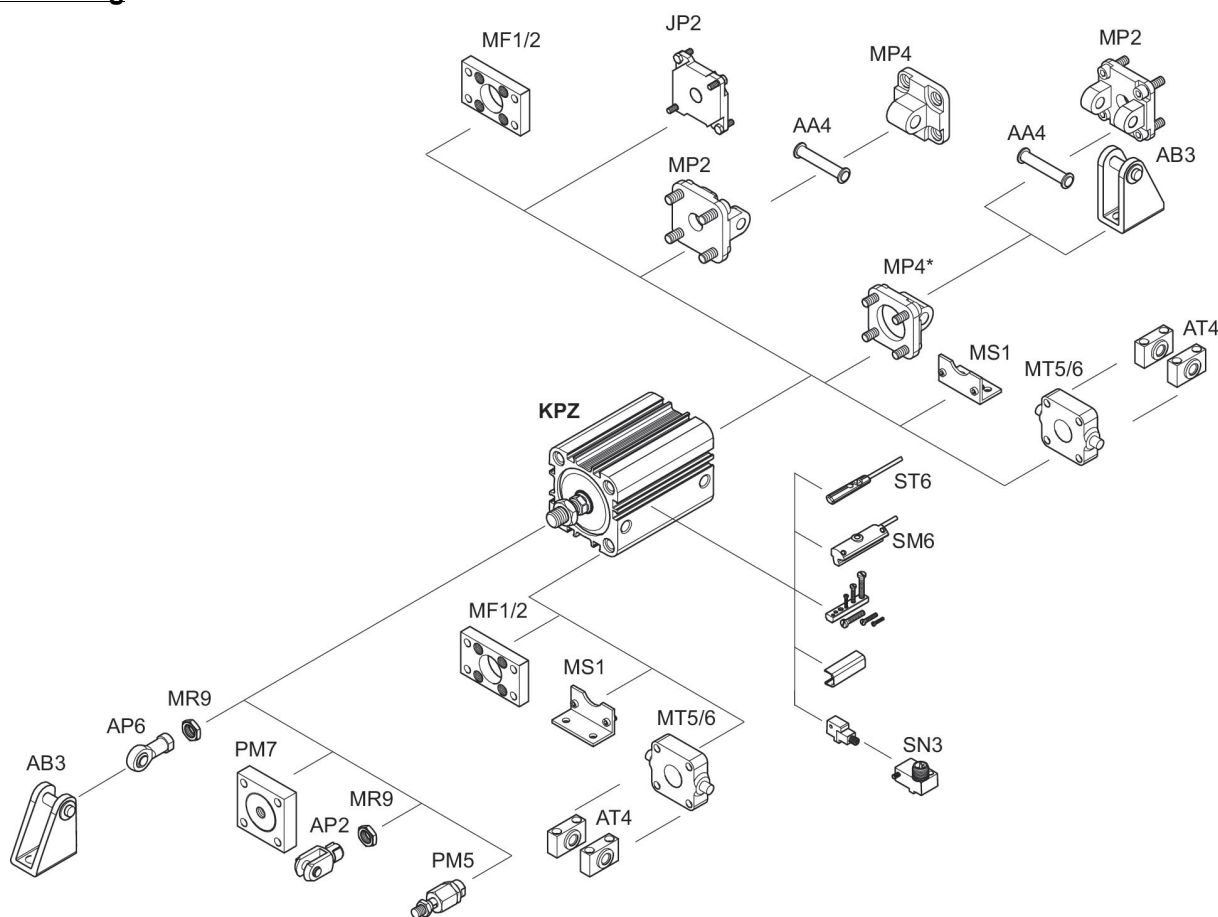
Series KPZ

The AVENTICS Series KPZ is a compact cylinders based on the widely used standard NFE 49 004. It offer a wide variety of variants and are suitable for a multitude of applications thanks to their sizing.

- According to NFE 49-004
- Ø 16 ... 100 mm
- Max. stroke: 500 mm
- With integrated sensor slot



Overview drawing



Product overview

	Page
Metric	
Compact cylinder, Series KPZ.....	6
Single-acting, retracted without pressure - single - Piston with magnet - elastic cushioning - Internal thread	
Compact cylinder, Series KPZ.....	10
Single-acting, retracted without pressure - single - Piston with magnet - elastic cushioning - External thread	
Compact cylinder, Series KPZ.....	14
Single-acting, extended without pressure - single - Piston with magnet - elastic cushioning - Internal thread	
Compact cylinder, Series KPZ.....	18
Single-acting, extended without pressure - single - Piston with magnet - elastic cushioning - External thread	
Compact cylinder, Series KPZ.....	22
Double-acting - single - Piston with magnet - elastic cushioning - Internal thread	
Compact cylinder, Series KPZ.....	27
Double-acting - single - Piston with magnet - elastic cushioning - External thread	
Compact cylinder, Series KPZ.....	32
Double-acting - non-rotating, with front plate - Piston with magnet - elastic cushioning - Internal thread	
Compact cylinder, Series KPZ.....	38
Double-acting - Non-rotating, biplane - Piston with magnet - elastic cushioning - Internal thread	
Accessories overview Cylinder mountings	
Clevis mounting AB3, Series CM1.....	42
Clevis mounting MP2, Series CM1.....	44
Rear eye MP4-HD, suitable for robust mechanical engineering applications.....	46
for clevis mounting MP2 and AB3	
Trunnion mounting MT5, MT6, Series CM1.....	48
for mounting to the cylinder cover or base	
Bearing AT4, Series CM1.....	51
for trunnion mounting MT4, MT5, MT6 - ISO 15552	
Flange mounting MF1, MF2, Series CM1.....	53
Flange mounting MF1, MF2, Series CM1.....	55
Intermediate flange JP2, Series CM1.....	57
for multi-position cylinders	
Foot mounting MS1, Series CM1.....	59
Bolts AA4, Series CM1.....	62
Mounting kit.....	64
Accessories overview Piston rod mountings	
Flexible spherical coupling, Series PM5.....	65
to mount on cylinder PRA, TRB, CCL-IS/-IC, CCI, SSI, MNI, KPZ, KHZ, 167, CVI, RPC, RDC, ITS	
Flexible plate coupling, Series PM7.....	67
to mount on cylinder PRA, TRB, CCL-IS/-IC, CCI, SSI, KPZ, 167, CVI, RPC, ITS with plate	
Rod clevis, Series PM6.....	69
for ball eye rod end AP6	
Rod clevis with lock washer, Series AP2, Galvanized Steel.....	71
to mount on cylinder PRA, TRB, CCI, MNI, ICM, KPZ, KHZ, 167, CVI, RPC, RDC, ITS	

Product overview

	Page
Ball eye rod end AP6, galvanized Steel.....	73
to mount on cylinder PRA, TRB, CCI, SSI, MNI, RPC, KPZ, 167, CVI, RDC, 102, ITS with flange	
Piston rod nut MR9.....	76
Sensors and sensor mountings, accessories	
Sensor, Series SN3.....	79
to mount on cylinder PRA, CCI, KPZ, KHZ, GPC, CVI welding-proof	
Sensors, Series SM6, with cable, without wire end ferrule, tin-plated.....	82
TRB ITS 167 MNI ICM TRR	
Sensors, Series SM6, with cable, plug M8x1.....	84
TRB ITS 167 MNI ICM TRR - Plug	
Sensors, Series ST6, open cable ends, 2-pin, Reed.....	86
6 mm T-slot - to mount on cylinder TRB, ITS, 167, C12P, CCL-IS/-IC, MNI, CSL-RD, KHZ, ICM, RPC, ICS, TRR	
Sensors, Series ST6, open cable ends, 2-pin, Heat resistant.....	87
6 mm T-slot	
Sensors, Series ST6, open cable ends, 3-pin, NPN.....	88
6 mm T-slot - to mount on cylinder TRB, ITS, 167, C12P, CCL-IS/-IC, MNI, CSL-RD, KHZ, ICM, RPC, ICS, TRR	
Sensors, Series ST6, open cable ends, 3-pin, PNP.....	89
6 mm T-slot - to mount on cylinder TRB, ITS, 167, C12P, CCL-IS/-IC, MNI, CSL-RD, KHZ, ICM, RPC, ICS, TRR	
Sensors, Series ST6, open cable ends, 3-pin, Reed.....	91
6 mm T-slot - to mount on cylinder TRB, ITS, 167, C12P, CCL-IS/-IC, MNI, CSL-RD, KHZ, ICM, RPC, ICS, TRR	
Sensors, Series ST6, plug M8.....	93
6 mm T-slot - to mount on cylinder TRB, ITS, 167, C12P, CCL-IS/-IC, MNI, CSL-RD, KHZ, ICM, RPC, ICS, TRR	
Sensors, Series ST6, plug M8x1, with knurled screw.....	95
6 mm T-slot - to mount on cylinder TRB, ITS, 167, C12P, CCL-IS/-IC, MNI, CSL-RD, KHZ, ICM, RPC, ICS, TRR	
Sensors, Series ST6, plug M12x1.....	98
6 mm T-slot - to mount on cylinder TRB, ITS, 167, C12P, CCL-IS/-IC, MNI, CSL-RD, KHZ, ICM, RPC, ICS, TRR	
Sensors, Series ST6, open cable ends, 3-pin, PNP, ATEX.....	100
6 mm T-slot	
Sensors, Series ST6, plug M8x1, ATEX.....	101
6 mm T-slot - to mount on cylinder TRB, ITS, 167, C12P, CCL-IS/-IC, MNI, CSL-RD, KHZ, ICM, RPC, ICS, TRR	
Sensors, Series ST6, plug M12x1, with knurled screw, ATEX.....	103
6 mm T-slot - to mount on cylinder TRB, ITS, 167, C12P, CCL-IS/-IC, MNI, CSL-RD, KHZ, ICM, RPC, ICS, TRR	
Sensor mounting, Series CB1.....	105
to mount on cylinder PRA, KPZ, GPC, CCI, KHZ - SN3	
Accessories overview Electrical accessories	
Round plug connector, Series CON-RD.....	106
Socket - M8x1 - 3-pin - straight - open cable ends - 3-pin	
Round plug connector, Series CON-RD.....	108
Socket - M8x1 - 3-pin - angled - open cable ends - 3-pin	

Product overview

	Page
Round plug connector, Series CON-RD.....	110
Socket - M8x1 - 3-pin - straight - Soldering	
Round plug connector, Series CON-RD.....	111
Socket - M8x1 - 3-pin - angled - Soldering	
Accessories overview Silencer	
Silencers, series SI1, Sintered bronze.....	112
Silencers, series SI1, Sintered bronze.....	115

Compact cylinder, Series KPZ

Functional principle: Single-acting, retracted without pressure
 Standardization: NFE 49004
 : Piston with magnet
 : elastic cushioning
 Piston rod thread - type: Internal thread
 Ambient temperature min./max.: -20 °C ... 80 °C
 Medium temperature min./max.: -20 °C ... 80 °C



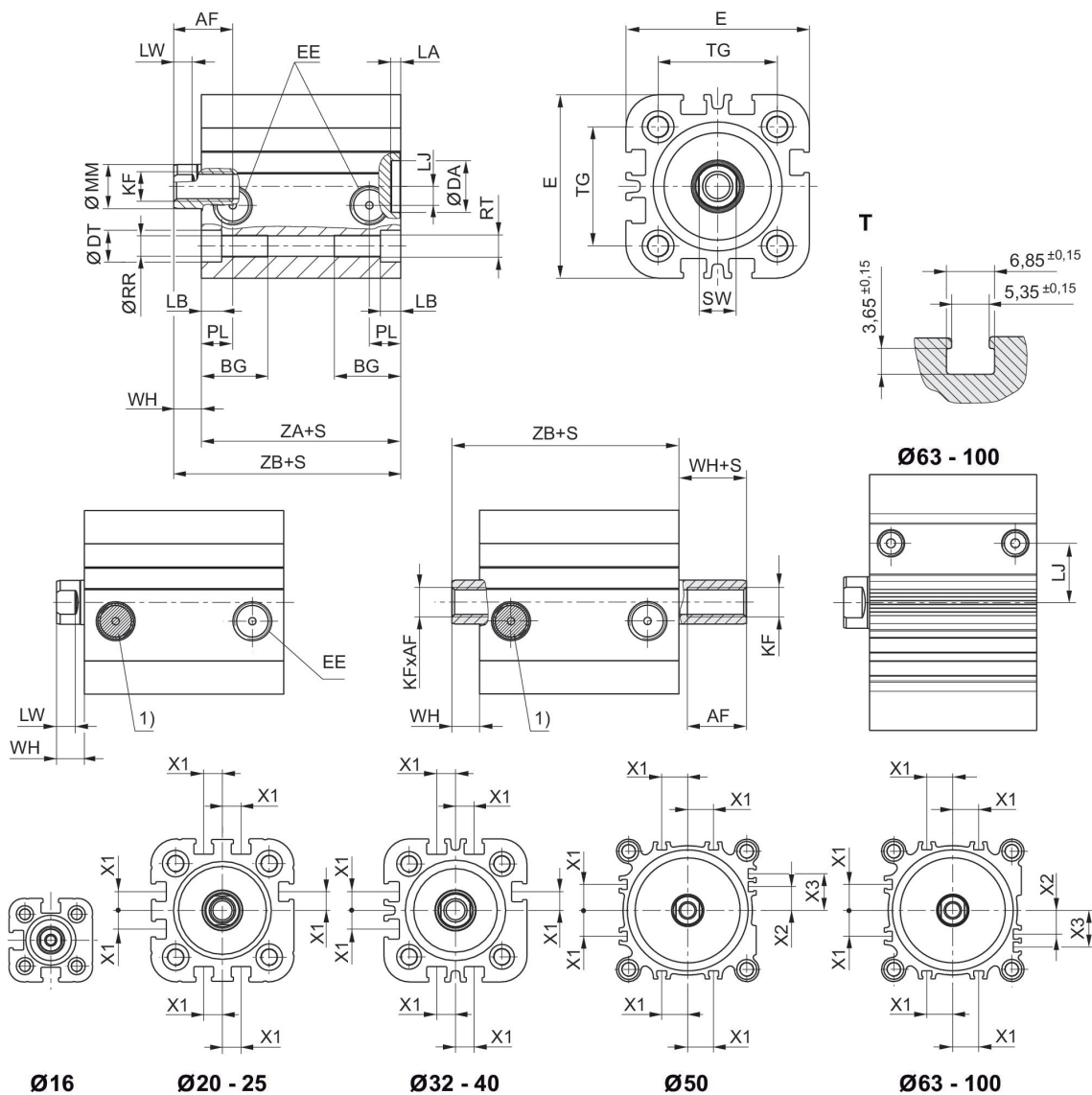
Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M4	M6	M6	M8	M8	M10
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	0822490000	0822491000	0822492000	0822493000	0822494000	0822495000
10	0822490001	0822491001	0822492001	0822493001	0822494001	0822495001
15	0822490002	0822491002	0822492002	0822493002	0822494002	0822495002
20	0822490003	0822491003	0822492003	0822493003	0822494003	0822495003
25	0822490004	0822491004	0822492004	0822493004	0822494004	0822495004

Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M10	M12	M16
Ports	G 1/8	G 1/8	G 1/8
Stroke 5	0822496000	0822497000	0822498000
10	0822496001	0822497001	0822498001
15	0822496002	0822497002	0822498002
20	0822496003	0822497003	0822498003
25	0822496004	0822497004	0822498004

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Retracting piston force	12 N	13 N	25 N	35 N	43 N	82 N
Extracting piston force	115 N	185 N	284 N	472 N	749 N	1155 N, 953 N
Impact energy	0.11 J	0.15 J	0.2 J	0.4 J	0.52 J	0.64 J
Weight 0 mm stroke	0.07 kg	0.098 kg	0.143 kg	0.223 kg	0.333 kg	0.446 kg
Weight 10 mm stroke	0.014 kg	0.02 kg	0.02 kg	0.03 kg	0.04 kg	0.05 kg
Working pressure min./max.	1.5 bar ... 10 bar	1.5 bar ... 10 bar	1.5 bar ... 10 bar	1.3 bar ... 10 bar	1.3 bar ... 10 bar	1 bar ... 10 bar

Piston Ø	63 mm	80 mm	100 mm
Retracting piston force	82 N	105 N	215 N
Extracting piston force	1882 N	3062 N	4733 N
Impact energy	0.75 J	0.75 J	1 J
Weight 0 mm stroke	0.757 kg	1.32 kg	2.28 kg
Weight 10 mm stroke	0.08 kg	0.11 kg	0.14 kg
Working pressure min./max.	1 bar ... 10 bar	1 bar ... 10 bar	1 bar ... 10 bar

Dimensions



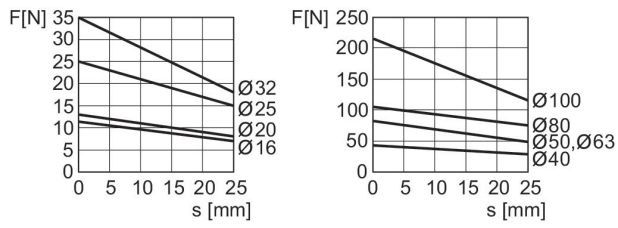
S = stroke
T = View for sensor groove
1) Filter

Piston Ø	AF min. Option: through piston rod	BG min.	DA H11	DT H13	E	EE	KF	LA	LB
16	10	14.5	10	6	29.5	M5	M4	2.5	3.5
20	12 10: S<3 mm 2)	15.5	12	7.5	36	M5	M6	2.5	4.5
25	12 10: S<3 mm 2)	15.5	12	8	40	M5	M6	2.5	4.4
32	12	18	14	8.6	50	G 1/8	M8	2.5	5.5
40	12	18	14	9	58	G 1/8	M8	2.5	5.5
50	16 12: S<4 mm 2)	24	18	11	68	G 1/8	M10	2.5	2
63	16 12: S<4 mm 2)	24	18	11	80	G 1/8	M10	2.5	2
80	20 15: S<3 mm 2)	28	23	14	99	G 1/8	M12	3	1
100	26 21: S<5 mm 2)	27.5	28	15	120	G 1/8	M16	3	3.5

Piston Ø	LJ	LW	MM f8	PL	Ø RR	RT	SW	TG	WH
16	2.5	2.8	8	7.5	3.3	M4	7	18 ±0,4	4.5
20	4.5	3.7	10	7.5	4.2	M5	8	22 ±0,4	5
25	5	3.7	10	7.5	4.2	M5	8	26 ±0,4	5.5
32	5.1	5	12	8.5	5.1	M6	10	32 ±0,5	7
40	9.6	5	12	8.5	5.1	M6	10	42 ±0,5	7
50	8.5	5.7	16	8.5	6.7	M8	13	50 ±0,6	7.5
63	17.8	5.7	16	8.5	6.7	M8	13	62 ±0,7	8
80	22.9	7	20	8.3	8.5	M10	16	82 ±0,7	9.5
100	26.5	7.5	25	9.7	8.5	M10	21	103 ±0,7	10.5

Piston Ø	X1	X2	X3	ZA + Stroke	ZB + Stroke
16	–	–	–	38	42,5 0/+1,4
20	4.2	–	–	38	43 0/+1,4
25	4.5	–	–	39	44,5 0/+1,4
32	6.5	–	–	44	51 0/+1,6
40	11	–	–	45	52 0/+1,6
50	13	4	13	45.5	53 0/+1,6
63	18	12	21	49	57 0/+2
80	18	16.5	25.5	54.5	64 0/+2
100	20	20	29	66.5	77 0/+2

Extracting piston force



F = spring return force, s = return stroke

Compact cylinder, Series KPZ

Functional principle: Single-acting, retracted without pressure

Standardization: NFE 49004

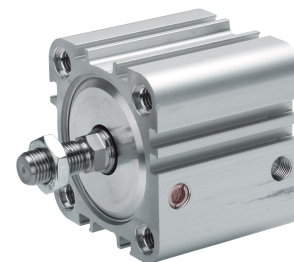
: Piston with magnet

: elastic cushioning

Piston rod thread - type: External thread

Ambient temperature min./max.: -20 °C ... 80 °C

Medium temperature min./max.: -20 °C ... 80 °C



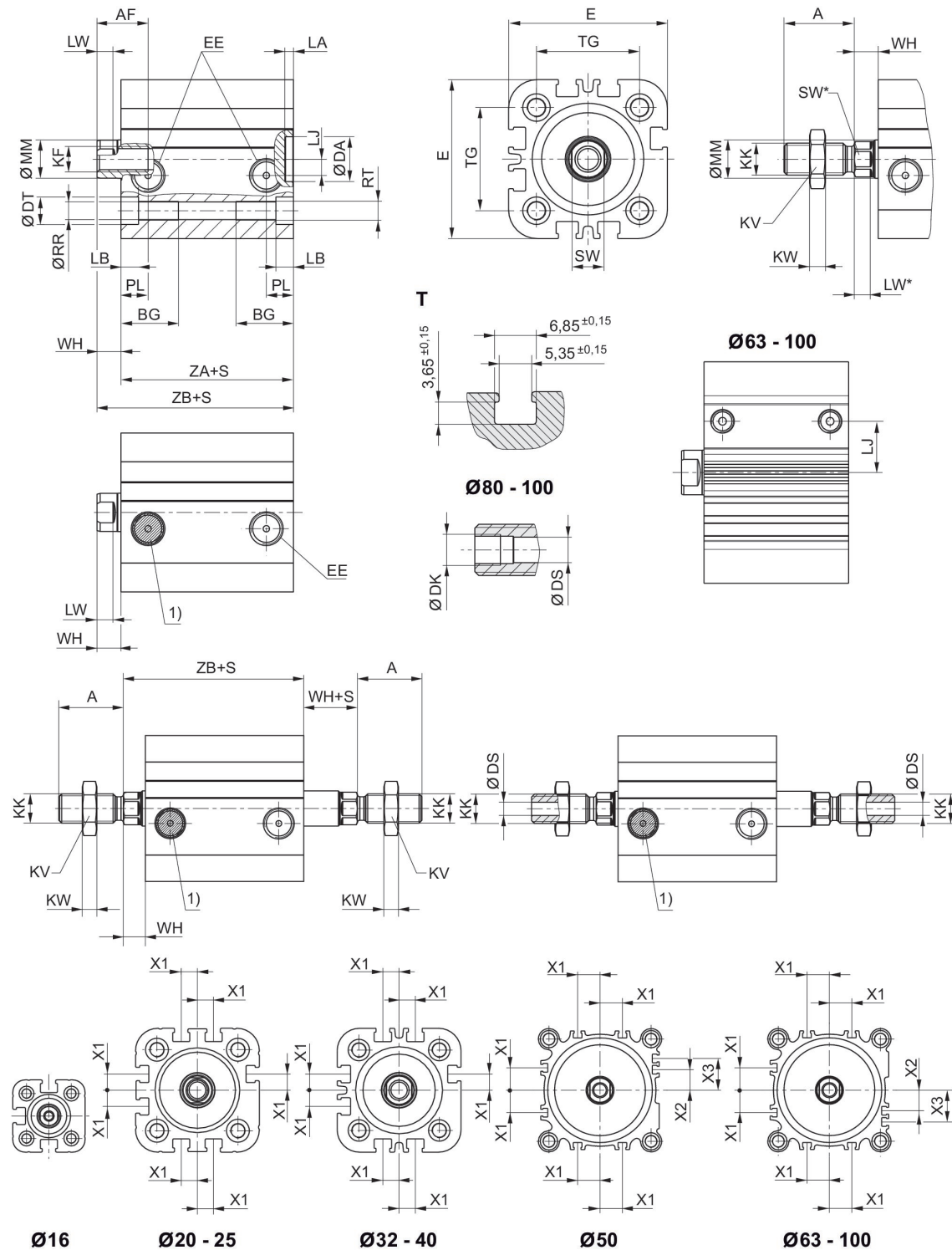
Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M8	M10x1,25	M10x1,25	M10x1,25	M10x1,25	M12x1,25
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	0822490200	0822491200	0822492200	0822493200	0822494200	0822495200
10	0822490201	0822491201	0822492201	0822493201	0822494201	0822495201
15	0822490202	0822491202	0822492202	0822493202	0822494202	0822495202
20	0822490203	0822491203	0822492203	0822493203	0822494203	0822495203
25	0822490204	0822491204	0822492204	0822493204	0822494204	0822495204

Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M12x1,25	M16x1,5	M20x1,5
Ports	G 1/8	G 1/8	G 1/8
Stroke 5	0822496200	0822497200	0822498200
10	0822496201	0822497201	0822498201
15	0822496202	0822497202	0822498202
20	0822496203	0822497203	0822498203
25	0822496204	0822497204	0822498204

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Retracting piston force	12 N	13 N	25 N	35 N	43 N	82 N
Extracting piston force	115 N, 94 N	185 N	284 N, 234 N	472 N	749 N	1155 N
Impact energy	0.11 J	0.15 J	0.2 J	0.4 J	0.705 J	0.64 J
Weight 0 mm stroke	0.083 kg	0.112 kg	0.157 kg	0.237 kg	0.347 kg	0.468 kg
Weight 10 mm stroke	0.014 kg	0.02 kg	0.02 kg	0.03 kg	0.04 kg	0.05 kg
Working pressure min./max.	1.5 bar ... 10 bar	1.5 bar ... 10 bar	1.5 bar ... 10 bar	1.3 bar ... 10 bar	1.3 bar ... 10 bar	1 bar ... 10 bar

Piston Ø	63 mm	80 mm	100 mm
Retracting piston force	82 N	105 N	215 N
Extracting piston force	1882 N	3062 N	4733 N
Impact energy	0.75 J	0.75 J	1 J
Weight 0 mm stroke	0.779 kg	1.37 kg	2.38 kg
Weight 10 mm stroke	0.08 kg	0.11 kg	0.14 kg
Working pressure min./max.	1 bar ... 10 bar	1 bar ... 10 bar	1 bar ... 10 bar

Dimensions



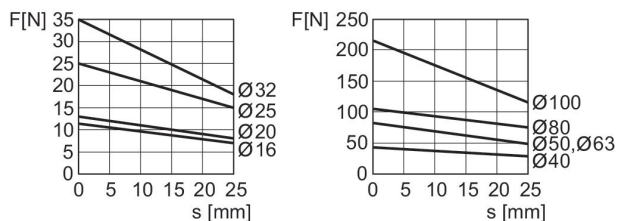
S = stroke
T = View for sensor groove
1) Filter

Piston Ø	A	BG min.	DA H11	Ø DK	Ø DS	DT H13	E	EE	KK
16	20	14.5	10	–	–	6	29.5	M5	M8x1,25
20	22	15.5	12	–	3	7.5	36	M5	M10x1,25
25	22	15.5	12	–	3	8	40	M5	M10x1,25
32	22	18	14	–	4.5	8.6	50	G 1/8	M10x1,25
40	22	18	14	–	4.5	9	58	G 1/8	M10x1,25
50	24	24	18	–	6	11	68	G 1/8	M12x1,25
63	24	24	18	–	6	11	80	G 1/8	M12x1,25
80	32	28	23	G 1/8	8	14	99	G 1/8	M16x1,5
100	40	27.5	28	G 1/4	11.5	15	120	G 1/8	M20x1,5

Piston Ø	KV	KW	LA	LB	LJ	LW	MM f8	PL	Ø RR
16	13	4	2.5	3.5	2.5	2.8	8	7.5	3.3
20	16	5	2.5	4.5	4.5	3.7	10	7.5	4.2
25	16	5	2.5	4.4	5	3.7	10	7.5	4.2
32	16	5	2.5	5.5	5.1	5*	12	8.5	5.1
40	16	5	2.5	5.5	9.6	5*	12	8.5	5.1
50	18	6	2.5	2	8.5	4,8*	16	8.5	6.7
63	18	6	2.5	2	17.8	4,8*	16	8.5	6.7
80	24	8	3	1	22.9	6,4*	20	8.3	8.5
100	30	10	3	3.5	26.5	6,4*	25	9.7	8.5

Piston Ø	RT	SW	TG	WH	X1	X2	X4	ZA + Stroke	ZB + Stroke
16	M4	7	18 ±0,4	4.5	–	–	–	38	42,5 0/+1,4
20	M5	8	22 ±0,4	5	4.2	–	–	38	43 0/+1,4
25	M5	8	26 ±0,4	5.5	4.5	–	–	39	44,5 0/+1,4
32	M6	10*	32 ±0,5	7	6.5	–	–	44	51 0/+1,6
40	M6	10*	42 ±0,5	7	11	–	–	45	52 0/+1,6
50	M8	13*	50 ±0,6	7.5	13	4	13	45.5	53 0/+1,6
63	M8	13*	62 ±0,7	8	18	12	21	49	57 0/+2
80	M10	16*	82 ±0,7	9.5	18	16.5	25.5	54.5	64 0/+2
100	M10	21*	103 ±0,7	10.5	20	20	20	66.5	77 0/+2

Extracting piston force



F = spring return force, s = return stroke

Compact cylinder, Series KPZ

Functional principle: Single-acting, extended without pressure

Standardization: NFE 49004

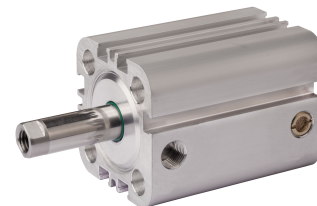
: Piston with magnet

: elastic cushioning

Piston rod thread - type: Internal thread

Ambient temperature min./max.: -20 °C ... 80 °C

Medium temperature min./max.: -20 °C ... 80 °C



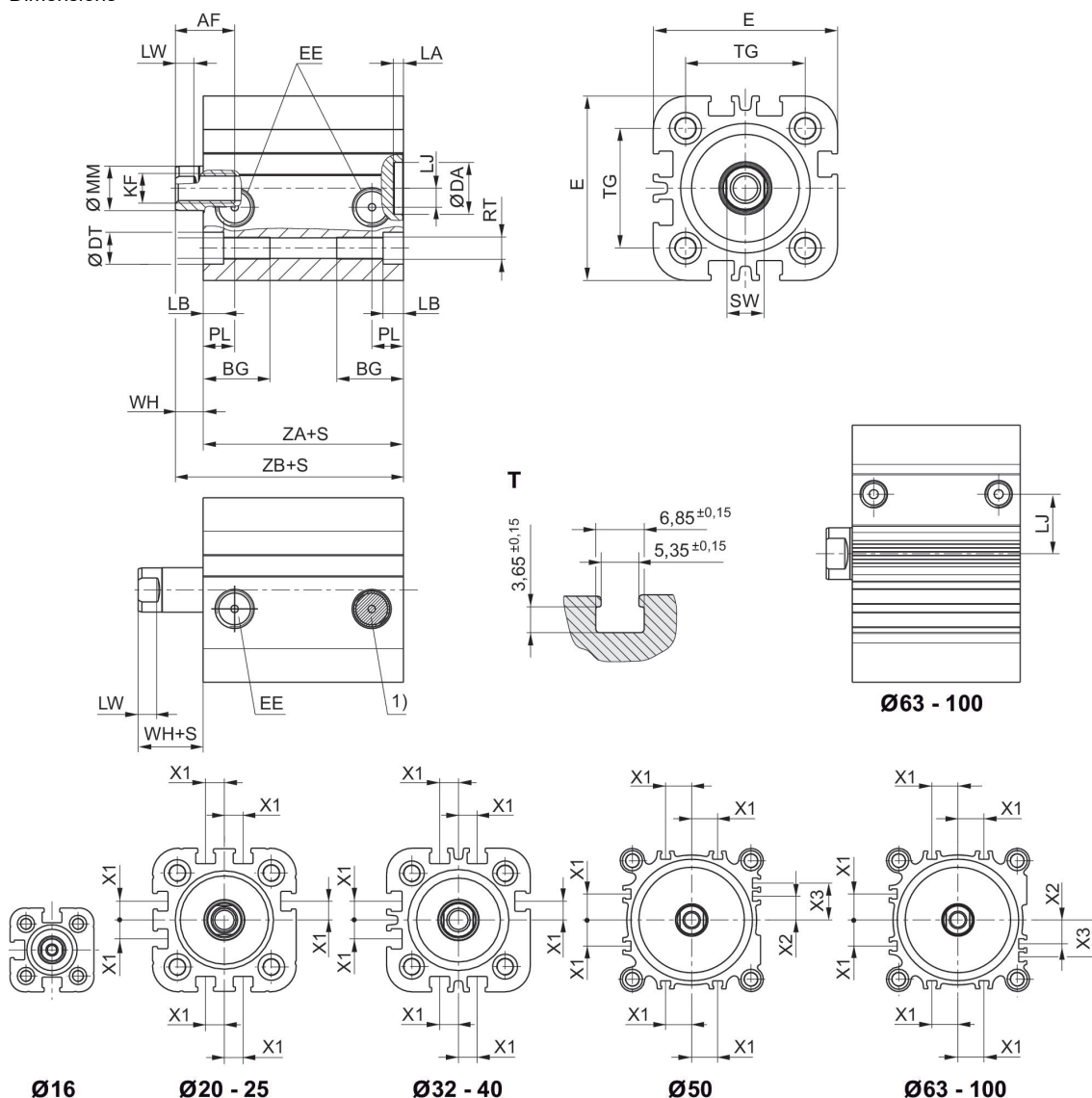
Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M4	M6	M6	M8	M8	M10
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	0822490100	0822491100	0822492100	0822493100	0822494100	0822495100
10	0822490101	R480660211	0822492101	0822493101	0822494101	0822495101
15	0822490102	0822491102	0822492102	0822493102	0822494102	0822495102
20	0822490103	0822491103	0822492103	0822493103	0822494103	0822495103
25	0822490104	0822491104	0822492104	0822493104	0822494104	0822495104

Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M10	M12	M16
Ports	G 1/8	G 1/8	G 1/8
Stroke 5	0822496100	0822497100	0822498100
10	0822496101	0822497101	0822498101
15	0822496102	0822497102	0822498102
20	0822496103	0822497103	0822498103
25	0822496104	0822497104	0822498104

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Retracting piston force	127 N	198 N	309 N	507 N	792 N	1237 N
Extracting piston force	12 N	13 N	25 N	35 N	43 N	82 N
Impact energy	0.11 J	0.15 J	0.2 J	0.4 J	0.52 J	0.64 J
Weight 0 mm stroke	0.07 kg	0.098 kg	0.143 kg	0.223 kg	0.333 kg	0.446 kg
Weight 10 mm stroke	0.014 kg	0.02 kg	0.02 kg	0.03 kg	0.04 kg	0.05 kg
Working pressure min./max.	1.5 bar ... 10 bar	1.5 bar ... 10 bar	1.5 bar ... 10 bar	1.3 bar ... 10 bar	1.3 bar ... 10 bar	1 bar ... 10 bar

Piston Ø	63 mm	80 mm	100 mm
Retracting piston force	1964 N	3167 N	4948 N
Extracting piston force	82 N	105 N	215 N
Impact energy	0.75 J	0.75 J	1 J
Weight 0 mm stroke	0.757 kg	1.32 kg	2.28 kg
Weight 10 mm stroke	0.08 kg	0.11 kg	0.14 kg
Working pressure min./max.	1 bar ... 10 bar	1 bar ... 10 bar	1 bar ... 10 bar

Dimensions



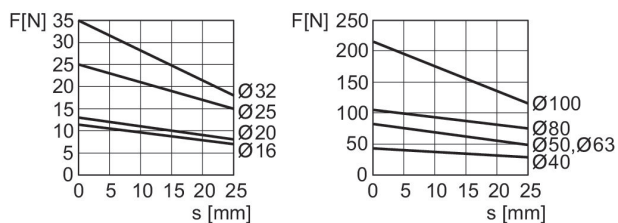
S = stroke
T = View for sensor groove

Piston Ø	AF	BG min.	DA H11	DT H13	E	EE	KF	LA	LB
16	10	14.5	10	6	29.5	M5	M4	2.5	3.5
20	12	15.5	12	7.5	36	M5	M6	2.5	4.5
25	12	15.5	12	8	40	M5	M6	2.5	4.4
32	12	18	14	8.6	50	G 1/8	M8	2.5	5.5
40	12	18	14	9	58	G 1/8	M8	2.5	5.5
50	16	24	18	11	68	G 1/8	M10	2.5	2
63	16	24	18	11	80	G 1/8	M10	2.5	2
80	20	28	23	14	99	G 1/8	M12	3	1
100	26	27.5	28	15	120	G 1/8	M16	3	3.5

Piston Ø	LJ	LW	MM f8	PL	RT	SW	TG	WH	X1
16	2.5	2.8	8	7.5	M4	7	18 ±0,4	4.5	–
20	4.5	3.7	10	7.5	M5	8	22 ±0,4	5	4.2
25	5	3.7	10	7.5	M5	8	26 ±0,4	5.5	4.5
32	5.1	5	12	8.5	M6	10	32 ±0,5	7	6.5
40	9.6	5	12	8.5	M6	10	42 ±0,5	7	11
50	8.5	5.7	16	8.5	M8	13	50 ±0,6	7.5	13
63	17.8	5.7	16	8.5	M8	13	62 ±0,7	8	18
80	22.9	7	20	8.3	M10	16	82 ±0,7	9.5	18
100	26.5	7.5	25	9.7	M10	21	103 ±0,7	10.5	20

Piston Ø	X2	X3	ZA + Stroke	ZB + Stroke
16	–	–	38	42,5 0/+1,2
20	–	–	38	43 0/+1,4
25	–	–	38	44,5 0/+1,4
32	–	–	44	51 0/+1,6
40	–	–	45	52 0/+1,6
50	4	13	45.5	53 0/+1,6
63	12	21	49	57 0/+2
80	16.5	25.5	54.5	64 0/+2
100	20	29	66.5	77 0/+2

Extracting piston force



F = spring return force, s = return stroke

Compact cylinder, Series KPZ

Functional principle: Single-acting, extended without pressure

Standardization: NFE 49004

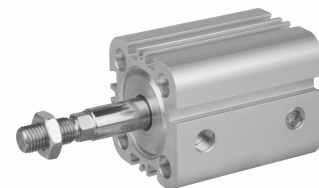
: Piston with magnet

: elastic cushioning

Piston rod thread - type: External thread

Ambient temperature min./max.: -20 °C ... 80 °C

Medium temperature min./max.: -20 °C ... 80 °C



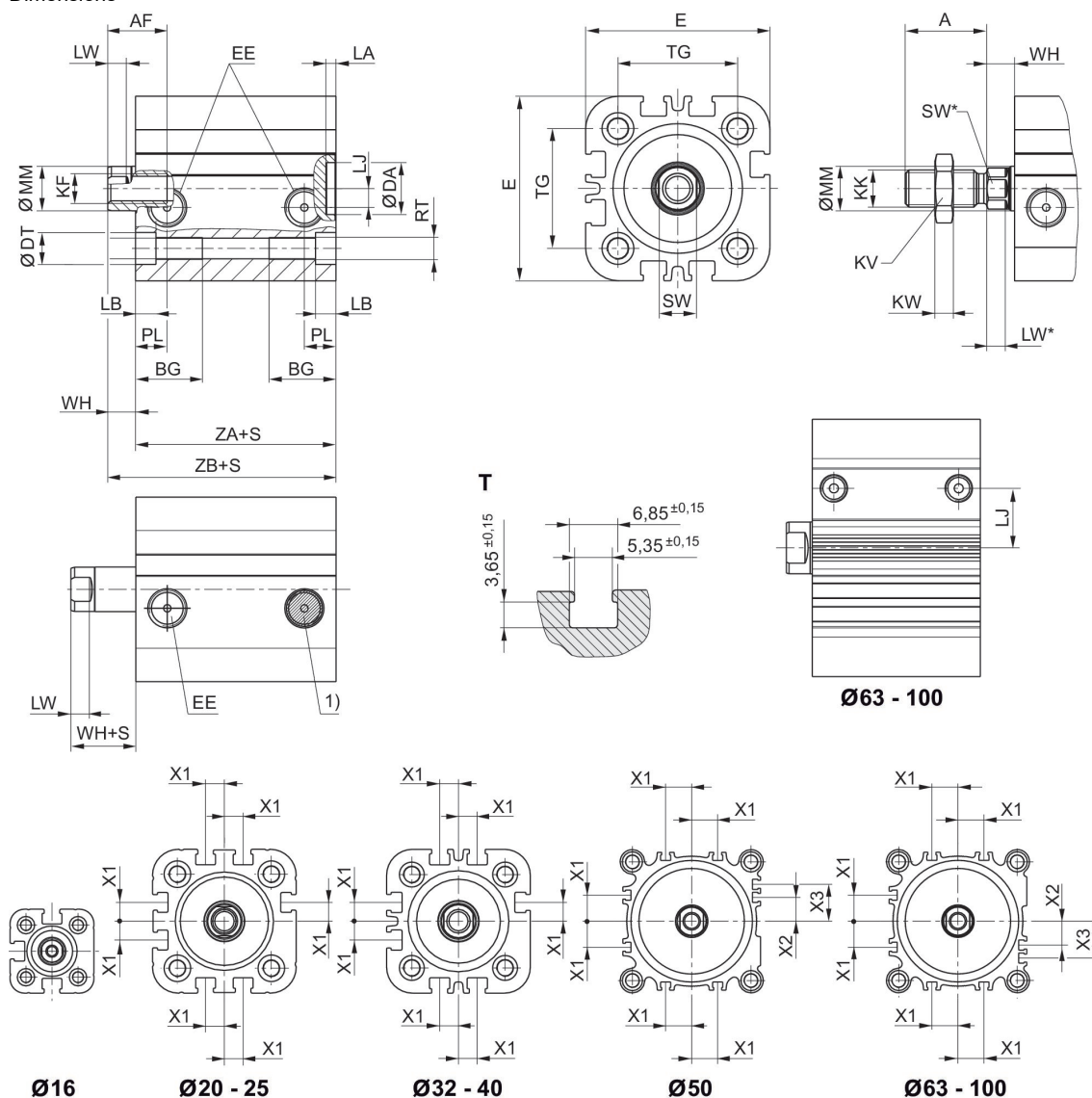
Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M8	M10x1,25	M10x1,25	M10x1,25	M10x1,25	M12x1,25
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	0822490300	0822491300	0822492300	0822493300	0822494300	0822495300
10	0822490301	0822491301	0822492301	0822493301	0822494301	0822495301
15	0822490302	0822491302	0822492302	0822493302	0822494302	0822495302
20	0822490303	0822491303	0822492303	0822493303	0822494303	0822495303
25	0822490304	0822491304	0822492304	0822493304	0822494304	0822495304

Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M12x1,25	M16x1,5	M20x1,5
Ports	G 1/8	G 1/8	G 1/8
Stroke 5	0822496300	0822497300	0822498300
10	0822496301	0822497301	0822498301
15	0822496302	0822497302	0822498302
20	0822496303	0822497303	0822498303
25	0822496304	0822497304	0822498304

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Retracting piston force	127 N	198 N	309 N	507 N	792 N	1237 N
Extracting piston force	12 N	13 N	25 N	35 N	43 N	82 N
Impact energy	0.11 J	0.15 J	0.2 J	0.4 J	0.52 J	0.64 J
Weight 0 mm stroke	0.083 kg	0.112 kg	0.157 kg	0.237 kg	0.347 kg	0.468 kg
Weight 10 mm stroke	0.014 kg	0.02 kg	0.02 kg	0.03 kg	0.04 kg	0.05 kg
Working pressure min./max.	1.5 bar ... 10 bar	1.5 bar ... 10 bar	1.5 bar ... 10 bar	1.3 bar ... 10 bar	1.3 bar ... 10 bar	1 bar ... 10 bar

Piston Ø	63 mm	80 mm	100 mm
Retracting piston force	1964 N	3167 N	4948 N
Extracting piston force	82 N	105 N	215 N
Impact energy	0.75 J	0.75 J	1 J
Weight 0 mm stroke	0.779 kg	1.37 kg	2.38 kg
Weight 10 mm stroke	0.08 kg	0.11 kg	0.14 kg
Working pressure min./max.	1 bar ... 10 bar	1 bar ... 10 bar	1 bar ... 10 bar

Dimensions



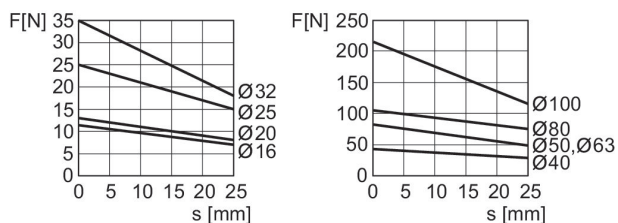
S = stroke
T = View for sensor groove

Piston Ø	A	BG min.	DA H11	DT H13	E	EE	KK	KV	KW
16	20	14.5	10	6	29.5	M5	M8x1,25	13	4
20	22	15.5	12	7.5	36	M5	M10x1,25	16	5
25	22	15.5	12	8	40	M5	M10x1,25	16	5
32	22	18	14	8.6	50	G 1/8	M10x1,25	16	5
40	22	18	14	9	58	G 1/8	M10x1,25	16	5
50	24	24	18	11	68	G 1/8	M12x1,25	18	6
63	24	24	18	11	80	G 1/8	M12x1,25	18	6
80	32	28	23	14	99	G 1/8	M16x1,5	24	8
100	40	27.5	28	15	120	G 1/8	M20x1,5	30	10

Piston Ø	LA	LB	LJ	LW	MM f8	PL	RT	SW	TG
16	2.5	3.5	2.5	2.8	8	7.5	M4	7	18 ±0.4
20	2.5	4.5	4.5	3.7	10	7.5	M5	8	22 ±0.4
25	2.5	4.4	5	3.7	10	7.5	M5	8	26 ±0.4
32	2.5	5.5	5.1	5*	12	8.5	M6	10*	32 ±0.5
40	2.5	5.5	9.6	5*	12	8.5	M6	10*	42 ±0.5
50	2.5	2	8.5	4,8*	16	8.5	M8	13*	50 ±0.6
63	2.5	2	17.8	4,8*	16	8.5	M8	13*	62 ±0,7
80	3	1	22.9	6,4*	20	8.3	M10	16*	82 ±0,7
100	3	3.5	26.5	6,4*	25	9.7	M10	21*	103 ±0,7

Piston Ø	WH	X1	X2	X4	ZA +S	ZB +S
16	4.5	-	-	-	38	42,5 0/+1,4
20	5	4.2	-	-	38	43 0/+1,4
25	5.5	4.5	-	-	39	44,5 0/+1,4
32	7	6.5	-	-	44	51 0/+1,6
40	7	11	-	-	45	52 0/+1,6
50	7.5	13	4	13	45.5	53 0/+1,6
63	8	18	12	21	49	57 0/+2
80	9.5	18	16.5	25.5	54.5	64 0/+2
100	10.5	20	20	20	66.5	77 0/+2

Extracting piston force



F = spring return force, s = return stroke

Compact cylinder, Series KPZ

Functional principle: Double-acting

Certificates: ATEX optional

Standardization: NFE 49004

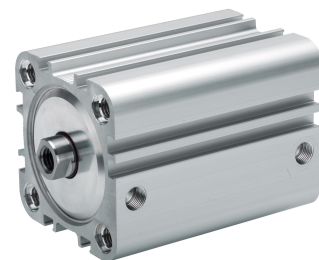
: Piston with magnet

: elastic cushioning

Piston rod thread - type: Internal thread

Ambient temperature min./max.: -20 °C ... 80 °C

Medium temperature min./max.: -20 °C ... 80 °C



Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M4	M6	M6	M8	M8	M10
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	0822390000	0822391000	0822392000	0822393000	0822394000	0822395000
10	0822390001	0822391001	0822392001	0822393001	0822394001	0822395001
15	0822390002	0822391002	0822392002	0822393002	0822394002	0822395002
20	0822390003	0822391003	0822392003	0822393003	0822394003	0822395003
25	0822390004	0822391004	0822392004	0822393004	0822394004	0822395004
30	0822390005	0822391005	0822392005	0822393005	0822394005	0822395005
40	0822390006	0822391006	0822392006	0822393006	0822394006	0822395006
50	0822390007	0822391007	0822392007	0822393007	0822394007	0822395007
60	0822390008	0822391008	0822392008	0822393008	0822394008	0822395008
80	-	-	-	0822393009	0822394009	0822395009
100	-	-	-	0822393010	0822394010	0822395010

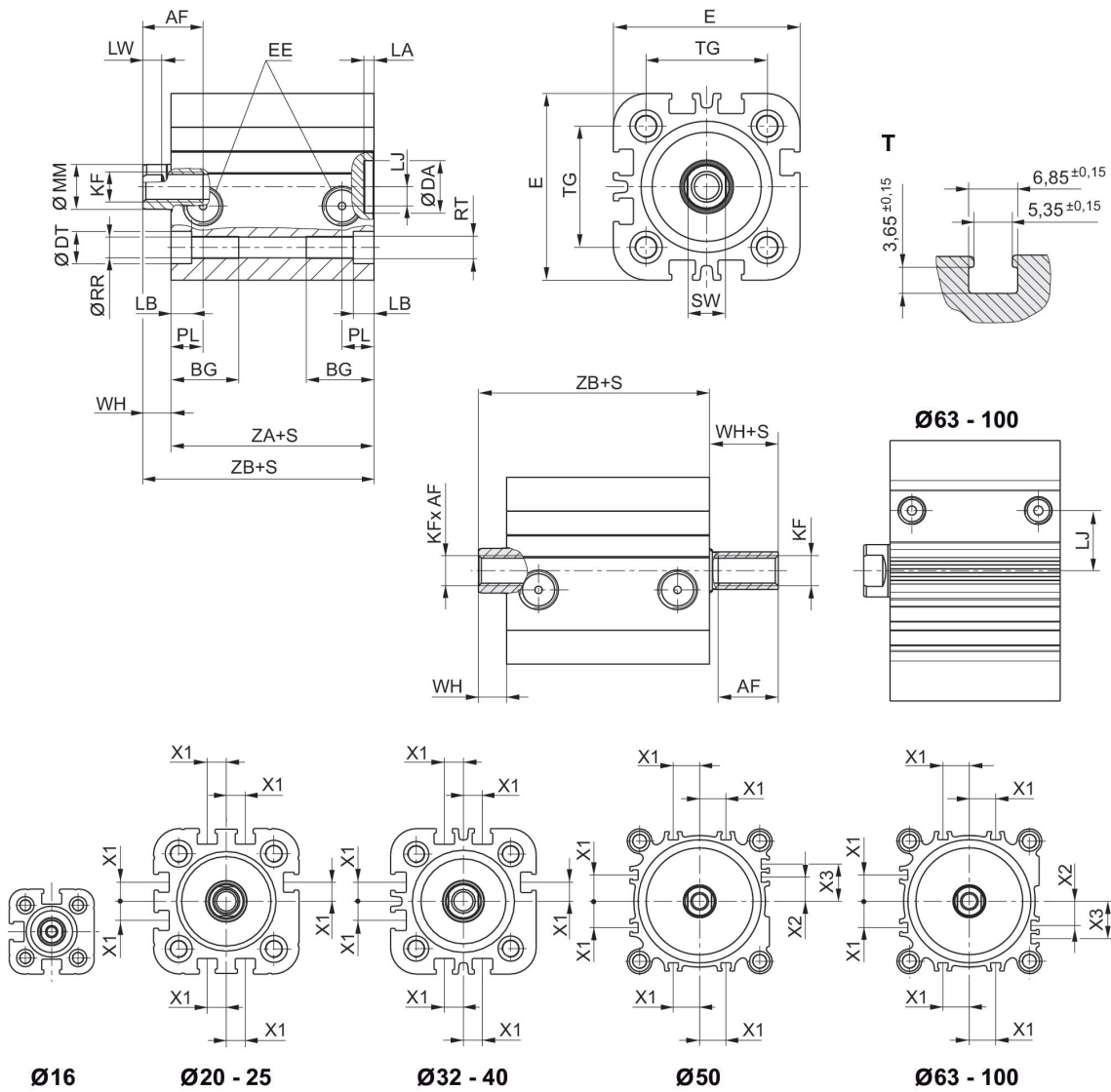
Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M10	M12	M16
Ports	G 1/8	G 1/8	G 1/8
Stroke 5	0822396000	0822397000	0822398000
10	0822396001	0822397001	0822398001
15	0822396002	0822397002	0822398002
20	0822396003	0822397003	0822398003
25	0822396004	0822397004	0822398004
30	0822396005	0822397005	0822398005
40	0822396006	0822397006	0822398006
50	0822396007	0822397007	0822398007
60	0822396008	0822397008	0822398008
80	0822396009	0822397009	0822398009

Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M10	M12	M16
Ports	G 1/8	G 1/8	G 1/8
100	0822396010	0822397010	0822398010

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Retracting piston force	95 N, 79 N	148 N	260 N	435 N	720 N	1110 N
Extracting piston force	127 N	198 N	309 N	507 N	792 N	1237 N
Impact energy	0.15 J	0.2 J	0.3 J	0.5 J	0.7 J	1 J
Working pressure min./max.	1 bar ... 10 bar	1 bar ... 10 bar	1 bar ... 10 bar	0.6 bar ... 10 bar	0.6 bar ... 10 bar	0.6 bar ... 10 bar

Piston Ø	63 mm	80 mm	100 mm
Retracting piston force	1827 N	2969 N	4639 N
Extracting piston force	1964 N	3167 N	4948 N
Impact energy	1.3 J	1.8 J	2.5 J
Working pressure min./max.	0.6 bar ... 10 bar	0.6 bar ... 10 bar	0.6 bar ... 10 bar

Dimensions



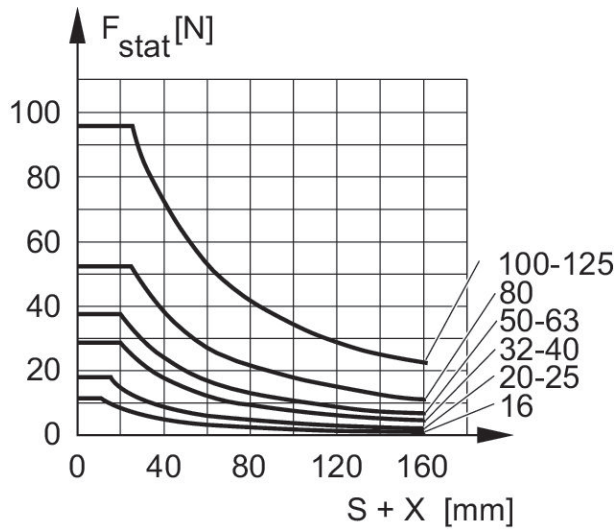
S = stroke
T = View for sensor groove

Piston Ø	AF min. Option: through piston rod	BG min.	DA H11	DT H13	E	EE	KF	LA	LB
16	10	14.5	10	6	29.5	M5	M4	2.5	3.5
20	12 10: S<3 mm 2)	15.5	12	7.5	36	M5	M6	2.5	4.5
25	12 10: S<3 mm 2)	15.5	12	8	40	M5	M6	2.5	4.4
32	12	18	14	8.6	50	G 1/8	M8	2.5	5.5
40	12	18	14	9	58	G 1/8	M8	2.5	5.5
50	16 12: S<4 mm 2)	24	18	11	68	G 1/8	M10	2.5	2
63	16 12: S<4 mm 2)	24	18	11	80	G 1/8	M10	2.5	2
80	20 15: S<5 mm 2)	28	23	14	99	G 1/8	M12	3	1
100	26 21: S<5 mm 2)	27.5	28	15	120	G 1/8	M16	3	3.5

Piston Ø	LJ	LW	MM f8	PL	Ø RR	RT	SW	TG	WH
16	2.5	2.8	8	7.5	3.3	M4	7	18 ±0,4	4.5
20	4.5	3.7	10	7.5	4.2	M5	8	22 ±0,4	5
25	5	3.7	10	7.5	4.2	M5	8	26 ±0,4	5.5
32	5.1	5	12	8.5	5.1	M6	10	32 ±0,5	7
40	9.6	5	12	8.5	5.1	M6	10	42 ±0,5	7
50	8.5	4.8	16	8.5	6.7	M8	13	50 ±0,6	7.5
63	17.8	4.8	16	8.5	6.7	M8	13	62 ±0,7	8
80	22.9	6.4	20	8.3	8.5	M10	16	82 ±0,7	9.5
100	26.5	6.4	25	9.7	8.5	M10	21	103 ±0,7	10.5

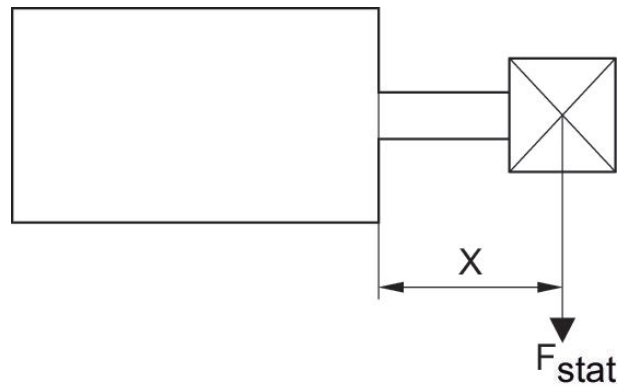
Piston Ø	X1	X2	X3	ZA + Stroke	ZB + Stroke
16	–	–	–	38	42,5 0/+1,4
20	4.2	–	–	38	43 0/+1,4
25	4.5	–	–	39	44,5 0/+1,4
32	6.5	–	–	44	51 0/+1,6
40	11	–	–	45	52 0/+1,6
50	13	4	13	45.5	53 0/+1,6
63	18	12	21	49	57 0/+2
80	18	16.5	25.5	54.5	64 0/+2
100	20	20	29	66.5	77 0/+2

Maximum admissible lateral force



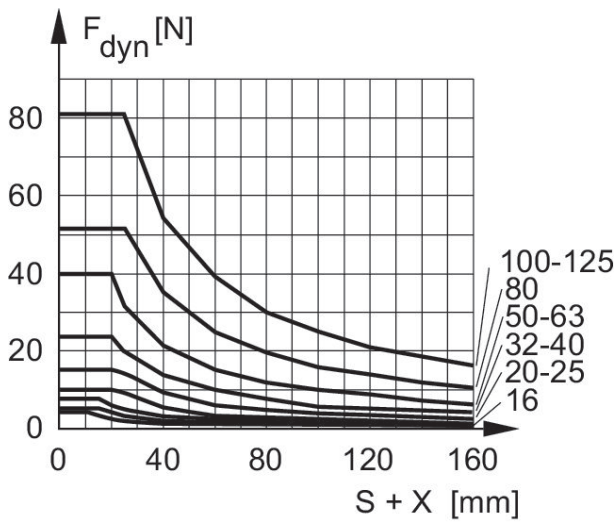
F stat. = static lateral force
X = distance between force application point and cylinder cover
S = stroke

Maximum admissible lateral force



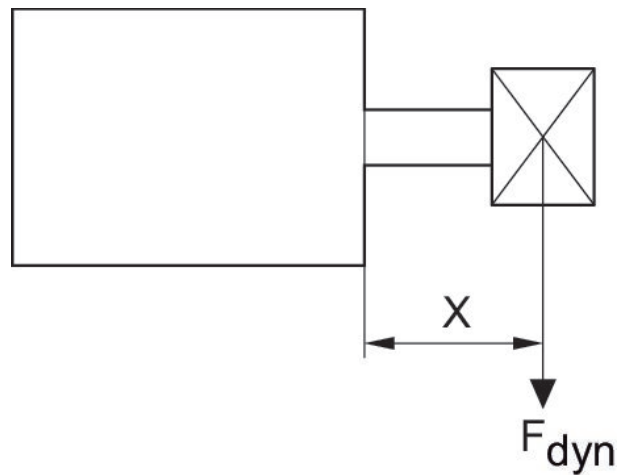
F stat. = static lateral force
X = distance between force application point and cylinder cover

Maximum admissible lateral force



F dyn. = dynamic lateral force
X = distance between force application point and cylinder cover
S = stroke

Maximum admissible lateral force



F dyn. = dynamic lateral force
X = distance between force application point and cylinder cover
S = stroke

Compact cylinder, Series KPZ

Functional principle: Double-acting

Certificates: ATEX optional

Standardization: NFE 49004

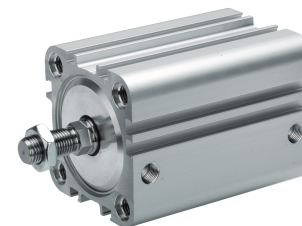
: Piston with magnet

: elastic cushioning

Piston rod thread - type: External thread

Ambient temperature min./max.: -20 °C ... 80 °C

Medium temperature min./max.: -20 °C ... 80 °C



Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M8	M10x1,25	M10x1,25	M10x1,25	M10x1,25	M12x1,25
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	0822390200	0822391200	0822392200	0822393200	0822394200	0822395200
10	0822390201	0822391201	0822392201	0822393201	0822394201	0822395201
15	0822390202	0822391202	0822392202	0822393202	0822394202	0822395202
20	0822390203	0822391203	0822392203	0822393203	0822394203	0822395203
25	0822390204	0822391204	0822392204	0822393204	0822394204	0822395204
30	0822390205	0822391205	0822392205	0822393205	0822394205	0822395205
40	0822390206	0822391206	0822392206	0822393206	0822394206	0822395206
50	0822390207	0822391207	0822392207	0822393207	0822394207	0822395207
60	0822390208	0822391208	0822392208	0822393208	0822394208	0822395208
80	-	-	-	0822393209	0822394209	0822395209
100	-	-	-	0822393210	0822394210	0822395210

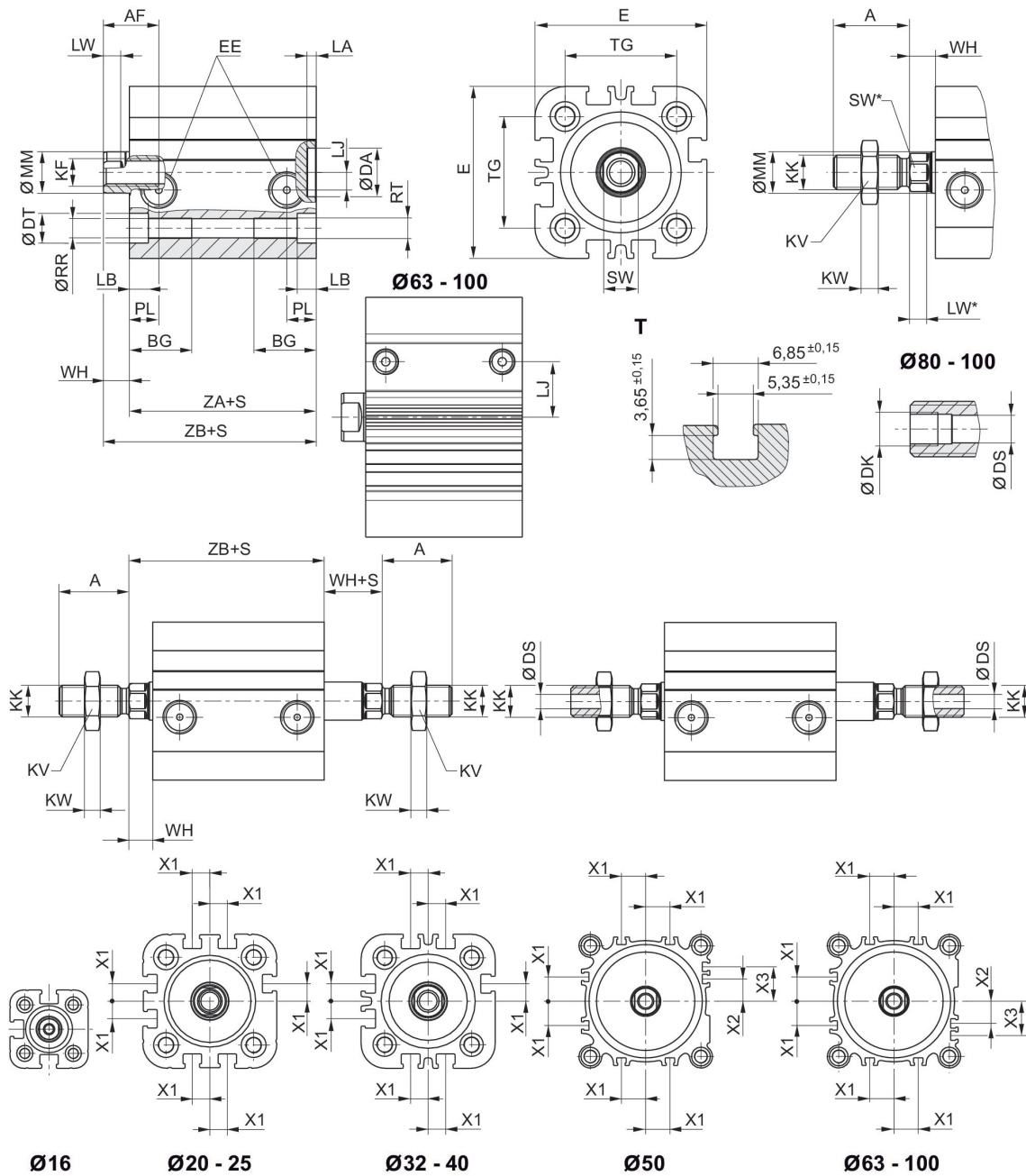
Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M12x1,25	M16x1,5	M20x1,5
Ports	G 1/8	G 1/8	G 1/8
Stroke 5	0822396200	0822397200	0822398200
10	0822396201	0822397201	0822398201
15	0822396202	0822397202	0822398202
20	0822396203	0822397203	0822398203
25	0822396204	0822397204	0822398204
30	0822396205	0822397205	0822398205
40	0822396206	0822397206	0822398206
50	0822396207	0822397207	0822398207
60	0822396208	0822397208	0822398208
80	0822396209	0822397209	0822398209

Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M12x1,25	M16x1,5	M20x1,5
Ports	G 1/8	G 1/8	G 1/8
100	0822396210	0822397210	0822398210

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Retracting piston force	95 N	148 N	260 N	435 N	720 N	1110 N
Extracting piston force	127 N	198 N	309 N	507 N	792 N	1237 N
Impact energy	0.15 J	0.2 J	0.3 J	0.5 J	0.7 J	1 J
Working pressure min./max.	1 bar ... 10 bar	1 bar ... 10 bar	1 bar ... 10 bar	0.6 bar ... 10 bar	0.6 bar ... 10 bar	0.6 bar ... 10 bar

Piston Ø	63 mm	80 mm	100 mm
Retracting piston force	1837 N	2969 N	4639 N
Extracting piston force	1964 N	3167 N	4948 N
Impact energy	1.3 J	1.8 J	2.5 J
Working pressure min./max.	0.6 bar ... 10 bar	0.6 bar ... 10 bar	0.6 bar ... 10 bar

Dimensions



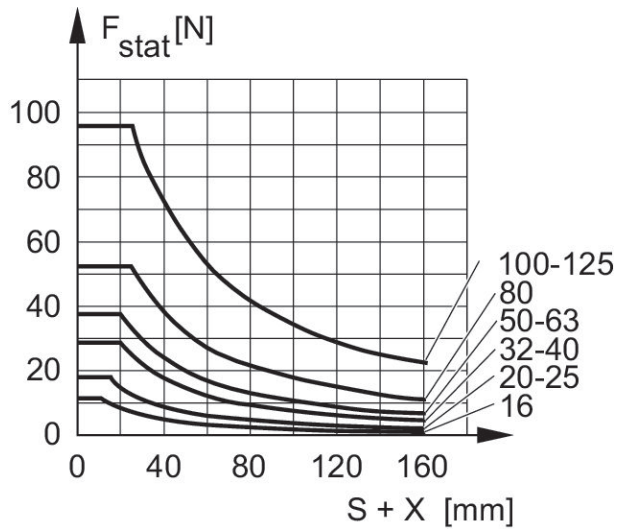
S = stroke
T = View for sensor groove

Piston Ø	A	BG min.	DA H11	Ø DK	Ø DS	DT H13	E	EE	KK
16	20	14.5	10	–	–	6	29.5	M5	M8x1,25
20	22	15.5	12	–	3	7.5	36	M5	M10x1,25
25	22	15.5	12	–	3	8	40	M5	M10x1,25
32	22	18	14	–	4.5	8.6	50	G 1/8	M10x1,25
40	22	18	14	–	4.5	9	58	G 1/8	M10x1,25
50	24	24	18	–	6	11	68	G 1/8	M12x1,25
63	24	24	18	–	6	11	80	G 1/8	M12x1,25
80	32	28	23	G 1/8	8	14	99	G 1/8	M16x1,5
100	40	27.5	28	G 1/4	11.5	15	120	G 1/8	M20x1,5

Piston Ø	KV	KW	LA	LB	LJ	LW	MM f8	PL	Ø RR
16	13	4	2.5	3.5	2.5	2.8	8	7.5	3.3
20	16	5	2.5	4.5	4.5	3.7	10	7.5	4.2
25	16	5	2.5	4.4	5	3.7	10	7.5	4.2
32	16	5	2.5	5.5	5.1	5*	12	8.5	5.1
40	16	5	2.5	5.5	9.6	5*	12	8.5	5.1
50	18	6	2.5	2	8.5	4,8*	16	8.5	6.7
63	18	6	2.5	2	17.8	4,8*	16	8.5	6.7
80	24	8	3	1	22.9	6,4*	20	8.3	8.5
100	30	10	3	3.5	26.5	6,4*	25	9.7	8.5

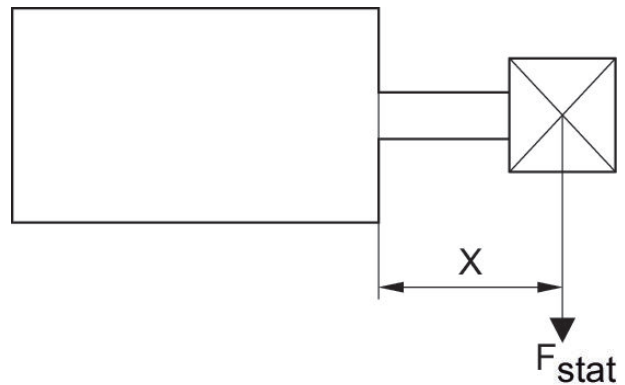
Piston Ø	RT	SW	TG	WH	X1	X2	X3	ZA + Stroke	ZB + Stroke
16	M4	7	18 ±0,4	4.5	–	–	–	38	42,5 0/+1,4
20	M5	8	22 ±0,4	5	4.2	–	–	38	43 0/+1,4
25	M5	8	26 ±0,4	5.5	4.5	–	–	39	44,5 0/+1,4
32	M6	10*	32 ±0,5	7	6.5	–	–	44	51 0/+1,6
40	M6	10*	42 ±0,5	7	11	–	–	45	52 0/+1,6
50	M8	13*	50 ±0,6	7.5	13	4	13	45.5	53 0/+1,6
63	M8	13*	62 ±0,7	8	18	12	21	49	57 0/+2
80	M10	16*	82 ±0,7	9.5	18	16.5	25.5	54.5	64 0/+2
100	M10	21*	103 ±0,7	10.5	20	20	29	66.5	77 0/+2

Maximum admissible lateral force



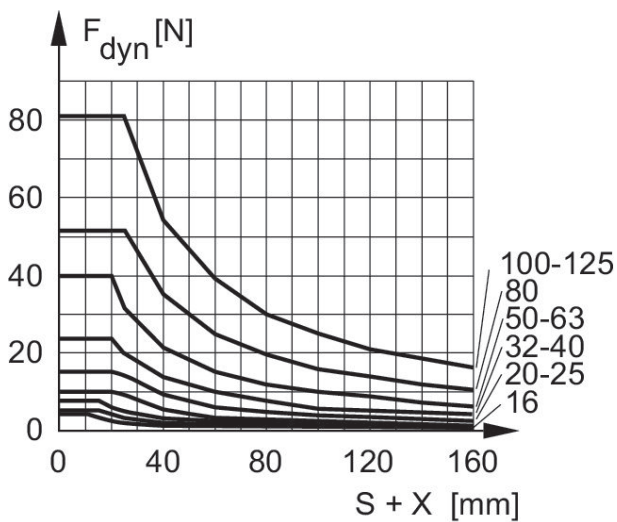
F_{stat} = static lateral force
 X = distance between force application point and cylinder cover
 S = stroke

Maximum admissible lateral force



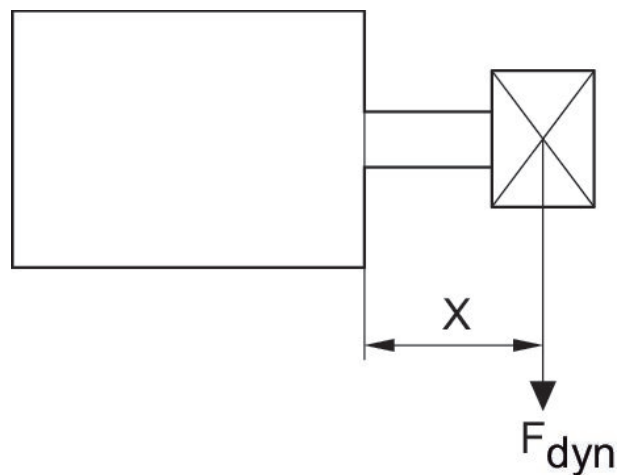
F_{stat} = static lateral force
 X = distance between force application point and cylinder cover

Maximum admissible lateral force



F_{dyn} = dynamic lateral force
 X = distance between force application point and cylinder cover
 S = stroke

Maximum admissible lateral force



F_{dyn} = dynamic lateral force
 X = distance between force application point and cylinder cover
 S = stroke

Compact cylinder, Series KPZ

Functional principle: Double-acting

Standardization: NFE 49004

: Piston with magnet

: elastic cushioning

Piston rod thread - type: Internal thread

Ambient temperature min./max.: -20 °C ... 80 °C

Medium temperature min./max.: -20 °C ... 80 °C



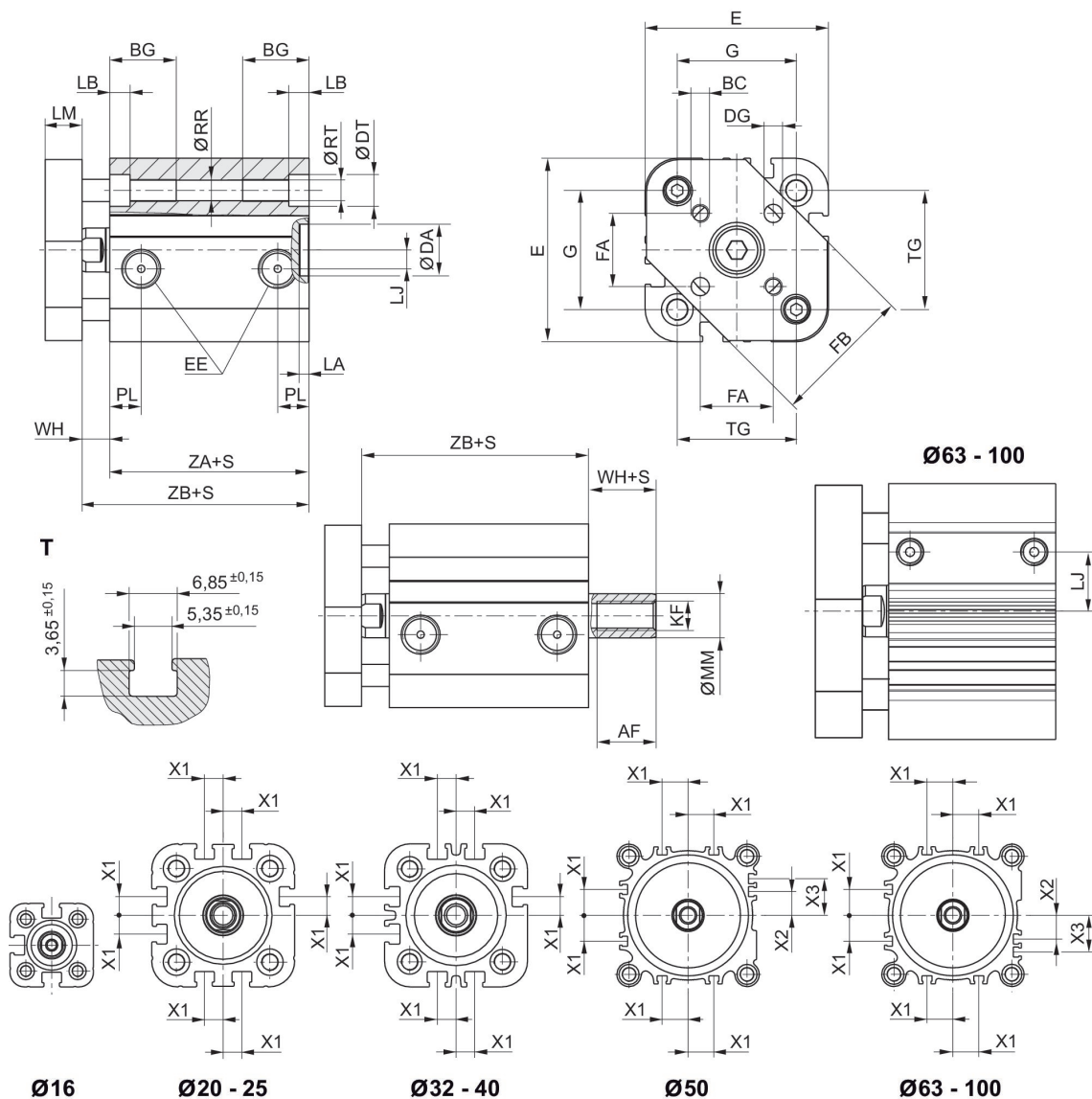
Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	0822390600	0822391600	0822392600	0822393600	0822394600	0822395600
10	0822390601	0822391601	0822392601	0822393601	0822394601	0822395601
15	0822390602	0822391602	0822392602	0822393602	0822394602	0822395602
20	0822390603	0822391603	0822392603	0822393603	0822394603	0822395603
25	0822390604	0822391604	0822392604	0822393604	0822394604	0822395604
30	0822390605	0822391605	0822392605	0822393605	0822394605	0822395605
40	0822390606	0822391606	0822392606	0822393606	0822394606	0822395606
50	0822390607	0822391607	0822392607	0822393607	0822394607	0822395607
60	0822390608	0822391608	0822392608	0822393608	0822394608	0822395608
80	-	-	-	0822393609	0822394609	0822395609
100	-	-	-	0822393610	0822394610	0822395610

Piston Ø	63 mm	80 mm	100 mm
Ports	G 1/8	G 1/8	G 1/8
Stroke 5	0822396600	0822397600	0822398600
10	0822396601	0822397601	0822398601
15	0822396602	0822397602	0822398602
20	0822396603	0822397603	0822398603
25	0822396604	0822397604	0822398604
30	0822396605	0822397605	0822398605
40	0822396606	0822397606	0822398606
50	0822396607	0822397607	0822398607
60	0822396608	0822397608	0822398608
80	0822396609	0822397609	0822398609
100	0822396610	0822397610	0822398610

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Retracting piston force	95 N	148 N	260 N	435 N	720 N	1110 N
Extracting piston force	127 N	198 N	309 N	507 N	792 N	1237 N
Impact energy	0.15 J	0.2 J	0.3 J	0.5 J	0.7 J	1 J
Working pressure min./max.	1 bar ... 10 bar	1 bar ... 10 bar	1 bar ... 10 bar	0.6 bar ... 10 bar	0.6 bar ... 10 bar	0.6 bar ... 10 bar

Piston Ø	63 mm	80 mm	100 mm
Retracting piston force	1837 N	2969 N	4639 N
Extracting piston force	1964 N	3167 N	4948 N
Impact energy	1.3 J	1.8 J	2.5 J
Working pressure min./max.	0.6 bar ... 10 bar	0.6 bar ... 10 bar	0.6 bar ... 10 bar

Dimensions



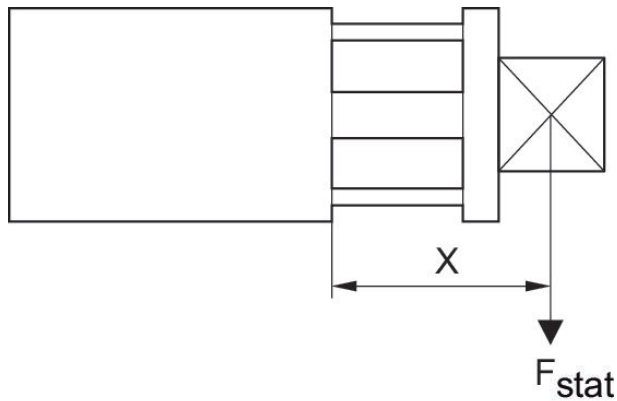
S = stroke
T = View for sensor groove without guide plate

Piston Ø	AF min. Option: through piston rod	BC	BG min.	DA H11	DG H13	DT H13	E	EE	FA ±0,1
16	10	M3	14.5	10	3	6	29.5	M5	9.9
20	12 10: S<3 mm 2)	M4	15.5	12	4	7.5	36	M5	12
25	12 10: S<3 mm 2)	M5	15.5	12	5	8	40	M5	15.6
32	12	M5	18	14	5	8.6	50	G 1/8	19.8
40	12	M5	18	14	5	9	58	G 1/8	23.3
50	16 12: S<4 mm 2)	M6	24	18	6	11	68	G 1/8	29.7
63	16 12: S<4 mm 2)	M6	24	18	6	11	80	G 1/8	35.4
80	20 15: S<3 mm 2)	M8	28	23	8	14	99	G 1/8	46
100	26 21: S<5 mm 2)	M10	27.5	28	10	15	120	G 1/8	56.6

Piston Ø	FB	G	KF	LA	LB	LJ	LM	MM f8	PL
16	20	19	M4	2.5	3.5	2.5	6	8	7.5
20	24	25	M6	2.5	4.5	4.5	8	10	7.5
25	30	27	M6	2.5	4.4	5	8	10	7.5
32	38	32	M8	2.5	5.5	5.1	10	12	8.5
40	44	42	M8	2.5	5.5	9.6	10	12	8.5
50	54	50	M10	2.5	2	8.5	12	16	8.5
63	62	62	M10	2.5	2	17.8	12	16	8.5
80	80	82	M12	3	1	22.9	14	20	8.3
100	100	103	M16	3	3.5	26.5	14	25	9.7

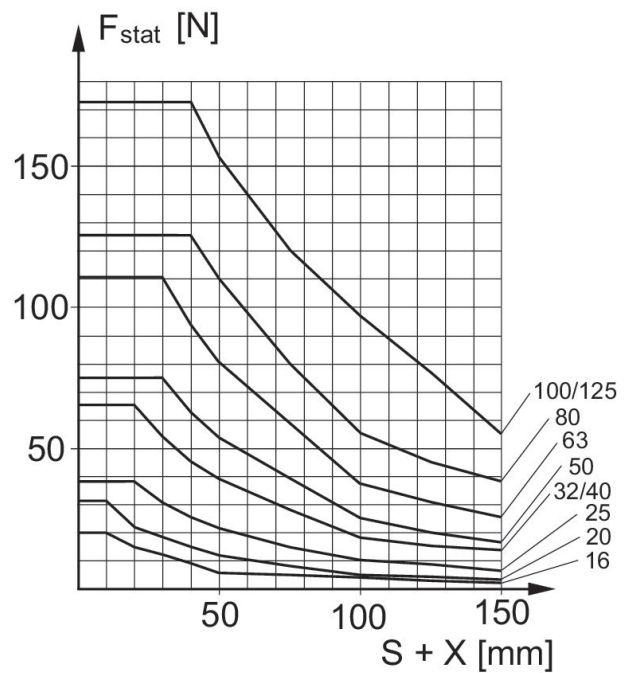
Piston Ø	Ø RR	RT	TG	WH	X1	X2	X3	ZA + Stroke	ZB + Stroke
16	3.3	M4	18 ±0,4	4.5	–	–	–	38	42,5 0/+1,4
20	4.2	M5	22 ±0,4	5	4.2	–	–	38	43 0/+1,4
25	4.2	M5	26 ±0,4	5.5	4.5	–	–	39	44,5 0/+1,4
32	5.1	M6	32 ±0,5	7	6.5	–	–	44	51 0/+1,6
40	5.1	M6	42 ±0,5	7	11	–	–	45	52 0/+1,6
50	6.7	M8	50 ±0,6	7.5	13	4	13	45.5	53 0/+1,6
63	6.7	M8	62 ±0,7	8	18	12	21	49	57 0/+2
80	8.5	M10	82 ±0,7	9.5	18	16.5	25.5	54.5	64 0/+2
100	8.5	M10	103 ±0,7	10.5	20	20	29	66.5	77 0/+2

Maximum admissible lateral force



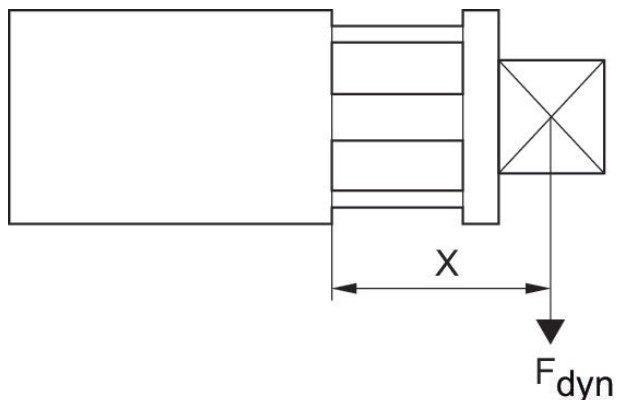
F_{stat} = static lateral force
 X = distance between force application point and cylinder cover

Maximum admissible lateral force



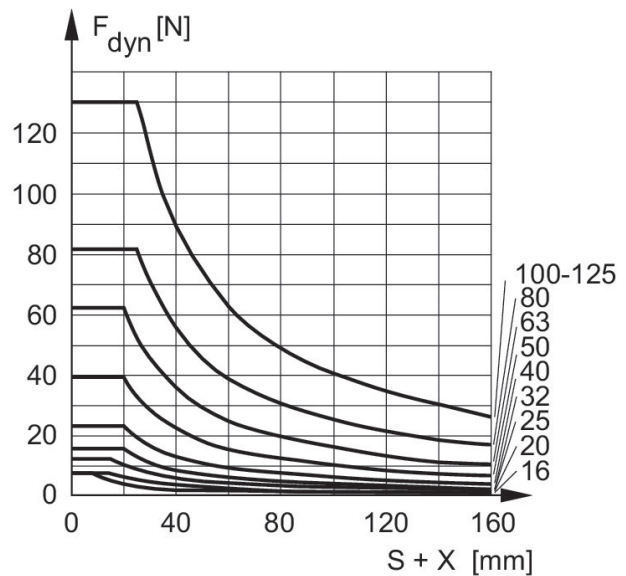
F_{stat} = static lateral force
 X = distance between force application point and cylinder cover
 S = stroke

Maximum admissible lateral force



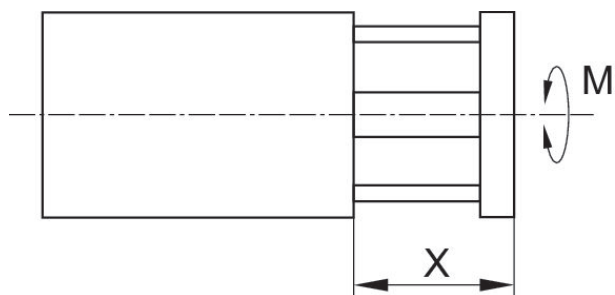
F_{dyn} = dynamic lateral force
 X = distance between force application point and cylinder cover

Maximum admissible lateral force



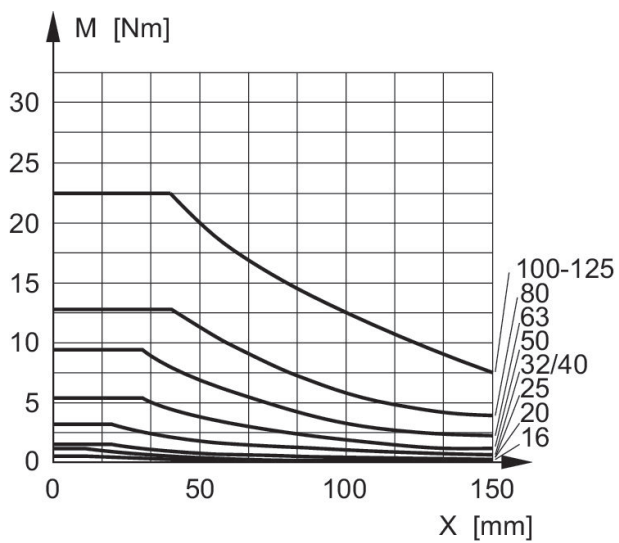
F_{dyn} = dynamic lateral force
 X = distance between force application point and cylinder cover
 S = stroke

Max. permissible torque



M = max. permissible torque
X = distance between force application point and cylinder cover

Max. permissible torque



M = max. permissible torque
X = spacing between torque contact surface and cylinder cover

Compact cylinder, Series KPZ

Functional principle: Double-acting

Standardization: NFE 49004

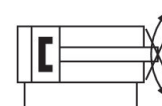
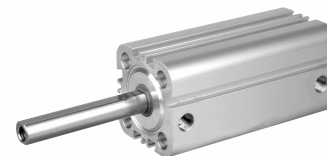
: Piston with magnet

: elastic cushioning

Piston rod thread - type: Internal thread

Ambient temperature min./max.: -20 °C ... 80 °C

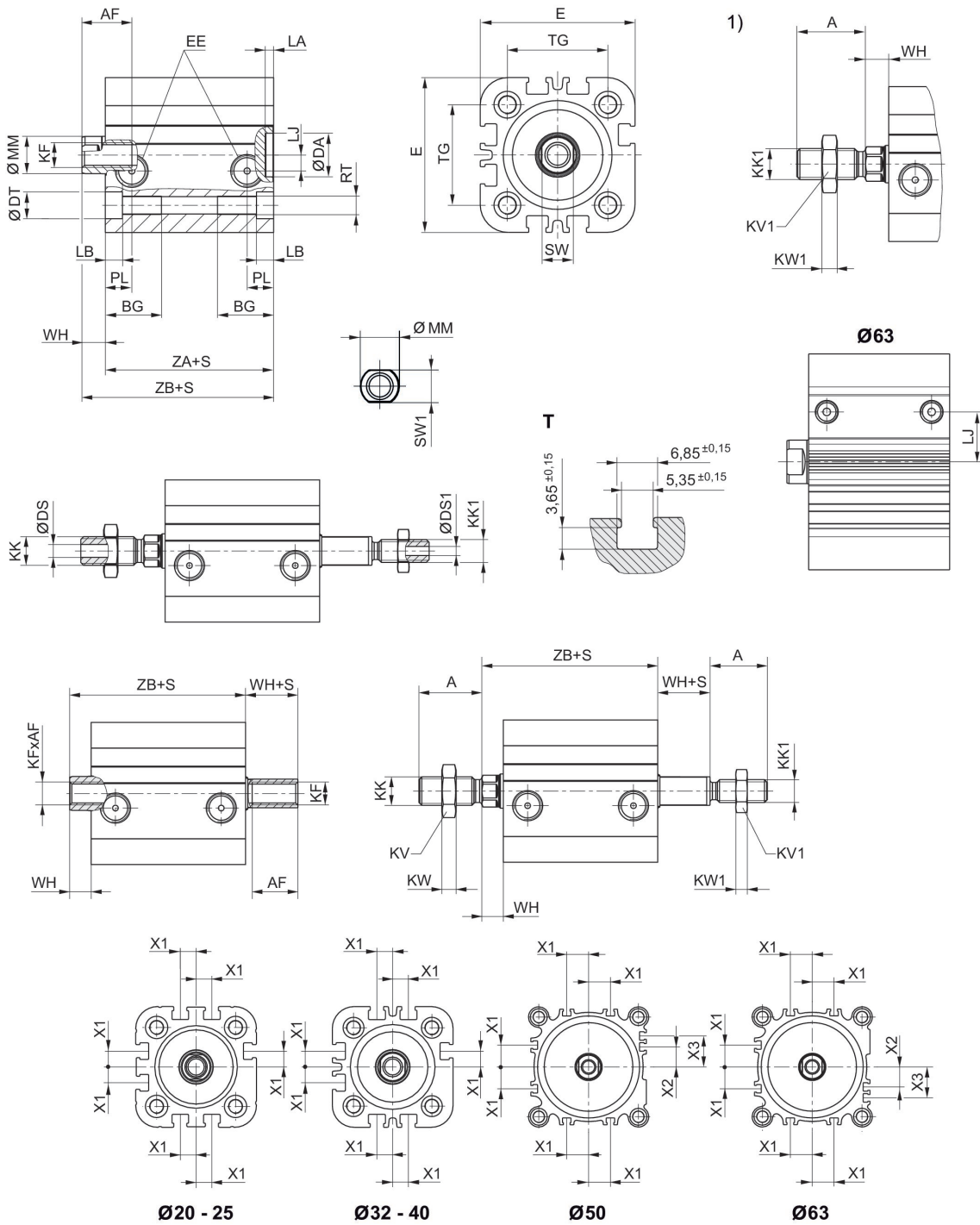
Medium temperature min./max.: -20 °C ... 80 °C



Piston Ø	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Piston rod thread	M6	M6	M8	M8	M10	M10
Ports	M5	M5	G 1/8	G 1/8	G 1/8	G 1/8
Stroke 5	0822391900	0822392900	0822393900	0822394900	0822395900	0822396900
10	0822391901	0822392901	0822393901	0822394901	0822395901	0822396901
15	0822391902	0822392902	0822393902	0822394902	0822395902	0822396902
20	0822391903	0822392903	0822393903	0822394903	0822395903	0822396903
25	0822391904	0822392904	0822393904	0822394904	0822395904	0822396904
30	0822391905	0822392905	0822393905	0822394905	0822395905	0822396905
40	0822391906	0822392906	0822393906	0822394906	0822395906	0822396906
50	0822391907	0822392907	0822393907	0822394907	0822395907	0822396907
60	0822391908	0822392908	0822393908	0822394908	0822395908	0822396908
80	0822391909	0822392909	0822393909	0822394909	0822395909	0822396909
100	0822391910	0822392910	0822393910	0822394910	0822395910	0822396910

Piston Ø	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Retracting piston force	148 N	260 N	435 N	720 N	1110 N	1827 N
Extracting piston force	198 N	309 N	507 N	792 N	1237 N	1964 N
Impact energy	0.2 J	0.3 J	0.5 J	0.7 J	1 J	1.3 J
Working pressure min./max.	1 bar ... 10 bar	1 bar ... 10 bar	0.6 bar ... 10 bar	0.6 bar ... 10 bar	0.6 bar ... 10 bar	0.6 bar ... 10 bar

Dimensions

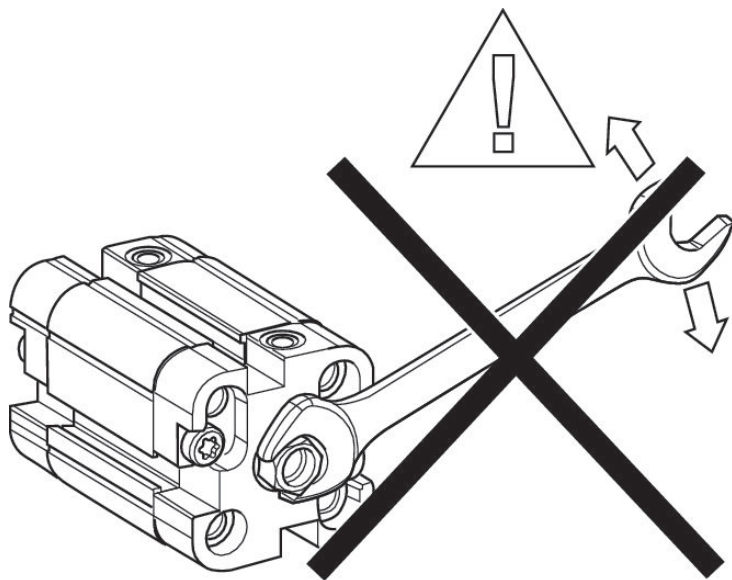


S = stroke

T = View for sensor groove

1) External thread

Use our Internet configurator to order variants with an external thread.



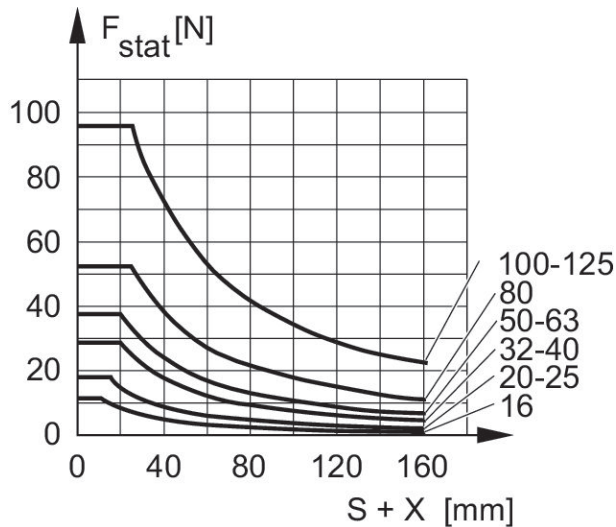
Piston Ø	A	AF min. Option: through piston rod	BG min.	Ø DA H11	Ø DS	Ø DS1	Ø DT H13	E	EE
20	22	12 10: S<3 mm 2)	15,5	12	3	-	7,5	36	M5
25	22	12 10: S<3 mm 2)	15,5	12	3	-	8	40	M5
32	22	12	18	14	4,5	3	8,6	50	G 1/8
40	22	12	18	14	4,5	3	9	58	G 1/8
50	24	16 12: S<4 mm 2)	24	18	6	6	11	68	G 1/8
63	24	16 12: S<4 mm 2)	24	18	6	6	11	80	G 1/8

Piston Ø	KF	KK	KK1	KV	KV1	KW	KW1	LA	LB
20	M6	M10x1,25	M8x1,25	16	13	5	4	2,5	4,5
25	M6	M10x1,25	M8x1,25	16	13	5	4	2,5	4,4
32	M8	M10x1,25	M8x1,25	16	13	5	4	2,5	5,5
40	M8	M10x1,25	M8x1,25	16	13	5	4	2,5	5,5
50	M10	M12x1,25	M10x1,25	18	16	6	5	2,5	2
63	M10	M12x1,25	M10x1,25	18	16	6	5	2,5	2

Piston Ø	LJ	LW	MM f8	PL	RT	SW	SW1	TG	WH
20	4,5	3,7	10	7,5	M5	8	8	22 ±0,4	5
25	5	3,7	10	7,5	M5	8	8	26 ±0,4	5,5
32	5,1	5	12	8,5	M6	10	10	32 ±0,5	7
40	9,6	5	12	8,5	M6	10	10	42 ±0,5	7
50	8,5	5,7	16	8,5	M8	13	13	50 ±0,6	7,5
63	17,8	5,7	16	8,5	M8	13	13	62 ±0,7	8

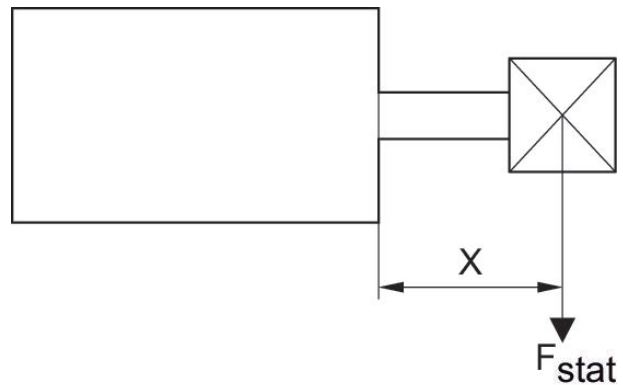
Piston Ø	X1	X2	X3	ZA + Stroke	ZB + Stroke
20	4,2	-	-	38	43 0/+1,4
25	4,5	-	-	39	44,5 0/+1,6
32	6,5	-	-	44	51 0/+1,6
40	11	-	-	45	52 0/+1,6
50	13	4	13	45,5	53 0/+1,6
63	18	12	21	49	57 ±2

Maximum admissible lateral force



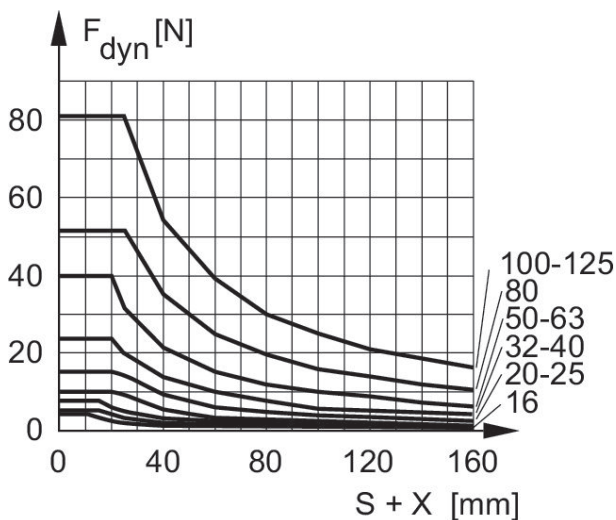
F_{stat} = static lateral force
X = distance between force application point and cylinder cover
S = stroke

Maximum admissible lateral force



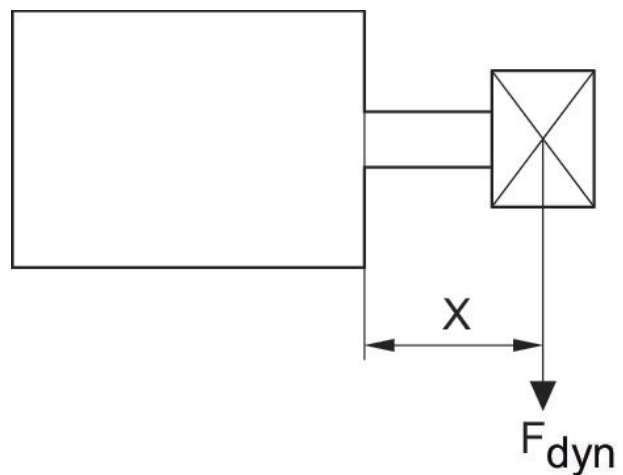
F_{stat} = static lateral force
X = distance between force application point and cylinder cover

Maximum admissible lateral force



F_{dyn} = dynamic lateral force
X = distance between force application point and cylinder cover
S = stroke

Maximum admissible lateral force



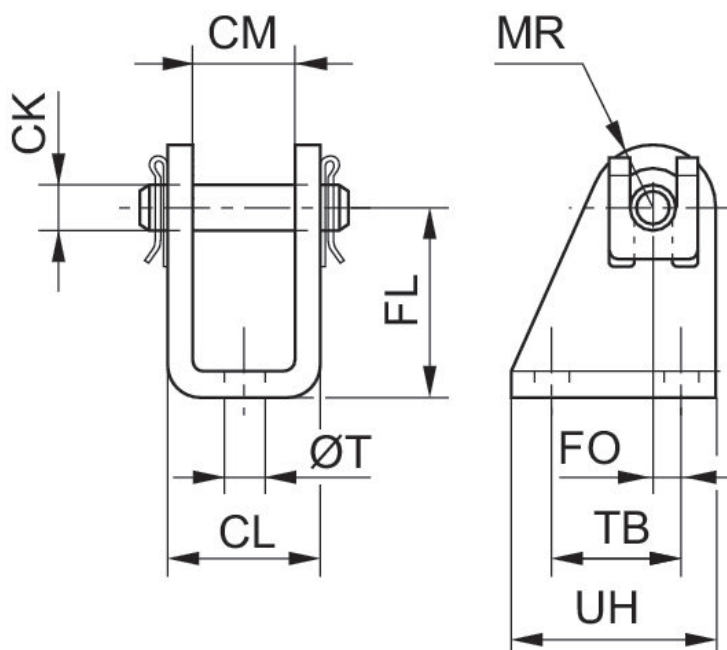
F_{dyn} = dynamic lateral force
X = distance between force application point and cylinder cover
S = stroke

Clevis mounting AB3, Series CM1



Piston diameter [mm]	Swivel bearing Ø [mm]	Material	Part No.
12, 16	6	Steel, chrome-plated	1827001446
20, 25	8	Steel, chrome-plated	1827001445

Dimensions



Piston Ø	Part No.	CM	Ø CK	CL	FL	FO	MR	Ø T	TB
8, 10	1827001447	8,1	4	13,1	24	1,5	5	4,5	12,5
8, 10	3323410000	8	4	13	24	1,5	5	4,5	12
12, 16	1827001446	12,1	6	18,1	27	2,0	7	5,5	15
12, 16	3323416000	12	6	18	27	2,0	7	5,5	15
20, 25	1827001445	16,1	8	24,1	30	4,0	10	6,6	20
20, 25	3323420000	16	8	24	30	4,0	10	6,6	22
32	3323432000	26	10	36	32	6,0	12	6,6	24

Piston Ø	UH
8, 10	20
8, 10	20
12, 16	25
12, 16	25
20, 25	32
20, 25	34
32	36

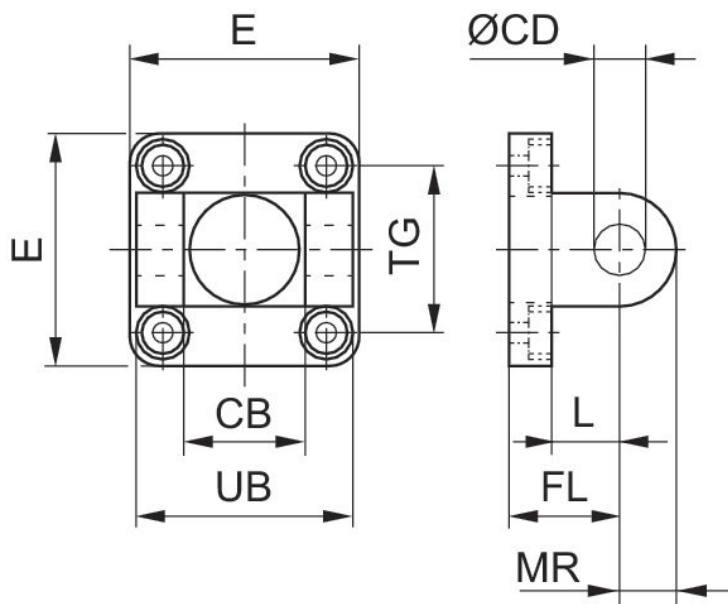
Clevis mounting MP2, Series CM1

For series: KPZ



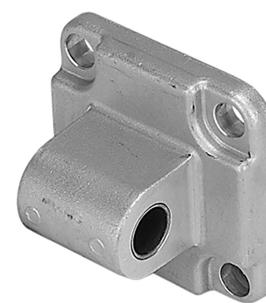
Piston diameter [mm]	Swivel bearing Ø [mm]	Material	Part No.
32	10	Steel, chrome-plated	1827002302
40	12	Steel, chrome-plated	1827002303
50	12	Steel, chrome-plated	1827002304
63	16	Steel, chrome-plated	1827002305
80	16	Steel, chrome-plated	1827002306
100	20	Steel, chrome-plated	1827002307

Dimensions



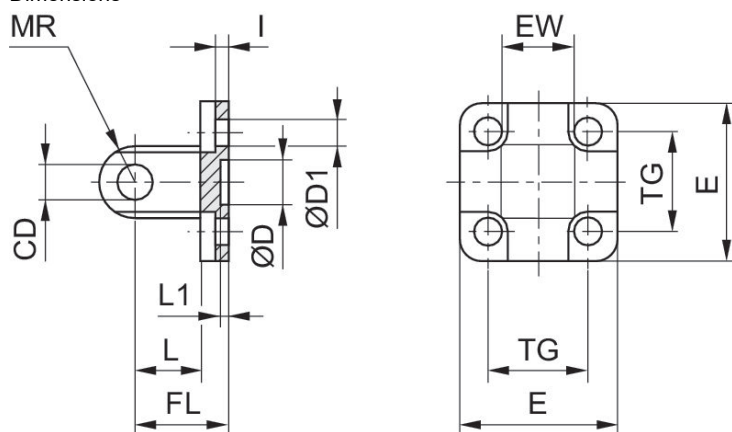
Piston Ø	Part No.	CB H14	Ø CD H9	E	FL ±0.2	L min.	MR max.	UB h13	TG
32	1827002302	26	10	48	22	13	10	45	32 ±0.5
40	1827002303	28	12	58	25	16	12.5	52	42 ±0.5
50	1827002304	32	12	66	27	16	12.5	60	50 ±0.6
63	1827002305	40	16	83	32	21	15	70	62 ±0.6
80	1827002306	50	16	102	36	23	15	90	82 ±0.7
100	1827002307	60	20	123	41	26	20	110	103 ±0.7

Rear eye MP4-HD, suitable for robust mechanical engineering applications



Piston diameter [mm]	Swivel bearing Ø [mm]	Standardization	Material	Part No.
16	6		Die-cast aluminum	1825805368
20	8	ISO 21287	Steel, chrome-plated	1827002300
25	8	ISO 21287	Steel, chrome-plated	1827002301
32	10	ISO 15552	Aluminum (forged)	1827001283
40	12	ISO 15552	Aluminum (forged)	1827001284
50	12	ISO 15552	Aluminum (forged)	1827001285
63	16	ISO 15552	Aluminum (forged)	1827020086
80	16	ISO 15552	Aluminum (forged)	1827001287
100	20	ISO 15552	Aluminum (forged)	1827001288

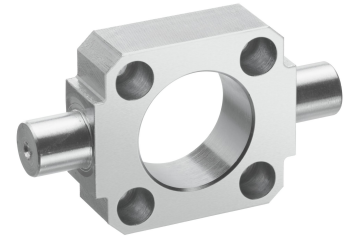
Dimensions



Piston Ø	Part No.	CD H9	Ø D	Ø D1	E	EW	FL ±0,2	I ±0,5	L min.
16	1825805368	6	10 H13	4.5	27	12 -0.2/-0.6	16	2.6	10
20	1827002300	8	12 H13	5.5	34	16 -0.2/-0.6	20	2.6	14
25	1827002301	8	12 H13	5.5	40	16 -0.2/-0.6	20	2.6	14
32	1827001283	10	30 H11	6.6	47.5	26 -0.2/-0.6	22	5.5	12
40	1827001284	12	35 H11	6.6	53.5	28 -0.2/-0.6	25	5.5	15
50	1827001285	12	40 H11	9	64	32 -0.2/-0.6	27	6.5	15
63	1827020086	16	45 H11	9	74	40 -0.2/-0.6	32	6.5	20
80	1827001287	16	45 H11	11	94	50 -0.2/-0.6	36	10	20
100	1827001288	20	55 H11	11	113.5	60 -0.2/-0.6	41	10	25
125	1827004866	25	60 H11	14	138	70 -0.5/-1.2	50	10	30
160	1827004867	30	65 H11	18	180	90 -0.5/-1.2	55	10	35
200	1827004868	30	75 H11	18	220	90 -0.5/-1.2	60	11	35
250	1827004869	40	90 H11	22	280	110 -0.5/-1.2	70	11	45
320	5239813412	45	110 H11	26	350	120 -0.5/-1.2	80	15	50

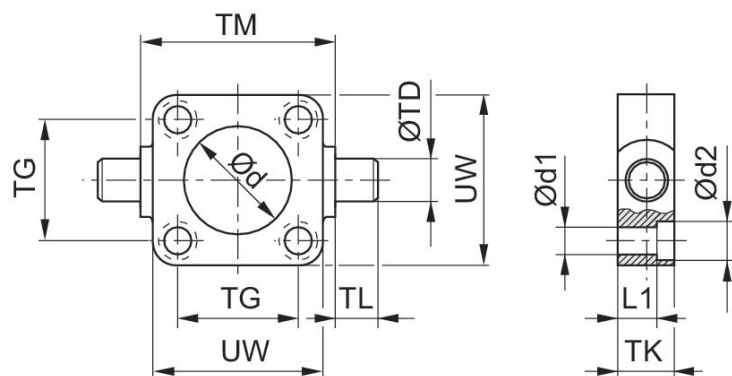
Piston Ø	L1 min.	MR max.	TG
16	3	6	18 ±0.2
20	3	8	22 ±0.4
25	3	8	26 ±0.4
32	4.5	10	32.5 ±0.2
40	4.5	12	38 ±0.2
50	4.5	12	46.5 ±0.2
63	4.5	16	56.5 ±0.2
80	4.5	16	72 ±0.2
100	4.5	20	89 ±0.2
125	7	26	110 ±0.3
160	7	31	140 ±0.3
200	7	31	175 ±0.3
250	11	41	220 ±0.3
320	11	45	270 ±0.3

Trunnion mounting MT5, MT6, Series CM1



Piston diameter [mm]	Material	Part No.
20	Nodular graphite iron	1825805360
25	Nodular graphite iron	1825805361
32	Nodular graphite iron	1825805362
40	Nodular graphite iron	1825805363
50	Nodular graphite iron	1825805364
63	Nodular graphite iron	1825805365
80	Nodular graphite iron	1825805366
100	Nodular graphite iron	1825805367

Dimensions



Piston Ø	Part No.	Ø d H11	Ø d1	Ø d2	L1	TD e9	TG ±0,2	TK	TL h14
20	1825805360	18	5.5	10	8	12	22	14	12
25	1825805361	22	5.5	10	8	12	26	14	12
25	R412026354	24	5.5	10	8	12	26	14	12
32	1825805362	32	6.6	10.5	7	12	32	14	12
32	1827001609	30	6.6	11	7.5	12	32.5	16	12
40	1825805363	46	6.6	11	12	16	42	19	16
40	1827001610	35	6.6	11	7.5	16	38	20	16
50	1825805364	53	9	14	10	16	50	19	16
50	1827001611	40	9	15	10	16	46.5	24	16
63	1825805365	69	9	15	15	20	62	24	20
63	1827002046	45	9	15	10	20	56.5	24	20
80	1825805366	87	11	18	13	20	82	24	20
80	1827001613	45	11	18	16	20	72	28	20
100	1825805367	55	11	18	18	25	103	29	25
100	1827001614	55	11	18	25.5	25	89	38	25
125	1827001615	60	14	20	34	25	110	46	25
160	1827001616	65	18	26	38	32	140	50	32
200	1827001617	75	18	26	40	32	175	60	32
250	1827001618	90	22	33	57	40	220	70	40

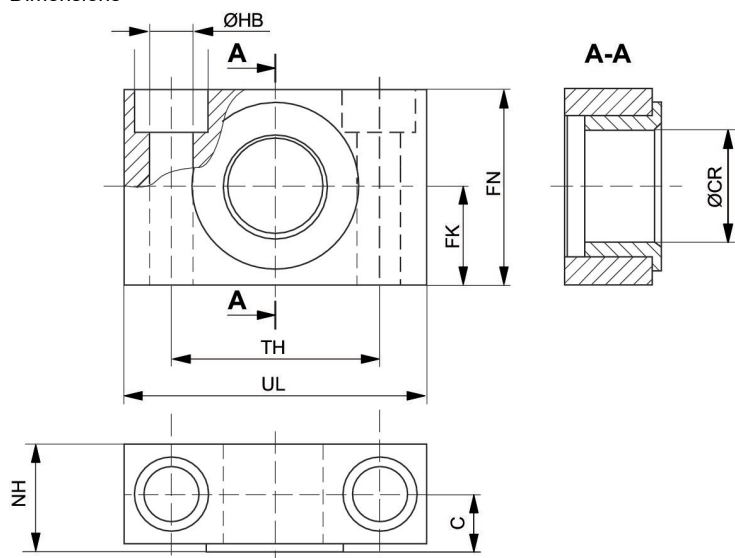
Piston Ø	TM h14	UW
20	38	35
25	42	39
25	42	39
32	52	46
32	50	48
40	63	59
40	63	56
50	75	69
50	75	65
63	90	84
63	90	75
80	110	102
80	110	100
100	132	125
100	132	120
125	160	145
160	200	184
200	250	224
250	320	286

Bearing AT4, Series CM1



Piston diameter [mm]	Swivel bearing Ø [mm]	Standardization	Material	Part No.
20, 25, 32	12	ISO 15552	Steel, chrome-plated	1827001603
40, 50	16	ISO 15552	Steel, chrome-plated	1827001604
63, 80	20	ISO 15552	Steel, chrome-plated	1827001605
100, 125	25	ISO 15552	Steel, chrome-plated	1827001606

Dimensions



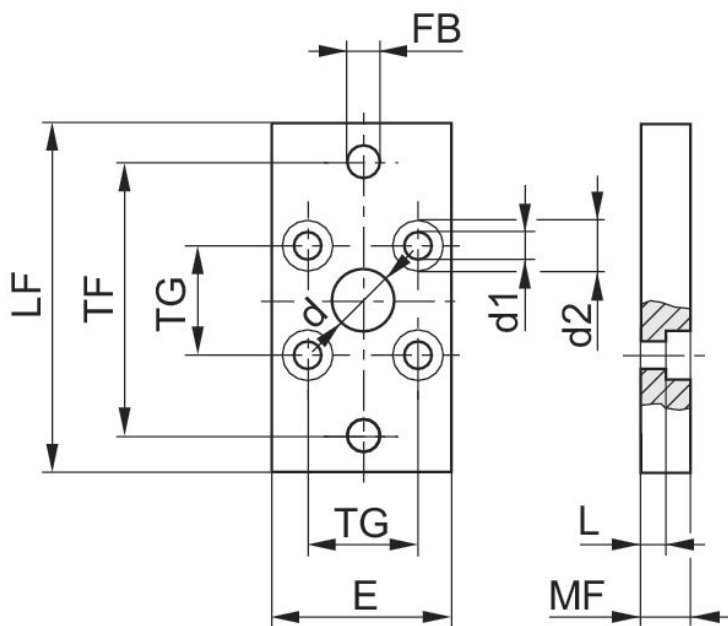
Piston Ø	Part No.	UL	NH	TH	C	CR H9	HB H13	FN	FK
20, 25, 32	1827001603	46	18	32 ±0,2	10.5	12	6.6	30	15 ±0,1
40, 50	1827001604	55	21	36 ±0,2	12	16	9	36	18 ±0,1
63, 80	1827001605	65	23	42 ±0,2	13	20	11	40	20 ±0,1
100, 125	1827001606	75	28.5	50 ±0,2	16	25	14	50	25 ±0,1
160, 200	1827001607	92	40	60 ±0,3	22.5	32	18	60	30 ±0,2
250	1827001608	140	50	90 ±0,3	27.5	40	22	70	35 ±0,2
320	R412018903	150	60	100	32.5	50	26	80	40

Flange mounting MF1, MF2, Series CM1



Piston diameter [mm]	Material	Part No.
16	Steel, chrome-plated	1821038241
20	Steel, chrome-plated	1827002292
25	Steel, chrome-plated	1827002293

Dimensions



Piston Ø	Part No.	Ød H11	Ød1	Ød2	E 1)	ØFB	L4	MF	TF
16	1821038241	10	4.5	10	29	5.5	5.6	10	43
20	1827002292	12	5.5	10	36	6.6	4.6	10	55
25	1827002293	12	5.5	10	40	6.6	4.6	10	60

Piston Ø	TG	UF
16	18	55
20	22	70
25	26	76

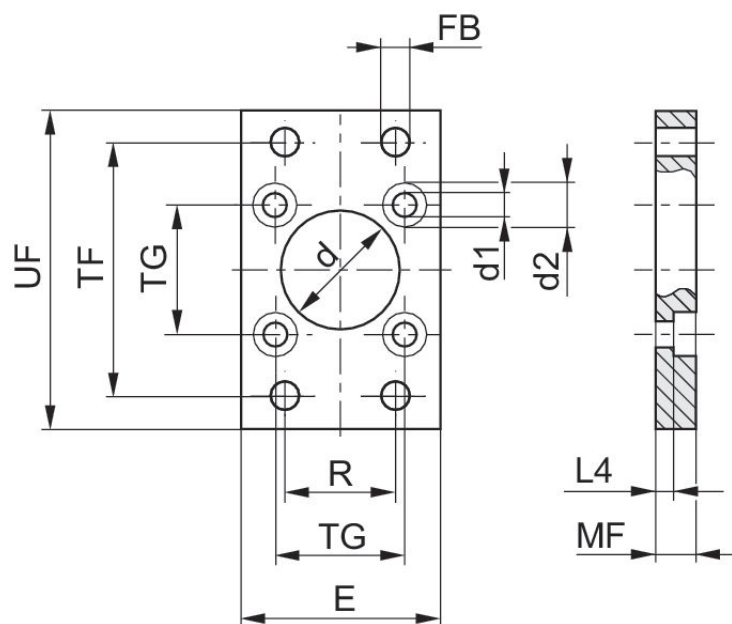
1) Max.

Flange mounting MF1, MF2, Series CM1



Piston diameter [mm]	Material	Part No.
32	Steel, chrome-plated	1827002294
40	Steel, chrome-plated	1827002295
50	Steel, chrome-plated	1827002296
63	Steel, chrome-plated	1827002297
80	Steel, chrome-plated	1827002298
100	Steel, chrome-plated	1827002299

Dimensions



Piston \varnothing	Part No.	$\varnothing d$ H11	$\varnothing d1$	$\varnothing d2$	E 1)	$\varnothing FB$	L4	MF	R
32	1827002294	14	6.6	11	50	7	3.6	10	32
40	1827002295	14	6.6	11	60	9	3.6	10	36
50	1827002296	18	9	15	66	9	3.4	12	45
63	1827002297	18	9	15	87	9	6.4	15	50
80	1827002298	23	11	18	107	12	4.4	15	63
100	1827002299	28	11	18	128	14	4.4	15	75

Piston \varnothing	TF	TG	UF
32	65	32	80
40	82	42	102
50	90	50	110
63	110	62	130
80	135	82	160
100	163	103	190

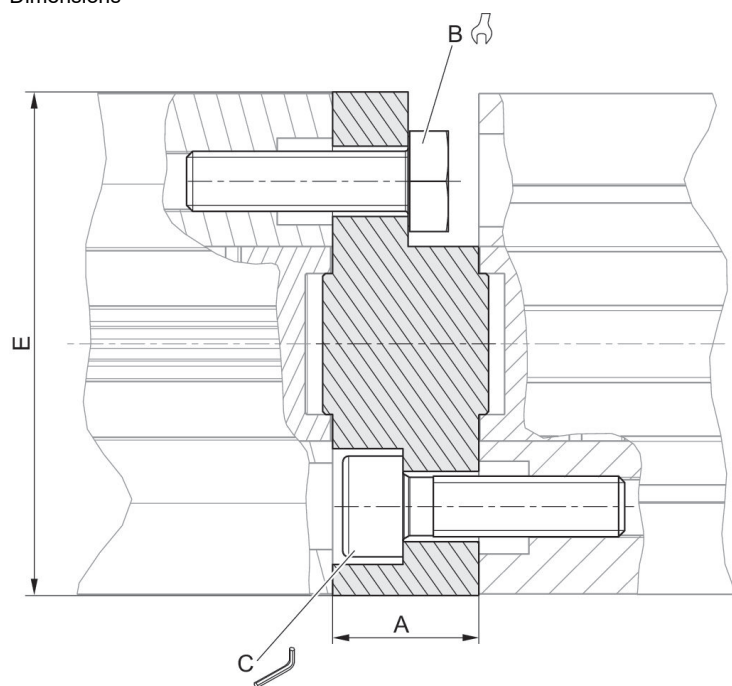
1) Max.

Intermediate flange JP2, Series CM1



Suitable piston Ø [mm]	Material	Part No.
16	Aluminum	1827020290
20	Aluminum	1827020267
25	Aluminum	1827020268
32	Aluminum	1827020269
40	Aluminum	1827020270
50	Aluminum	1827020271
63	Aluminum	1827020272
80	Aluminum	1827020273
100	Aluminum	1827020274

Dimensions



Piston Ø	Part No.	For series	A	B	C	Md [Nm] 1)	E
16	1827020290	CCI, KPZ	12.5	7	–	2.5	28.4
20	1827020267	CCI, KPZ	12.5	8	–	4	35
25	1827020268	CCI, KPZ	13	8	4	4	40
32	1827020269	CCI, KPZ	14.5	10	5	4	50
40	1827020270	CCI, KPZ	14.5	10	5	4	57.1
50	1827020271	CCI, KPZ	14.5	13	6	8	67.4
63	1827020272	CCI, KPZ	14.5	13	6	8	80
80	R412024535	KPZ	16.5	16	8	16	95
80	1827020273	CCI	16.5	16	–	16	98.4
100	R412024536	CCI	19.5	16	8	16	115
100	1827020274	KPZ	19.5	16	–	16	120

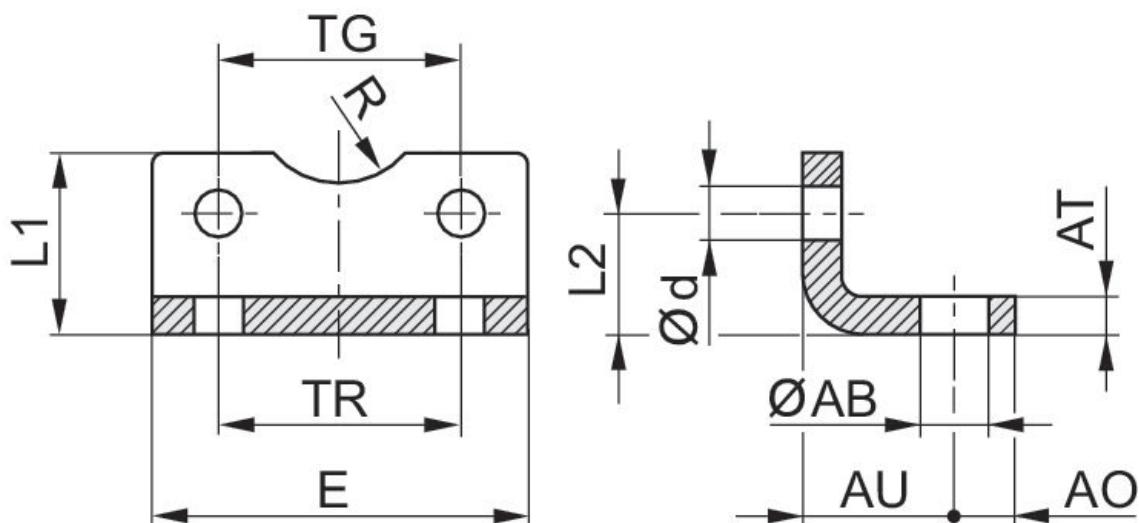
1) torque

Foot mounting MS1, Series CM1



Piston diameter [mm]	for series	Material	Part No.
16	KPZ, CCI	Steel, chrome-plated	1821332053
20	KPZ, CCI	Steel, chrome-plated	1827002284
25	KPZ, CCI	Steel, chrome-plated	1827002285
32	KPZ	Steel, chrome-plated	1827002286
40	KPZ	Steel, chrome-plated	1827002287
50	KPZ	Steel, chrome-plated	1827002288
63	KPZ	Steel, chrome-plated	1827002289
80	KPZ	Steel, chrome-plated	1827002290
100	KPZ	Steel, chrome-plated	1827002291

Dimensions

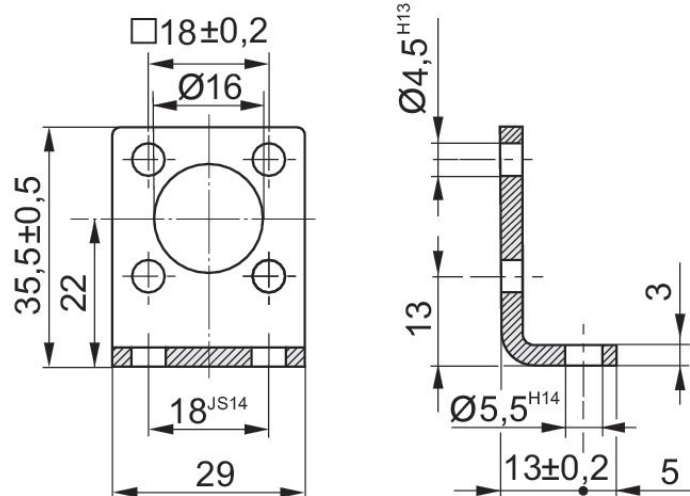


Piston Ø	Part No.	ØAB H14	AO	AT	AU ±0,2	Ød H13	E	L1	L2
20	1827002284	6.6	6	4 ±0,5	16	5.4	36	22	16
25	1827002285	6.6	6	4 ±0,5	16	5.4	40	23	17
32	1827002286	6.6	8	5 ±0,5	18	6.6	50	24	16
32	1827001271	7	8	4 ±0,3	24	6.6	48	25	15,75
40	1827001272	10	10	4 ±0,3	28	6.6	56	26	17
50	1827001273	10	11	5 ±0,3	32	9	68	32	21,75
63	1827001498	10	13	5 ±0,3	32	9	78	34	21,75
80	1827001275	12	16	6 ±0,5	41	11	98	47	27
100	1827001276	14.5	19	6 ±0,5	41	11	117	52	26,5
125	1827001310	16.5	20	8 ±1,0	45	13.5	144	69	35
160	1827001457	18.5	23	10 ±1,0	60	17.5	185	100	45
200	1827001458	24	26	12 ±1,0	70	17.5	220	120	47,5
250	1827001459	28	33	20 ±1,0	75	22	280	135	55

Piston Ø	R H15	TG	TR JS14
20	10	22 ±0,2	22
25	11	26 ±0,2	26
32	12	32 ±0,2	32
32	15	32,5 ±0,2	32
40	17.5	38 ±0,2	36
50	20	46.5 ±0,2	45
63	22.5	56.5 ±0,2	50
80	22.5	72 ±0,2	63
100	27.5	89 ±0,2	75
125	30	110 ±0,3	90
160	32.5	140 ±0,3	115
200	37.5	175 ±0,3	135
250	45	220 ±0,3	165

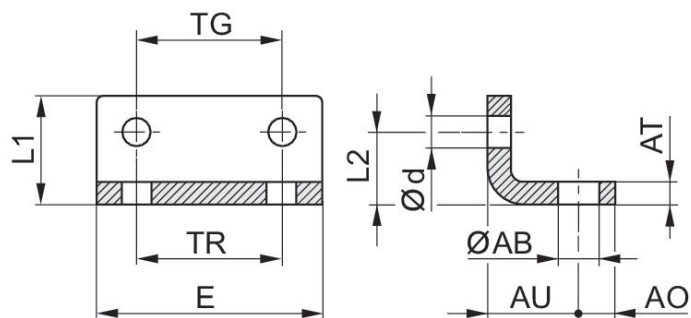
1821332053

Dimensions



1827002287, 1827002288, 1827002289,
1827002290, 1827002291

Dimensions

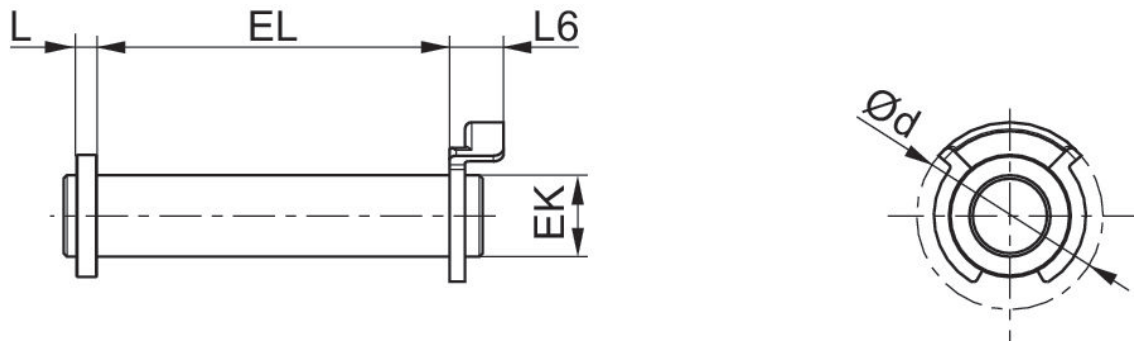


Bolts AA4, Series CM1



Piston diameter [mm]	Material	Surface	Part No.
32	Steel, chrome-plated	galvanized	1823120020
40	Steel, chrome-plated	galvanized	1823120021
50	Steel, chrome-plated	galvanized	1823120022
63	Steel, chrome-plated	galvanized	1823120023
80	Steel, chrome-plated	galvanized	1823120024
100	Steel, chrome-plated	galvanized	1823120025

Dimensions



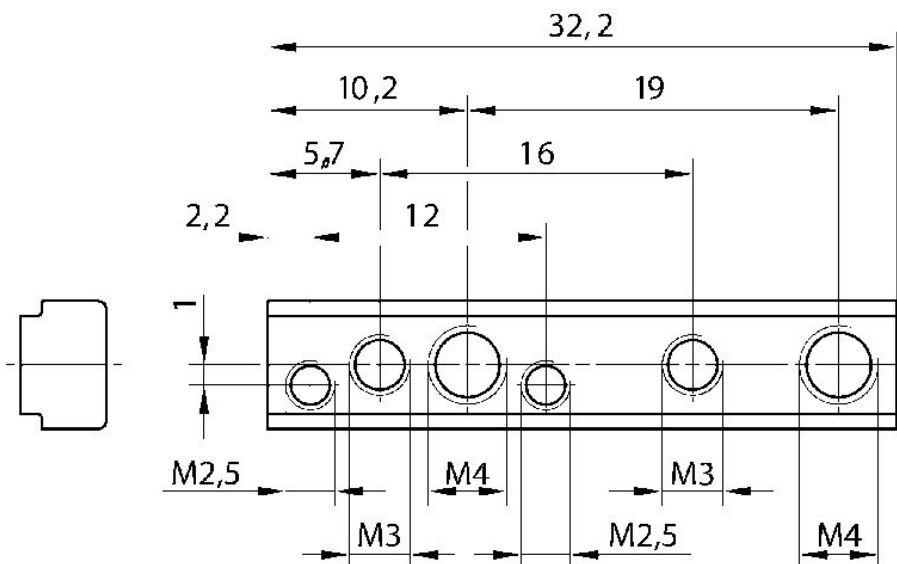
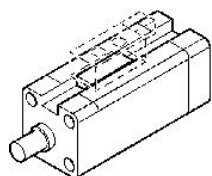
Piston Ø	Part No.	Ø d max.	EK e8	EL	L max.	L6 max.
32	1823120020	20	10	45.2 +0,3	3.5	9
40	1823120021	22	12	52.2 +0,3	4	9
50	1823120022	22	12	60.2 +0,3	4	9
63	1823120023	28	16	70.2 +0,3	4.5	11
80	1823120024	28	16	90.2 +0,3	4.5	11
100	1823120025	38	20	110.2 +0,3	5	11

Mounting kit



Weight [kg]	Part No.
0.02	1827020275

Dimensions



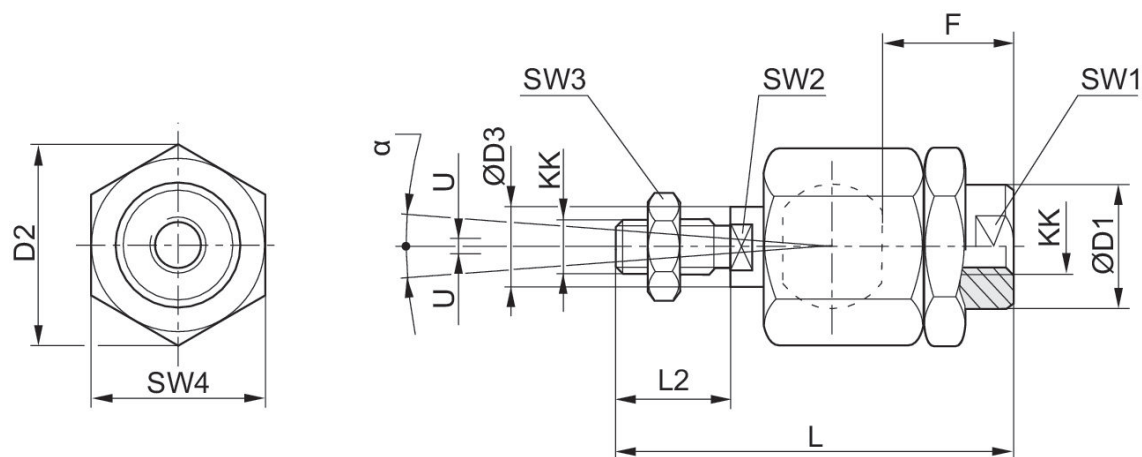
Part No.	Ø mm
1827020275	16-100

Flexible spherical coupling, Series PM5



Suitable piston rod thread	for series	Part No.
M10x1,25	PRA/TRB, CCL-IC-/IS, CCI, SSI, KPZ, 167, CVI, RPC	R412026142
M12x1,25	PRA/TRB, CCL-IC-/IS, CCI, SSI, KPZ, 167, CVI, RPC	R412026143
M16x1,5	PRA/TRB, CCL-IC-/IS, CCI, KPZ, 167, CVI, RPC, RDC	R412026144
M20x1,5	PRA/TRB, CCL-IS, SSI, KPZ, 167, CVI	R412026145

Dimensions



* Radial joint

Part No.	KK	Ø D1	D2	Ø D3	F	L ±2	L2	SW1	SW2
1826409008	M4	12	13.5	4	13	33	8	12	3.2
R412007860	M5	8.5	14.8	6	12	38.5	13.5	7	5
R412026140	M6x1	8.5	14.5	6	11	36.5	11	7	5
R412026141	M8x1.25	12.5	19	8	21	58	21	11	7
R412026142	M10x1.25	22	32	14	23	74.5	23	19	12
R412026143	M12x1.25	22	32	14	24	75	24	19	12
R412026144	M16x1.5	32	45	22	30	103	30	30	20
R412026145	M20x1.5	32	45	22	40	119	40	30	20
1826409006	M27x2	62	62	28	48	147	54	32	24
1826409007	M36x2	80	80	38	86	241	72	50	32
R412007729	M42x2	64	98	42	96	271	82	60	36

Part No.	SW3	SW4	U	α [°]	1)
1826409008	7	11	0,5	8	0.05-0.2
R412007860	8	13	0,5	8	0.05-0.2
R412026140	10	13	0,7	6	0.05-0.5
R412026141	13	17	0,7	8	0.05-0.5
R412026142	17	30	1	8	0.05-0.5
R412026143	19	30	1	7	0.05-0.5
R412026144	24	41	1	6	0.05-0.5
R412026145	30	41	1	6	0.05-0.5
1826409006	41	55	1	8	0.05-0.2
1826409007	55	75	1	8	0.05-0.2
R412007729	65	85	1	8	0.05-0.2

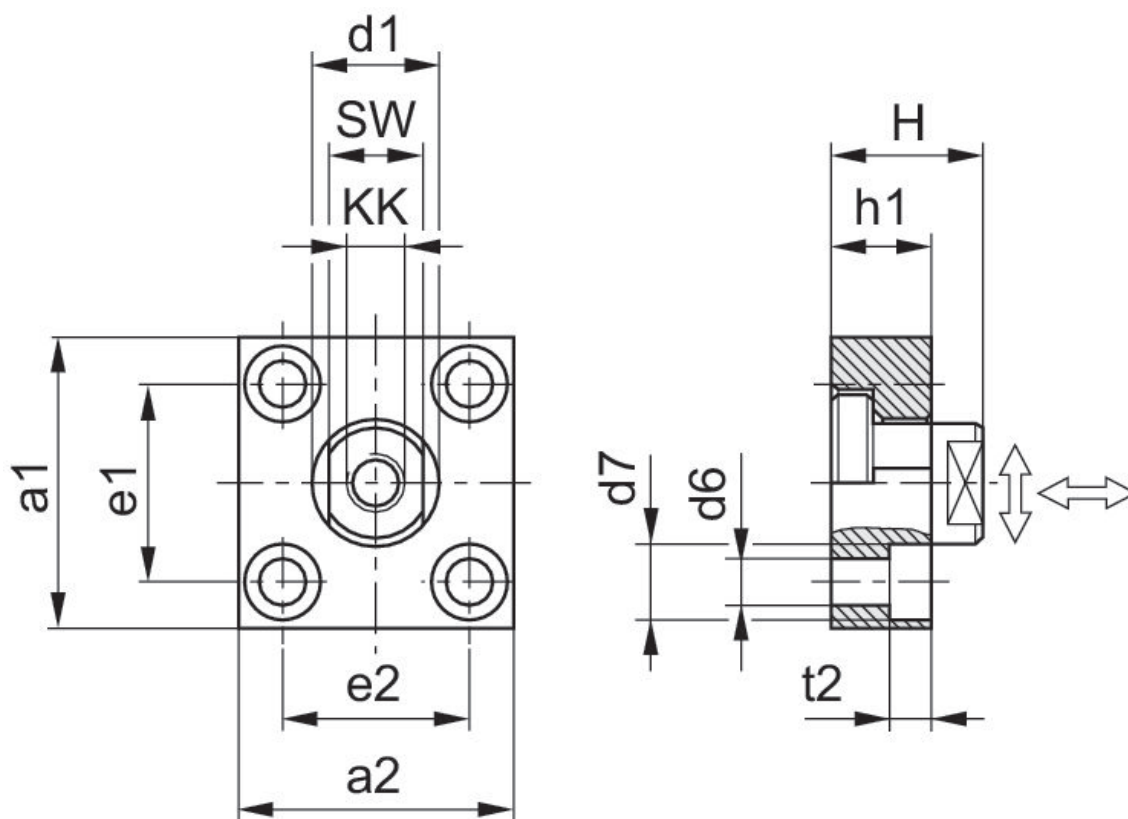
1) Axial play

Flexible plate coupling, Series PM7



Suitable piston rod thread	for series	Part No.
M10x1,25	PRA/TRB, CCL-IC-/IS, CCI, SSI, KPZ, 167, RPC	1827001629
M12x1,25	PRA/TRB, CCL-IC-/IS, CCI, SSI, KPZ, 167, RPC	1827001630
M16x1,5	PRA/TRB, CCL-IC-/IS, CCI, SSI, KPZ, 167, RPC	1827001631
M20x1,5	PRA/TRB, CCL-IS, SSI, KPZ, CVI, 167	1827001632

Dimensions



Part No.	KK	a1	a2	d1 h11	d6 H13	d7 H13	e1 H13	e2	h1
1827001629	M10x1.25	60	37	20	6.6	11	36 ±0,15	23 ±0,15	15
1827001630	M12x1.25	60	56	25	9	15	42 ±0,2	38 ±0,2	20
1827001631	M16x1.5	80	80	30	11	18	58 ±0,2	58 ±0,2	20
1827001632	M20x1.5	90	90	40	14	20	65 ±0,3	65 ±0,3	20
1827001633	M27x2	90	90	40	14	20	65 ±0,3	65 ±0,3	20
1827001634	M36x2	125	125	60	18	26	90 ±0,3	90 ±0,3	30

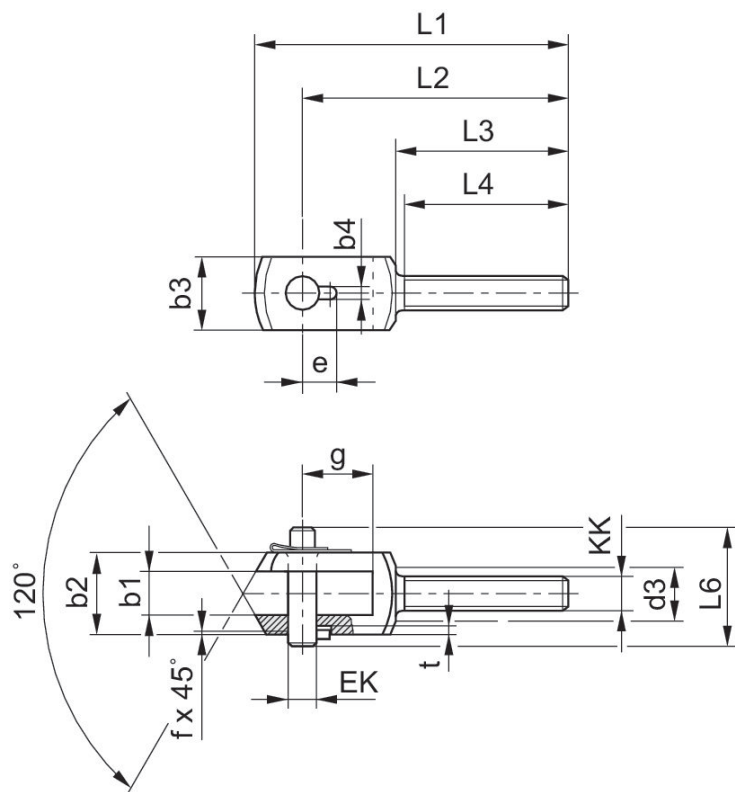
Part No.	t2	H	SW	Tightening torque for the coupling pin Ma ± 5%	Axial play min./max.	Radial play min./max.
1827001629	7	24	17	17 Nm	0,4 - 0,8 mm	1,9 - 2,3 mm
1827001630	9	30	19	29 Nm	0,4 - 0,8 mm	1,9 - 2,3 mm
1827001631	11	32	24	71 Nm	0,4 - 0,8 mm	1,9 - 2,3 mm
1827001632	13	35	36	138 Nm	0,4 - 0,8 mm	1,9 - 2,3 mm
1827001633	13	35	36	350 Nm	0,4 - 20,31 mm	1,9 - 2,3 mm
1827001634	17	55	50	1080 Nm	0,4 - 0,95 mm	2,8 - 3,4 mm

Rod clevis, Series PM6



for series	Swivel bearing Ø [mm]	Part No.
AP6	14	1822122032
AP6	16	1822122033
AP6	21	1822122034
AP6	25	1822122035

Dimensions



Part No.	b1 B12	b2 d12	b3	b4 +0,2	d3	e +0,3	EK	f	g
1822122032	14	28	20	3.3	17	11.5	10	0.7	20
1822122033	16	30	25	4.3	19	12	12	1	26
1822122034	21	40	35	4.3	24	14	16	1	31
1822122035	25	50	40	4.3	30	16	20	1	43
1822122036	37	67	60	6.3	38	24	30	1.5	54

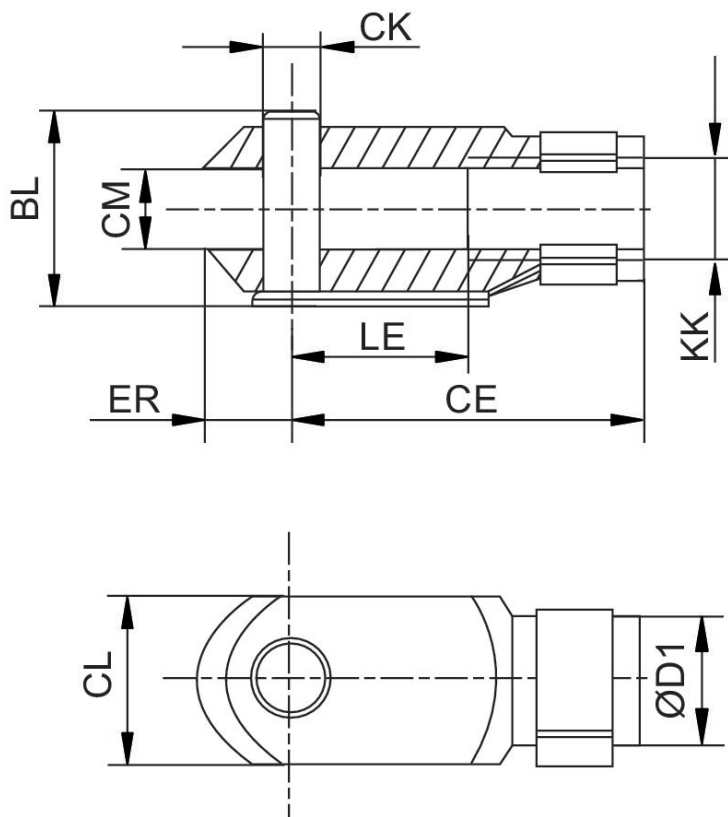
Part No.	L1	L2	L3	L4 +1	L6	KK	t +0,2
1822122032	90	78	53	50	35	14	3
1822122033	108	92	58	55	39	16	3
1822122034	129	108	65	62	50	21	3
1822122035	156	131	73	69	60	25	3
1822122036	200	168	98	92	77	30	5

Rod clevis with lock washer, Series AP2, Galvanized Steel



Suitable piston rod thread	for series	Part No.
M8	CCI, MNI, ICM, KHZ	1822122010
M10x1,25	PRA, TRB, CCI, MNI, ICM, KPZ, 167, CVI, RPC, RDC	1822122024
M12x1,25	PRA, TRB, CCI, KPZ, 167, CVI, RPC, 102	1822122025
M16x1,5	PRA, TRB, CCI, KPZ, 167, CVI, RPC, RDC, 102	1822122005
M20x1,5	PRA, TRB, KPZ, 167, CVI, 102	1822122004

Dimensions



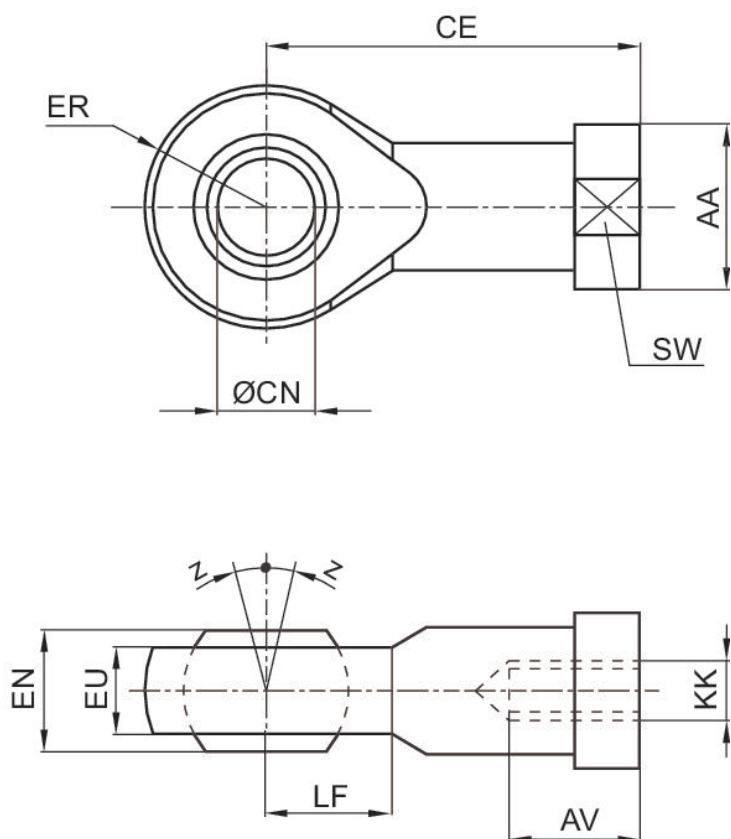
Part No.	BL	CE	ØCK h11	CL	CM	ØD1	ER	KK	LE
1822122028	11	16	4	8	4	8	5	M4	8
1822122008	13.5	20	5	10	5	9	6	M5	10
1822122009	16	24	6	12	6	10	7	M6	12
1822122010	21,5	32	8	16	8	14	10	M8	16
8958000122	26	40	10	20	10	18	12	M10	20
1822122024	26	40	10	20	10	18	12	M10x1,25	20
8958000132	31	48	12	24	12	20	14	M12	24
1822122025	31	48	12	24	12	20	14	M12x1,25	24
1822122005	39	64	16	32	16	26	19	M16x1,5	32
1822122004	50	80	20	40	20	34	20	M20x1,5	40

Ball eye rod end AP6, galvanized Steel



Suitable piston rod thread	for series	Swivel bearing Ø [mm]	Part No.
M8	MNI, CCI, SSI, KPZ	8	1822124002
M10x1,25	PRA, TRB, MNI, CCI, SSI, RPC, KPZ, 167, CVI, RDC	10	1822124003
M12x1,25	PRA, TRB, CCI, SSI, RPC, KPZ, 167, CVI, 102	12	1822124004
M16x1,5	PRA, TRB, CCI, SSI, RPC, KPZ, 167, CVI, RDC, 102	16	1822124005
M20x1,5	PRA, TRB, KPZ, 167, CVI, 102	20	1822124006

Dimensions



KK	Part No.	AA	AV min.	CE	Ø CN H7	EN -0,1	ER	EU max.	LF
M4	1822124000	12	8	27	5	8	9	7.5	9
M6	1822124001	13	9	30	6	9	10	7.5	10
M8	1822124002	16	12	36	8	12	12	9.5	12
M10	8958206402	19	20	43	10	14	14	10.5	13
M12	8958208852	22	22	50	12	16	16	12	16
M10x1,25	1822124003	19	15	43	10	14	14	11.5	14
M12x1,25	1822124004	22	18	50	12	16	16	12.5	16
M16x1,5	1822124005	27	24	64	16	21	21	15.5	21
M20x1,5	1822124006	34	30	77	20	25	25	18.5	25
M24x2	8958208002	42	36	94	25	31	30	23	30
M27x2	1822124013	50	45	110	30	37	35	27	35
M36x2	1822124008	60	56	125	35	43	40	32	40
M42x2	1822124009	69	60	142	40	49	45.5	37	45
M48x2	8958208842	75	65	160	50	60	58	45	60

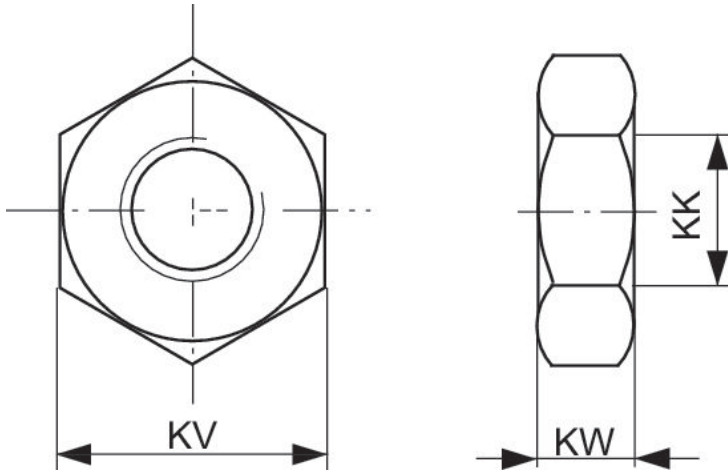
KK	SW	Z [°] max.
M4	9	4
M6	11	4
M8	14	4
M10	17	6
M12	19	13
M10x1,25	17	4
M12x1,25	19	4
M16x1,5	22	4
M20x1,5	30	4
M24x2	36	15
M27x2	41	4
M36x2	50	4
M42x2	55	4
M48x2	65	6

Piston rod nut MR9



Thread size	Material	Part No.
M8	Steel, chrome-plat- ed	1823300034
M12x1,25	Steel, chrome-plat- ed	8103190344

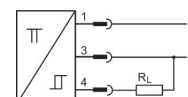
Dimensions



Part No.	KK	KV	KW
8103040114	M4		
1823300033	M6	10	3.2
1823300034	M8	13	4
8103040224	M10	17	8
1823A00020	M10x1,25		
8103060064	M12	19	10
1823A00021	M12x1,25	19	6
8103190344	M12x1,25	19	6
1823300030	M16x1,5	24	8
1823300031	M20x1,5	30	10
8103040344	M20x1,5	30	10
8103190394	M24x2	36	12
1823A00029	M27x2	41	13.5
8103190414	M36x2	50	16
8103190424	M42x2	60	21
8103190434	M48x2	65	25
3330310000	M4	7	2.2
8103190644	M6	10	3.2
3330316000	M6		
8103190164	M8	13	4
3330320000	M8		
8103190464	M10x1,25	17	5
3590302000	M10x1,25		
3590304000	M12x1,25	19	6
3590305000	M16x1,5	24	8
3590308000	M20x1,5	30	10
2990600303	M10x1,25	17	5
2990600304	M12x1,25	19	6
2990600305	M16x1,5	24	8
2990600308	M20x1,5	30	10
2990600312	M27x2	41	13.5
2990600316	M36x2	50	16
2990600325	M42x2	60	21

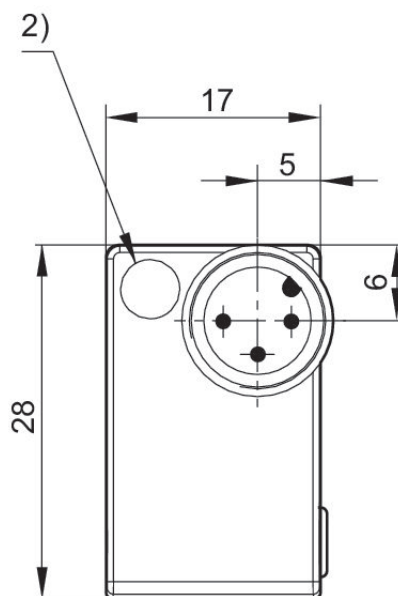
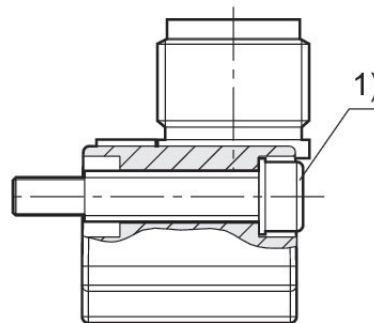
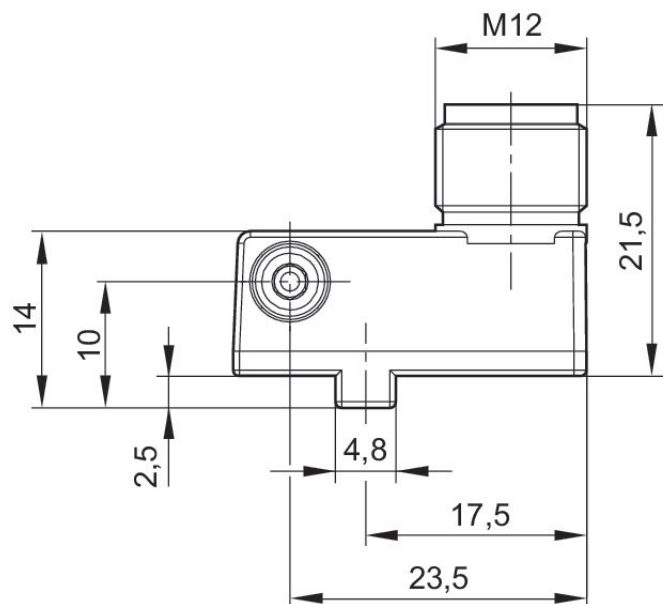
Sensor, Series SN3

To mount on series: PRA PRE CCI KPZ KHZ FLT GPC CVI
Ambient temperature min./max.: -25 °C ... 70 °C



Switch descr.	Electrical connection number of poles	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Version	Part No.
PNP	3-pin	10	30	short circuit resistant, Protected against polarity reversal	0830100438

Dimensions



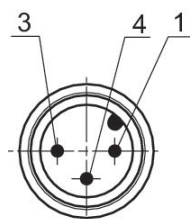
1) Clamping screw

2) LED

Pin assignments: 1 = (+), 3 = (-), 4 = (OUT), EN 60947-5-2:1998

0830100438

Pin assignments



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

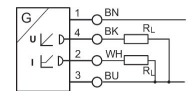
Sensors, Series SM6, with cable, without wire end ferrule, tin-plated

For series: PRA PRE CCI KPZ SSI GPC CVI

Certificates: cULus

Min. ambient temperature: -20 °C

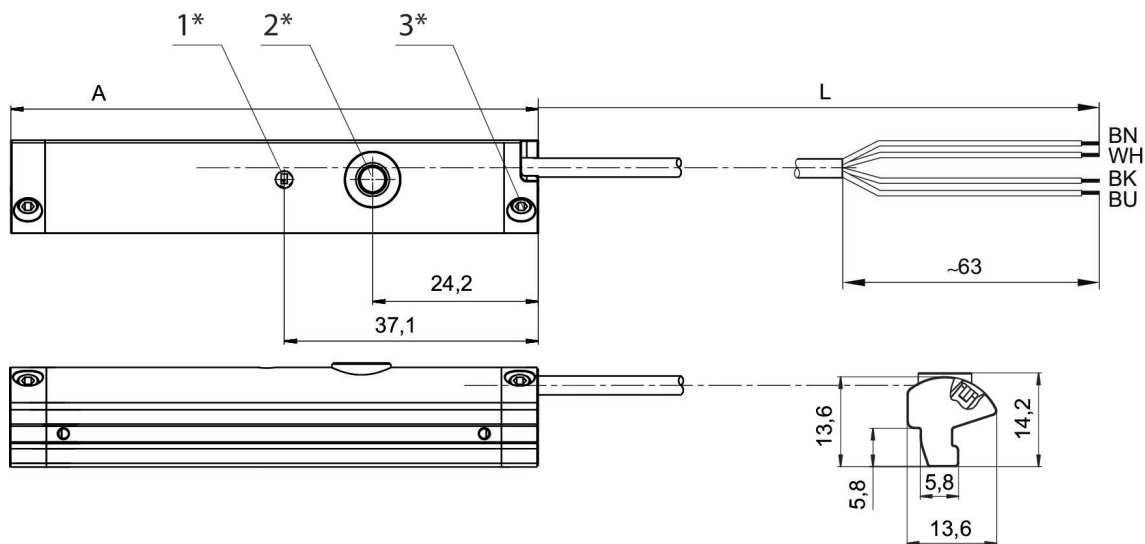
Max. ambient temperature: 70 °C



Direct mounting for series	Switch descr.	Cable length L [m]	max. measuring range [mm]	Overall length Sensor [mm]	Version	Part No.
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	2	32	45	short circuit resistant, Protected against polarity reversal, Overload protection	R412010141
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	2	64	77	short circuit resistant, Protected against polarity reversal, Overload protection	R412010143
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	2	96	109	short circuit resistant, Protected against polarity reversal, Overload protection	R412010262
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	2	128	141	short circuit resistant, Protected against polarity reversal, Overload protection	R412010264
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	2	160	173	short circuit resistant, Protected against polarity reversal, Overload protection	R412010411
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	2	192	205	short circuit resistant, Protected against polarity reversal, Overload protection	R412010413
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	2	224	237	short circuit resistant, Protected against polarity reversal, Overload protection	R412010415
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	2	256	269	short circuit resistant, Protected against polarity reversal	R412010417

Direct mounting for series	Switch descr.	Cable length L [m]	max. measuring range [mm]	Overall length Sensor [mm]	Version	Part No.
					sal, Overload protection	

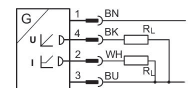
Dimensions



1* = LED 2* = teach button 3* = threaded pin M3x11
 L = cable length
 (2) WH=white
 A = sensor length

Sensors, Series SM6, with cable, plug M8x1

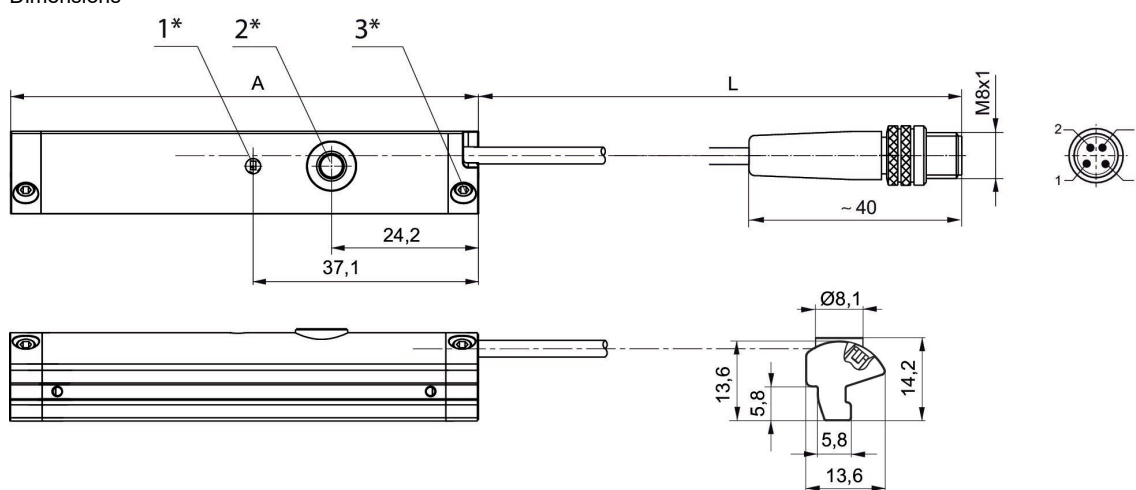
For series: PRA PRE CCI KPZ SSI GPC CVI
 Electrical connection 2, thread size: M8x1
 Certificates: cULus
 Electrical connection 2, number of poles: 4-pin
 Min. ambient temperature: -20 °C
 Max. ambient temperature: 70 °C



Direct mounting for series	Switch descr.	Cable length L [m]	max. measuring range [mm]	Overall length Sensor [mm]	Version	Part No.
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	0.3	32	45	short circuit resistant, Protected against polarity reversal, Overload protection	R412010142
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	0.3	64	77	Protected against polarity reversal, Protected against polarity reversal, Overload protection	R412010144
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	0.3	96	109	Protected against polarity reversal, Protected against polarity reversal, Overload protection	R412010263
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	0.3	128	141	Protected against polarity reversal, Protected against polarity reversal, Overload protection	R412010265
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	0.3	160	173	Protected against polarity reversal, Protected against polarity reversal, Overload protection	R412010410
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	0.3	192	205	Protected against polarity reversal, Protected against polarity reversal, Overload protection	R412010412
PRA, PRE, CCI, KPZ,	Analog	0.3	224	237	Protected against po-	R412010414

Direct mounting for series	Switch descr.	Cable length L [m]	max. measuring range [mm]	Overall length Sensor [mm]	Version	Part No.
SSI, GPC, CVI					olarity reversal, Protected against polarity reversal, Overload protection	
PRA, PRE, CCI, KPZ, SSI, GPC, CVI	Analog	0.3	256	269	Protected against polarity reversal, Protected against polarity reversal, Overload protection	R412010416

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

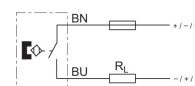
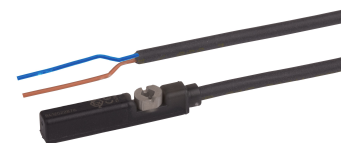
Sensors, Series ST6, open cable ends, 2-pin, Reed

To mount on series: TRB ITS 167 C12P CCL-IS MNI CSL-RD RPC ICS-D2 ICM KHZ TRR

For series: PRA CCI KPZ SSI GPC CVI

Certificates: CE declaration of conformity cULus RoHS UL (Underwriters Laboratories)

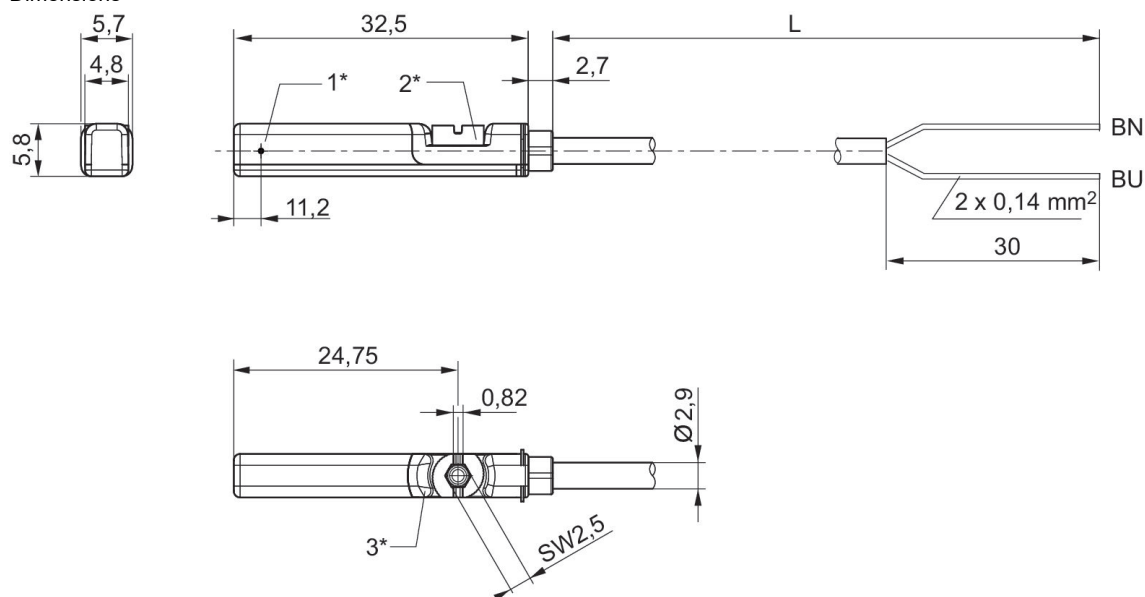
Ambient temperature min./max.: -30 °C ... 80 °C



Switch descr.	Cable sheath	Number of poles	Max. DC switching current [A]	Max. AC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Min. operating voltage AC [V AC]	Part No.
Reed	Polyurethane	2-pin	0.13	0.13	10	230	10	R412022866
Reed	Polyurethane	2-pin	0.13	0.13	10	230	10	R412027170

Max. operational voltage AC [V AC]	Version	Cable length L [m]	Part No.
230	Protected against polarity reversal	3	R412022866
230	Protected against polarity reversal	5	R412027170

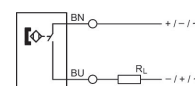
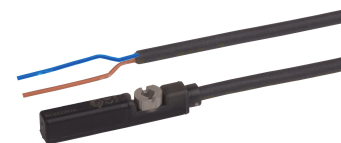
Dimensions



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

Sensors, Series ST6, open cable ends, 2-pin, Heat resistant

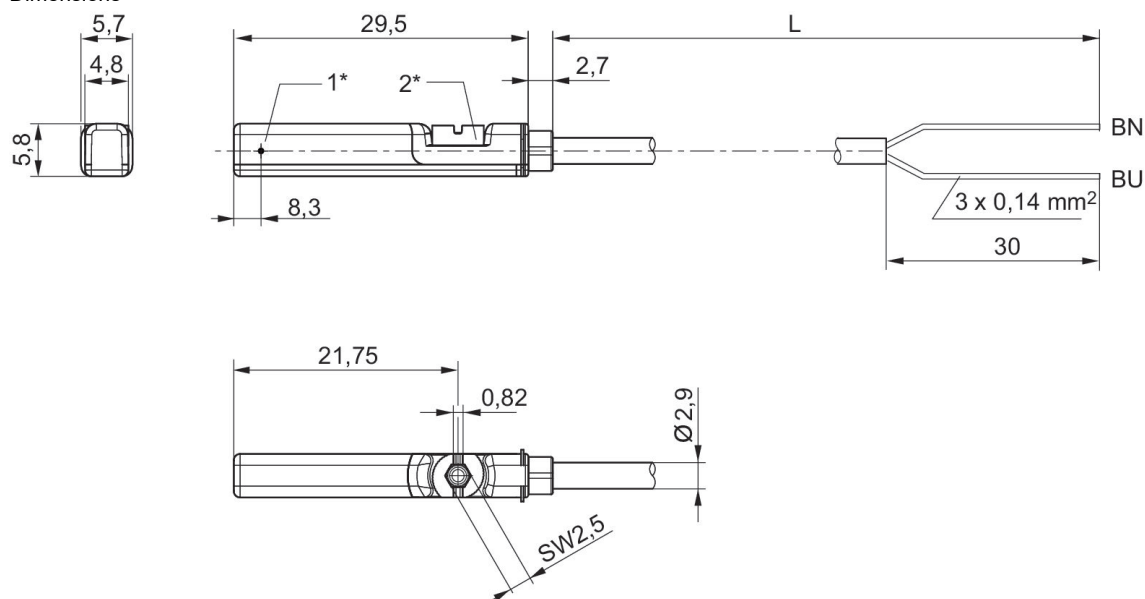
To mount on series: TRB ITS MNI CSL-RD RPC
 For series: PRA PRE CCI KPZ
 Temperature resistance: Heat resistant
 Certificates: RoHS UL (Underwriters Laboratories)
 Ambient temperature min./max.: -20 °C ... 120 °C



Switch descr.	Cable sheath	Number of poles	Max. DC switching current [A]	Max. AC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Min. operating voltage AC [V AC]	Part No.
Reed	Polyurethane	2-pin	0.13	0.13	0	30	0	R412022865
Reed	Polyurethane	2-pin	0.13	0.13	0	30	0	R412022867

Max. operational voltage AC [V AC]	Version	Cable length L [m]	Part No.
30	Protected against polarity reversal	3	R412022865
30	Protected against polarity reversal	10	R412022867

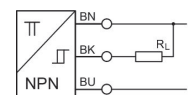
Dimensions



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

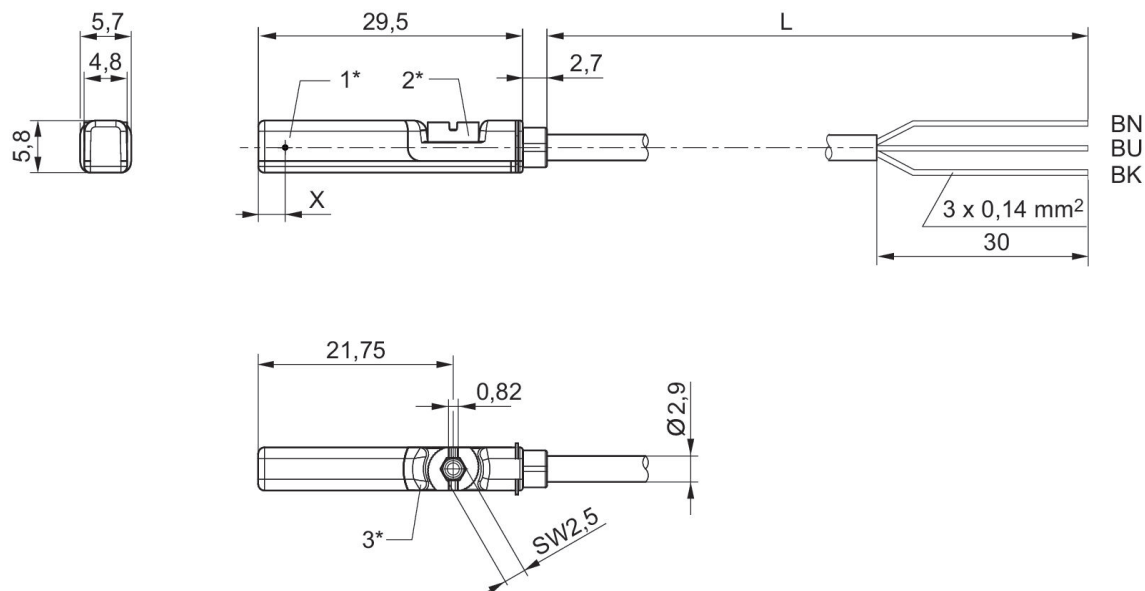
Sensors, Series ST6, open cable ends, 3-pin, NPN

To mount on series: TRB ITS CCL-IS MNI CSL-RD RPC ICS-D2 ICM KHZ TRR
 For series: PRA PRE CCI KPZ SSI GPC CVI
 Certificates: CE declaration of conformity cULus RoHS UL (Underwriters Laboratories)
 Ambient temperature min./max.: -30 °C ... 80 °C



Switch descr.	Cable sheath	Number of poles	Max. DC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Version	Cable length L [m]	Part No.
NPN	Polyurethane	3-pin	0.13	10	30	short circuit resistant, Protected against polarity reversal	3	R412022849
NPN	Polyurethane	3-pin	0.13	10	30	short circuit resistant, Protected against polarity reversal	5	R412022850

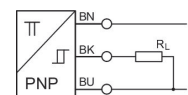
Dimensions



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

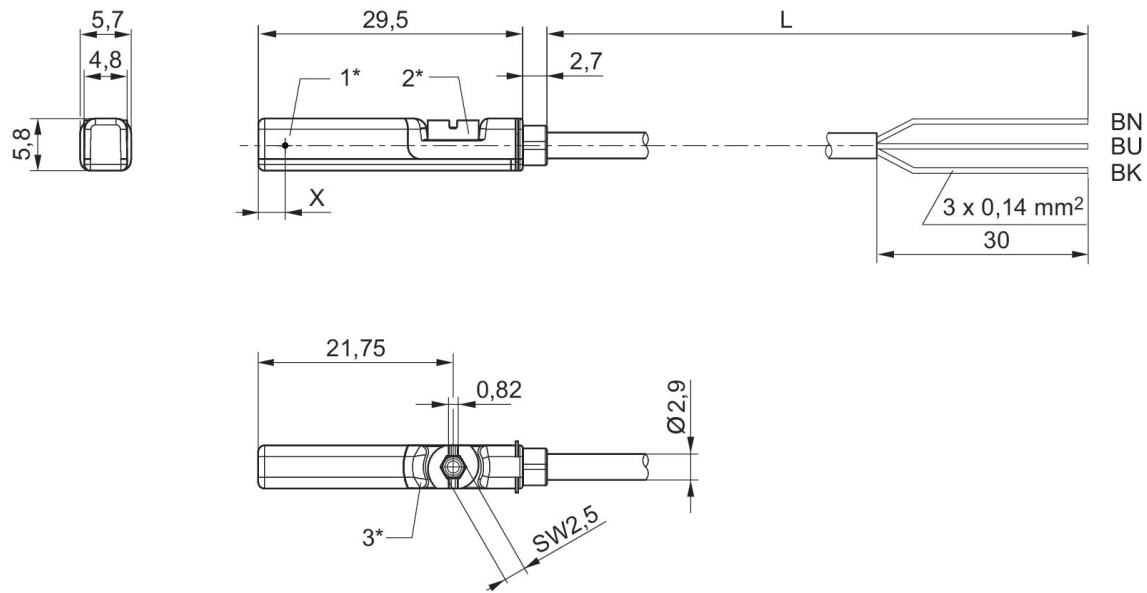
Sensors, Series ST6, open cable ends, 3-pin, PNP

To mount on series: TRB ITS CCL-IS MNI CSL-RD RPC ICS-D2 ICM KHZ TRR
 For series: PRA PRE CCI KPZ SSI GPC CVI
 Certificates: CE declaration of conformity cULus RoHS UL (Underwriters Laboratories)
 Ambient temperature min./max.: -30 °C ... 80 °C



Switch descr.	Cable sheath	Number of poles	Max. DC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Version	Cable length L [m]	Part No.
electronic PNP	Polyurethane	3-pin	0.13	10	30	short circuit resistant, Protected against polarity reversal	3	R412022853
electronic PNP	Polyurethane	3-pin	0.13	10	30	short circuit resistant, Protected against polarity reversal	5	R412022855
electronic PNP	Polyurethane	3-pin	0.13	10	30	short circuit resistant, Protected against polarity reversal	10	R412022857

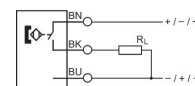
Dimensions



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

Sensors, Series ST6, open cable ends, 3-pin, Reed

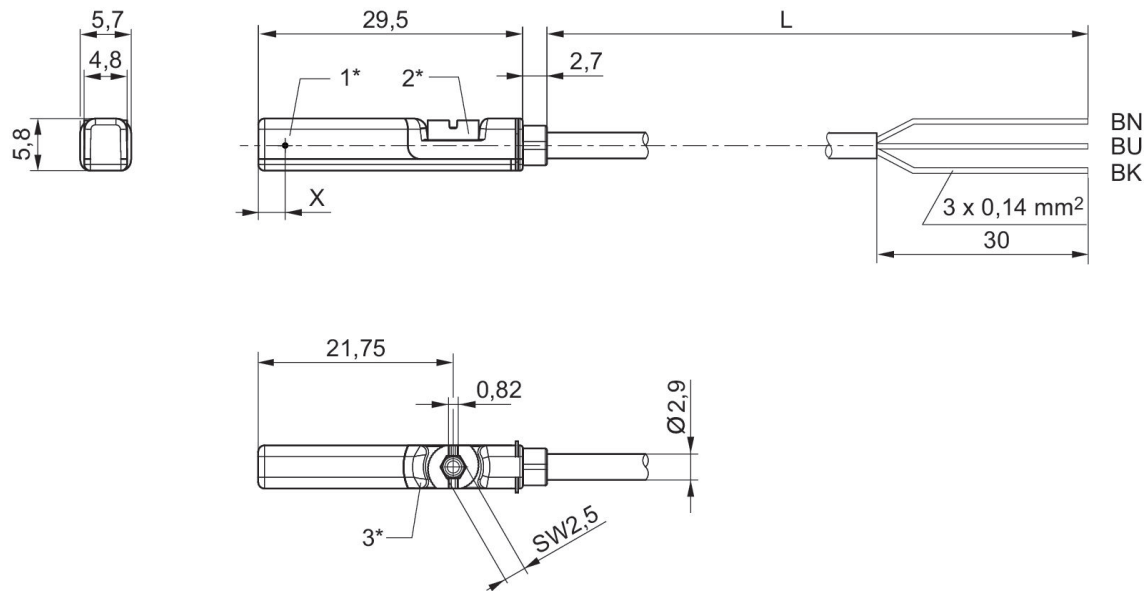
To mount on series: TRB ITS CCL-IS MNI CSL-RD RPC ICS-D2 ICM KHZ TRR
 For series: PRA PRE CCI KPZ SSI GPC CVI
 Certificates: CE declaration of conformity cULus RoHS UL (Underwriters Laboratories)
 Ambient temperature min./max.: -30 °C ... 80 °C



Switch descr.	Cable sheath	Number of poles	Max. DC switching current [A]	Max. AC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Min. operating voltage AC [V AC]	Part No.
Reed	Polyurethane	3-pin	0.3	0.5	10	30	10	R412022869
Reed	Polyurethane	3-pin	0.3	0.5	10	30	10	R412022870
Reed	Polyurethane	3-pin	0.3	0.5	10	30	10	R412022871

Max. operational voltage AC [V AC]	Version	Cable length L [m]	Part No.
30	Protected against polarity reversal	3	R412022869
30	Protected against polarity reversal	5	R412022870
30	Protected against polarity reversal	10	R412022871

Dimensions



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

Sensors, Series ST6, plug M8

To mount on series: TRB ITS CCL-IS MNI CSL-RD RPC ICS-D2 ICM KHZ TRR

For series: PRA PRE CCI KPZ SSI GPC CVI

Certificates: CE declaration of conformity cULus RoHS UL (Underwriters Laboratories)

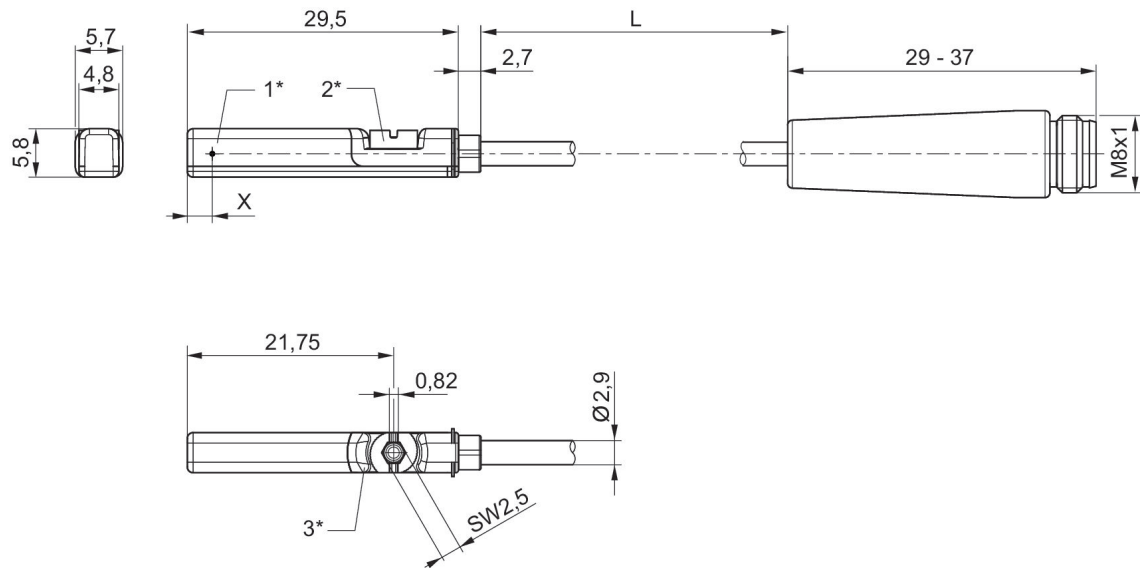
Ambient temperature min./max.: -30 °C ... 80 °C



	Switch descr.	Cable sheath	Electrical interface 2	Number of poles	Max. DC switching current [A]	Max. AC switching current [A]	Min. operating voltage DC [V DC]	Part No.
	Reed	Polyurethane	M8x1	3-pin	0.13	0.13	10	R412022868
	Reed	Polyurethane	M8x1	2-pin	0.13	0.13	10	R412027172
	Reed	Polyurethane	M8x1	3-pin	0.3	0.5	10	R412022872
	electronic PNP	Polyurethane	M8x1	3-pin	0.13		10	R412022858
	NPN	Polyurethane	M8x1	3-pin	0.13		10	R412022851

Max. operating voltage DC [V DC]	Min. operating voltage AC [V AC]	Max. operational voltage AC [V AC]	Version	Cable length L [m]	Part No.
30	10	30	Protected against polarity reversal	0.3	R412022868
30	10	30	Protected against polarity reversal	0.3	R412027172
30	10	30	Protected against polarity reversal	0.3	R412022872
30			short circuit resistant, Protected against polarity reversal	0.3	R412022858
30			short circuit resistant, Protected against polarity reversal	0.3	R412022851

Dimensions



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

Sensors, Series ST6, plug M8x1, with knurled screw

To mount on series: TRB ITS CCL-IS MNI CSL-RD RPC ICS-D2 ICM KHZ TRR

For series: PRA PRE CCI KPZ SSI GPC CVI

Certificates: CE declaration of conformity cULus RoHS UL (Underwriters Laboratories)

Ambient temperature min./max.: -30 °C ... 80 °C

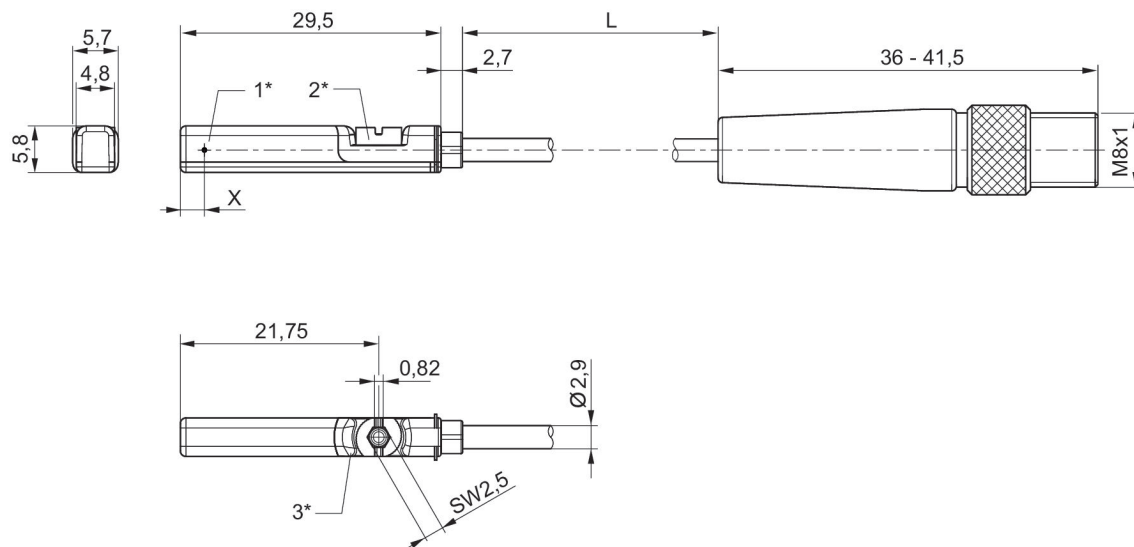


	Switch descr.	Cable sheath	Electrical interface 2	Number of poles	Max. DC switching current [A]	Max. AC switching current [A]	Min. operating voltage DC [V DC]	Part No.
	Reed	Polyurethane	M8x1	3-pin	0.3	0.5	10	R412022873
	Reed	Polyvinyl chloride	M8x1	3-pin	0.3	0.5	10	R412022875
	Reed	Polyurethane	M8x1	3-pin	0.3	0.5	10	R412022874
	electronic PNP	Polyurethane	M8x1	3-pin	0.13		10	R412022859
	electronic PNP	Polyvinyl chloride	M8x1	3-pin	0.13		10	R412022862
	electronic PNP	Polyurethane	M8x1	3-pin	0.13		10	R412022861
	NPN	Polyurethane	M8x1	3-pin	0.13		10	R412022852

Max. operating voltage DC [V DC]	Min. operating voltage AC [V AC]	Max. operational voltage AC [V AC]	Version	Cable length L [m]	Part No.
30	10	30	Protected against polarity reversal	0.3	R412022873
30	10	30	Protected against polarity reversal	0.3	R412022875
30	10	30	Protected against polarity reversal	0.5	R412022874
30			short circuit resistant, Protected against polarity reversal	0.3	R412022859

Max. operating voltage DC [V DC]	Min. operating voltage AC [V AC]	Max. operational voltage AC [V AC]	Version	Cable length L [m]	Part No.
30			short circuit resistant, Protected against polarity reversal	0.3	R412022862
30			short circuit resistant, Protected against polarity reversal	0.5	R412022861
30			short circuit resistant, Protected against polarity reversal	0.3	R412022852

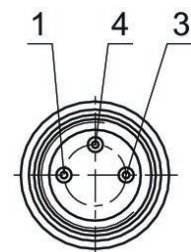
Dimensions



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

R412022873, R412022875, R412022874, R412022859, R412022862, R412022861, R412022852

Pin assignment M8x1 (3-pin)



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

Sensors, Series ST6, plug M12x1

To mount on series: TRB ITS CCL-IS MNI CSL-RD RPC ICS-D2 ICM KHZ TRR

For series: PRA PRE CCI KPZ SSI GPC CVI

Certificates: CE declaration of conformity cULus RoHS UL (Underwriters Laboratories)

Ambient temperature min./max.: -30 °C ... 80 °C

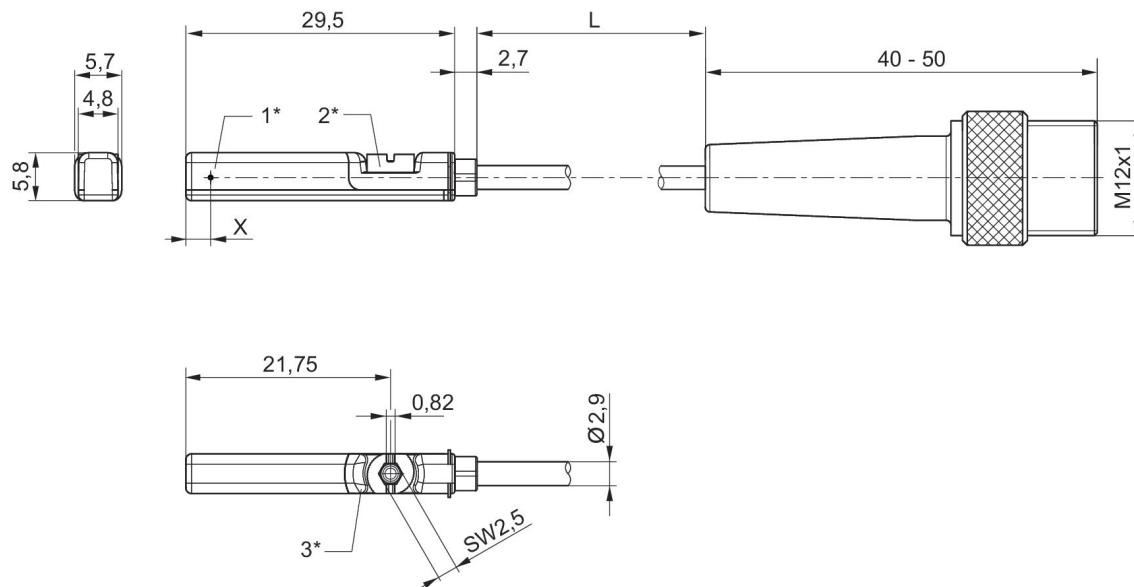


	Switch descr.	Cable sheath	Electrical interface 2	Number of poles	Max. DC switching current [A]	Max. AC switching current [A]	Min. operating voltage DC [V DC]	Part No.
	Reed	Polyurethane	M12x1	2-pin	0.13	0.13	10	R412027171
	Reed	Polyurethane	M12x1	3-pin	0.3	0.5	10	R412022876
	electronic PNP	Polyurethane	M12x1	3-pin	0.13		10	R412022879
	electronic PNP	Polyurethane	M12x1	3-pin	0.13		10	R412022863
	electronic PNP	Polyurethane	M12x1	3-pin	0.13		10	R412022877
	electronic PNP	Polyurethane	M12x1	3-pin	0.13		10	R412022878

Max. operating voltage DC [V DC]	Min. operating voltage AC [V AC]	Max. operational voltage AC [V AC]	Version	Cable length L [m]	Part No.
30	10	30	Protected against polarity reversal	0.3	R412027171
30	10	30	Protected against polarity reversal	0.3	R412022876
30			short circuit resistant, Protected against polarity reversal	0.1	R412022879
30			short circuit resistant, Protected against polarity reversal	0.3	R412022863
30			short circuit resistant, Protected against	3	R412022877

Max. operating voltage DC [V DC]	Min. operating voltage AC [V AC]	Max. operational voltage AC [V AC]	Version	Cable length L [m]	Part No.
			polarity reversal		
30			short circuit resistant, Protected against polarity reversal	5	R412022878

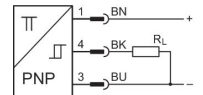
Dimensions



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

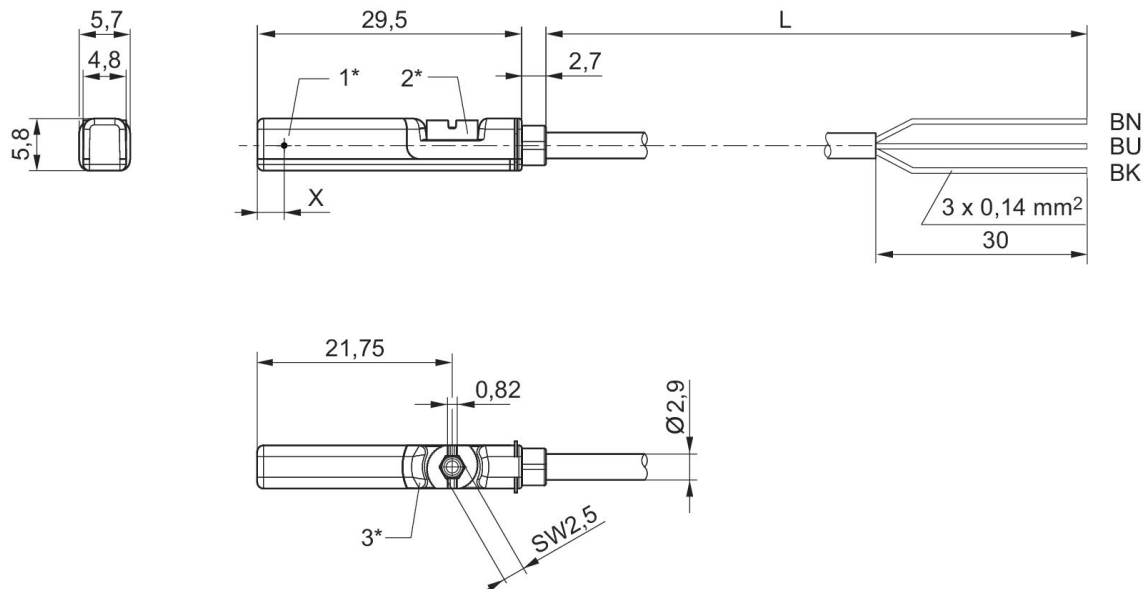
Sensors, Series ST6, open cable ends, 3-pin, PNP, ATEX

To mount on series: TRB ITS CCL-IS MNI CSL-RD RPC ICS-D2 ICM KHZ TRR
 For series: PRA PRE CCI KPZ SSI GPC CVI
 Certificates: ATEX CE declaration of conformity cULus RoHS UL (Underwriters Laboratories)
 Ambient temperature min./max.: -20 °C ... 50 °C



Switch descr.	Cable sheath	Number of poles	Max. DC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Version	Cable length L [m]	Part No.
PNP	Polyurethane	3-pin	0.1	10	30	short circuit resistant, Protected against polarity reversal	3	R412022854
PNP	Polyurethane	3-pin	0.1	10	30	short circuit resistant, Protected against polarity reversal	5	R412022856

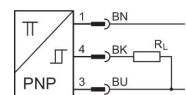
Dimensions



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

Sensors, Series ST6, plug M8x1, ATEX

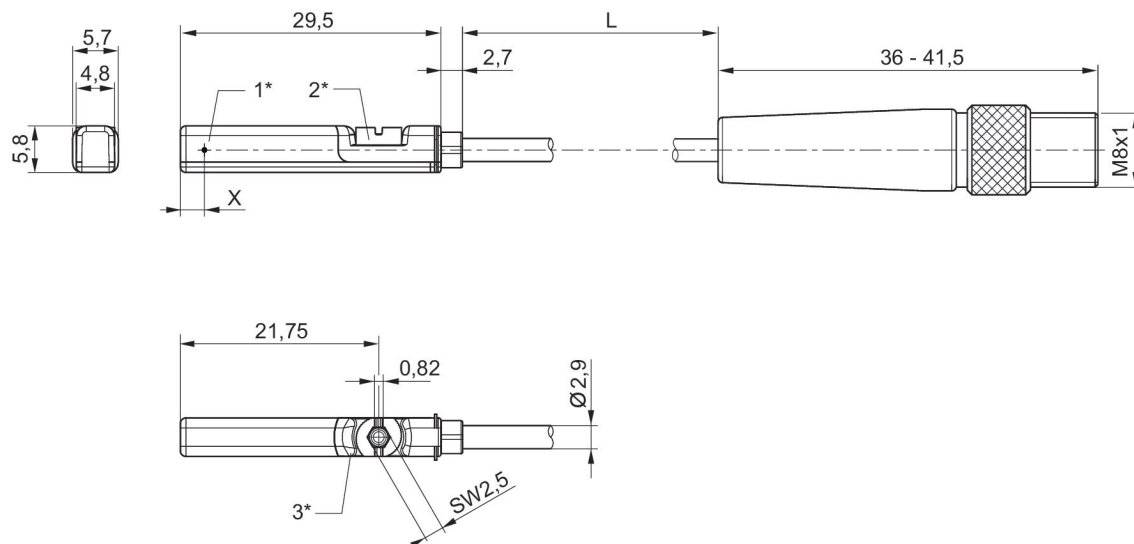
To mount on series: TRB ITS CCL-IS MNI CSL-RD RPC ICS-D2 ICM KHZ TRR
 For series: PRA PRE CCI KPZ SSI GPC CVI
 Certificates: ATEX CE declaration of conformity cULus RoHS UL (Underwriters Laboratories)
 Ambient temperature min./max.: -20 °C ... 50 °C



Switch descr.	Cable sheath	Electrical interface 2	Number of poles	Max. DC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Version	Part No.
PNP	Polyurethane	M8x1	3-pin	0.1	10	30	short circuit resistant, Protected against polarity reversal	R412022860

Cable length L [m]	Part No.
0.3	R412022860

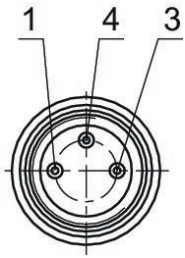
Dimensions



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

R412022860

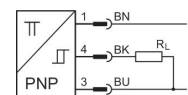
Pin assignment M8x1 (3-pin)



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

Sensors, Series ST6, plug M12x1, with knurled screw, ATEX

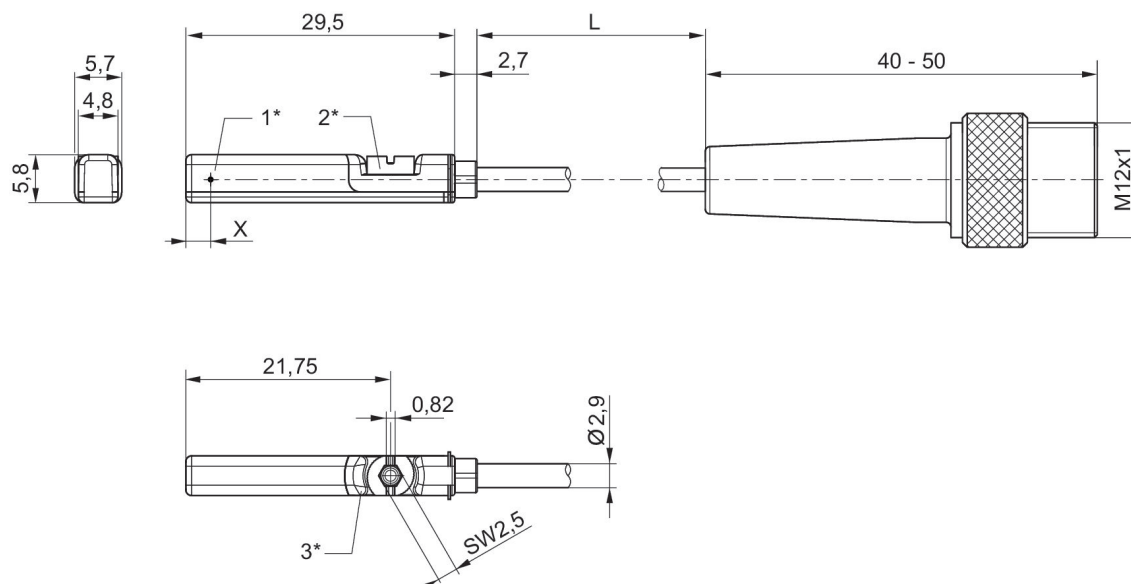
To mount on series: TRB ITS CCL-IS MNI CSL-RD RPC ICS-D2 ICM KHZ TRR
 For series: PRA PRE CCI KPZ SSI GPC CVI
 Certificates: ATEX CE declaration of conformity cULus RoHS UL (Underwriters Laboratories)
 Ambient temperature min./max.: -20 °C ... 50 °C



Switch descr.	Cable sheath	Electrical interface 2	Number of poles	Max. DC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Version	Part No.
PNP	Polyurethane	M12x1	3-pin	0.1	10	30	short circuit resistant, Protected against polarity reversal	R412022864

Cable length L [m]	Part No.
0.3	R412022864

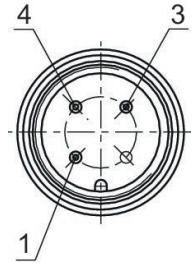
Dimensions



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

R412022864

Pin assignments



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

Sensor mounting, Series CB1

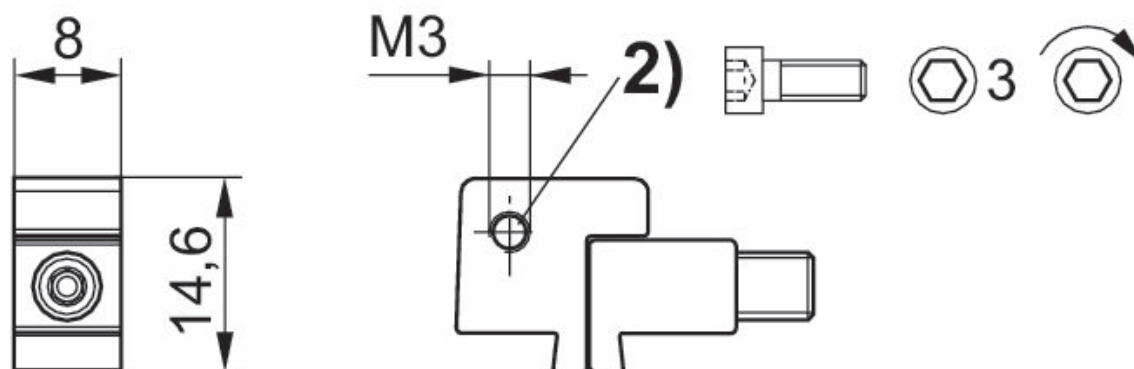
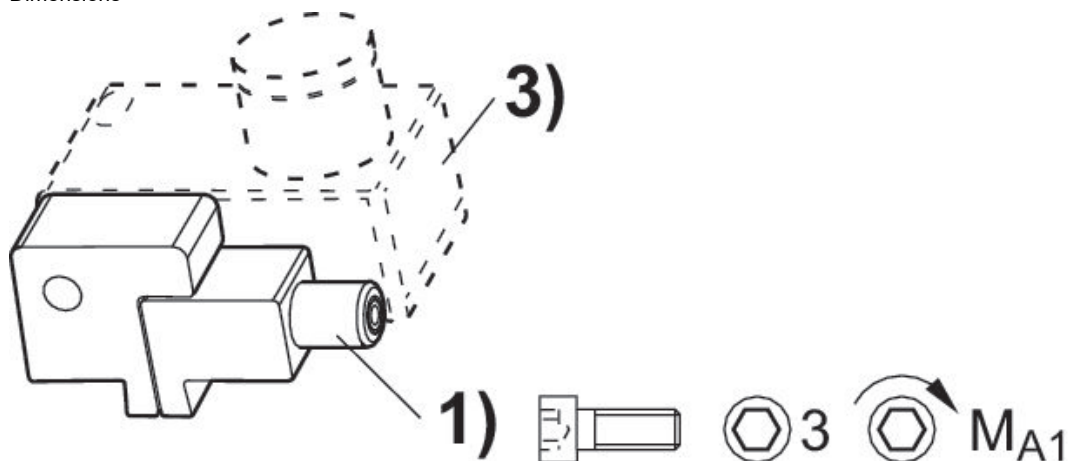
To mount on series: SN3

To mount on series: PRA KPZ GPC CCI KHZ



Material	Part No.
Aluminum	1827020386

Dimensions



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

Part No.	Clamping screw	MA1 [Nm]
1827020386	M3x25	1,8 +0,4

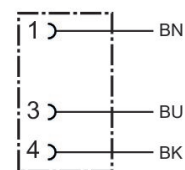
Round plug connector, Series CON-RD

Electrical connection 1: Socket ... M8x1 ... 3-pin ... straight

Electrical connection 2: open cable ends ... 3-pin

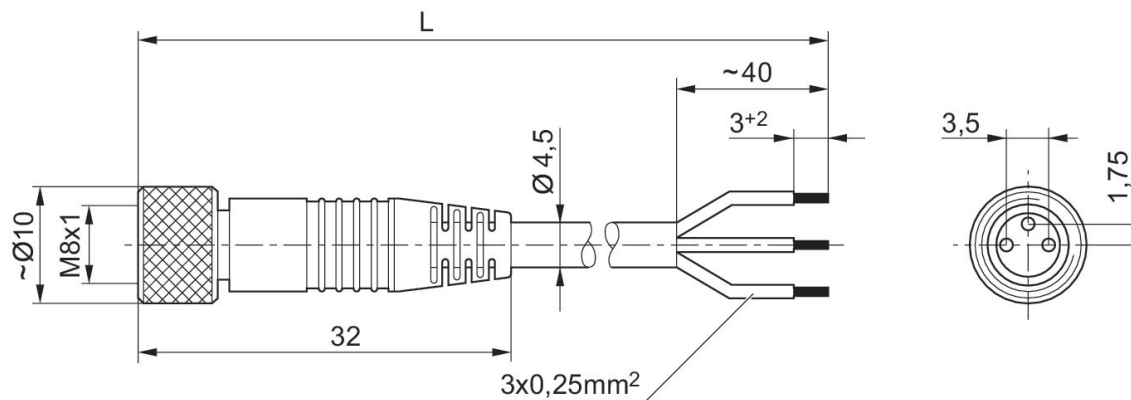
Certification: UL (Underwriters Laboratories)

Ambient temperature min./max.: -25 °C ... 85 °C



Operational voltage	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, number of poles	Electrical connection 1, coding	Electrical connection 2, type	Electrical connection 2, number of poles	Cable length [m]	Part No.
48 V AC/DC	Socket	M8x1	3-pin	A-coded	open cable ends	3-pin	3	1834484166
48 V AC/DC	Socket	M8x1	3-pin	A-coded	open cable ends	3-pin	5	1834484168
48 V AC/DC	Socket	M8x1	3-pin	A-coded	open cable ends	3-pin	10	1834484247

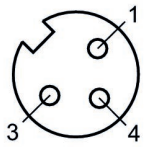
Dimensions



L = length

1834484166, 1834484168, 1834484247

Pin assignment, socket



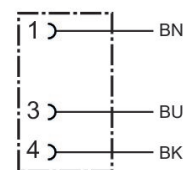
(1) BN=brown (3) BU=blue (4) BK=black

Round plug connector, Series CON-RD

Electrical connection 1: Socket ... M8x1 ... 3-pin ... angled

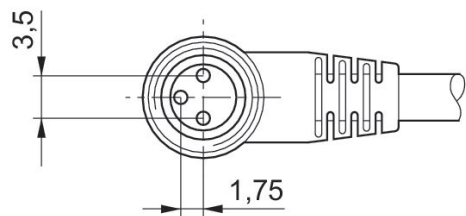
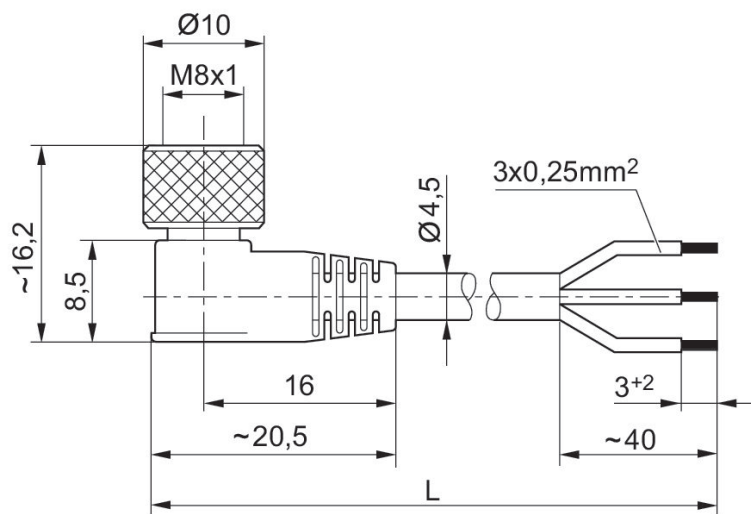
Electrical connection 2: open cable ends ... 3-pin

Ambient temperature min./max.: -40 °C ... 85 °C



Operational voltage	Electrical connection 1, type	Electrical connection 1, thread size	Electrical connection 1, number of poles	Electrical connection 1, coding	Electrical connection 2, type	Electrical connection 2, number of poles	Cable length [m]	Part No.
48 V AC/DC	Socket	M8x1	3-pin	A-coded	open cable ends	3-pin	3	1834484167
48 V AC/DC	Socket	M8x1	3-pin	A-coded	open cable ends	3-pin	5	1834484169
48 V AC/DC	Socket	M8x1	3-pin	A-coded	open cable ends	3-pin	10	1834484248

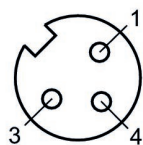
Dimensions



L = length

1834484167, 1834484169, 1834484248

Pin assignment, socket



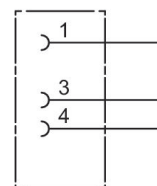
(1) BN=brown (3) BU=blue (4) BK=black

Round plug connector, Series CON-RD

Electrical connection 1: Socket ... M8x1 ... 3-pin ... straight

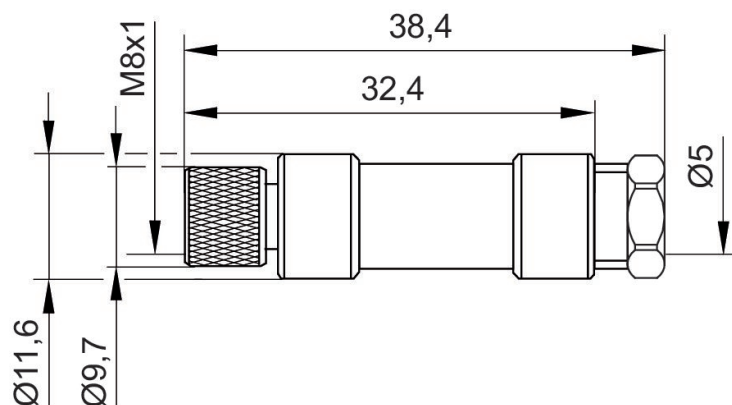
Connection type: Soldering

Ambient temperature min./max.: -25 °C ... 80 °C



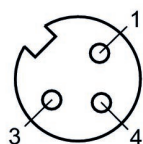
Operational voltage	Coding	Shielding	Connection type	Max. current [A]	min. suitable cable Ø [mm]	max. suitable cable Ø [mm]	Part No.
48 V AC/DC	A-coded	unshielded	Soldering	4	3.5	5	1834484173

Dimensions



1834484173

Pin assignment, socket

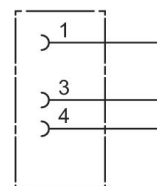


Round plug connector, Series CON-RD

Electrical connection 1: Socket ... M8x1 ... 3-pin ... angled

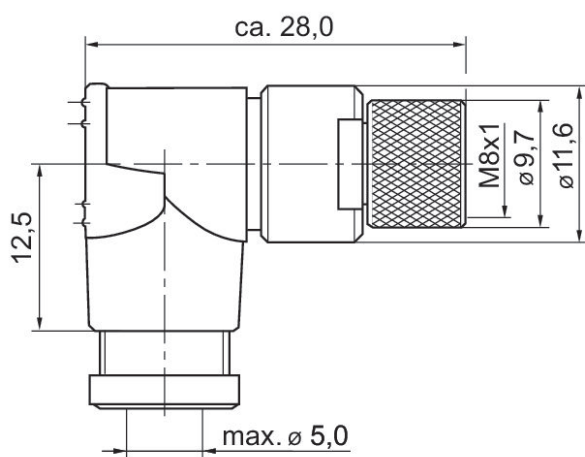
Connection type: Soldering

Ambient temperature min./max.: -25 °C ... 80 °C



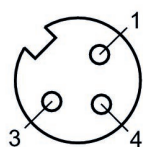
Operational voltage	Coding	Shielding	Connection type	Max. current [A]	min. suitable cable Ø [mm]	max. suitable cable Ø [mm]	Part No.
48 V AC/DC	A-coded	unshielded	Soldering	4	3.5	5	1834484174

Dimensions in mm



1834484174

Pin assignment, socket



Silencers, series SI1, Sintered bronze

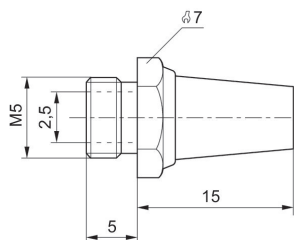
Compressed air connection type: External thread
 Silencer material: Sintered bronze
 Min. ambient temperature: -25 °C
 Max. ambient temperature: 80 °C
 Min. working pressure: 0 bar
 Max. working pressure: 10 bar



G	Sound pressure level [dB]	Nominal flow [l/min]	Delivery unit [piece]	Weight [kg]	Part No.
M5	72	398	10	0.004	1827000006
M7			10	0.005	8140000700
M10x1	75	1747	1	0.011	5324001110
M12x1,5	80	3049	1	0.019	5324001170
M14x1,5	80	3390	1	0.018	5324001120
M22x1,5	85	7223	1	0.071	5324001140
G 1/8	75	1623	10	0.01	1827000000
G 1/4	98	5950	10	0.013	R412004817
G 1/4	79	3390	10	0.02	1827000001
G 3/8	84	6554	5	0.05	1827000002
G 1/2	90	7223	2	0.08	1827000003
G 3/4	92	8394	1	0.13	1827000004
G 1	102	12848	1	0.18	1827000005

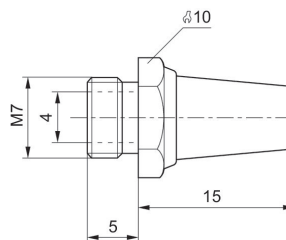
1827000006

Dimensions in mm



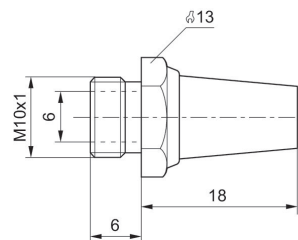
8140000700

Dimensions in mm



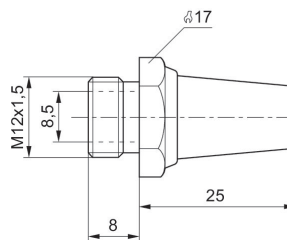
5324001110

Dimensions in mm



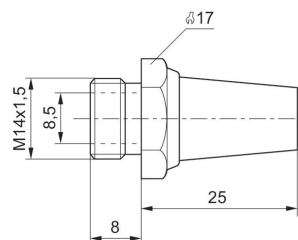
5324001170

Dimensions in mm



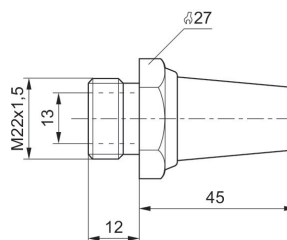
5324001120

Dimensions in mm



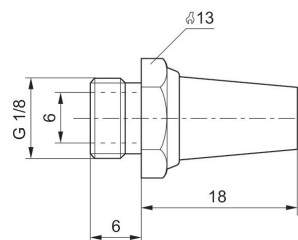
5324001140

Dimensions in mm



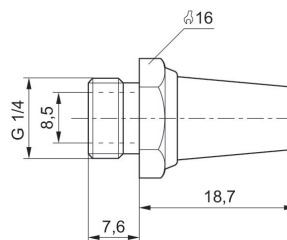
1827000000

Dimensions in mm



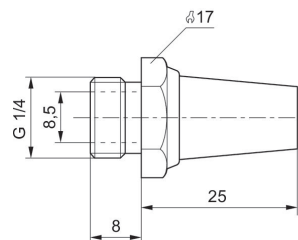
R412004817

Dimensions in mm



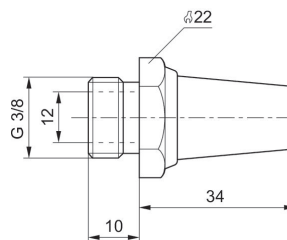
1827000001

Dimensions in mm



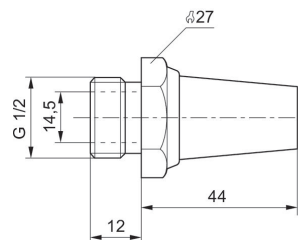
1827000002

Dimensions in mm



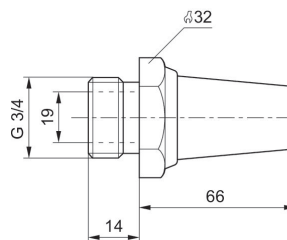
1827000003

Dimensions in mm



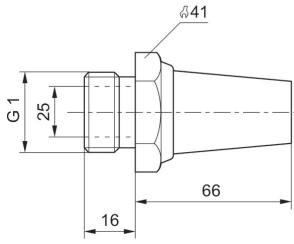
1827000004

Dimensions in mm



1827000005

Dimensions in mm



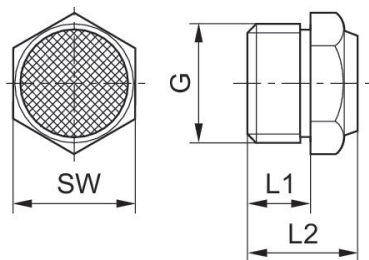
Silencers, series SI1, Sintered bronze

Compressed air connection type: External thread
 Silencer material: Sintered bronze
 Min. ambient temperature: -25 °C
 Max. ambient temperature: 80 °C
 Min. working pressure: 0 bar
 Max. working pressure: 10 bar



G	Sound pressure level [dB]	Nominal flow [l/min]	Delivery unit [piece]	Weight [kg]	Part No.
M5	79	252	10	0.005	1827000032
G 1/8	85	700	10	0.001	1827000031
G 1/4	88	1116	10	0.01	1827000033
G 3/8	90	1706	5	0.016	1827000034
G 1/2	85	2568	2	0.035	1827000035
G 3/4	82	3260	1	0.095	8145003400
G 1	82	9485	1	0.057	8145001000

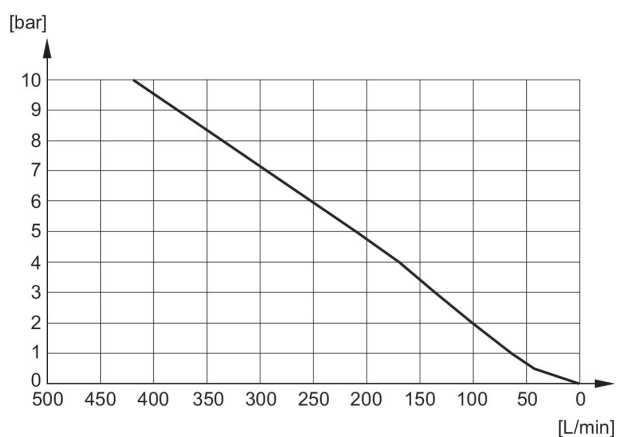
Dimensions



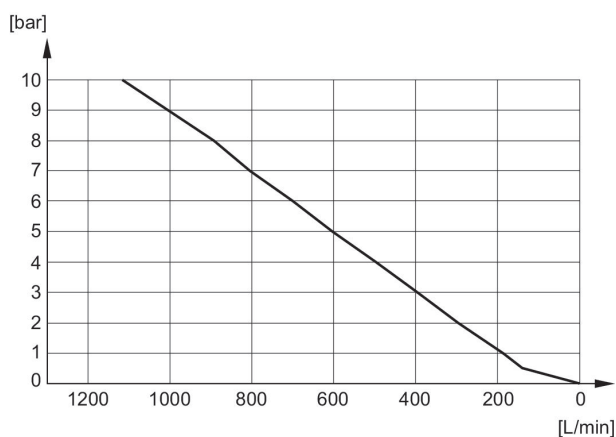
Part No.	Port G	L1	L2	SW
1827000032	M5	5	10.3	7
1827000031	G 1/8	6	11.5	13
1827000033	G 1/4	8	13.5	17
1827000034	G 3/8	10	17.5	22
1827000035	G 1/2	12	19.5	27
8145003400	G 3/4	14	22.5	32
8145001000	G 1	16	22.5	41

Sound pressure level measured at 6 bar at 1 m distance

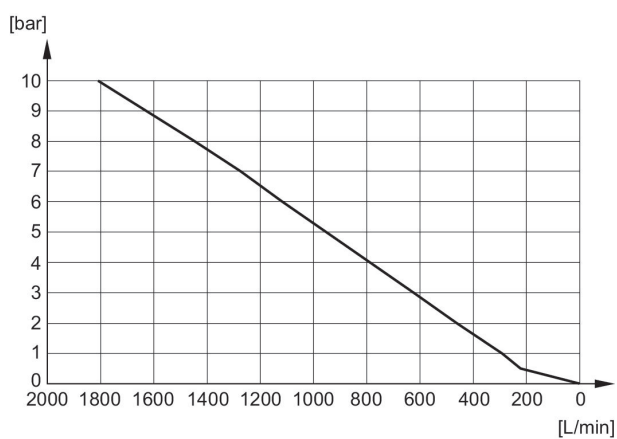
Flow diagram 1827000032



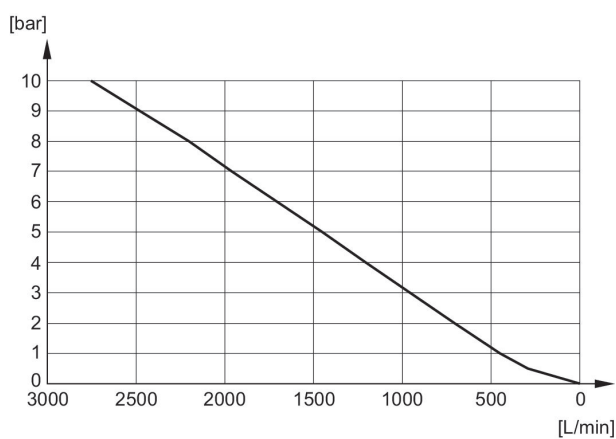
Flow diagram 1827000031



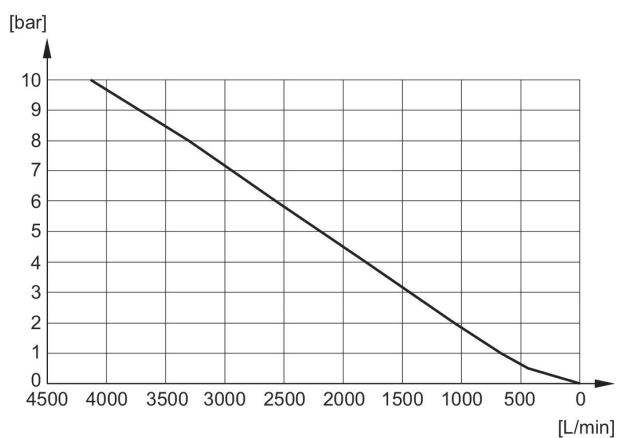
Flow diagram 1827000033



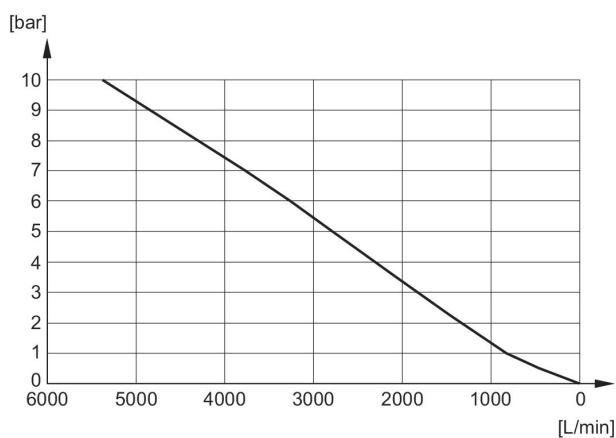
Flow diagram 1827000034



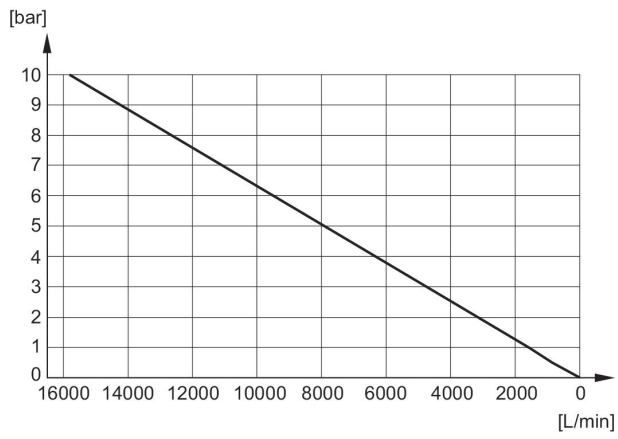
Flow diagram 1827000035



Flow diagram 8145003400







Flow diagram 8145001000



Efficient pneumatic solutions, our program:
cylinders and drives, valves and valve systems,
air supply management, proportional pressure
control valves



Visit us: www.Emerson.com/aventics
Your local contact: Emerson.com/contactus

-  Emerson.com
-  Facebook.com/EmersonAutomationSolutions
-  LinkedIn.com/company/Emerson-Automation-Solutions
-  Twitter.com/EMR_Automation



The Emerson logo is a trademark and service mark of Emerson Electric Co. AVENTICS is a registered trademark of one of the Emerson family of companies. All other trademarks are the property of their respective owners. © 2020 Emerson Electric Co. All rights reserved.



CONSIDER IT SOLVED™