series CCI

AVENTICS™

AVENTICS Series CCI Compact cylinders (ISO 21287)

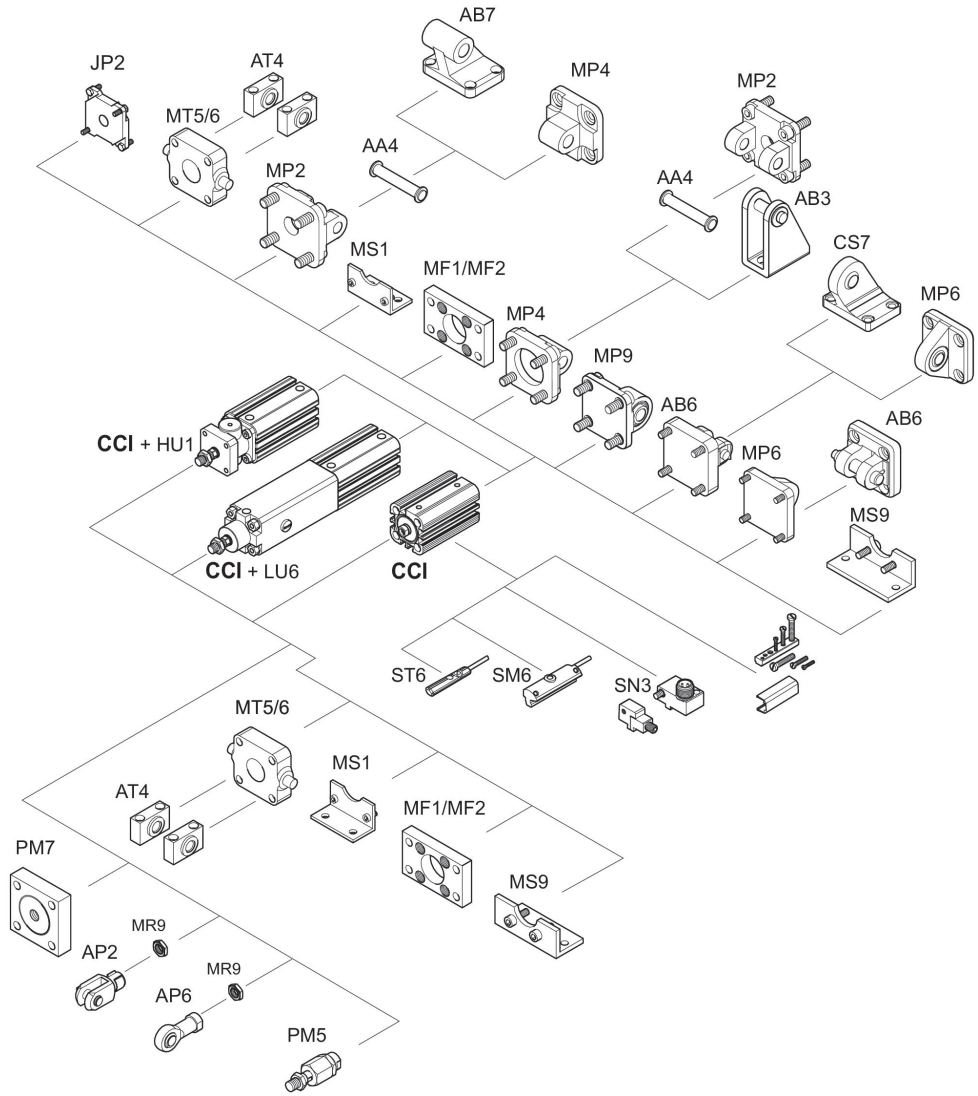
EMERSON™

series CCI

The AVENTICS Series CCI (ISO 21287) cylinders stand for innovative, compact construction and an easy to clean design. The Series CCI (ISO 21287) is ideal for long strokes and increased requirements for optimized cycle times and moving masses. The sensors can be installed quickly and easily on all sides and over the entire cylinder lengths.

- Cylinder housing consists of a continuous aluminium profile, with pressed in front and rear cover.
- Easy to clean design preventing the accumulation of dirt
- Low length tolerance - up to 60% shorter than standard ISO profile cylinders, which makes the Series CCI (ISO 21287) ideally suited for compact machine designs
- Simple sensor assembly along the complete cylinder lengths
- Additional configurations possible - features such as special strokes, hollow piston rods, heat-resistant versions, or piston rod extensions can be selected – including documentation and CADs
- Available in piston diameters from 16 mm to 100 mm

Overview drawing



Product overview

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Compact cylinder ISO 21287, Series CCI

Standards: ISO 21287
Functional principle: Single-acting, retracted without pressure
Piston: Piston with magnet
Cushioning: elastic cushioning
Piston rod: Internal thread
Piston rod: single
Compressed air connection: Internal thread
Ambient temperature min./max.: -20 °C ... 80 °C
Medium temperature min./max.: -20 °C ... 80 °C
Working pressure min./max.: 1.5 bar ... 10 bar

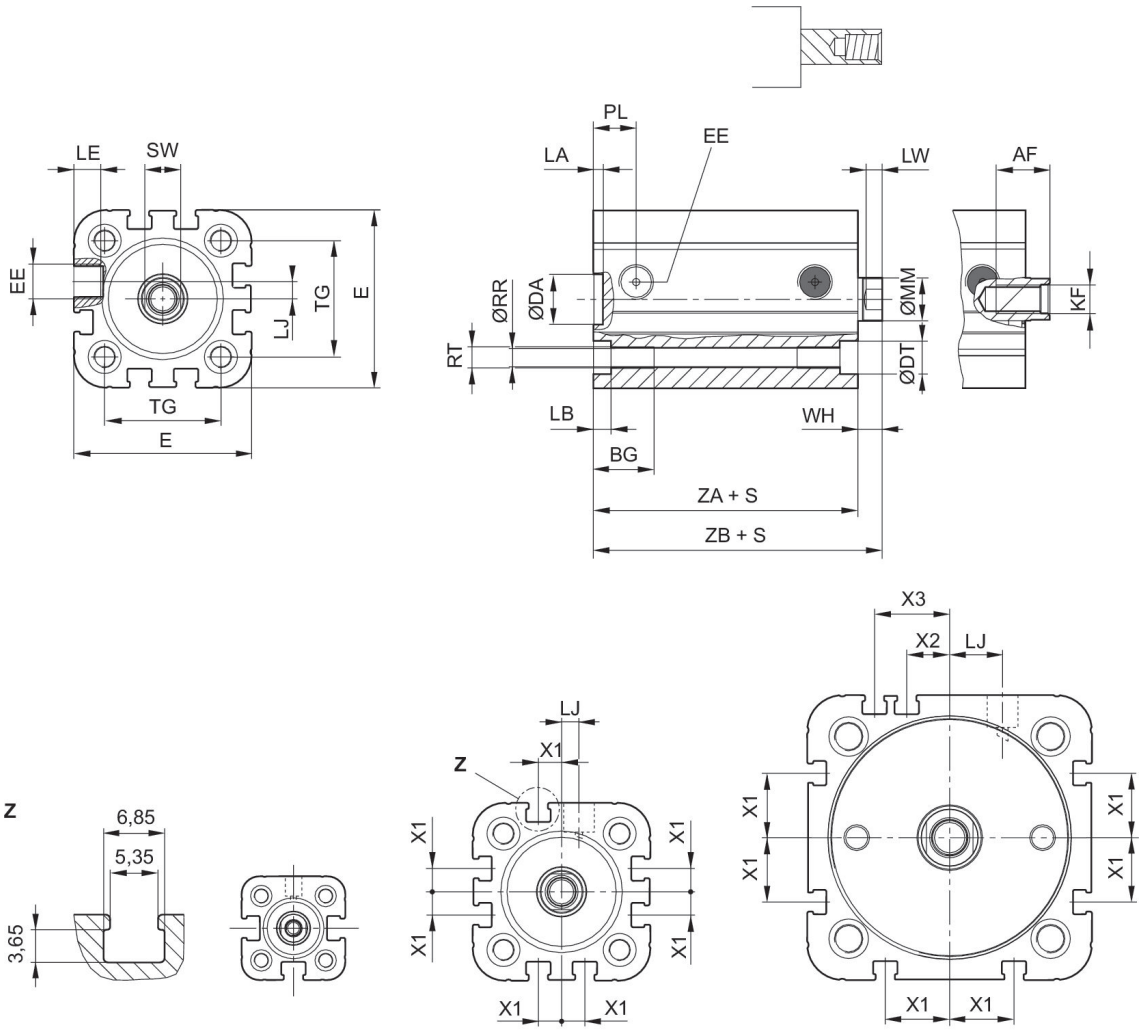
Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M4	M6	M6	M8	M8	M10
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	R422001392	R422001393	R422001394	R422001395	R422001396	R422001397
10	R422001402	R422001403	R422001404	R422001405	R422001406	R422001407
15	R422001412	R422001413	R422001414	R422001415	R422001416	R422001417
20	R422001422	R422001423	R422001424	R422001425	R422001426	R422001427
25	R422001432	R422001433	R422001434	R422001435	R422001436	R422001437

Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M10	M12	M12
Ports	G 1/8	G 1/8	G 1/8
Stroke 5	R422001398	R422001399	R422001400
10	R422001408	R422001409	R422001410
15	R422001418	R422001419	R422001420
20	R422001428	R422001429	R422001430
25	R422001438	R422001439	R422001440

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
Impact energy	0.11 J	0.15 J	0.2 J	0.4 J	0.52 J	0.64 J
Weight 10 mm stroke	0.016 kg	0.023 kg	0.026 kg	0.043 kg	0.052 kg	0.07 kg
Weight 0 mm stroke	0.061 kg	0.101 kg	0.126 kg	0.237 kg	0.309 kg	0.462 kg

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 10 mm stroke	0.087 kg	0.116 kg	0.168 kg
Weight 0 mm stroke	0.703 kg	1.14 kg	2.2 kg

Dimensions



Ø 16 Ø 20 - 40 Ø 50 - 100

S = stroke

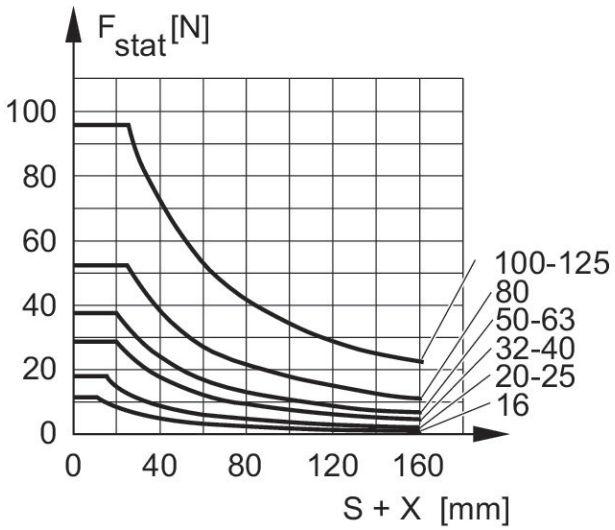
Piston Ø	AF	BG	DA H11	DT	E	EE	KF	KV	LA
16	10	15	10	6	29.3	M5	M4	10	2.5
20	12	15.5	12	7.5	36.3	M5	M6	13	2.5
25	12	15.5	12	8	40.3	M5	M6	13	2.5
32	12	17	14	8.6	50	G 1/8	M8	17	2.5
40	12	17	14	9.2	58	G 1/8	M8	17	2.5
50	16	17	18	11	68.3	G 1/8	M10	19	2.5
63	16	17	18	11	80	G 1/8	M10	19	2.5
80	20	20	23	15	96	G 1/8	M12	24	3
100	20	20	28	15	116	G 1/8	M12	24	3

Piston Ø	LB	LE	LJ	MM f8	PL	RR	RT 6H	SW	TG
16	3.5	4.5	0	8	8	3.3	M4	7	18
20	4.5	4.5	4.5	10	10	4.2	M5	8	22
25	4.5	4.5	4	10	10	4.2	M5	8	26
32	5	7.5	4.85	12	12	5.1	M6	10	32.5
40	5	7.5	9.85	12	12	5.1	M6	10	38
50	5	7.5	12	16	12	6.7	M8	13	46.5
63	5	7.5	14.8	16	12	6.7	M8	13	56.5
80	5	7.5	22	20	14	8.5	M10	16	72
100	5	7.5	27	25	16.5	8.5	M10	21	89

Piston Ø	WH	X1	X2	X3	ZA	ZB
16	4,8 ±0,9	–	–	–	34,9	39,7 ±0,8
20	5,6 ±0,9	4.2	–	–	37,3	43,6 ±0,8
25	5,6 ±0,9	4.5	–	–	39	44,5 ±0,9
32	7,4 ±0,9	6.5	–	–	44	51,4 ±1
40	7,4 ±0,9	11	–	–	45	52,4 ±1
50	8,4 ±0,9	13	4	13	45,5	53,6 ±1
63	8,5 ±0,9	18	12	21	49	57,4 ±1
80	9,8 ±1	18	16.5	25.5	54,7	64,4 ±1
100	9,8 ±1	20	20	29	67	76,7 ±1

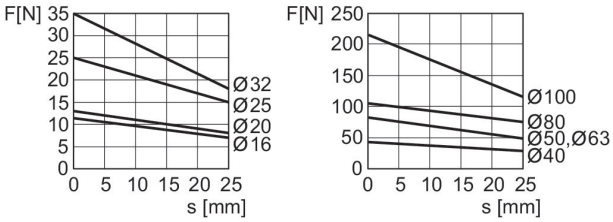
Maximum admissible lateral force

static



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

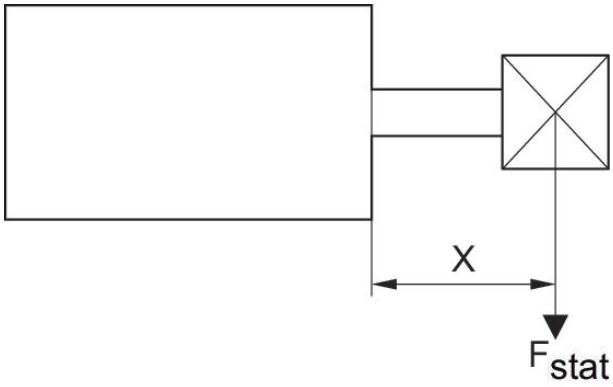
Extracting piston force



F = spring return force, s = return stroke

Maximum admissible lateral force

static



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Maximum admissible lateral force

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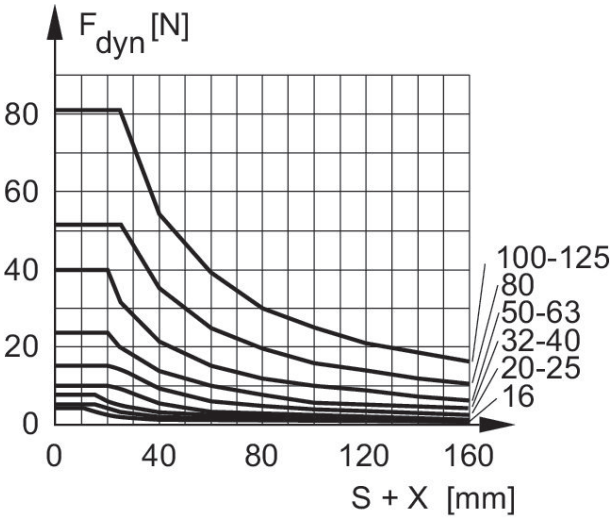

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Maximum admissible lateral force

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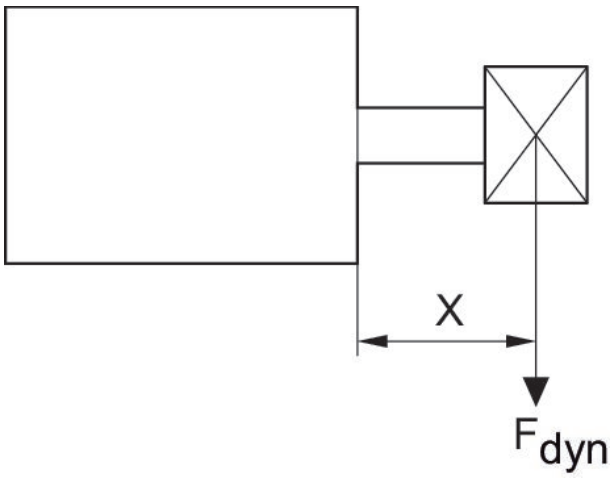

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Compact cylinder ISO 21287, Series CCI

Standards: ISO 21287
Functional principle: Single-acting, retracted without pressure
Piston: Piston with magnet
Cushioning: elastic cushioning
Piston rod: External thread
Piston rod: single
Compressed air connection: External thread
Ambient temperature min./max.: -20 °C ... 80 °C
Medium temperature min./max.: -20 °C ... 80 °C
Working pressure min./max.: 1.5 bar ... 10 bar

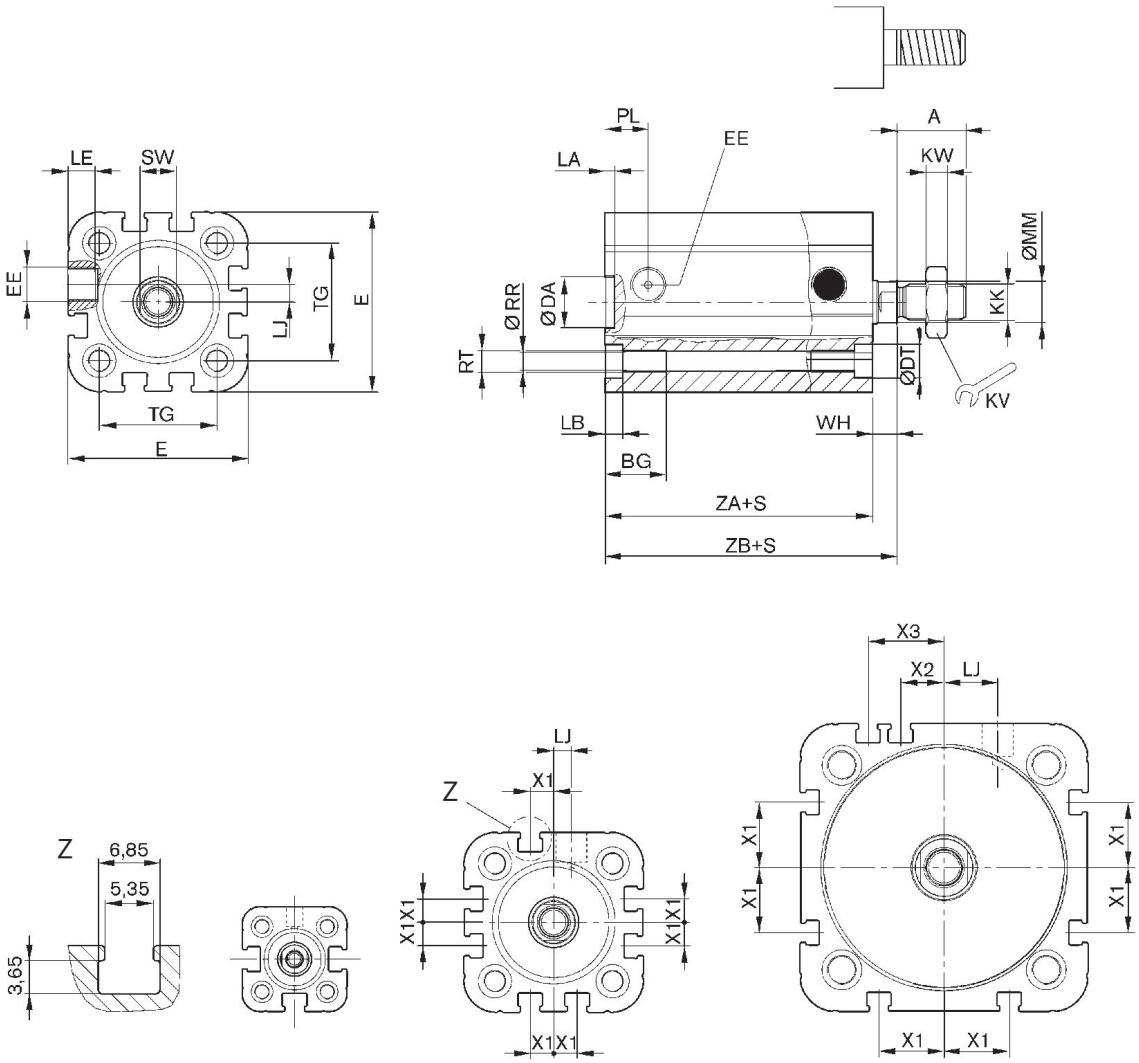
Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M6x1	M8x1,25	M8x1,25	M10x1,25	M10x1,25	M12x1,25
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	R422001442	R422001443	R422001444	R422001445	R422001446	R422001447
10	R422001452	R422001453	R422001454	R422001455	R422001456	R422001457
15	R422001462	R422001463	R422001464	R422001465	R422001466	R422001467
20	R422001472	R422001473	R422001474	R422001475	R422001476	R422001477
25	R422001482	R422001483	R422001484	R422001485	R422001486	R422001487

Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M12x1,25	M16x1,5	M16x1,5
Ports	G 1/8	G 1/8	G 1/8
Stroke 5	R422001448	R422001449	R422001450
10	R422001458	R422001459	R422001460
15	R422001468	R422001469	R422001470
20	R422001478	R422001479	R422001480
25	R422001488	R422001489	R422001490

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
Impact energy	0.11 J	0.15 J	0.2 J	0.4 J	0.52 J	0.64 J
Weight 10 mm stroke	0.016 kg	0.023 kg	0.026 kg	0.043 kg	0.052 kg	0.07 kg
Weight 0 mm stroke	0.066 kg	0.127 kg	0.152 kg	0.26 kg	0.332 kg	0.501 kg

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 10 mm stroke	0.087 kg	0.116 kg	0.168 kg
Weight 0 mm stroke	0.742 kg	1.22 kg	2.28 kg

Dimensions



Ø 16 **Ø 20 – 40** **Ø 50 – 100**

S = stroke

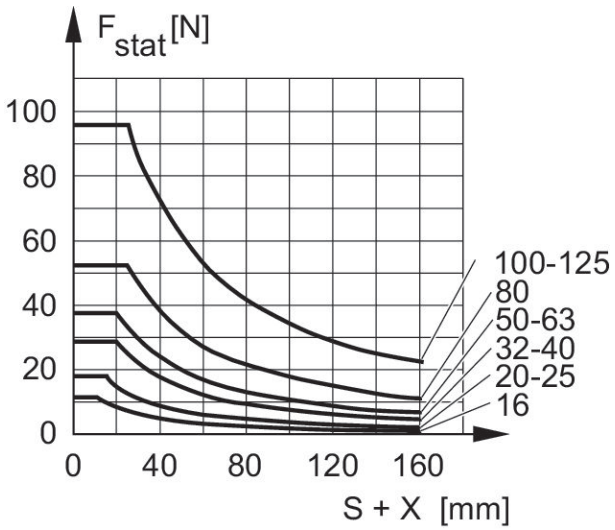
Piston Ø	A	BG	DA H11	DT	E	EE	KK	KV	KW
16	12	15	10	6	29.3	M5	M6	10	3
20	16	15.5	12	7.5	36.3	M5	M8	13	4
25	16	15.5	12	8	40.3	M5	M8	13	4
32	19	17	14	8.6	50	G 1/8	M10x1,25	17	5
40	19	17	14	9.2	58	G 1/8	M10x1,25	17	5
50	22	17	18	11	68.3	G 1/8	M12x1,25	19	6
63	22	17	18	11	80	G 1/8	M12x1,25	19	6
80	28	20	23	15	96	G 1/8	M16x1,5	24	8
100	28	20	28	15	116	G 1/8	M16x1,5	24	8

Piston Ø	LA	LB	LE	LJ	MM f8	PL	RR	RT 6H	SW
16	2.5	3.5	4.5	0	8	8	3.3	M4	7
20	2.5	4.5	4.5	4.5	10	10	4.2	M5	8
25	2.5	4.5	4.5	4	10	10	4.2	M5	8
32	2.5	5	7.5	4.85	12	12	5.1	M6	10
40	2.5	5	7.5	9.85	12	12	5.1	M6	10
50	2.5	5	7.5	12	16	12	6.7	M8	13
63	2.5	5	7.5	14.8	16	12	6.7	M8	13
80	3	5	7.5	22	20	14	8.5	M10	16
100	3	5	7.5	27	25	16.5	8.5	M10	21

Piston Ø	TG	WH	X1	X2	X3	ZA	ZB
16	18	4,8 ±0,9	–	–	–	34,9	39,7 ±0,8
20	22	5,6 ±0,9	4.2	–	–	37,3	43,6 ±0,8
25	26	5,6 ±0,9	4.5	–	–	39	44,5 ±0,9
32	32.5	7,4 ±0,9	6.5	–	–	44	51,4 ±1
40	38	7,4 ±0,9	11	–	–	45	52,4 ±1
50	46.5	8,4 ±0,9	13	4	13	45,5	53,6 ±1
63	56.5	8,5 ±0,9	18	12	21	49	57,4 ±1
80	72	9,8 ±1	18	16.5	25.5	54,7	64,4 ±1
100	89	9,8 ±1	20	20	29	67	76,7 ±1

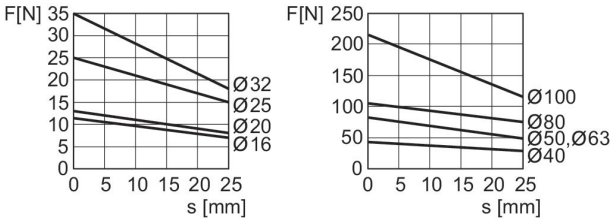
Maximum admissible lateral force

static



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

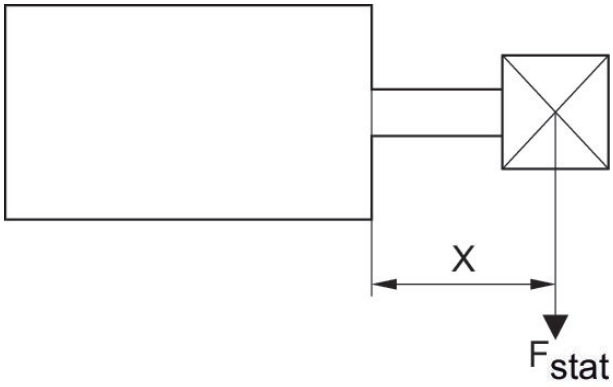
Extracting piston force



F = spring return force, s = return stroke

Maximum admissible lateral force

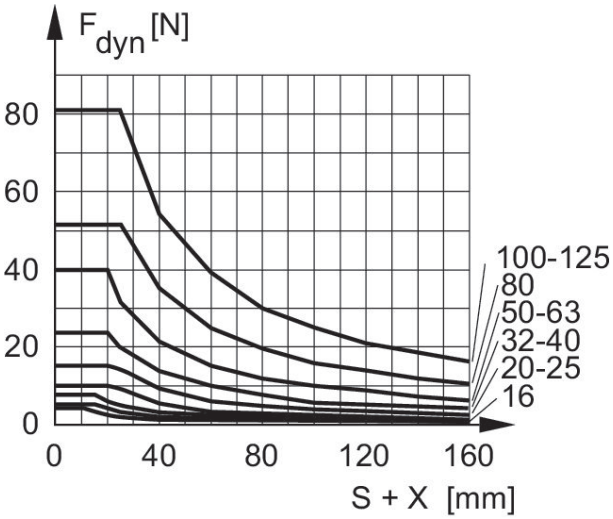
static



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

Maximum admissible lateral force

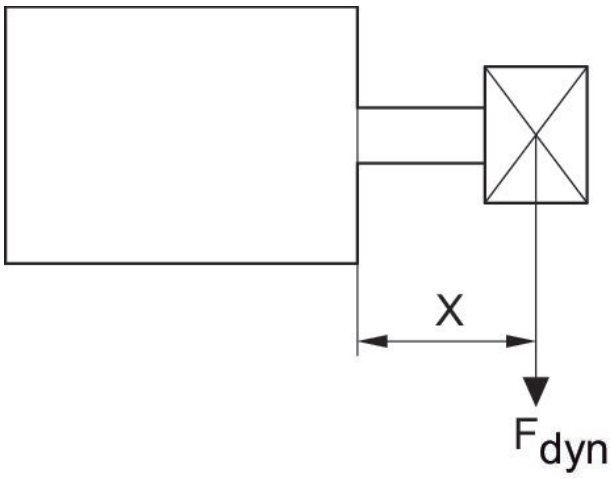
dynamic



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

Maximum admissible lateral force

dynamic



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

Compact cylinder ISO 21287, Series CCI

Standards: ISO 21287
Functional principle: Single-acting, extended without pressure
Piston: Piston with magnet
Cushioning: elastic cushioning
Piston rod: Internal thread
Piston rod: single
Compressed air connection: Internal thread
Ambient temperature min./max.: -20 °C ... 80 °C
Medium temperature min./max.: -20 °C ... 80 °C
Working pressure min./max.: 1.5 bar ... 10 bar

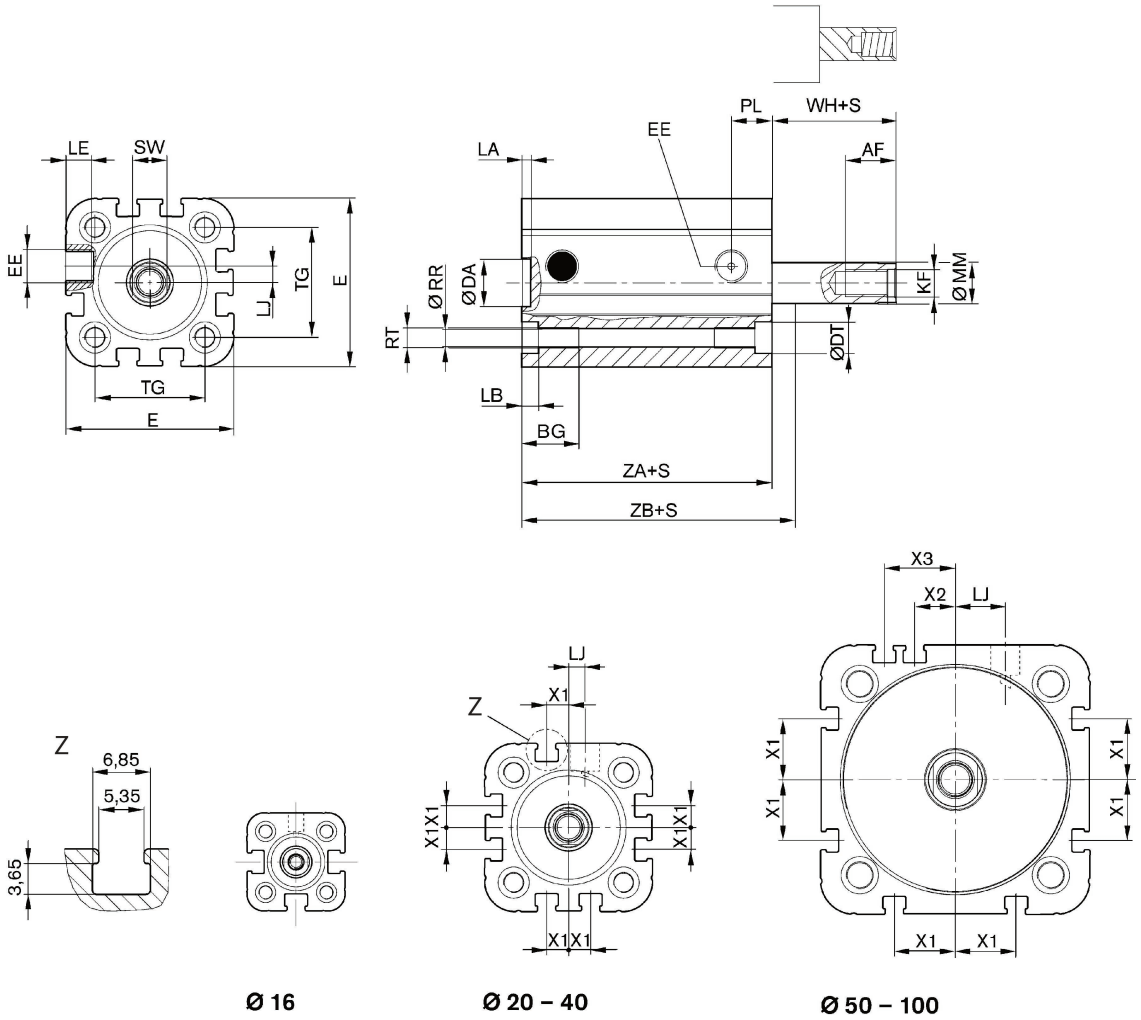
Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M4	M6	M6	M8	M8	M10
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	R422001492	R422001493	R422001494	R422001495	R422001496	R422001497
10	R422001502	R422001503	R422001504	R422001505	R422001506	R422001507
15	R422001512	R422001513	R422001514	R422001515	R422001516	R422001517
20	R422001522	R422001523	R422001524	R422001525	R422001526	R422001527
25	R422001532	R422001533	R422001534	R422001535	R422001536	R422001537

Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M10	M12	M12
Ports	G 1/8	G 1/8	G 1/8
Stroke 5	R422001498	R422001499	R422001500
10	R422001508	R422001509	R422001510
15	R422001518	R422001519	R422001520
20	R422001528	R422001529	R422001530
25	R422001538	R422001539	R422001540

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 10 mm stroke	0.016 kg	0.023 kg	0.026 kg	0.043 kg	0.052 kg	0.07 kg
Weight 0 mm stroke	0.061 kg	0.101 kg	0.126 kg	0.237 kg	0.309 kg	0.462 kg

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 10 mm stroke	0.087 kg	0.116 kg	0.168 kg
Weight 0 mm stroke	0.703 kg	1.14 kg	2.2 kg

Dimensions



Ø 16 **Ø 20 – 40** **Ø 50 – 100**

S = stroke

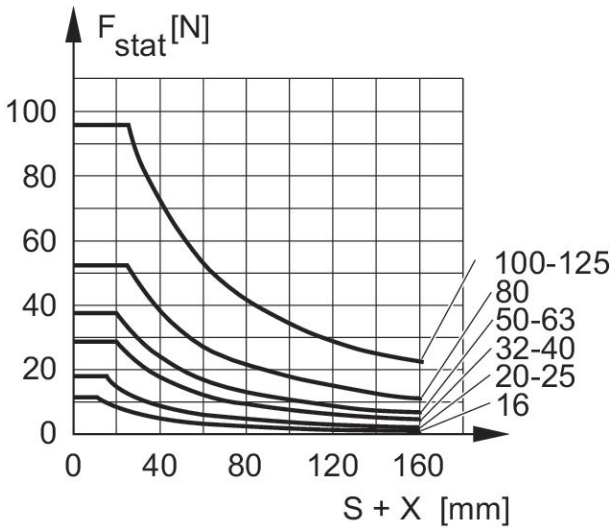
Piston Ø	AF	BG	DA H11	DT	E	EE	KF	LA	LB
16	10	15	10	6	29.3	M5	M4	2.5	3.5
20	12	15.5	12	7.5	36.3	M5	M6	2.5	4.5
25	12	15.5	12	8	40.3	M5	M6	2.5	4.5
32	12	17	14	8.6	50	G 1/8	M8	2.5	5
40	12	17	14	9.2	58	G 1/8	M8	2.5	5
50	16	17	18	11	68.3	G 1/8	M10	2.5	5
63	16	17	18	11	80	G 1/8	M10	2.5	5
80	20	20	23	15	96	G 1/8	M12	3	5
100	20	20	28	15	116	G 1/8	M12	3	5

Piston Ø	LE	LJ	MM f8	PL	RR	RT 6H	SW	TG	WH
16	4.5	0	8	8	3.3	M4	7	18	4,8 ±0,9
20	4.5	4.5	10	10	4.2	M5	8	22	5,6 ±0,9
25	4.5	4	10	10	4.2	M5	8	26	5,6 ±0,9
32	7.5	4.85	12	12	5.1	M6	10	32.5	7,4 ±0,9
40	7.5	9.85	12	12	5.1	M6	10	38	7,4 ±0,9
50	7.5	12	16	12	6.7	M8	13	46.5	8,4 ±0,9
63	7.5	14.8	16	12	6.7	M8	13	56.5	8,5 ±0,9
80	7.5	22	20	14	8.5	M10	16	72	9,8 ±1
100	7.5	27	25	16.5	8.5	M10	21	89	9,8 ±1

Piston Ø	X1	X2	X3	ZA	ZB
16	–	–	–	34,9 ±0,1	39,7 ±0,8
20	4.2	–	–	37,3 ±0,1	43,6 ±0,8
25	4.5	–	–	39 ±0,1	44,5 ±0,9
32	6.5	–	–	44 ±0,1	51,4 ±1
40	11	–	–	45 ±0,1	52,4 ±1
50	13	4	13	45,5 ±0,1	53,6 ±1
63	18	12	21	49 ±0,1	57,4 ±1
80	18	16.5	25.5	54,7 ±0,1	64,4 ±1
100	20	20	29	67 ±0,1	76,7 ±1

Maximum admissible lateral force

static



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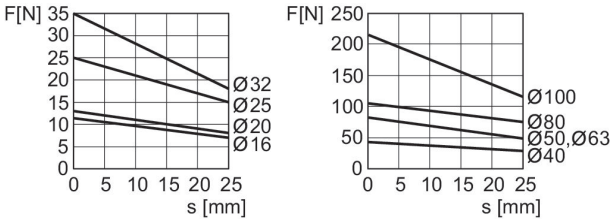
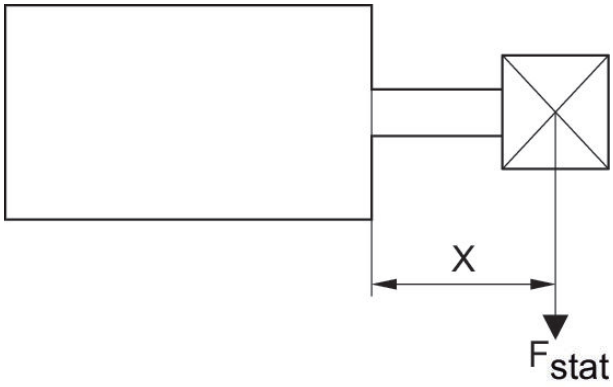
Extracting piston force



F = spring return force, s = return stroke

Maximum admissible lateral force

static



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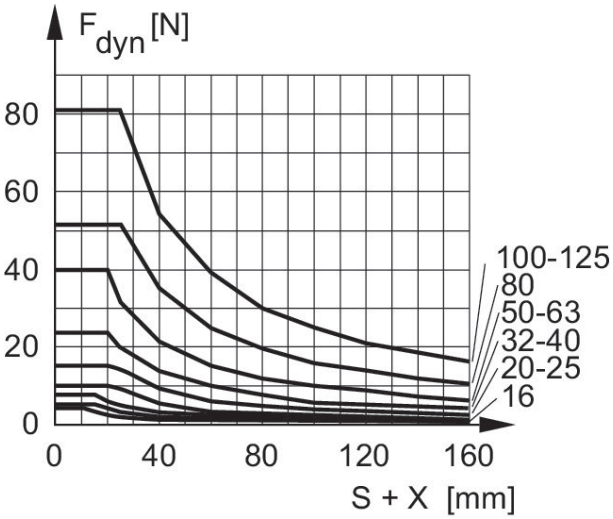

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Maximum admissible lateral force

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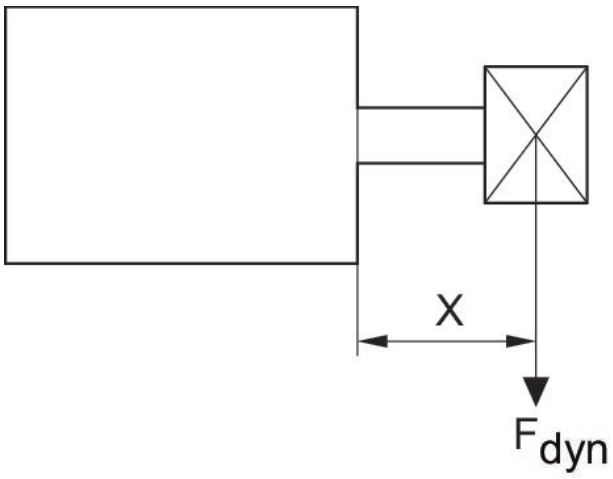

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S = stroke

Compact cylinder ISO 21287, Series CCI

Standards: ISO 21287
Functional principle: Single-acting, extended without pressure
Piston: Piston with magnet
Cushioning: elastic cushioning
Piston rod: External thread
Piston rod: single
Compressed air connection: Internal thread
Ambient temperature min./max.: -20 °C ... 80 °C
Medium temperature min./max.: -20 °C ... 80 °C
Working pressure min./max.: 1.5 bar ... 10 bar

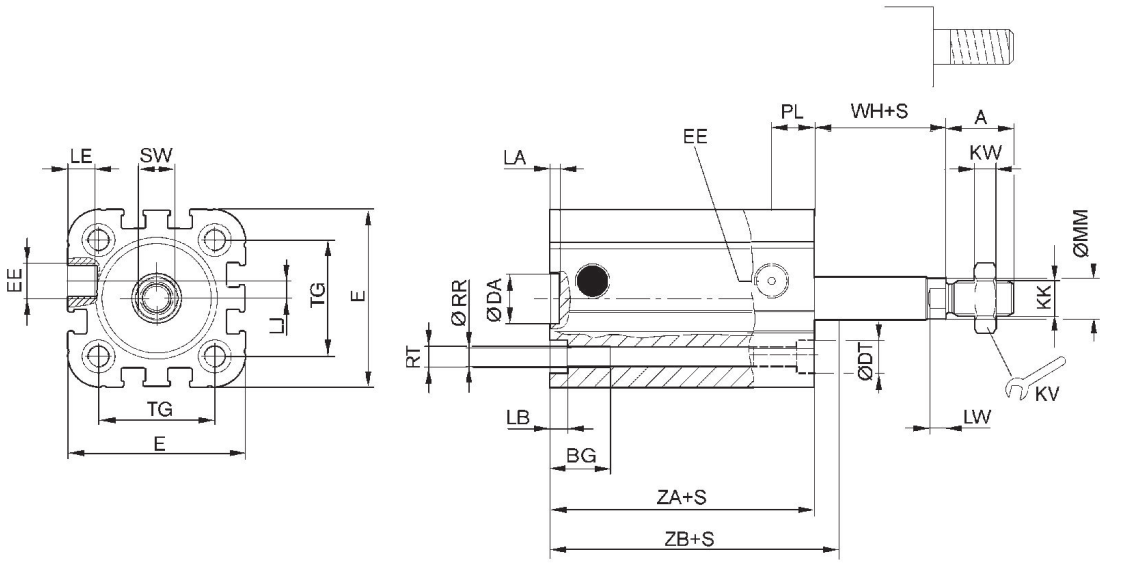
Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M6x1	M8x1,25	M8x1,25	M10x1,25	M10x1,25	M12x1,25
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	R422001542	R422001543	R422001544	R422001545	R422001546	R422001547
10	R422001552	R422001553	R422001554	R422001555	R422001556	R422001557
15	R422001562	R422001563	R422001564	R422001565	R422001566	R422001567
20	R422001572	R422001573	R422001574	R422001575	R422001576	R422001577
25	R422001582	R422001583	R422001584	R422001585	R422001586	R422001587

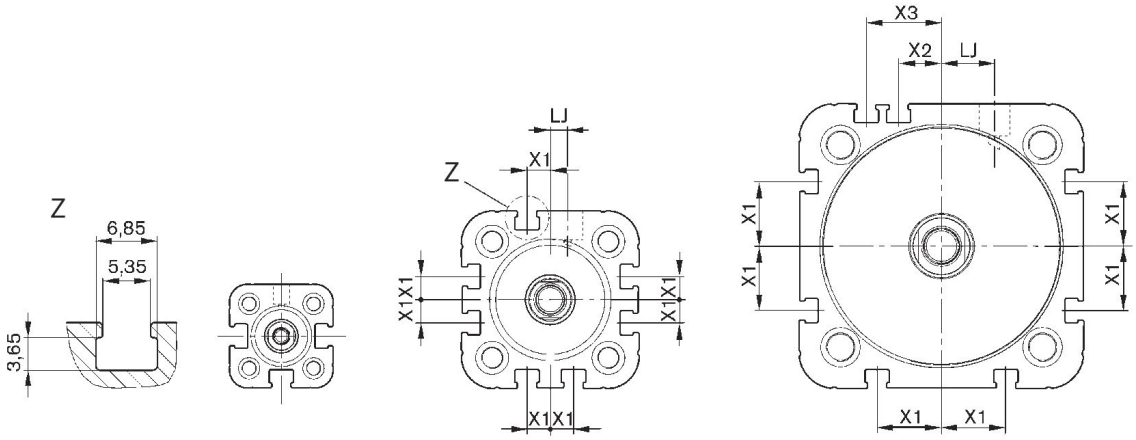
Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M12x1,25	M16x1,5	M16x1,5
Ports	G 1/8	G 1/8	G 1/8
Stroke 5	R422001548	R422001549	R422001550
10	R422001558	R422001559	R422001560
15	R422001568	R422001569	R422001570
20	R422001578	R422001579	R422001580
25	R422001588	R422001589	R422001590

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 10 mm stroke	0.016 kg	0.023 kg	0.026 kg	0.043 kg	0.052 kg	0.07 kg
Weight 0 mm stroke	0.066 kg	0.127 kg	0.152 kg	0.26 kg	0.332 kg	0.501 kg

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 10 mm stroke	0.087 kg	0.116 kg	0.168 kg
Weight 0 mm stroke	0.742 kg	1.22 kg	2.28 kg

Dimensions





Ø 16 **Ø 20 – 40** **Ø 50 – 100**

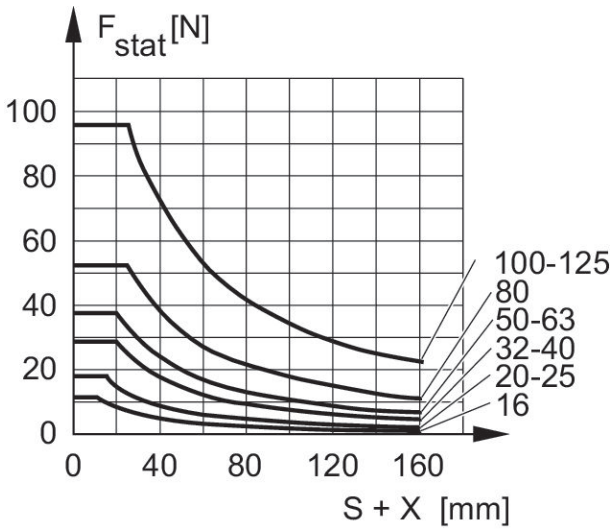
Piston Ø	A	BG	DA H11	DT	E	EE	KK	KV	KW
16	12	15	10	6	29.3	M5	M6	10	3
20	16	15.5	12	7.5	36.3	M5	M8	13	4
25	16	15.5	12	8	40.3	M5	M8	13	4
32	19	17	14	8.6	50	G 1/8	M10x1,25	17	5
40	19	17	14	9.2	58	G 1/8	M10x1,25	17	5
50	22	17	18	11	68.3	G 1/8	M12x1,25	19	6
63	22	17	18	11	80	G 1/8	M12x1,25	19	6
80	28	20	23	15	96	G 1/8	M16x1,5	24	8
100	28	20	28	15	116	G 1/8	M16x1,5	24	8

Piston Ø	LA	LB	LE	LJ	LW	MM f8	PL	RR	RT 6H
16	2.5	3.5	4.5	0	4	8	8	3.3	M4
20	2.5	4.5	4.5	4.5	4	10	10	4.2	M5
25	2.5	4.5	4.5	4	4	10	10	4.2	M5
32	2.5	5	7.5	4.85	4.5	12	12	5.1	M6
40	2.5	5	7.5	9.85	4.5	12	12	5.1	M6
50	2.5	5	7.5	12	6	16	12	6.7	M8
63	2.5	5	7.5	14.8	6	16	12	6.7	M8
80	3	5	7.5	22	7	20	14	8.5	M10
100	3	5	7.5	27	7	25	16.5	8.5	M10

Piston Ø	SW	TG	WH	X1	X2	X3	ZA	ZB
16	7	18	4,8 ±0,9	–	–	–	34,9 ±0,1	39,7 ±0,8
20	8	22	5,6 ±0,9	4.2	–	–	37,3 ±0,1	43,6 ±0,8
25	8	26	5,6 ±0,9	4.5	–	–	39 ±0,1	44,5 ±0,9
32	10	32.5	7,4 ±0,9	6.5	–	–	44 ±0,1	51,4 ±1
40	10	38	7,4 ±0,9	11	–	–	45 ±0,1	52,4 ±1
50	13	46.5	8,4 ±0,9	13	4	13	45,5 ±0,1	53,6 ±1
63	13	56.5	8,5 ±0,9	18	12	21	49 ±0,1	57,4 ±1
80	16	72	9,8 ±1	18	16.5	25.5	54,7 ±0,1	64,4 ±1
100	21	89	9,8 ±1	20	20	29	67 ±0,1	76,7 ±1

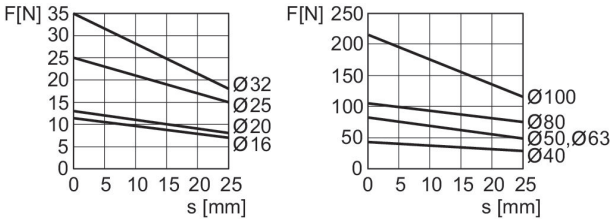
Maximum admissible lateral force

static



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

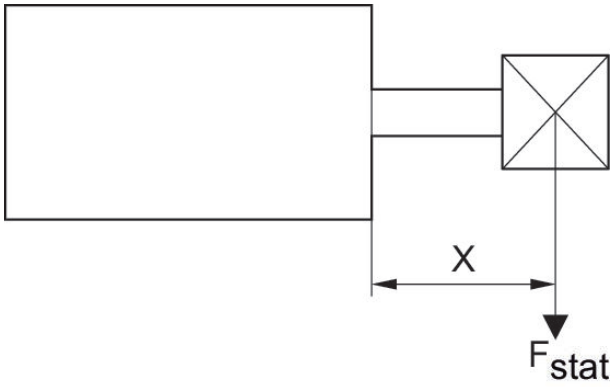
Extracting piston force



F = spring return force, s = return stroke

Maximum admissible lateral force

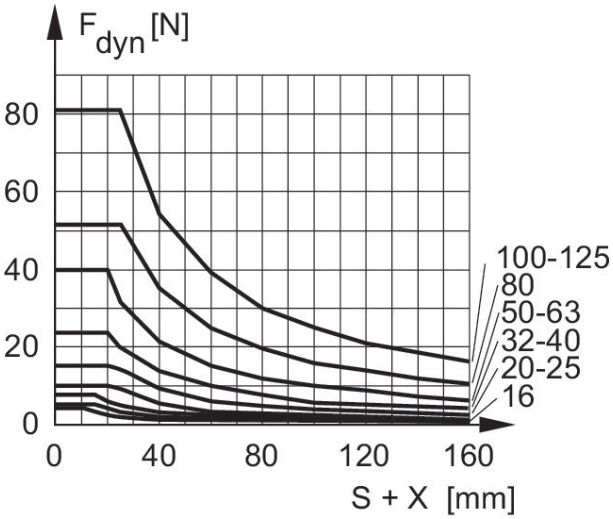
static



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

Maximum admissible lateral force

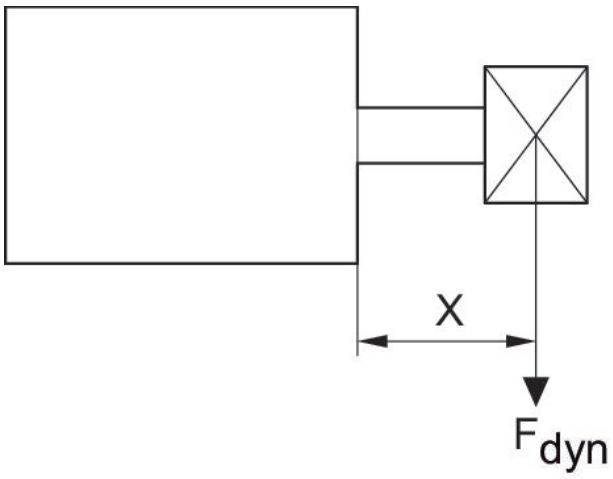
dynamic



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

Maximum admissible lateral force

dynamic



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

Compact cylinder ISO 21287, Series CCI

Standards: ISO 21287
Functional principle: Single-acting, retracted without pressure
Piston: Piston with magnet
Cushioning: elastic cushioning
Piston rod: Internal thread
Piston rod: through
Compressed air connection: Internal thread
Ambient temperature min./max.: -20 °C ... 80 °C
Medium temperature min./max.: -20 °C ... 80 °C
Working pressure min./max.: 1.5 bar ... 10 bar

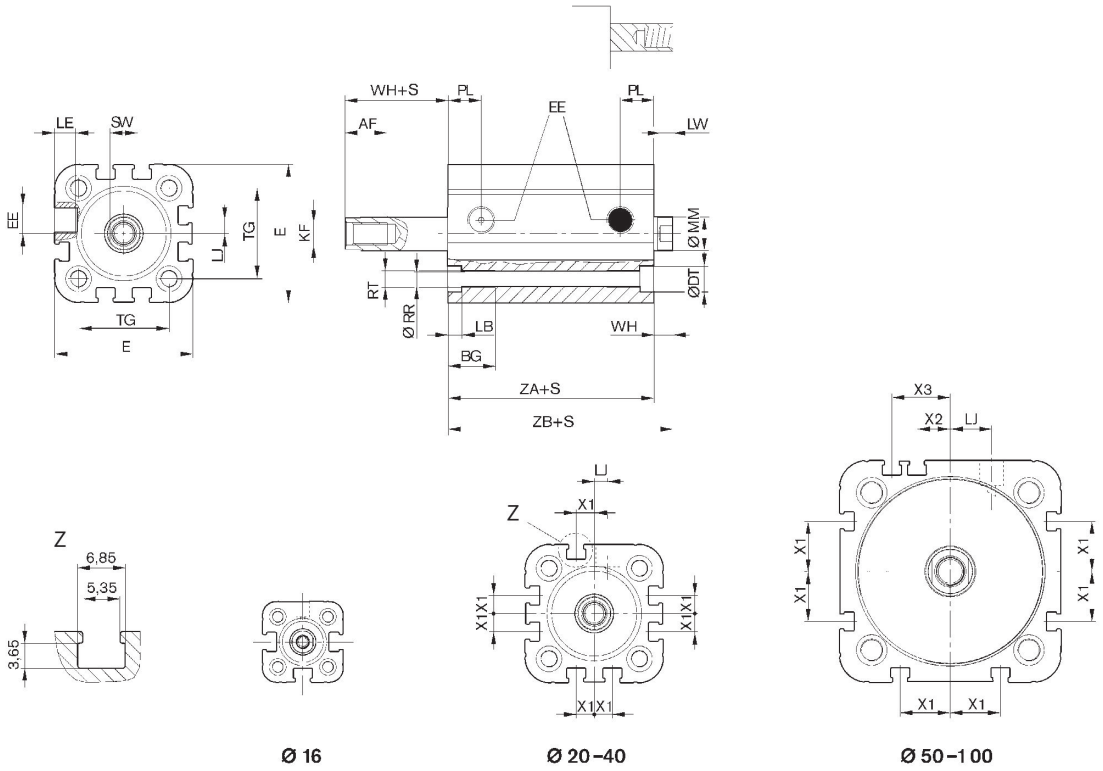
Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M4	M6	M6	M8	M8	M10
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	R422001592	R422001593	R422001594	R422001595	R422001596	R422001597
10	R422001602	R422001603	R422001604	R422001605	R422001606	R422001607
15	R422001612	R422001613	R422001614	R422001615	R422001616	R422001617
20	R422001622	R422001623	R422001624	R422001625	R422001626	R422001627
25	R422001632	R422001633	R422001634	R422001635	R422001636	R422001637

Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M10	M12	M12
Ports	G 1/8	G 1/8	G 1/8
Stroke 5	R422001598	R422001599	R422001600
10	R422001608	R422001609	R422001610
15	R422001618	R422001619	R422001620
20	R422001628	R422001629	R422001630
25	R422001638	R422001639	R422001640

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	83 N	135 N	235 N	400 N	677 N	1028 N
Impact energy	0.11 J	0.15 J	0.2 J	0.4 J	0.52 J	0.64 J
Weight 10 mm stroke	0.02 kg	0.029 kg	0.032 kg	0.052 kg	0.06 kg	0.087 kg
Weight 0 mm stroke	0.066 kg	0.109 kg	0.131 kg	0.25 kg	0.325 kg	0.486 kg

Piston Ø	63 mm	80 mm	100 mm
Retracting piston force	82 N	105 N	215 N
Extracting piston force	1745 N	2864 N	4424 N
Impact energy	0.75 J	0.75 J	1 J
Weight 10 mm stroke	0.103 kg	0.14 kg	0.206 kg
Weight 0 mm stroke	0.732 kg	1.21 kg	2.32 kg

Dimensions



Ø 16 **Ø 20–40** **Ø 50–100**

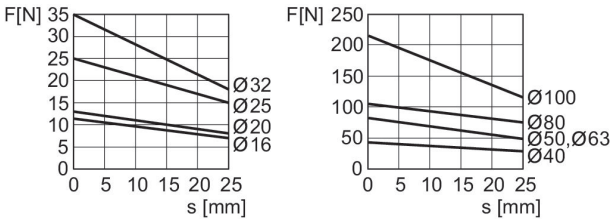
S = stroke

Piston Ø	AF	BG	DT	E	EE	KF	LB	LE	LJ
16	10	15	6	29.3	M5	M4	3.5	4.5	–
20	12	15.5	7.5	36.3	M5	M6	4.5	4.5	4.5
25	12	15.5	8	40.3	M5	M6	4.5	4.5	4
32	12	17	8.6	50	G 1/8	M8	5	7.5	4.85
40	12	17	9.2	58	G 1/8	M8	5	7.5	9.85
50	16	17	11	68.3	G 1/8	M10	5	7.5	12
63	16	17	11	80	G 1/8	M10	5	7.5	14.8
80	20	20	15	96	G 1/8	M12	5	7.5	22
100	20	20	15	116	G 1/8	M12	5	7.5	27

Piston Ø	LW	MM f8	PL	RR	RT 6H	SW	TG	WH	X1
16	4	8	8	3.3	M4	7	18	4,8 ±0,9	–
20	4	10	10	4.2	M5	8	22	5,6 ±0,9	4.2
25	4	10	10	4.2	M5	8	26	5,6 ±0,9	4.5
32	4.5	12	12	5.1	M6	10	32.5	7,4 ±0,9	6.5
40	4.5	12	12	5.1	M6	10	38	7,4 ±0,9	11
50	6	16	12	6.7	M8	13	46.5	8,4 ±0,9	13
63	6	16	12	6.7	M8	13	56.5	8,5 ±0,9	18
80	7	20	14	8.5	M10	16	72	9,8 ±1	18
100	7	25	16.5	8.5	M10	21	89	9,8 ±1	20

Piston Ø	X2	X3	ZA	ZB
16	–	–	34,9 ±0,1	39,7 ±0,8
20	–	–	37,3 ±0,1	43,6 ±0,8
25	–	–	39 ±0,1	44,5 ±0,9
32	–	–	44 ±0,1	51,4 ±1
40	–	–	45 ±0,1	52,4 ±1
50	4	13	45,5 ±0,1	53,6 ±1
63	12	21	49 ±0,1	57,4 ±1
80	16.5	25.5	54,7 ±0,1	64,4 ±1
100	20	29	67 ±0,1	76,7 ±1

Extracting piston force



F = spring return force, s = return stroke

Compact cylinder ISO 21287, Series CCI

Standards: ISO 21287
Functional principle: Single-acting, retracted without pressure
Piston: Piston with magnet
Cushioning: elastic cushioning
Piston rod: External thread
Piston rod: through
Compressed air connection: Internal thread
Ambient temperature min./max.: -20 °C ... 80 °C
Medium temperature min./max.: -20 °C ... 80 °C
Working pressure min./max.: 1.5 bar ... 10 bar

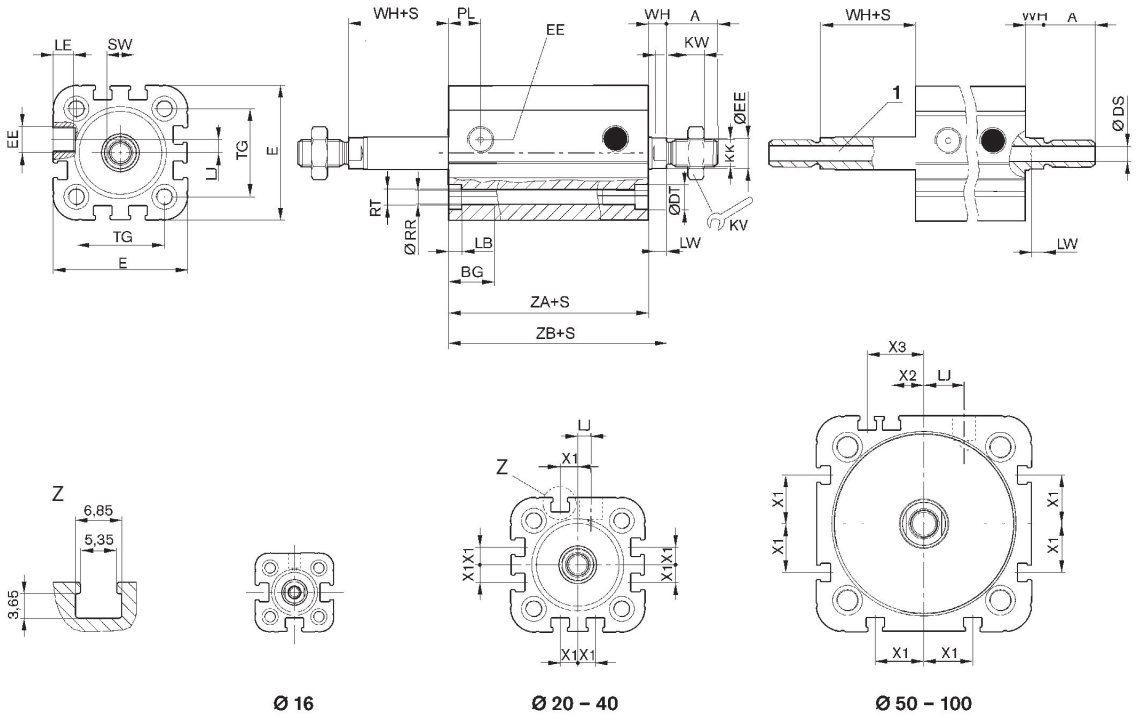
Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M6x1	M8x1,25	M8x1,25	M10x1,25	M10x1,25	M12x1,25
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	R422001642	R422001643	R422001644	R422001645	R422001646	R422001647
10	R422001652	R422001653	R422001654	R422001655	R422001656	R422001657
15	R422001662	R422001663	R422001664	R422001665	R422001666	R422001667
20	R422001672	R422001673	R422001674	R422001675	R422001676	R422001677
25	R422001682	R422001683	R422001684	R422001685	R422001686	R422001687

Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M12x1,25	M16x1,5	M16x1,5
Ports	G 1/8	G 1/8	G 1/8
Stroke 5	R422001648	R422001649	R422001650
10	R422001658	R422001659	R422001660
15	R422001668	R422001669	R422001670
20	R422001678	R422001679	R422001680
25	R422001688	R422001689	R422001690

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	83 N	135 N	235 N	400 N	677 N	1028 N
Impact energy	0.11 J	0.15 J	0.2 J	0.4 J	0.52 J	0.64 J
Weight 10 mm stroke	0.02 kg	0.029 kg	0.032 kg	0.052 kg	0.06 kg	0.087 kg
Weight 0 mm stroke	0.074 kg	0.147 kg	0.169 kg	0.297 kg	0.372 kg	0.566 kg

Piston Ø	63 mm	80 mm	100 mm
Retracting piston force	82 N	105 N	215 N
Extracting piston force	1745 N	2864 N	4424 N
Impact energy	0.75 J	0.75 J	1 J
Weight 10 mm stroke	0.103 kg	0.14 kg	0.206 kg
Weight 0 mm stroke	0.811 kg	1.36 kg	2.47 kg

Dimensions



Ø 16 Ø 20 – 40 Ø 50 – 100

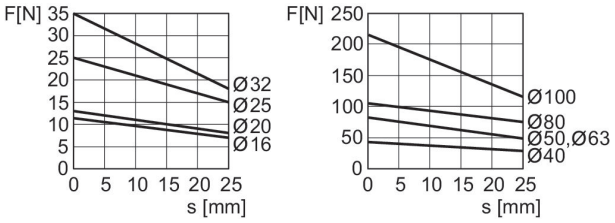
1) Hollow piston rod (to be generated by Internet configurator)
S = stroke

Piston Ø	A	AF	BG	Ø DS	DT	E	EE	KK Solid piston rod/hollow piston rod	KV
16	12	10	15	2	6	29.3	M5	M6 / M5	10
20	16	12	15.5	3.8	7.5	36.3	M5	M8 / G 1/8	13
25	16	12	15.5	3.8	8	40.3	M5	M8 / G 1/8	13
32	19	12	17	4.5	8.6	50	G 1/8	M10x1,25 / G 1/8	17
40	19	12	17	4.5	9.2	58	G 1/8	M10x1,25 / G 1/8	17
50	22	16	17	6	11	68.3	G 1/8	M12x1,25 / G 1/4	19
63	22	16	17	6	11	80	G 1/8	M12x1,25 / G 1/4	19
80	28	20	20	8	15	96	G 1/8	M16x1,5 / M16x1,5	24
100	28	20	20	8	15	116	G 1/8	M16x1,5 / M16x1,5	24

Piston Ø	KW	LB	LE	LJ	LW	MM f8	PL	RR	RT 6H
16	3	3.5	4.5	0	4	8	8	3.3	M4
20	4	4.5	4.5	4.5	4	10	10	4.2	M5
25	4	4.5	4.5	4	4	10	10	4.2	M5
32	5	5	7.5	4.85	4.5	12	12	5.1	M6
40	5	5	7.5	9.85	4.5	12	12	5.1	M6
50	6	5	7.5	12	6	16	12	6.7	M8
63	6	5	7.5	14.8	6	16	12	6.7	M8
80	8	5	7.5	22	7	20	14	8.5	M10
100	8	5	7.5	27	7	25	16.5	8.5	M10

Piston Ø	SW	TG	WH	X1	X2	X3	ZA	ZB
16	7	18	4,8 ±0,9	–	–	–	34,9 ±0,1	39,7 ±0,8
20	8	22	5,6 ±0,9	4.2	–	–	37,3 ±0,1	43,6 ±0,8
25	8	26	5,6 ±0,9	4.5	–	–	39 ±0,1	44,5 ±0,9
32	10	32.5	7,4 ±0,9	6.5	–	–	44 ±0,1	51,4 ±1
40	10	38	7,4 ±0,9	11	–	–	45 ±0,1	52,4 ±1
50	13	46.5	8,4 ±0,9	13	4	13	45,5 ±0,1	53,6 ±1
63	13	56.5	8,5 ±0,9	18	12	21	49 ±0,1	57,4 ±1
80	16	72	9,8 ±1	18	16.5	25.5	54,7 ±0,1	64,4 ±1
100	21	89	9,8 ±1	20	20	29	67 ±0,1	76,7 ±1

Extracting piston force



F = spring return force, s = return stroke

Compact cylinder ISO 21287, Series CCI

Standards: ISO 21287
Functional principle: Double-acting
Certificates: ATEX optional
Piston: Piston with magnet
Cushioning: elastic cushioning
Piston rod: Internal thread
Piston rod: single
Compressed air connection: Internal thread
Ambient temperature min./max.: -20 °C ... 80 °C
Medium temperature min./max.: -20 °C ... 80 °C
Working pressure min./max.: 1 bar ... 10 bar

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	R422001002	R422001003	R422001004	R422001005	R422001006	R422001007
10	R422001012	R422001013	R422001014	R422001015	R422001016	R422001017
15	R422001022	R422001023	R422001024	R422001025	R422001026	R422001027
20	R422001032	R422001033	R422001034	R422001035	R422001036	R422001037
25	R422001042	R422001043	R422001044	R422001045	R422001046	R422001047
30	R422001052	R422001053	R422001054	R422001055	R422001056	R422001057
40	R422001062	R422001063	R422001064	R422001065	R422001066	R422001067
50	R422001072	R422001073	R422001074	R422001075	R422001076	R422001077
60	R422001082	R422001083	R422001084	R422001085	R422001086	R422001087
80	-	-	-	R422001095	R422001096	R422001097
100	-	-	-	R422001105	R422001106	R422001107
125	-	-	-	R422001115	R422001116	R422001117
150	-	-	-	R422001125	R422001126	R422001127

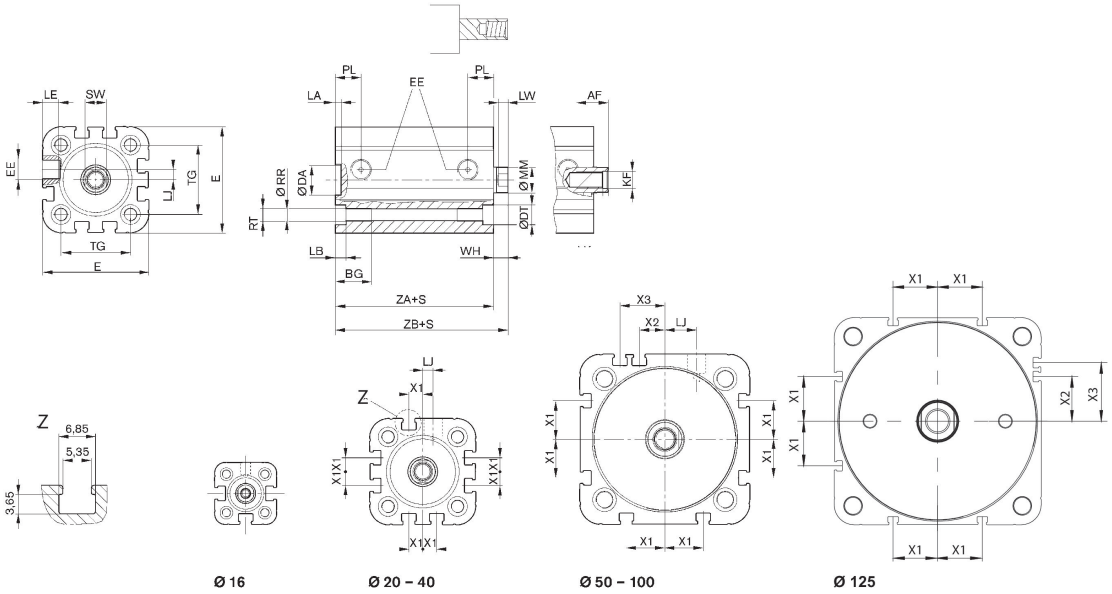
Piston Ø	63 mm	80 mm	100 mm	125 mm
Piston rod thread	M10	M12	M12	M16
Ports	G 1/8	G 1/8	G 1/8	G 1/4
Stroke 5	R422001008	R422001009	R422001010	R481636828
10	R422001018	R422001019	R422001020	R481636829
15	R422001028	R422001029	R422001030	R481636830
20	R422001038	R422001039	R422001040	R481636831
25	R422001048	R422001049	R422001050	R481636832
30	R422001058	R422001059	R422001060	R481636833
40	R422001068	R422001069	R422001070	R481636834
50	R422001078	R422001079	R422001080	R481636835

Piston Ø	63 mm	80 mm	100 mm	125 mm
Piston rod thread	M10	M12	M12	M16
Ports	G 1/8	G 1/8	G 1/8	G 1/4
60	R422001088	R422001089	R422001090	R481636836
80	R422001098	R422001099	R422001100	R481636837
100	R422001108	R422001109	R422001110	R481636838
125	R422001118	R422001119	R422001120	R481636839
150	R422001128	R422001129	R422001130	R481636840

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
Weight 10 mm stroke	0.016 kg	0.023 kg	0.026 kg	0.042 kg	0.052 kg	0.07 kg
Weight 0 mm stroke	0.059 kg	0.099 kg	0.123 kg	0.233 kg	0.303 kg	0.448 kg

Piston Ø	63 mm	80 mm	100 mm	125 mm
Retracting piston force	1827 N	2969 N	4639 N, 3886 N	7422 N
Extracting piston force	1964 N	3167 N	4948 N, 4145 N	7731 N
Impact energy	1.3 J	1.8 J	2.5 J	3.3 J
Weight 10 mm stroke	0.087 kg	0.116 kg	0.168 kg	0.173 kg
Weight 0 mm stroke	0.689 kg	1.11 kg	2.15 kg	3.458 kg

Dimensions



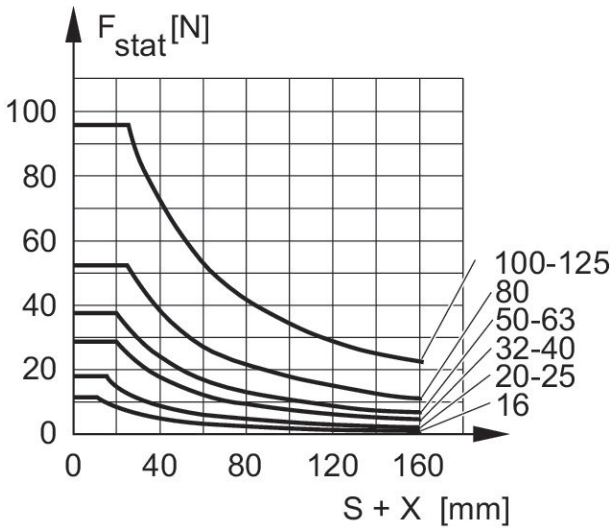
Piston Ø	AF	BG	DA H11	DT	E	EE	KF	LA	LB
16	10	15	10	6	29.3	M5	M4	2.5	3.5
20	12	15.5	12	7.5	36.3	M5	M6	2.5	4.5
25	12	15.5	12	8	40.3	M5	M6	2.5	4.5
32	12	17	14	8.6	50	G 1/8	M8	2.5	5
40	12	17	14	9.2	58	G 1/8	M8	2.5	5
50	16	17	18	11	68.3	G 1/8	M10	2.5	5
63	16	17	18	11	80	G 1/8	M10	2.5	5
80	20	20	23	15	96	G 1/8	M12	3	5
100	20	20	28	15	116	G 1/8	M12	3	5
125	25	35	12	-	134.6	G 1/4	M16	2.6	-

Piston Ø	LE	LJ	LW	MM f8	PL	RR	RT 6H	SW	TG
16	4.5	0	4	8	8	3.3	M4	7	18
20	4.5	4.5	4	10	10	4.2	M5	8	22
25	4.5	4	4	10	10	4.2	M5	8	26
32	7.5	4.85	4.5	12	12	5.1	M6	10	32.5
40	7.5	9.85	4.5	12	12	5.1	M6	10	38
50	7.5	12	6	16	12	6.7	M8	13	46.5
63	7.5	14.8	6	16	12	6.7	M8	13	56.5
80	7.5	22	7	20	14	8.5	M10	16	72
100	7.5	27	7	25	16.5	8.5	M10	21	89
125	???	39	7.5	25	20.5	11.1	M12	21	110

Piston Ø	WH	X1	X2	X3	ZA ±0,1	ZB
16	4,8 ±0,9	–	–	–	34.9	39,7 ±0,8
20	5,6 ±0,9	4.2	–	–	37.3	43,6 ±0,8
25	5,6 ±0,9	4.5	–	–	39	44,5 ±0,9
32	7,4 ±0,9	6.5	–	–	44	51,4 ±1
40	7,4 ±0,9	11	–	–	45	52,4 ±1
50	8,4 ±0,9	13	4	13	45.5	53,6 ±1
63	8,5 ±0,9	18	12	21	49	57,4 ±1
80	9,8 ±1	18	16.5	25.5	54.7	64,4 ±1
100	9,8 ±1	20	20	29	67	76,7 ±1
125	11	29	29	38	81	92

Maximum admissible lateral force

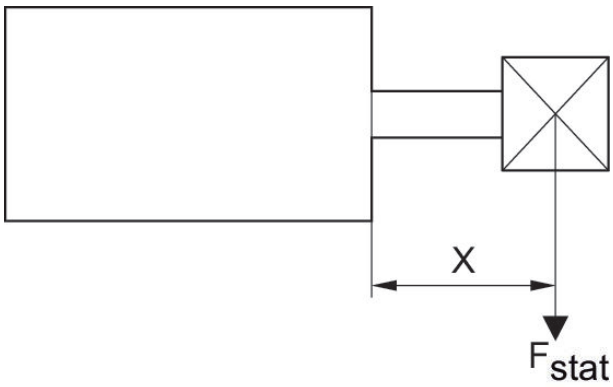
static



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

Maximum admissible lateral force

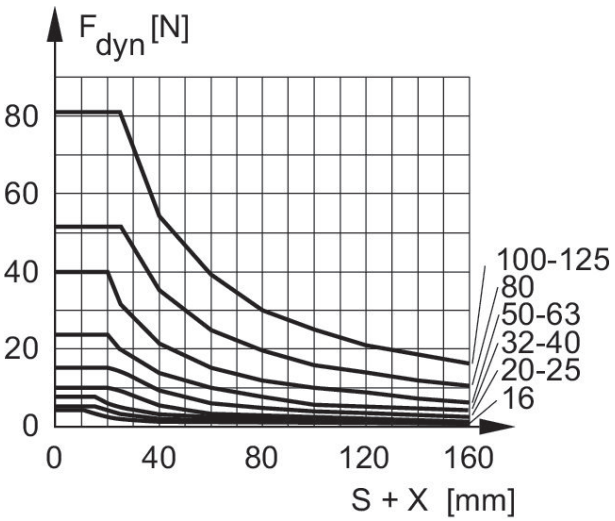
static



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

Maximum admissible lateral force

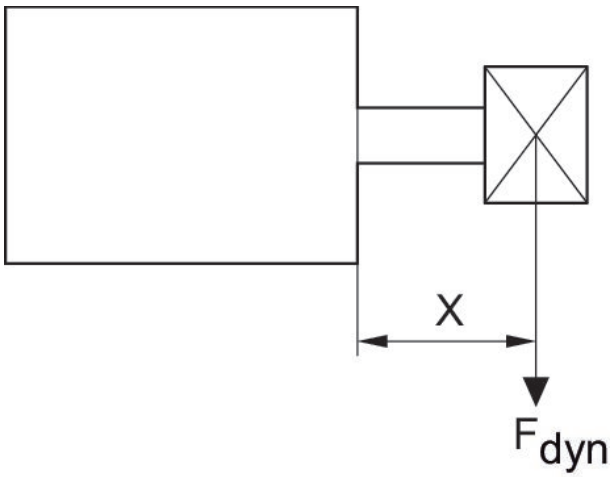
dynamic



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

Maximum admissible lateral force

dynamic



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

Compact cylinder ISO 21287, Series CCI

Standards: ISO 21287
Functional principle: Double-acting
Certificates: ATEX optional
Piston: Piston with magnet
Cushioning: elastic cushioning
Piston rod: External thread
Piston rod: single
Compressed air connection: Internal thread
Ambient temperature min./max.: -20 °C ... 80 °C
Medium temperature min./max.: -20 °C ... 80 °C
Working pressure min./max.: 1 bar ... 10 bar

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M6x1	M8x1,25	M8x1,25	M10x1,25	M10x1,25	M12x1,25
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	R422001132	R422001133	R422001134	R422001135	R422001136	R422001137
10	R422001142	R422001143	R422001144	R422001145	R422001146	R422001147
15	R422001152	R422001153	R422001154	R422001155	R422001156	R422001157
20	R422001162	R422001163	R422001164	R422001165	R422001166	R422001167
25	R422001172	R422001173	R422001174	R422001175	R422001176	R422001177
30	R422001182	R422001183	R422001184	R422001185	R422001186	R422001187
40	R422001192	R422001193	R422001194	R422001195	R422001196	R422001197
50	R422001202	R422001203	R422001204	R422001205	R422001206	R422001207
60	R422001212	R422001213	R422001214	R422001215	R422001216	R422001217
80	-	-	-	R422001225	R422001226	R422001227
100	-	-	-	R422001235	R422001236	R422001237
125	-	-	-	R422001245	R422001246	R422001247
150	-	-	-	R422001255	R422001256	R422001257

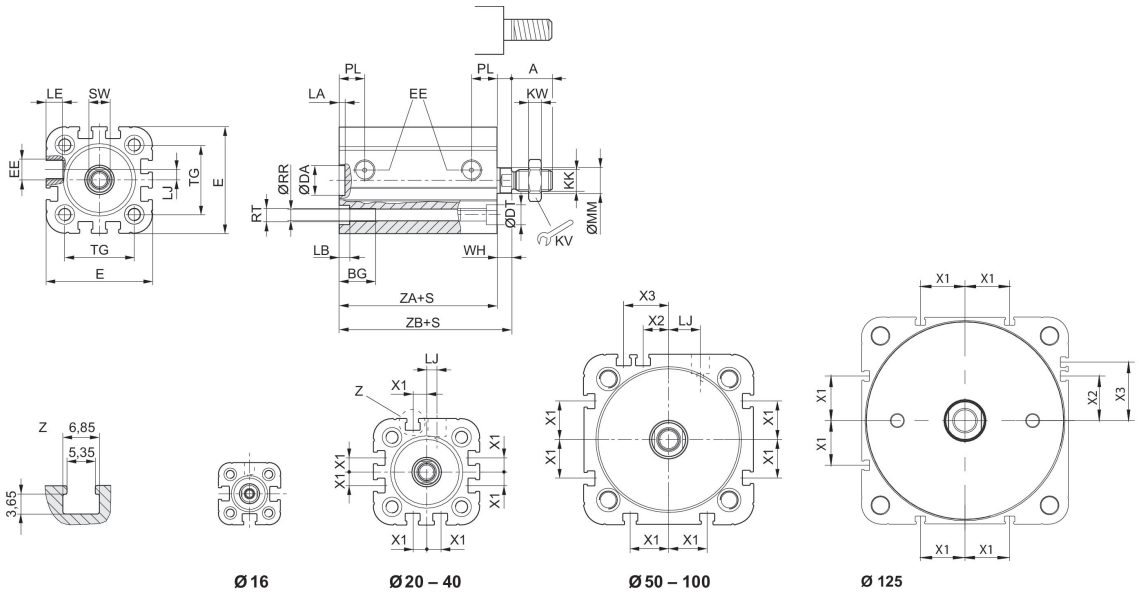
Piston Ø	63 mm	80 mm	100 mm	125 mm
Piston rod thread	M12x1,25	M16x1,5	M16x1,5	M20x1,5
Ports	G 1/8	G 1/8	G 1/8	G 1/4
Stroke 5	R422001138	R422001139	R422001140	R481636841
10	R422001148	R422001149	R422001150	R481636842
15	R422001158	R422001159	R422001160	R481636843
20	R422001168	R422001169	R422001170	R481636844
25	R422001178	R422001179	R422001180	R481636845
30	R422001188	R422001189	R422001190	R481636846
40	R422001198	R422001199	R422001200	R481636847
50	R422001208	R422001209	R422001210	R481636848

Piston Ø	63 mm	80 mm	100 mm	125 mm
Piston rod thread	M12x1,25	M16x1,5	M16x1,5	M20x1,5
Ports	G 1/8	G 1/8	G 1/8	G 1/4
60	R422001218	R422001219	R422001220	R481636849
80	R422001228	R422001229	R422001230	R481636850
100	R422001238	R422001239	R422001240	R481636851
125	R422001248	R422001249	R422001250	R481636852
150	R422001258	R422001259	R422001260	R481636853

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
Weight 10 mm stroke	0.016 kg	0.023 kg	0.026 kg	0.043 kg	0.052 kg	0.07 kg
Weight 0 mm stroke	0.064 kg	0.125 kg	0.149 kg	0.256 kg	0.326 kg	0.487 kg

Piston Ø	63 mm	80 mm	100 mm	125 mm
Retracting piston force	1837 N	2969 N	4639 N	7422 N
Extracting piston force	1964 N	3167 N	4948 N	7731 N
Impact energy	1.3 J	1.8 J	2.5 J	3.3 J
Weight 10 mm stroke	0.087 kg	0.116 kg	0.168 kg	0.173 kg
Weight 0 mm stroke	0.728 kg	1.2 kg	2.23 kg	3.626 kg

Dimensions



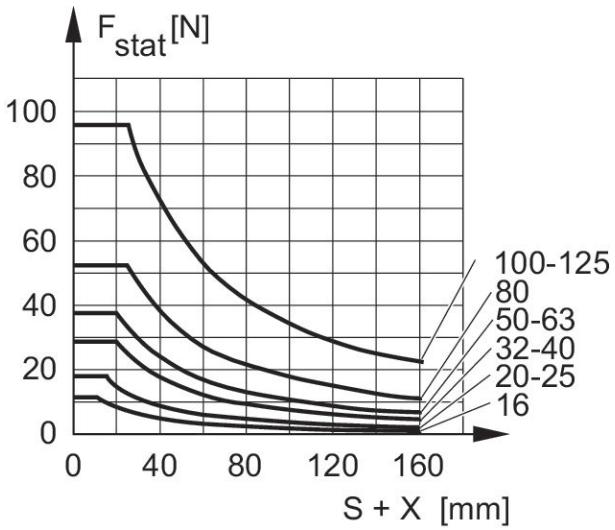
Piston Ø	A	BG	DA H11	DT	E	EE	KK	KV	KW
16	12	15	10	6	29.3	M5	M6	10	3
20	16	15.5	12	7.5	36.3	M5	M8	13	4
25	16	15.5	12	8	40.3	M5	M8	13	4
32	19	17	14	8.6	50	G 1/8	M10x1,25	17	5
40	19	17	14	9.2	58	G 1/8	M10x1,25	17	5
50	22	17	18	11	68.3	G 1/8	M12x1,25	19	6
63	22	17	18	11	80	G 1/8	M12x1,25	19	6
80	28	20	23	15	96	G 1/8	M16x1,5	24	8
100	28	20	28	15	116	G 1/8	M16x1,5	24	8
125	40	25	12	-	134.6	G 1/4	M20x1.5	30	10

Piston Ø	LA	LB	LE	LJ	MM f8	PL	RR	RT 6H	SW
16	2.5	3.5	4.5	–	8	8	3.3	M4	7
20	2.5	4.5	4.5	4.5	10	10	4.2	M5	8
25	2.5	4.5	4.5	4	10	10	4.2	M5	8
32	2.5	5	7.5	4.85	12	12	5.1	M6	10
40	2.5	5	7.5	9.85	12	12	5.1	M6	10
50	2.5	5	7.5	12	16	12	6.7	M8	13
63	2.5	5	7.5	14.8	16	12	6.7	M8	13
80	3	5	7.5	22	20	14	8.5	M10	16
100	3	5	7.5	27	25	16.5	8.5	M10	21
125	2.6	-	???	39	25	20.5	11.1	M12	21

Piston Ø	TG	WH	X1	X2	X3	ZA	ZB
16	18	4,8 ±0,9	–	–	–	34,9 ±0,1	39,7 ±0,8
20	22	5,6 ±0,9	4.2	–	–	37,3 ±0,1	43,6 ±0,8
25	26	5,6 ±0,9	4.5	–	–	39 ±0,1	44,5 ±0,9
32	32.5	7,4 ±0,9	6.5	–	–	44 ±0,1	51,4 ±1
40	38	7,4 ±0,9	11	–	–	45 ±0,1	52,4 ±1
50	46.5	8,4 ±0,9	13	4	13	45,5 ±0,1	53,6 ±1
63	56.5	8,5 ±0,9	18	12	21	49 ±0,1	57,4 ±1
80	72	9,8 ±1	18	16.5	25.5	54,7 ±0,1	64,4 ±1
100	89	9,8 ±1	20	20	29	67 ±0,1	76,7 ±1
125	110	11	29	29	38	81	92 ±1

Maximum admissible lateral force

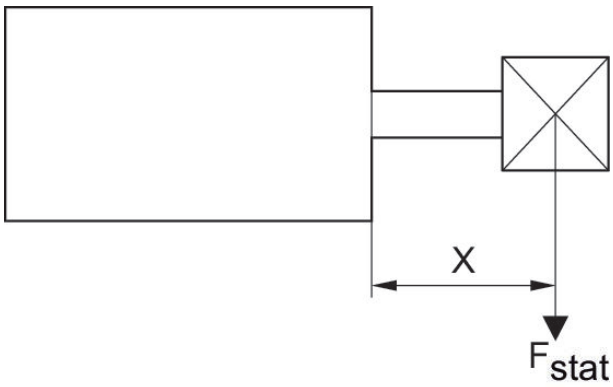
static



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

Maximum admissible lateral force

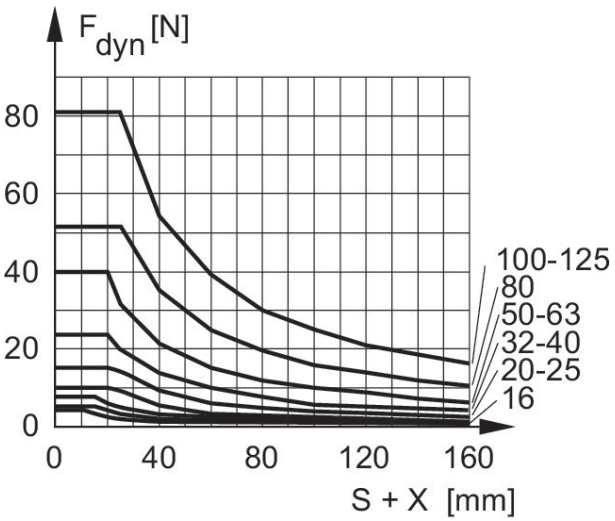
static



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

Maximum admissible lateral force

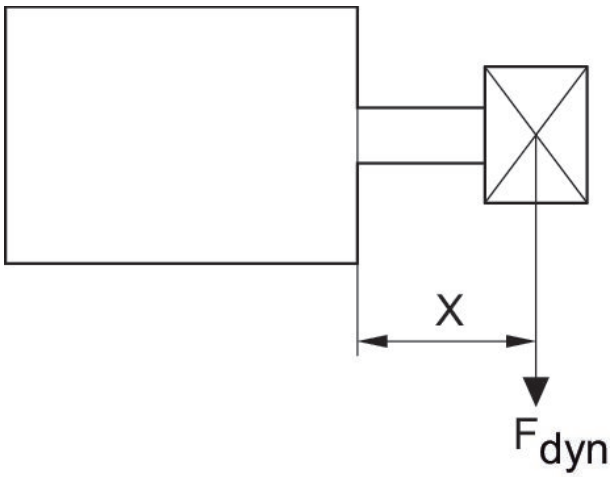
dynamic



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

Maximum admissible lateral force

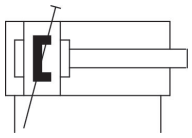
dynamic



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

Compact cylinder ISO 21287, Series CCI

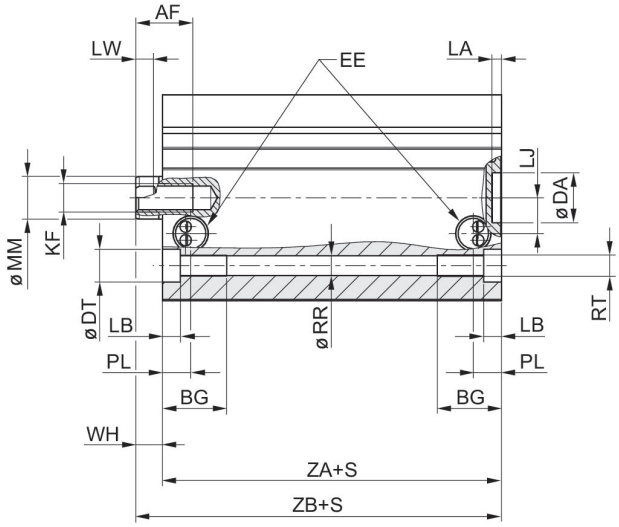
Standards: ISO 21287
Functional principle: Double-acting
Certificates: ATEX optional
Piston: Piston with magnet
Cushioning: with pneumatic cushioning
Piston rod: Internal thread
Piston rod: single
Compressed air connection: Internal thread
Ambient temperature min./max.: -20 °C ... 80 °C
Medium temperature min./max.: -20 °C ... 80 °C
Working pressure min./max.: 1 bar ... 10 bar

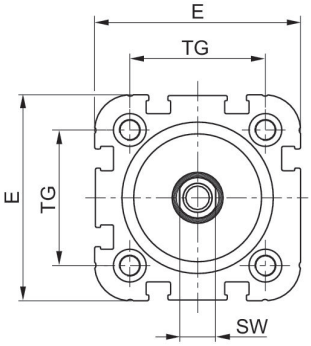


Piston Ø	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Piston rod thread	M6	M6	M8	M8	M10	M10
Ports	M5	M5	G 1/8	G 1/8	G 1/8	G 1/8
Stroke 5	R481654373	R481654382	R481654391	R481654404	R481654417	R481654430
10	R481654374	R481654383	R481654392	R481654405	R481654418	R481654431
15	R481654375	R481654384	R481654393	R481654406	R481654419	R481654432
20	R481654376	R481654385	R481654394	R481654407	R481654420	R481654433
25	R481654377	R481654386	R481654395	R481654408	R481654421	R481654434
30	R481654378	R481654387	R481654396	R481654409	R481654422	R481654435
40	R481654379	R481654388	R481654397	R481654410	R481654423	R481654436
50	R481654380	R481654389	R481654398	R481654411	R481654424	R481654437
60	R481654381	R481654390	R481654399	R481654412	R481654425	R481654438
80	-	-	R481654400	R481654413	R481654426	R481654439
100	-	-	R481654401	R481654414	R481654427	R481654440
125	-	-	R481654402	R481654415	R481654428	R481654441
150	-	-	R481654403	R481654416	R481654429	R481654442

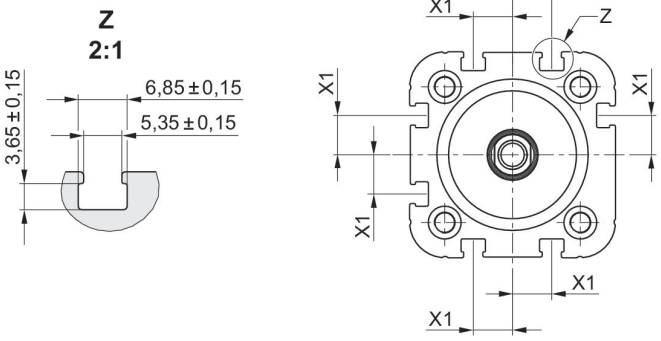
Piston Ø	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Retracting piston force	148 N	260 N	435 N	720 N	1110 N	1827 N
Extracting piston force	198 N	309 N	507 N	792 N	1237 N	1964 N
Cushioning energy	0.4 J	0.56 J	1.02 J	2.02 J	3.15 J	4.88 J
Weight 10 mm stroke	0.023 kg	0.026 kg	0.042 kg	0.052 kg	0.07 kg	0.087 kg
Weight 0 mm stroke	0.099 kg	0.123 kg	0.233 kg	0.303 kg	0.448 kg	0.689 kg

Dimensions

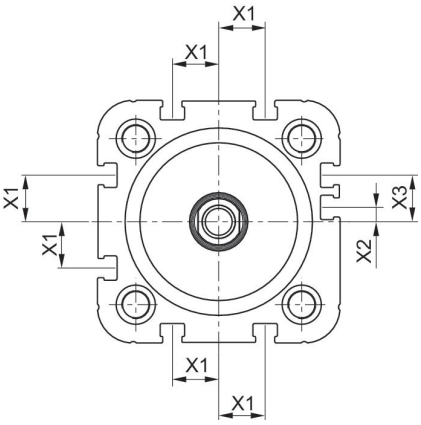




CCI-PC ø20-ø40



CCI-PC ø50-ø63



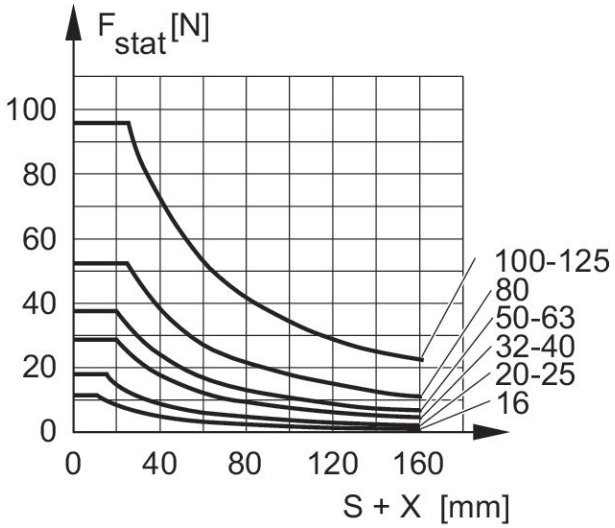
Piston Ø	AF	BG	DA H11	DT	E	EE	KF	LA	LB min.
20	12	15.5	12	7.5	36.3	M5	M6	2.5	4.5
25	12	15.5	12	8	40.3	M5	M6	2.5	4.5
32	12	17	14	8.6	50	G 1/8	M8	2.5	5
40	12	17	14	9.2	58	G 1/8	M8	2.5	5
50	16	17	18	11	68.3	G 1/8	M10	2.5	5
63	16	17	18	11	80	G 1/8	M10	2.5	5

Piston Ø	LJ	LW	MM f8	PL	RR min.	RT 6H	SW	TG	WH
20	4.5	3.7	10	8	4.2	M5	8	22 ±0.4	5.6 ±1.4
25	4	3.7	10	8	4.2	M5	8	26 ±0.4	5.6 ±1.4
32	5	5	12	11	5.1	M6	10	32.5 ±0.5	7.5 ±1.6
40	10	5	12	7.9	5.1	M6	10	38 ±0.5	7.5 ±1.6
50	11.5	5.7	16	8	6.7	M8	13	46.5 ±0.6	8 ±1.6
63	15	5.7	16	8.2	6.7	M8	13	56.5 ±0.7	8 ±1.6

Piston Ø	X1	X2	X3	ZA ±0,1	ZB
20	4.2	–	–	37.3	42.9 ±0.8
25	4.5	–	–	39	44.6 ±0.9
32	6.5	–	–	44	51.5 ±1
40	11	–	–	45	52.1 ±1
50	13	4	13	45.5	53.1 ±1
63	18	12	21	49	57 ±1

Maximum admissible lateral force

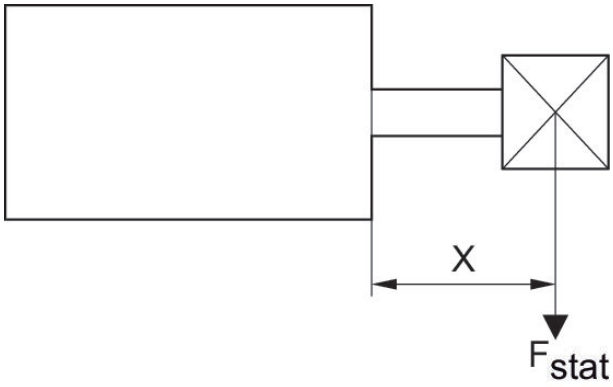
static



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

Maximum admissible lateral force

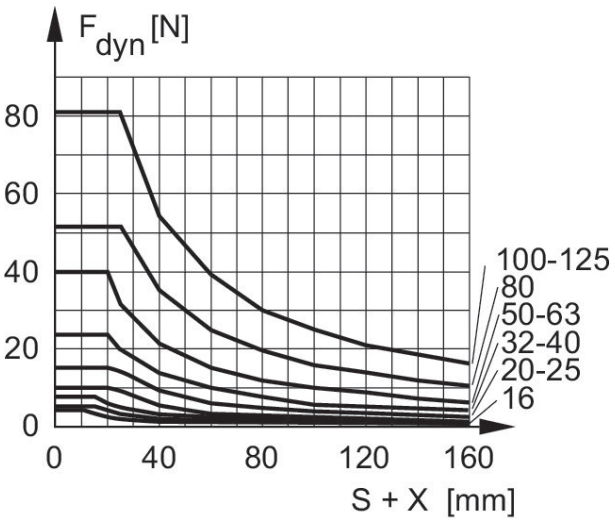
static



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

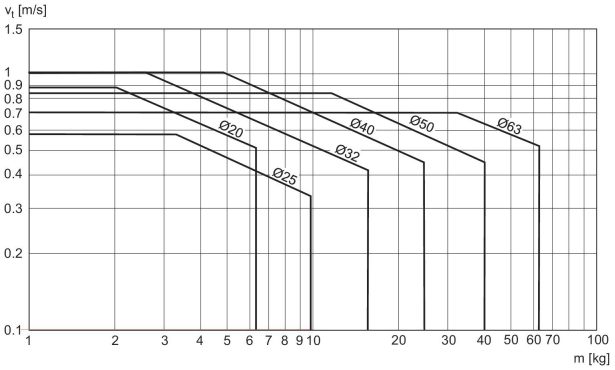
Maximum admissible lateral force

dynamic



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

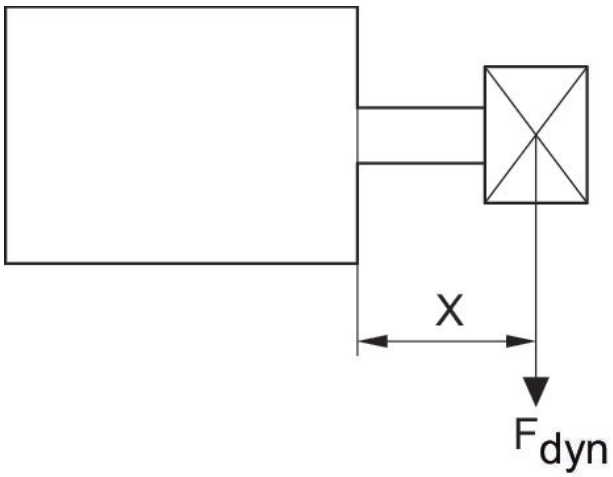
Cushioning diagram



v_t = Piston velocity [m/s] m = Cushionable mass [kg]

Maximum admissible lateral force

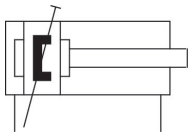
dynamic



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

Compact cylinder ISO 21287, Series CCI

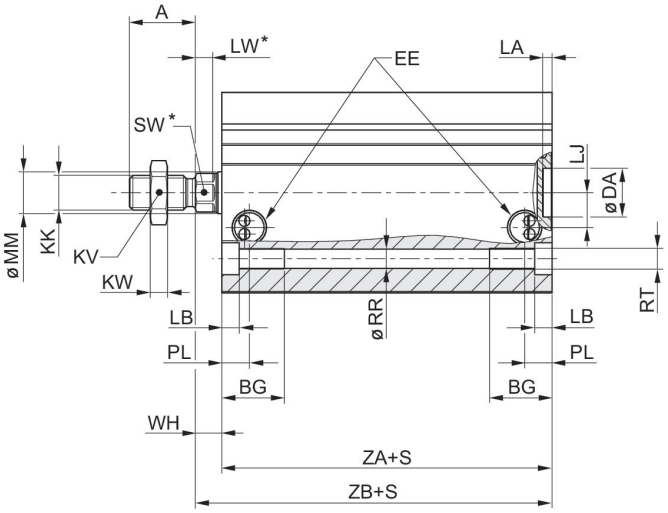
Standards: ISO 21287
Functional principle: Double-acting
Certificates: ATEX optional
Piston: Piston with magnet
Cushioning: Pneumatically
Piston rod: External thread
Piston rod: single
Compressed air connection: Internal thread
Ambient temperature min./max.: -20 °C ... 80 °C
Medium temperature min./max.: -20 °C ... 80 °C
Working pressure min./max.: 1 bar ... 10 bar

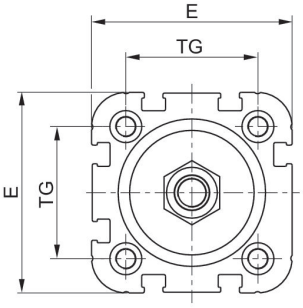


Piston Ø	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Piston rod thread	M8x1,25	M8x1,25	M10x1,25	M10x1,25	M12x1,25	M12x1,25
Ports	M5	M5	G 1/8	G 1/8	G 1/8	G 1/8
Stroke 5	R481654443	R481654452	R481654461	R481654474	R481654487	R481654500
10	R481654444	R481654453	R481654462	R481654475	R481654488	R481654501
15	R481654445	R481654454	R481654463	R481654476	R481654489	R481654502
20	R481654446	R481654455	R481654464	R481654477	R481654490	R481654503
25	R481654447	R481654456	R481654465	R481654478	R481654491	R481654504
30	R481654448	R481654457	R481654466	R481654479	R481654492	R481654505
40	R481654449	R481654458	R481654467	R481654480	R481654493	R481654506
50	R481654450	R481654459	R481654468	R481654481	R481654494	R481654507
60	R481654451	R481654460	R481654469	R481654482	R481654495	R481654508
80	-	-	R481654470	R481654483	R481654496	R481654509
100	-	-	R481654471	R481654484	R481654497	R481654510
125	-	-	R481654472	R481654485	R481654498	R481654511
150	-	-	R481654473	R481654486	R481654499	R481654512

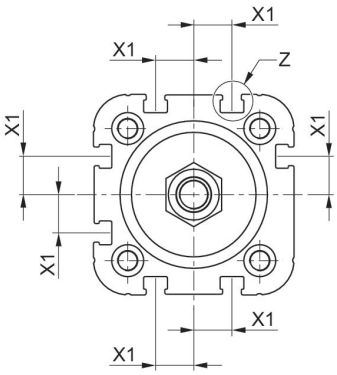
Piston Ø	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Retracting piston force	148 N	260 N	435 N	720 N	1110 N	1837 N
Extracting piston force	198 N	309 N	507 N	792 N	1237 N	1964 N
Cushioning energy	0.4 J	0.56 J	1.02 J	2.02 J	3.15 J	4.88 J
Weight 10 mm stroke	0.023 kg	0.026 kg	0.043 kg	0.052 kg	0.07 kg	0.087 kg
Weight 0 mm stroke	0.125 kg	0.149 kg	0.256 kg	0.326 kg	0.487 kg	0.728 kg

Dimensions

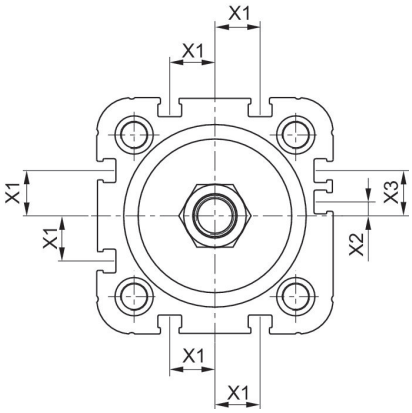




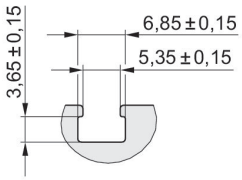
CCI-PC ø20-ø40



CCI-PC ø50-ø63



Z
2:1



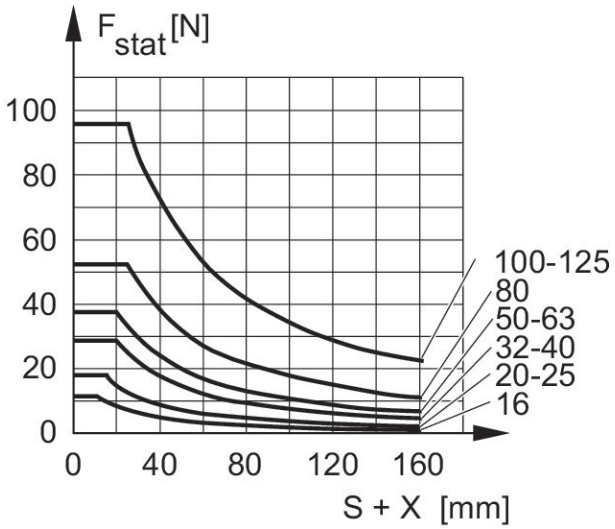
Piston Ø	A	BG	DA H11	DT	E	EE	KK	KV	KW
20	16	15.5	12	7.5	36.3	M5	M8x1.25	13	4
25	16	15.5	12	8	40.3	M5	M8x1.25	13	4
32	19	17	14	8.6	50	G 1/8	M10x1.25	16	5
40	19	17	14	9.2	58	G 1/8	M10x1.25	16	5
50	22	17	18	11	68.3	G 1/8	M12x1.25	18	6
63	22	17	18	11	80	G 1/8	M12x1.25	18	6

Piston Ø	LA	LB min.	LJ	MM f8	PL	RR min.	RT 6H	SW	TG
20	2.5	4.5	4.5	10	8	4.2	M5	8	22 ±0.4
25	2.5	4.5	4	10	8	4.2	M5	8	26 ±0.4
32	2.5	5	5	12	11	5.1	M6	10	32.5 ±0.5
40	2.5	5	10	12	7.9	5.1	M6	10	38 ±0.5
50	2.5	5	11.5	16	8	6.7	M8	13	46.5 ±0.6
63	2.5	5	15	16	8.2	6.7	M8	13	56.5 ±0.7

Piston Ø	WH	X1	X2	X3	ZA	ZB
20	5.6 ±1.4	4.2	–	–	37.3	42.9 ±0.8
25	5.6 ±1.4	4.5	–	–	39	44.6 ±0.9
32	7.5 ±1.6	6.5	–	–	44	51.5 ±1
40	7.5 ±1.6	11	–	–	45	52.1 ±1
50	8 ±1.6	13	4	13	45.5	53.1 ±1
63	8 ±1.6	18	12	21	49	57 ±1

Maximum admissible lateral force

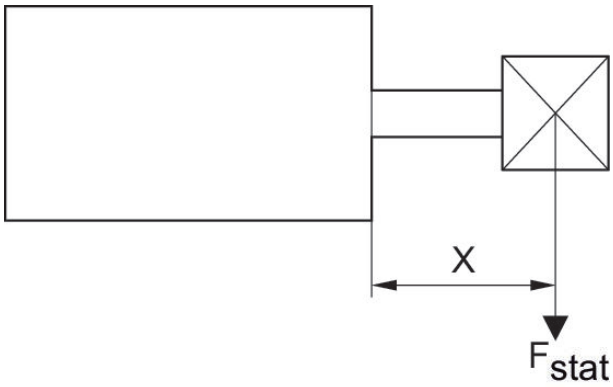
static



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

Maximum admissible lateral force

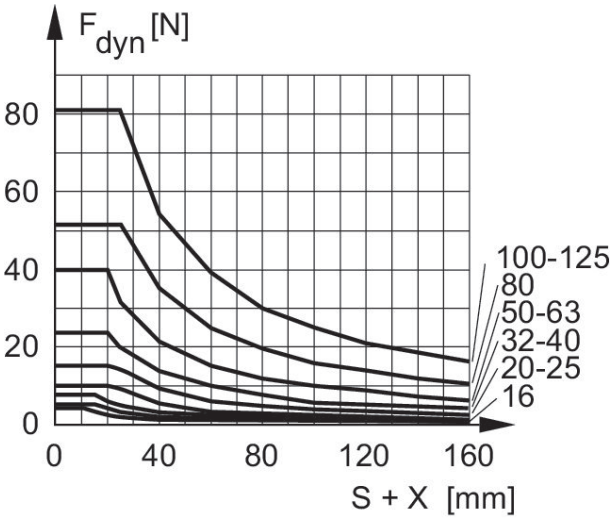
static



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

Maximum admissible lateral force

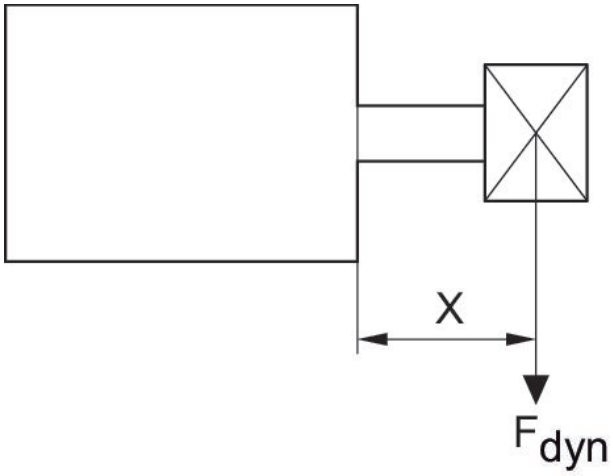
dynamic



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

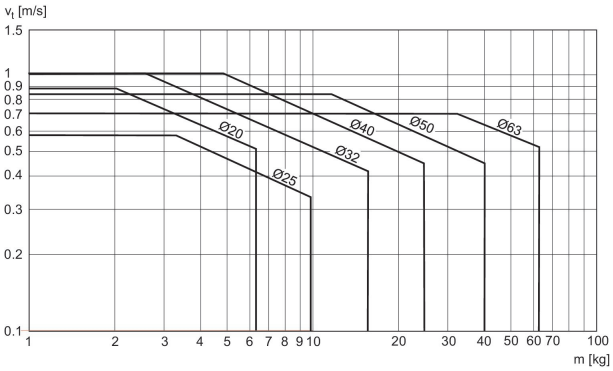
Maximum admissible lateral force

dynamic



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

Cushioning diagram



v_t = Piston velocity [m/s] m = Cushionable mass [kg]

Compact cylinder ISO 21287, Series CCI

Standards: ISO 21287
Functional principle: Double-acting
Certificates: ATEX optional
Piston: Piston with magnet
Cushioning: elastic cushioning
Piston rod: Internal thread
Piston rod: through
Compressed air connection: Internal thread
Ambient temperature min./max.: -20 °C ... 80 °C
Medium temperature min./max.: -20 °C ... 80 °C
Working pressure min./max.: 1 bar ... 10 bar

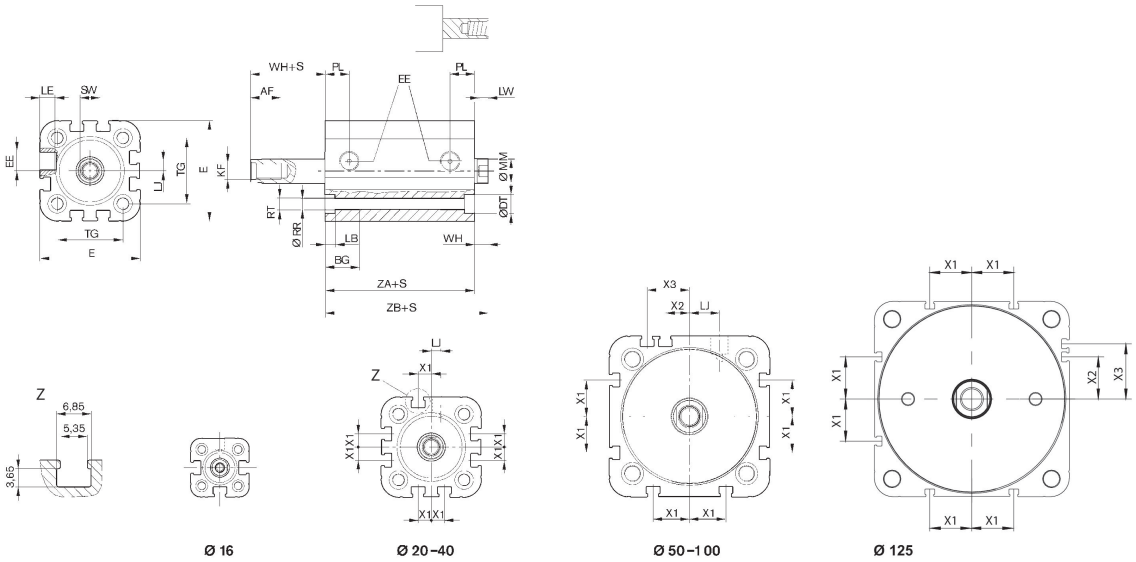
Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M4	M6	M6	M8	M8	M10
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	R422001692	R422001693	R422001694	R422001695	R422001696	R422001697
10	R422001702	R422001703	R422001704	R422001705	R422001706	R422001707
15	R422001712	R422001713	R422001714	R422001715	R422001716	R422001717
20	R422001722	R422001723	R422001724	R422001725	R422001726	R422001727
25	R422001732	R422001733	R422001734	R422001735	R422001736	R422001737

Piston Ø	63 mm	80 mm	100 mm	125 mm
Piston rod thread	M10	M12	M12	M16
Ports	G 1/8	G 1/8	G 1/8	G 1/4
Stroke 5	R422001698	R422001699	R422001700	R481636854
10	R422001708	R422001709	R422001710	R481636855
15	R422001718	R422001719	R422001720	R481636856
20	R422001728	R422001729	R422001730	R481636857
25	R422001738	R422001739	R422001740	R481636858

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Retracting piston force	91 N	137 N	216 N	364 N	560 N	871 N
Extracting piston force	91 N	137 N	216 N	364 N	560 N	871 N
Impact energy	0.15 J	0.2 J	0.3 J	0.5 J	0.7 J	1 J
Weight 10 mm stroke	0.02 kg	0.029 kg	0.032 kg	0.052 kg	0.06 kg	0.087 kg
Weight 0 mm stroke	0.064 kg	0.107 kg	0.128 kg	0.246 kg	0.319 kg	0.472 kg

Piston Ø	63 mm	80 mm	100 mm	125 mm
Retracting piston force	1478 N	2397 N	3886 N	7422 N
Extracting piston force	1478 N	2397 N	3886 N	7731 N
Impact energy	1.3 J	1.8 J	2.5 J	3.3 J
Weight 10 mm stroke	0.103 kg	0.14 kg	0.206 kg	0.173 kg
Weight 0 mm stroke	0.718 kg	1.18 kg	2.28 kg	6.255 kg

Dimensions



Ø 16 Ø 20–40 Ø 50–100 Ø 125

Piston Ø	AF	BG	DT	E	EE	KF	LB	LE	LJ
16	10	15	6	29.3	M5	M4	3.5	4.5	–
20	12	15.5	7.5	36.3	M5	M6	4.5	4.5	4.5
25	12	15.5	8	40.3	M5	M6	4.5	4.5	4
32	12	17	8.6	50	G 1/8	M8	5	7.5	4.85
40	12	17	9.2	58	G 1/8	M8	5	7.5	9.85
50	16	17	11	68.3	G 1/8	M10	5	7.5	12
63	16	17	11	80	G 1/8	M10	5	7.5	14.8
80	20	20	15	96	G 1/8	M12	5	7.5	22
100	20	20	15	116	G 1/8	M12	5	7.5	27
125	25	35	-	134.6	G 1/4	M16	-	???	39

Piston Ø	LW	MM f8	PL	RR	RT 6H	SW	TG	WH	X1
16	4	8	8	3.3	M4	7	18	4,8 ±0,9	–
20	4	10	10	4.2	M5	8	22	5,6 ±0,9	4.2
25	4	10	10	4.2	M5	8	26	5,6 ±0,9	4.5
32	4.5	12	12	5.1	M6	10	32.5	7,4 ±0,9	6.5
40	4.5	12	12	5.1	M6	10	38	7,4 ±0,9	11
50	6	16	12	6.7	M8	13	46.5	8,4 ±0,9	13
63	6	16	12	6.7	M8	13	56.5	8,5 ±0,9	18
80	7	20	14	8.5	M10	16	72	9,8 ±1	18
100	7	25	16.5	8.5	M10	21	89	9,8 ±1	20
125	7.5	25	20.5	11.1	M12	21	110	11	29

Piston Ø	X2	X3	ZA	ZB
16	–	–	34,9 ±0,1	39,7 ±0,8
20	–	–	37,3 ±0,1	43,6 ±0,8
25	–	–	39 ±0,1	44,5 ±0,9
32	–	–	44 ±0,1	51,4 ±1
40	–	–	45 ±0,1	52,4 ±1
50	4	13	45,5 ±0,1	53,6 ±1
63	12	21	49 ±0,1	57,4 ±1
80	16.5	25.5	54,7 ±0,1	64,4 ±1
100	20	29	67 ±0,1	76,7 ±1
125	29	38	81	92 ±1

Compact cylinder ISO 21287, Series CCI

Standards: ISO 21287
Functional principle: Double-acting
Certificates: ATEX optional
Piston: Piston with magnet
Cushioning: elastic cushioning
Piston rod: External thread
Piston rod: through
Compressed air connection: Internal thread
Ambient temperature min./max.: -20 °C ... 80 °C
Medium temperature min./max.: -20 °C ... 80 °C
Working pressure min./max.: 1 bar ... 10 bar

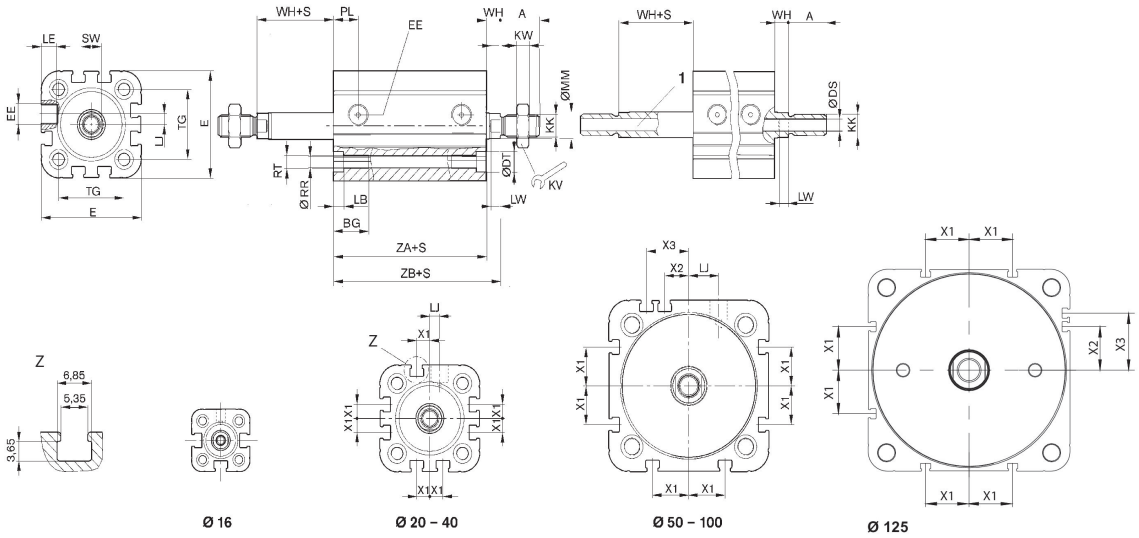
Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M6x1	M8x1,25	M8x1,25	M10x1,25	M10x1,25	M12x1,25
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Stroke 5	R422001742	R422001743	R422001744	R422001745	R422001746	R422001747
10	R422001752	R422001753	R422001754	R422001755	R422001756	R422001757
15	R422001762	R422001763	R422001764	R422001765	R422001766	R422001767
20	R422001772	R422001773	R422001774	R422001775	R422001776	R422001777
25	R422001782	R422001783	R422001784	R422001785	R422001786	R422001787

Piston Ø	63 mm	80 mm	100 mm	125 mm
Piston rod thread	M12x1,25	M16x1,5	M16x1,5	M20x1,5
Ports	G 1/8	G 1/8	G 1/8	G 1/4
Stroke 5	R422001748	R422001749	R422001750	R481636859
10	R422001758	R422001759	R422001760	R481636860
15	R422001768	R422001769	R422001770	R481636861
20	R422001778	R422001779	R422001780	R481636862
25	R422001788	R422001789	R422001790	R481636863

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Retracting piston force	91 N	137 N	216 N	364 N	560 N	871 N
Extracting piston force	91 N	137 N	216 N	364 N	560 N	871 N
Impact energy	0.15 J	0.2 J	0.3 J	0.5 J	0.7 J	1 J
Weight 10 mm stroke	0.02 kg	0.029 kg	0.032 kg	0.052 kg	0.06 kg	0.087 kg
Weight 0 mm stroke	0.072 kg	0.145 kg	0.166 kg	0.293 kg	0.366 kg	0.552 kg

Piston Ø	63 mm	80 mm	100 mm	125 mm
Retracting piston force	1478 N	2397 N	3886 N	7422 N
Extracting piston force	1478 N	2397 N	3886 N	7731 N
Impact energy	1.3 J	1.8 J	2.5 J	3.3 J
Weight 10 mm stroke	0.103 kg	0.14 kg	0.206 kg	0.173 kg
Weight 0 mm stroke	0.797 kg	1.33 kg	2.43 kg	6.591 kg

Dimensions



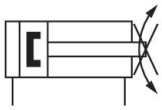
Piston Ø	A	BG	Ø DS	DT	E	EE	KK Solid piston rod/hollow piston rod	KV	KW
16	12	15	2	6	29.3	M5	M6 / M5	10	3
20	16	15.5	3.8	7.5	36.3	M5	M8 / G 1/8	13	4
25	16	15.5	3.8	8	40.3	M5	M8 / G 1/8	13	4
32	19	17	4.5	8.6	50	G 1/8	M10x1.25 / G 1/8	17	5
40	19	17	4.5	9.2	58	G 1/8	M10x1.25 / G 1/8	17	5
50	22	17	6	11	68.3	G 1/8	M12x1.25 / G 1/4	19	6
63	22	17	6	11	80	G 1/8	M12x1.25 / G 1/4	19	6
80	28	20	8	15	96	G 1/8	M16x1.5 / M16x1.5	24	8
100	28	20	8	15	116	G 1/8	M16x1.5 / M16x1.5	24	8
125	40	35	8	-	134.6	G 1/4	M20x1.5 / M20x1.5	30	10

Piston Ø	LB	LE	LJ	LK	LW	MM f8	PL	RR	RT 6H
16	3.5	4.5	0	1.6	4	8	8	3.3	M4
20	4.5	4.5	4.5	2.5	4	10	10	4.2	M5
25	4.5	4.5	4	2.5	4	10	10	4.2	M5
32	5	7.5	4.85	2.5	4.5	12	12	5.1	M6
40	5	7.5	9.85	2.5	4.5	12	12	5.1	M6
50	5	7.5	12	3.5	6	16	12	6.7	M8
63	5	7.5	14.8	3.5	6	16	12	6.7	M8
80	5	7.5	22	3.5	7	20	14	8.5	M10
100	5	7.5	27	3.5	7	25	16.5	8.5	M10
125	-	???	39	???	7.5	25	20.5	11.1	M12

Piston Ø	SW	TG	WH	X1	X2	X3	ZA	ZB
16	7	18	4,8 ±0,9	–	–	–	34,9 ±0,1	39,7 ±0,8
20	8	22	5,6 ±0,9	4.2	–	–	37,3 ±0,1	43,6 ±0,8
25	8	26	5,6 ±0,9	4.5	–	–	39 ±0,1	44,5 ±0,9
32	10	32.5	7,4 ±0,9	6.5	–	–	44 ±0,1	51,4 ±1
40	10	38	7,4 ±0,9	11	–	–	45 ±0,1	52,4 ±1
50	13	46.5	8,4 ±0,9	13	4	13	45,5 ±0,1	53,6 ±1
63	13	56.5	8,5 ±0,9	18	12	21	49 ±0,1	57,4 ±1
80	16	72	9,8 ±1	18	16.5	25.5	54,7 ±0,1	64,4 ±1
100	21	89	9,8 ±1	20	20	29	67 ±0,1	76,7 ±1
125	21	110	11	29	29	38	81	92 ±1

Compact cylinder ISO 21287, Series CCI

Standards: ISO 21287
Functional principle: Double-acting
Piston: Piston with magnet
Cushioning: elastic cushioning
Piston rod: Internal thread
Piston rod: non-rotating, with front plate
Compressed air connection: Internal thread
Ambient temperature min./max.: -20 °C ... 80 °C
Medium temperature min./max.: -20 °C ... 80 °C
Working pressure min./max.: 1 bar ... 10 bar



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	R422001262	R422001263	R422001264	R422001265	R422001266	R422001267
10	R422001272	R422001273	R422001274	R422001275	R422001276	R422001277
15	R422001282	R422001283	R422001284	R422001285	R422001286	R422001287
20	R422001292	R422001293	R422001294	R422001295	R422001296	R422001297
25	R422001302	R422001303	R422001304	R422001305	R422001306	R422001307
30	R422001312	R422001313	R422001314	R422001315	R422001316	R422001317
40	R422001322	R422001323	R422001324	R422001325	R422001326	R422001327
50	R422001332	R422001333	R422001334	R422001335	R422001336	R422001337
60	R422001342	R422001343	R422001344	R422001345	R422001346	R422001347
80	-	-	-	R422001355	R422001356	R422001357
100	-	-	-	R422001365	R422001366	R422001367
125	-	-	-	R422001375	R422001376	R422001377
150	-	-	-	R422001385	R422001386	R422001387

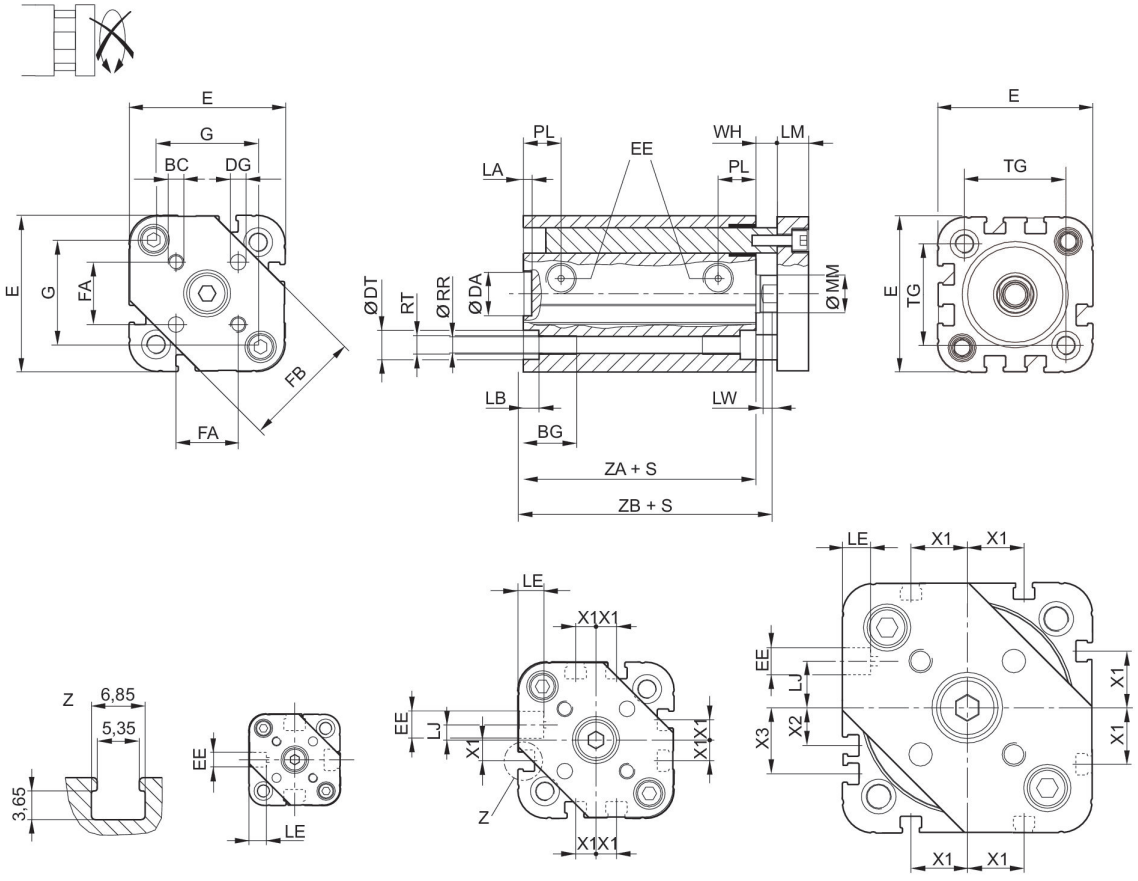
Piston Ø	63 mm	80 mm	100 mm	125 mm
Piston rod thread	M10	M12	M12	M16
Ports	G 1/8	G 1/8	G 1/8	G 1/4
Stroke 5	R422001268	R422001269	R422001270	R481636864
10	R422001278	R422001279	R422001280	R481636865
15	R422001288	R422001289	R422001290	R481636866
20	R422001298	R422001299	R422001300	R481636867
25	R422001308	R422001309	R422001310	R481636868
30	R422001318	R422001319	R422001320	R481636869
40	R422001328	R422001329	R422001330	R481636870
50	R422001338	R422001339	R422001340	R481636871

Piston Ø	63 mm	80 mm	100 mm	125 mm
Piston rod thread	M10	M12	M12	M16
Ports	G 1/8	G 1/8	G 1/8	G 1/4
60	R422001348	R422001349	R422001350	R481636872
80	R422001358	R422001359	R422001360	R481636873
100	R422001368	R422001369	R422001370	R481636874
125	R422001378	R422001379	R422001380	R481636875
150	R422001388	R422001389	R422001390	R481636876

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
Weight 10 mm stroke	0.019 kg	0.026 kg	0.03 kg	0.05 kg	0.06 kg	0.09 kg
Weight 0 mm stroke	0.071 kg	0.119 kg	0.155 kg	0.303 kg	0.383 kg	0.626 kg

Piston Ø	63 mm	80 mm	100 mm	125 mm
Retracting piston force	1837 N	2969 N	4639 N	7422 N
Extracting piston force	1964 N	3167 N	4948 N	7731 N
Impact energy	1.3 J	1.8 J	2.5 J	3.3 J
Weight 10 mm stroke	0.107 kg	0.136 kg	0.188 kg	0.173 kg
Weight 0 mm stroke	0.907 kg	1.46 kg	2.64 kg	7.172 kg

Dimensions



Ø 16 Ø 20 – 40 Ø 50 – 125

S = stroke
G = distance between the guide rods

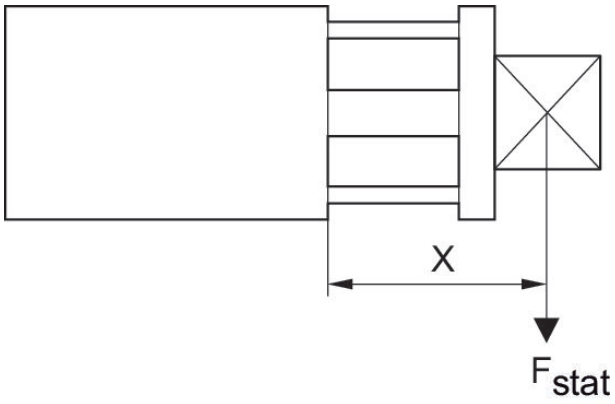
Piston Ø	BC	BG	DA H11	DG H13	DT	E	EE	FA	FB
16	M3	15	10	3	6	29.3	M5	9.9 ±0.1	20
20	M4	15.5	12	4	7.5	36.3	M5	12 ±0.1	24
25	M5	15.5	12	5	8	40.3	M5	15.6 ±0.1	30
32	M5	17	14	5	8.6	50	G 1/8	19.8 ±0.1	38
40	M5	17	14	5	9.2	58	G 1/8	23.3 ±0.1	44
50	M6	17	18	6	11	68.3	G 1/8	29.7 ±0.1	54
63	M6	17	18	6	11	80	G 1/8	35.4 ±0.1	62
80	M8	20	23	8	15	96	G 1/8	46 ±0.1	80
100	M10	20	28	10	15	116	G 1/8	56.6 ±0.1	100
125	M10	35	12	10	-	134.6	G 1/4	63.64 ±0.1	120

Piston Ø	G	LA	LB	LE	LJ	LM	LW	MM f8	PL
16	19	2.5	3.5	4.5	–	6	4	8	8
20	25	2.5	4.5	4.5	4.5	8	4	10	10
25	27	2.5	4.5	4.5	4	8	4	10	10
32	34	2.5	5	7.5	4.85	10	4.5	12	12
40	42	2.5	5	7.5	9.85	10	4.5	12	12
50	49	2.5	5	7.5	12	12	6	16	12
63	60	2.5	5	7.5	14.8	12	6	16	12
80	72	3	5	7.5	22	14	7	20	14
100	92	3	5	7.5	27	14	7	25	16.5
125	110	2.6	-	???	39	18	7.5	25	20.5

Piston Ø	RR	RT 6H	TG	WH	X1	X2	X3	ZA ±0,1	ZB
16	3.3	M4	18	4.8 ±0.9	–	–	–	34.9	39.7 ±0.8
20	4.2	M5	22	5.6 ±0.9	4.2	–	–	37.3	43.6 ±0.8
25	4.2	M5	26	5.6 ±0.9	4.5	–	–	39	44.5 ±0.9
32	5.1	M6	32.5	7.4 ±0.9	6.5	–	–	44	51.4 ±1
40	5.1	M6	38	7.4 ±0.9	11	–	–	45	52.4 ±1
50	6.7	M8	46.5	8.4 ±0.9	13	4	13	45.5	53.6 ±1
63	6.7	M8	56.5	8.5 ±0.9	18	12	21	49	57.4 ±1
80	8.5	M10	72	9.8 ±1	18	16.5	25.5	54.7	64.4 ±1
100	8.5	M10	89	9.8 ±1	20	20	29	67	76.7 ±1
125	11.1	M12	110	11	29	29	38	81	92 ±1

Maximum admissible lateral force

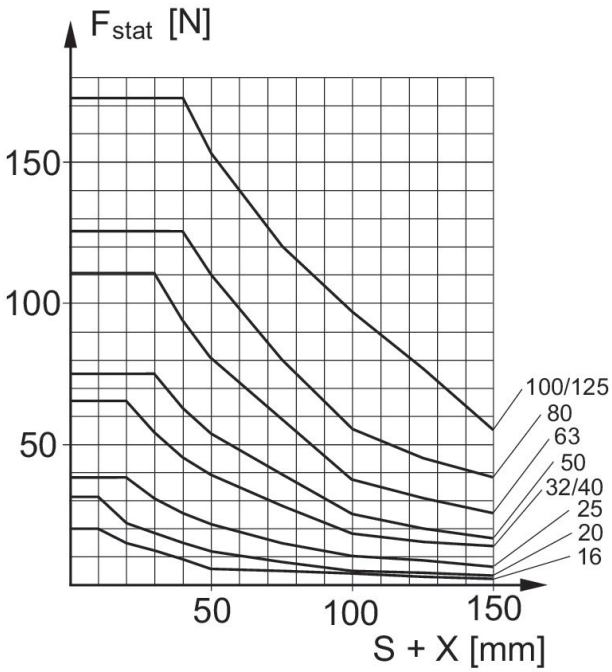
static



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

Maximum admissible lateral force

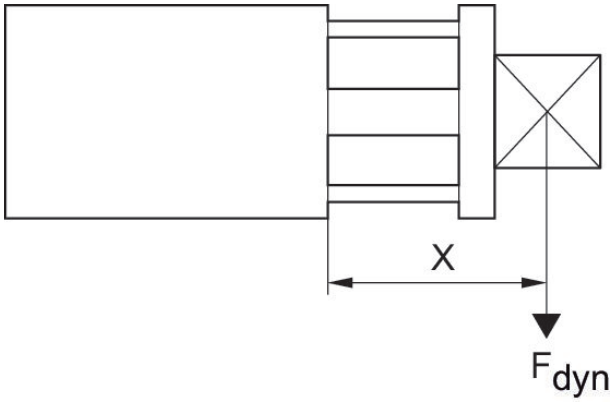
static



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

Maximum admissible lateral force

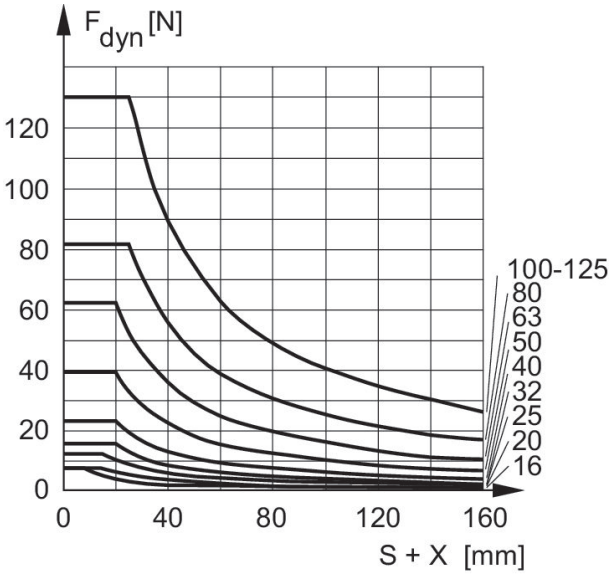
dynamic



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

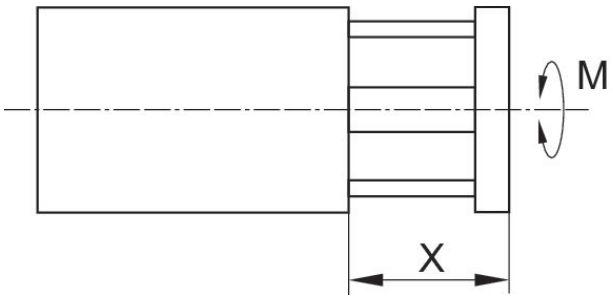
Maximum admissible lateral force

dynamic



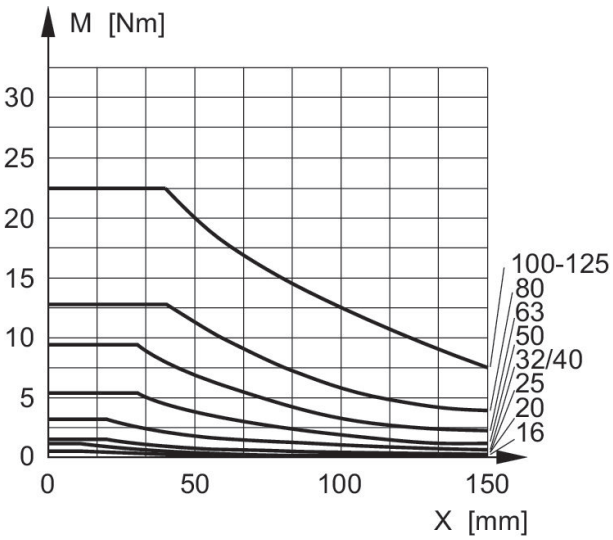
F dyn. = dynamic lateral force
X = distance between force application point and cylinder cover
S = stroke

Max. permissible torque



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

Max. permissible torque



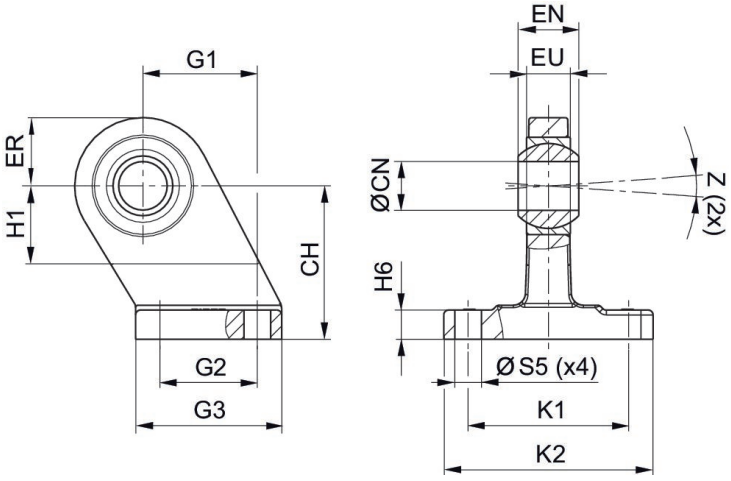
M = max. permissible torque
X = spacing between torque contact surface and cylinder cover

Bearing block, Series CS7

Certificates: VDMA 24562 part 2

Piston diameter [mm]	Swivel bearing Ø [mm]	Standardization	Material	Part No.
32	10	VDMA 24562 part 2	Nodular graphite iron	1827001784
40	12	VDMA 24562 part 2	Nodular graphite iron	1827001785
50	16	VDMA 24562 part 2	Nodular graphite iron	1827001786
63	16	VDMA 24562 part 2	Nodular graphite iron	1827001787
80	20	VDMA 24562 part 2	Nodular graphite iron	1827001788
100	20	VDMA 24562 part 2	Nodular graphite iron	1827001789
125	30	VDMA 24562 part 2	Nodular graphite iron	1827001790

Dimensions



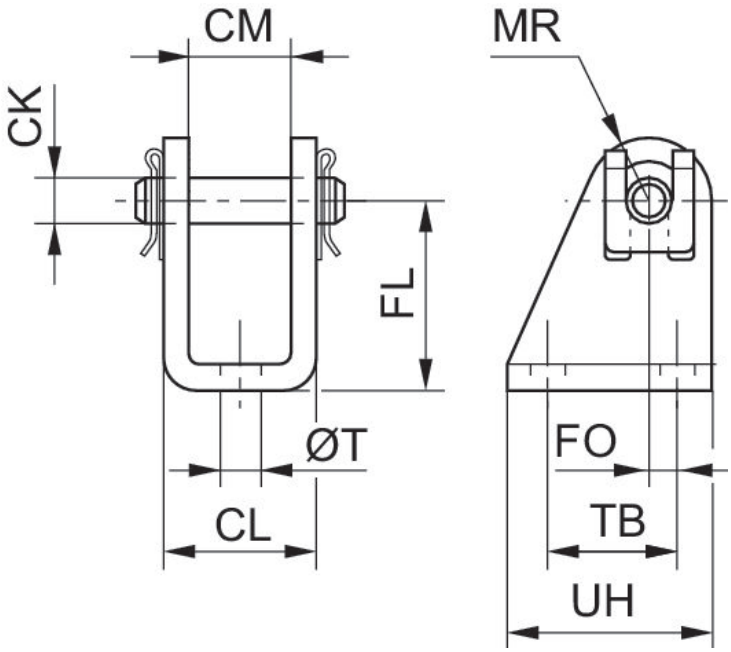
Piston Ø	Part No.	CH JS15	ØCN H7	EU max.	EN -1,0	ER max.	G1 JS14	G2 JS14	G3 max.
32	1827001784	32	10	10.5	14	16	21	18	31
40	1827001785	36	12	12	16	18	24	22	35
50	1827001786	45	16	15	21	21	33	30	45
63	1827001787	50	16	15	21	23	37	35	50
80	1827001788	63	20	18	25	28	47	40	60
100	1827001789	71	20	18	25	30	55	50	70
125	1827001790	90	30	25	37	40	70	60	90
160	1827001791	115	35	28	43	44	97	88	126
200	1827001792	135	35	28	43	47	105	90	130
250	1827001793	165	40	33	49	53	128	110	160
320	5239013442	200	50	45	60	63	150	122	186

Piston Ø	H1 min.	H6	K1 JS14	K2 max.	ØS5 H13	Z min.
32	16	9 ±1	38	51	6.6	4°
40	20	9 ±1	41	54	6.6	4°
50	22	11 ±1	50	65	9	4°
63	27	11 ±1	52	67	9	4°
80	31	12 ±1,5	66	86	11	4°
100	38	13 ±1,5	76	96	11	4°
125	40	17 ±1,5	94	124	14	4°
160	45	22 ±1,5	118	156	14	4°
200	45	27 ±2	122	162	18	4°
250	50	31 ±2	150	200	22	4°
320	60	36 ±2	170	234	26	4°

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

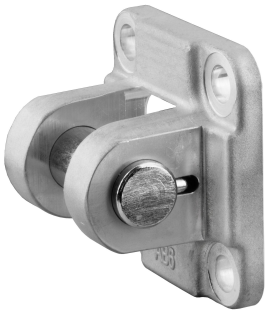
Dimensions



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
20, 25	1827001445	16,1	8	24,1	30	4,0	10	6,6	20
32	3323432000	26	10	36	32	6,0	12	6.6	24

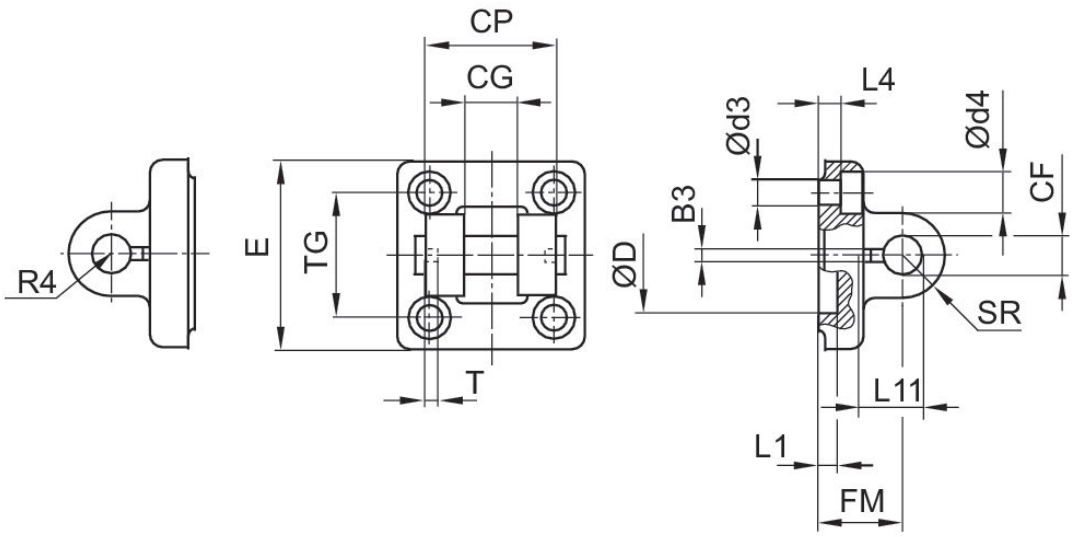
Piston Ø	UH
8, 10	20
8, 10	20
12, 16	25
20, 25	32
32	36

Clevis mounting AB6, Series CM1



Piston diameter [mm]	Swivel bearing Ø [mm]	Standardization	Material	Part No.
32	10	ISO 15552	Aluminum	1827001593
40	12	ISO 15552	Aluminum	1827001594
50	16	ISO 15552	Aluminum	1827001595
63	16	ISO 15552	Aluminum	1827002024
80	20	ISO 15552	Aluminum	1827001597
100	20	ISO 15552	Aluminum	1827001598
125	30	ISO 15552	Aluminum	1827001599

Dimensions



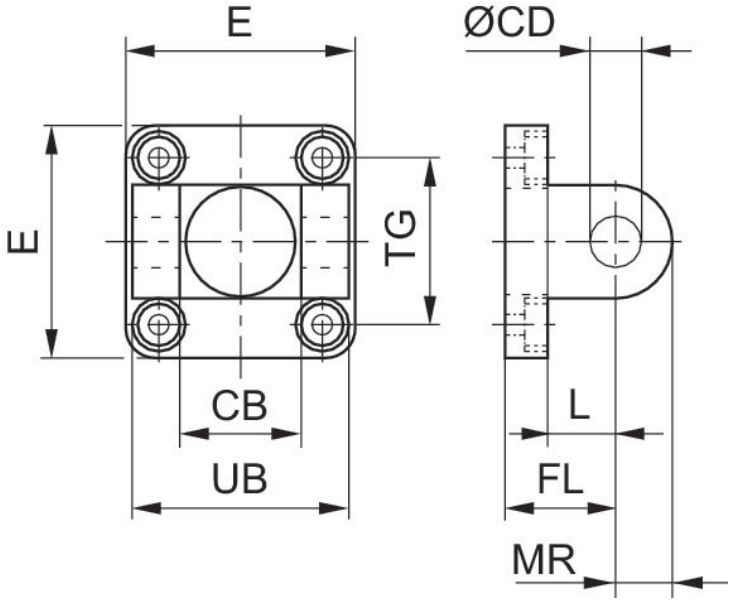
Piston Ø	Part No.	B3 ±0,2	Ø CF F7	CG D10	CP d12	Ø d3	Ø d4	Ø D	E
32	1827001593	3.3	10	14	34	6.6	11	30	46
40	1827001594	4.3	12	16	40	6.6	11	35	52
50	1827001595	4.3	16	21	45	9	15	40	64
63	1827002024	4.3	16	21	51	9	15	45	74
80	1827001597	4.3	20	25	65	11	18	45	94
100	1827001598	4.3	20	25	75	11	18	55	113
125	1827001599	6.3	30	37	97	14	20	60	138
160	1827001600	6.3	35	43	122	18	26	65	180
200	1827001601	6.3	35	43	122	18	26	75	220
250	1827001602	8.3	40	49	125	22	33	90	280
320	5239013432	8.3	50	60	150	26	36	110	340

Piston Ø	FM ±0,2	L1 min.	L4 ±0,5	L11 –0,5	R4	SR	T ±0,2	TG
32	22	4.5	5.5	16.5	17	10	3	32,5 ±0,2
40	25	4.5	5.5	18	20	12	4	38 ±0,2
50	27	4.5	6.5	23	22	15	4	46,5 ±0,2
63	32	4.5	6.5	23	25	15	4	56,5 ±0,2
80	36	4.5	10	27	30	20	4	72 ±0,2
100	41	4.5	10	27	32	20	4	89 ±0,2
125	50	7	10	40	42	26	6	110 ±0,3
160	55	10	10	45	46	32.5	6	140 ±0,3
200	60	10	11	45	49	32.5	6	175 ±0,3
250	70	12	11	53	55	40	8	220 ±0,3
320	80	11	15	69	65	50	8	270 ±0,3

Clevis mounting MP2-HD, Series CM1

Piston diameter [mm]	Swivel bearing Ø [mm]	Standardization	Material	Part No.
32	10	ISO 15552	Aluminum	1827001289
40	12	ISO 15552	Aluminum	1827001290
50	12	ISO 15552	Aluminum	1827001291
63	16	ISO 15552	Aluminum	1827001500
80	16	ISO 15552	Aluminum	1827001293
100	20	ISO 15552	Aluminum	1827001294
125	25	ISO 15552	Aluminum	1827004862

Dimensions



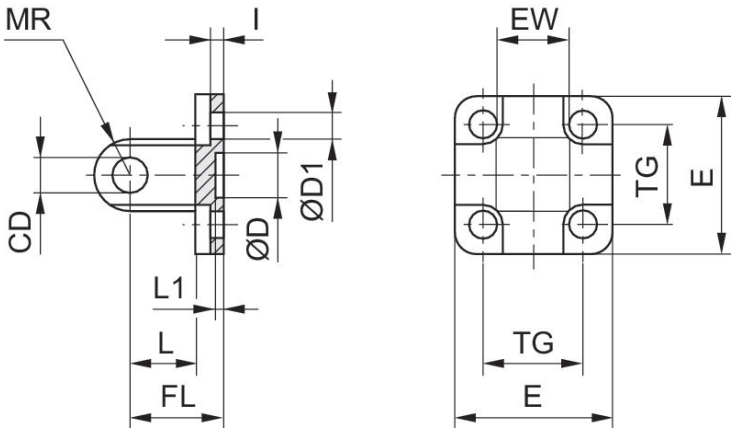
Piston Ø	Part No.	CB H14	Ø CD H9	E	FL ±0.2	L min.	MR max.	UB h13	TG
32	1827001289	26	10	47.5	22	12	10	45	32.5 ±0.2
40	1827001290	28	12	53.5	25	15	13	52	38 ±0.2
50	1827001291	32	12	64	27	15	13	60	46.5 ±0.2
63	1827001500	40	16	74	32	18	17	70	56.5 ±0.2
80	1827001293	50	16	94	36	20	17	90	72.0 ±0.2
100	1827001294	60	20	113.5	41	25	18	110	89.0 ±0.2
125	1827004862	70	25	138	50	30	26	130	110 ±0.3
160	1827004863	90	30	180	55	35	31	170	140 ±0.3
200	1827004864	90	30	220	60	35	31	170	175 ±0.3
250	1827004865	110	40	280	70	45	41	200	220 ±0.3
320	5239813402	120	45	350	80	50	45	220	270 ±0.3

Rear eye, Series MP4-HD

Type: suitable for robust mechanical engineering applications, Heavy Duty
Mounting type: Rear eye
Standardization: ISO 15552

Piston diameter [mm]	Swivel bearing Ø [mm]	Standardization	Material	Part No.
16	6	ISO 15552	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
125	25	ISO 15552	Aluminum (forged)	1827004866

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

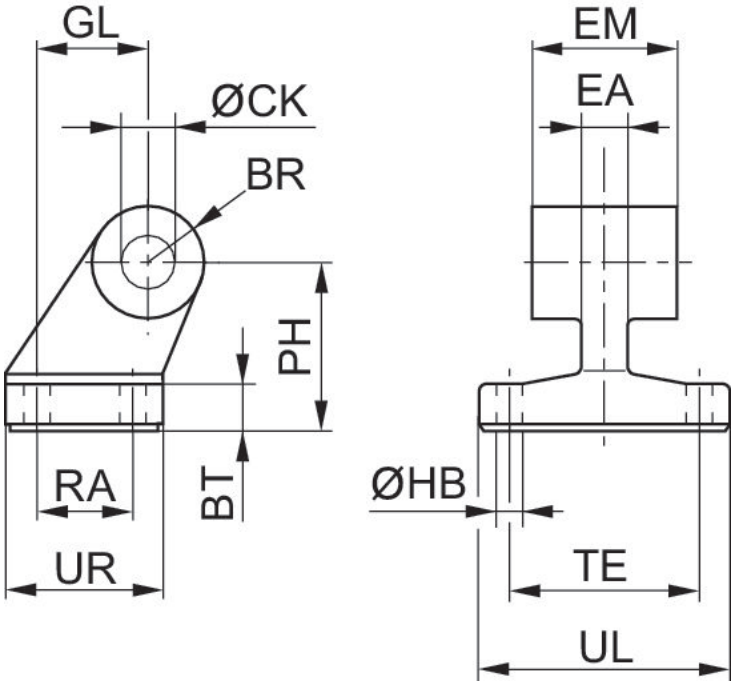
Piston Ø	L1 min.	MR max.	TG
16	3	6	18 ±0.2
20	3	8	22 ±0.4
25	3	8	26 ±0.4
32	4.5	10	32.5 ±0.2
40	4.5	12	38 ±0.2
50	4.5	12	46.5 ±0.2
63	4.5	16	56.5 ±0.2
80	4.5	16	72 ±0.2
100	4.5	20	89 ±0.2
125	7	26	110 ±0.3
160	7	31	140 ±0.3
200	7	31	175 ±0.3
250	11	41	220 ±0.3
320	11	45	270 ±0.3

Bearing block, Series AB7-HD

Certificates: ISO 15552

Piston diameter [mm]	Swivel bearing Ø [mm]	Standardization	Material	Part No.
32	10	ISO 15552	Nodular graphite iron	1825805275
40	12	ISO 15552	Nodular graphite iron	1825805276
50	12	ISO 15552	Nodular graphite iron	1825805277
63	16	ISO 15552	Nodular graphite iron	1825805278
80	16	ISO 15552	Nodular graphite iron	1825805279
100	20	ISO 15552	Nodular graphite iron	1825805280
125	25	ISO 15552	Nodular graphite iron	1825805281

Dimensions

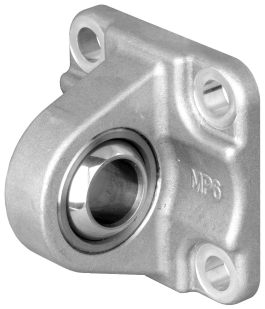


Part No.	Piston Ø	BR	BT	Ø CK H9	Ø HB H13	EM	GL JS14	EA max.	PH JS15
1825805275	32	10	8	10	6.6	26 –0,2/–0,6	21	10	32
1825805276	40	11	10	12	6.6	28 -0,2/-0,6	24	12	36
1825805277	50	13	12	12	9	32 –0,2/–0,6	33	16	45
1825805278	63	15	12	16	9	40 –0,2/–0,6	37	16	50
1825805279	80	15	14	16	11	50 -0,2/–0,6	47	20	63
1825805280	100	19	15	20	11	60 –0,2/–0,6	55	20	71
1825805281	125	22,5	20	25	14	70 –0,5/–1,5	70	30	90
1825805282	160	31.5	25	30	14	90 –0,5/–1,5	97	36	115
1825805283	200	31.5	30	30	18	90 –0,5/–1,5	105	40	135
1825805284	250	40	35	40	22	110 –0,5/–1,5	128	45	165
5239013422	320	45	40	45	26	120 –0,5/–1,5	150	55	200

Part No.	RA JS14	TE JS14	UL max.	UR max.
1825805275	18	38	51	31
1825805276	22	41	54	35
1825805277	30	50	65	45
1825805278	35	52	67	50
1825805279	40	66	86	60
1825805280	50	76	96	70
1825805281	60	94	124	90
1825805282	88	118	156	126
1825805283	90	122	162	130
1825805284	110	150	200	160
5239013422	122	170	234	186

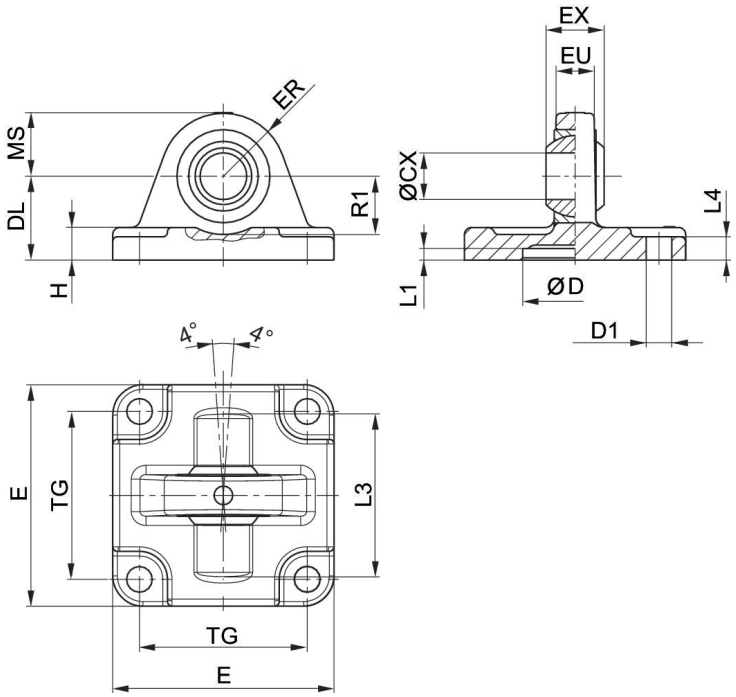
Rear eye MP6, aluminum

Type: With ball joint and foot
Mounting type: Rear eye



Piston diameter [mm]	Swivel bearing Ø [mm]	Standardization	Material	Part No.
32	10	ISO 15552	Aluminum (forged)	1827001619
40	12	ISO 15552	Aluminum (forged)	1827001620
50	16	ISO 15552	Aluminum (forged)	1827001621
63	16	ISO 15552	Aluminum (forged)	1827020087
80	20	ISO 15552	Aluminum (forged)	1827001623
100	20	ISO 15552	Aluminum (forged)	1827001624
125	30	ISO 15552	Aluminum (forged)	1827001625

Dimensions



Scope of delivery: clevis incl. mounting screws

Piston Ø	Part No.	ØCX H7	ØD H11	ØD1 H13	DL ±0,2	E	EX –0,1	ER	EU
25	3663602000	10	18	5,5	20	40	9	14	8
32	3663603000	10	20	5.5	22	46	9	15	8
40	3663604000	12	30	6.6	28	55	12	17	9.5
52,5	3663605000	12	40	6,6	28	62	12	17	9.5
63	5220163442	10	–	7.5	29	45	14	15	10.5
75	3663606000	16	55	9	36	80	16	25	12,5
80	5220363442	12	–	10	26	65	16	18	12
80	3663608000	16	70	9	38	94	16	28	12,5
85, 95	5220463442	16	–	10	30	75	21	22	15
100	3663610000	20	90	11	43	114	20	35	16
115	5220563442	16	–	12	37.5	95	21	25	15

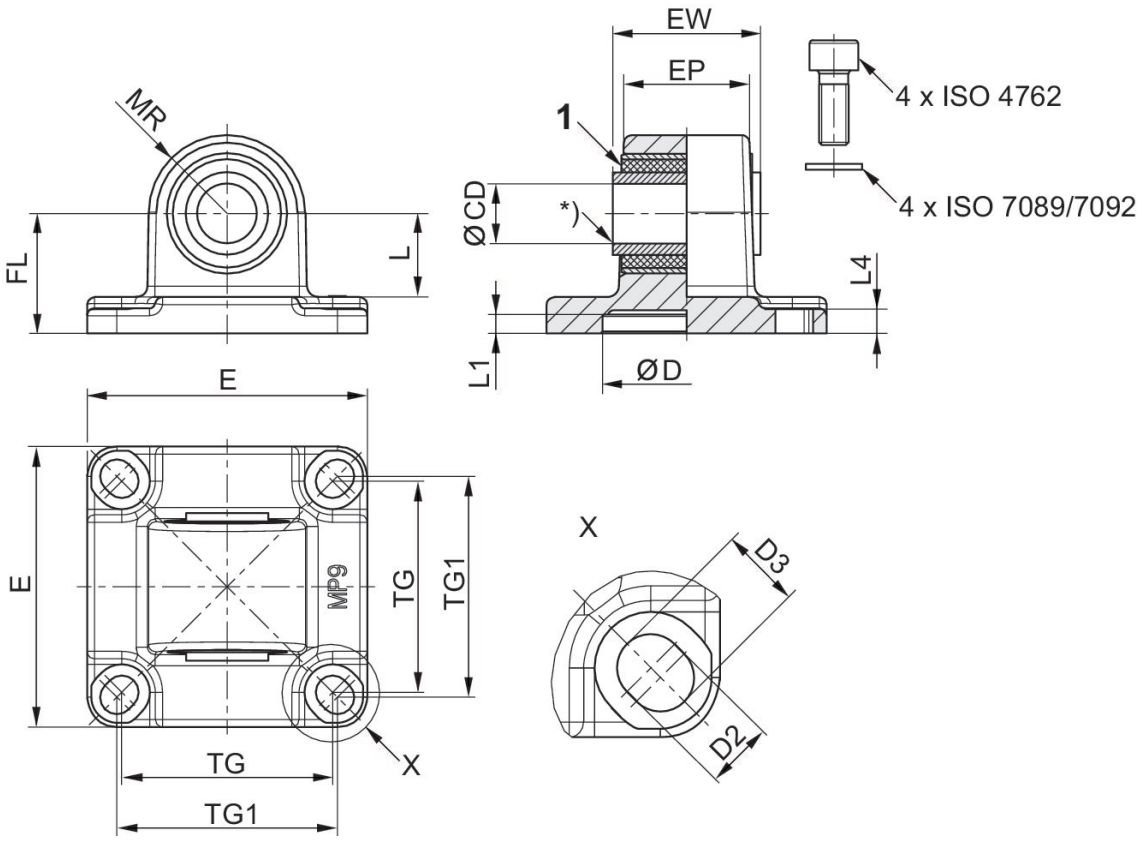
Piston Ø	H	L1 min.	L3	L4	MS -0,5	R1 min.	TG
25	6	3	–	3	14	–	26
32	6	0.5	42	6	15	16	32
40	8	0.5	48	8	17	16	32
52,5	9	0,5	55	9	17	18	46
63	8	–	–	–	–	–	33
75	11	0,5	70	11	25	21	59
80	10	–	–	–	–	–	49
80	12	0,5	80	12	28	21	73
85, 95	10	–	–	–	–	–	59
100	15	0,5	100	15	35	28	90
115	12	–	–	–	–	–	75

Rear eye MP9

Type: With rubber bushing, Elongated hole
Mounting type: Clevis mounting with rubber bushing

Piston diameter [mm]	Swivel bearing Ø [mm]	Standardization	Material	Part No.
25	10	ISO 21287	Die-cast aluminum	3683202000
40	12	ISO 15552	Aluminum	3683204000
63	16	ISO 15552	Aluminum	3683206000
100	20	ISO 15552	Aluminum	3683210000

Dimensions



1) Rubber bushing

Piston Ø	Part No.	CD H11	CD H9	E	EW	EP	TG	TG1 ±0,2	FL ±0,2
25	3683202000	10	-	40	17.5	14,5	26	27	20
40	3683204000	-	12	53	27	23,5	38	40	25
63	3683206000	-	16	75	39.5	33.5	56.5	59	32
100	3683210000	-	20	114	59.5	54	89	90	41

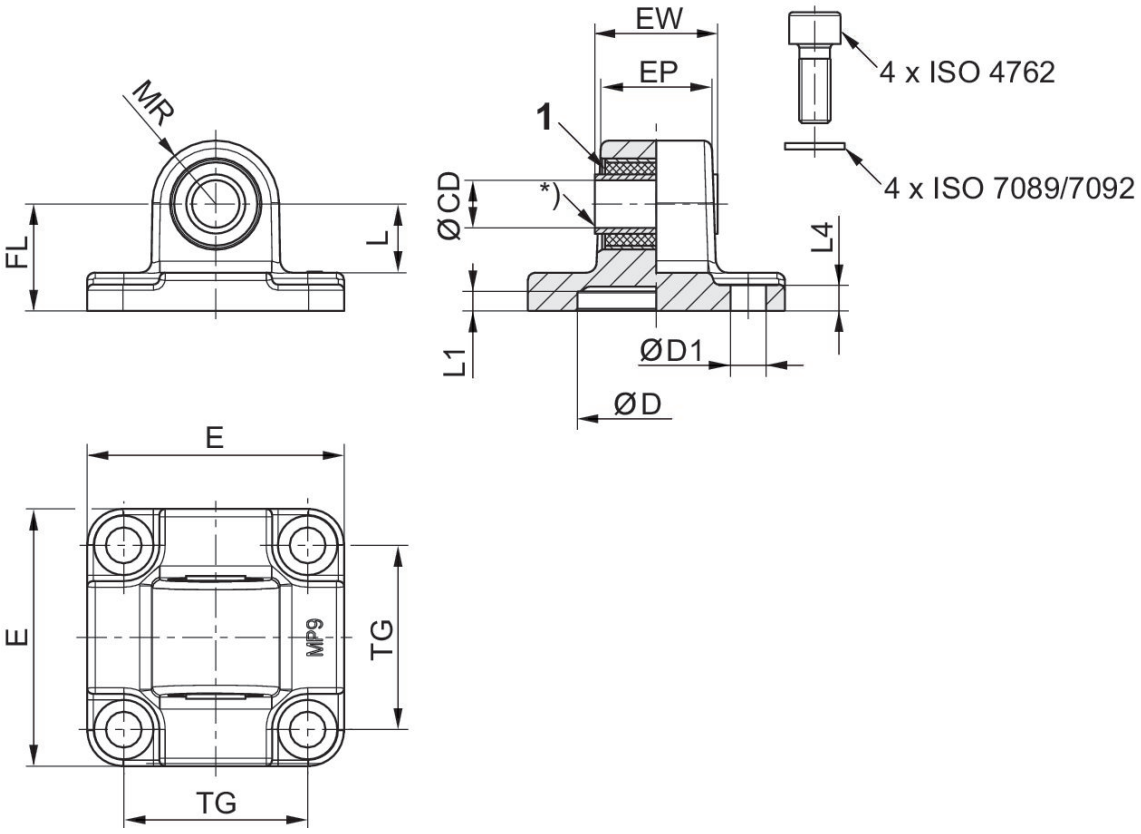
Piston Ø	L 1)	MR	L1	L4	D H11	D2 -0,2	D3 -0,2
25	14.8	12,5	3	3	18	5,5	6,2
40	16.3	15	5	5.5	35	6.6	8
63	22.3	21	5	6.5	45	–	–
100	25.8	25	5	10	55	11	11.7

Rear eye MP9

Type: With rubber bushing, round
Mounting type: Clevis mounting with rubber bushing

Piston diameter [mm]	Swivel bearing Ø [mm]	Standardization	Material	Part No.
32	10	ISO 15552	Aluminum	3683203000
50	12	ISO 15552	Aluminum	3683205000
80	16	ISO 15552	Aluminum	3683208000
50	12		Aluminum	3663205000
80	16		Aluminum	3663208000
125	25	ISO 15552	Aluminum	R412015973

Dimensions

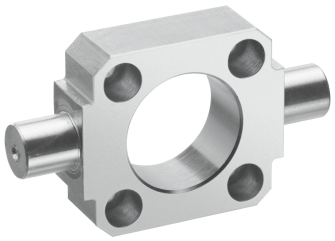


1) Rubber bushing

Piston Ø	Part No.	CD H11	CD H9	E	EW	EP	TG	FL ±0,2	L 1)
32	3683203000	10	-	46	25.5	18,9	32.5	22	13.8
50	3683205000	-	12	65	31	28	46.5	27	17.3
50	3663205000		12	65	31	28	46	27	17.3
80	3663208000		16	94.5	49.5	43	73	36	21.8
80	3683208000	-	16	94.5	49.5	43	72	36	21.8
125	R412015973	-	25	138	69.5	60	110	50	33.8

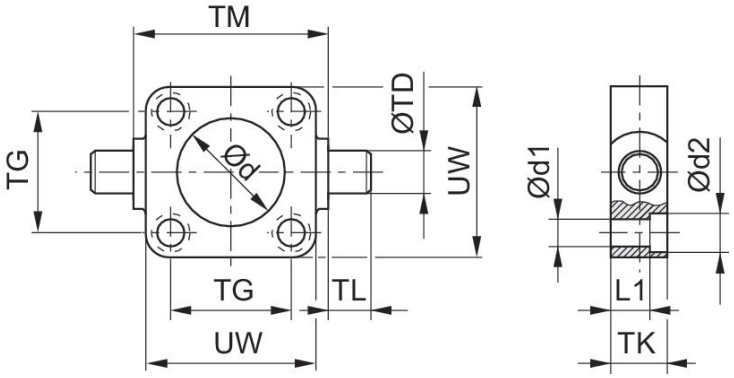
Piston Ø	MR	L1	L4	D H11	D1 H13
32	12.5	5	5.5	30	6.6
50	16	5	6.5	40	9
50	18	5	6.5	40	6.6
80	22	5	6.5	45	8.5
80	22	5	10	45	11
125	34	7.5	10	60	13.5

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	1827001609
40	Nodular graphite iron	1827001610
50	Nodular graphite iron	1827001611
63	Nodular graphite iron	1827002046
80	Nodular graphite iron	1827001613
100	Nodular graphite iron	1827001614
125	Nodular graphite iron	1827001615

Dimensions



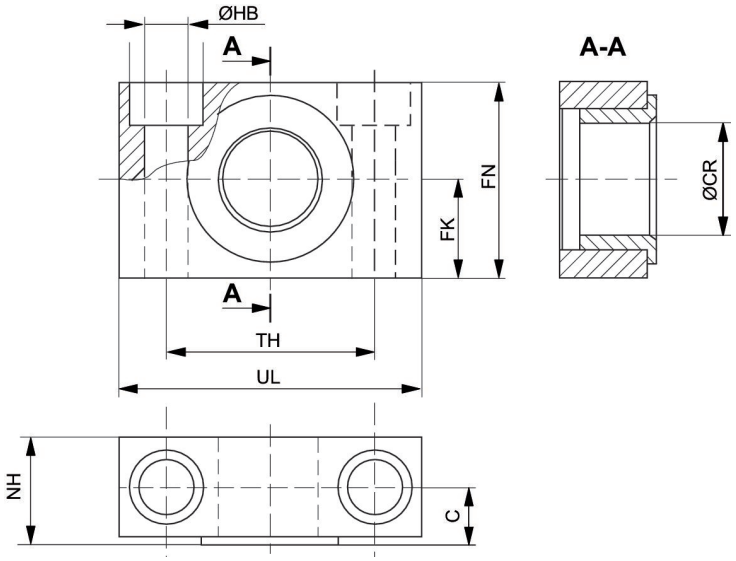
Piston Ø	Part No.	Ø d H11	Ø d1	Ø d2	L1	TD e9	TG ±0,2	TK	TL h14
20	1825805360	18	5.5	10	8	12	22	14	12
25	1825805361	22	5.5	10	8	12	26	14	12
25	R412026354	24	5.5	10	8	12	26	14	12
32	1825805362	32	6.6	10.5	7	12	32	14	12
32	1827001609	30	6.6	11	7.5	12	32.5	16	12
40	1825805363	46	6.6	11	12	16	42	19	16
40	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

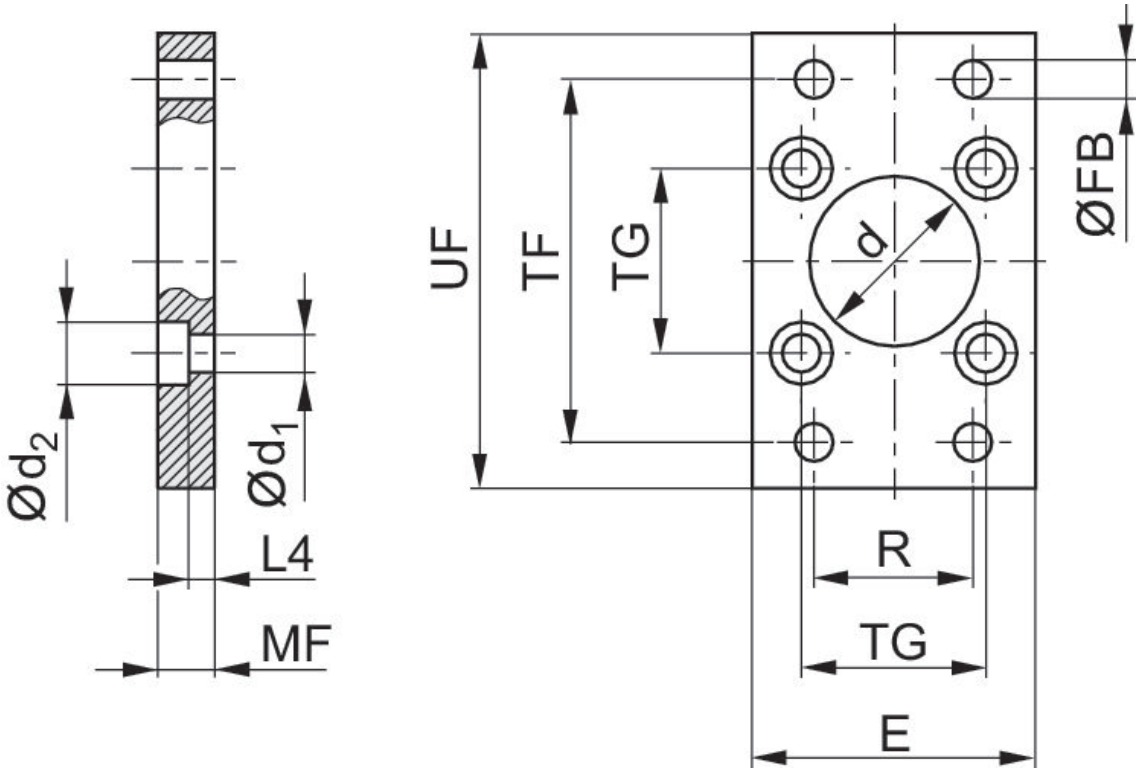


Piston Ø	Part No.	UL	NH	TH	C	CR H9	HB H13	FN	FK
20, 25, 32	1827001603	46	18	32 ±0,2	10.5	12	6.6	30	15 ±0,1
40, 50	1827001604	55	21	36 ±0,2	12	16	9	36	18 ±0,1
63, 80	1827001605	65	23	42 ±0,2	13	20	11	40	20 ±0,1
100, 125	1827001606	75	28.5	50 ±0,2	16	25	14	50	25 ±0,1
160, 200	1827001607	92	40	60 ±0,3	22.5	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]	Standardization	Material	Part No.
32	ISO 15552	Steel, chrome-plated	1827001277
40	ISO 15552	Steel, chrome-plated	1827001278
50	ISO 15552	Steel, chrome-plated	1827001279
63	ISO 15552	Steel, chrome-plated	1827001499
80	ISO 15552	Steel, chrome-plated	1827001281
100	ISO 15552	Steel, chrome-plated	1827001282
125	ISO 15552	Steel, chrome-plated	1827004861

Dimensions



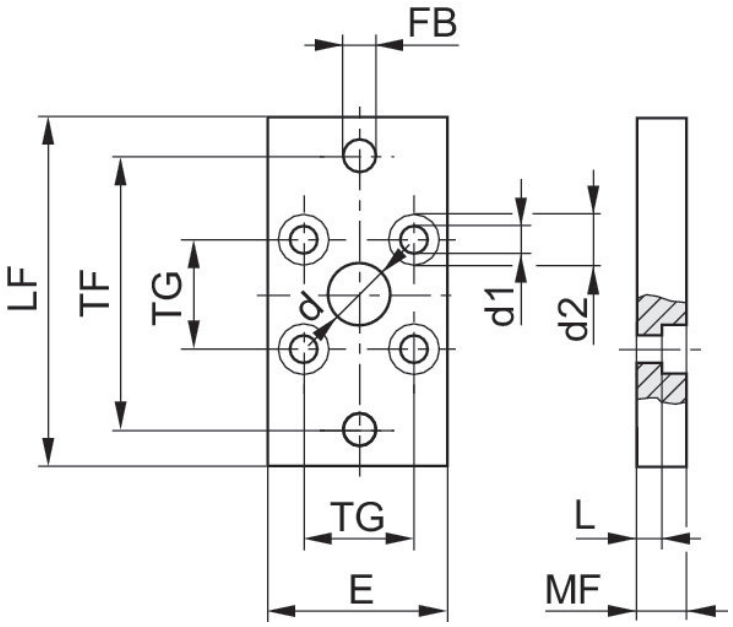
Piston Ø	Part No.	Ød H11	Ød1	Ød2	E max.	ØFB	L4	MF	R
32	1827001277	30	6.6	11	50	7	4.5	10	32
40	1827001278	35	6.6	11	55	9	4.5	10	36
50	1827001279	40	9	15	65	9	6	12	45
63	1827001499	45	9	15	75	9	6	12	50
80	1827001281	45	11	18	100	12	9	16	63
100	1827001282	55	11	18	120	14	9	16	75
125	1827004861	60	14	20	140	16	10.5	20	90
160	1827001460	65	18	26	180	18	9.5	20	115
200	1827001461	75	18	26	220	22	12.5	25	135
250	1827001462	90	22	33	280	26	10.5	25	165
320	5239016012	110	26	40	350	33	15	30	200

Piston Ø	TF	TG	UF
32	64	32,5 ±0,2	80
40	72	38 ±0,2	90
50	90	46,5 ±0,2	110
63	100	56,5 ±0,2	125
80	126	72 ±0,2	154
100	150	89 ±0,2	186
125	180	110 ±0,3	220
160	230	140 ±0,3	275
200	270	175 ±0,3	312
250	330	220 ±0,3	380
320	270	270 ±0,3	400

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

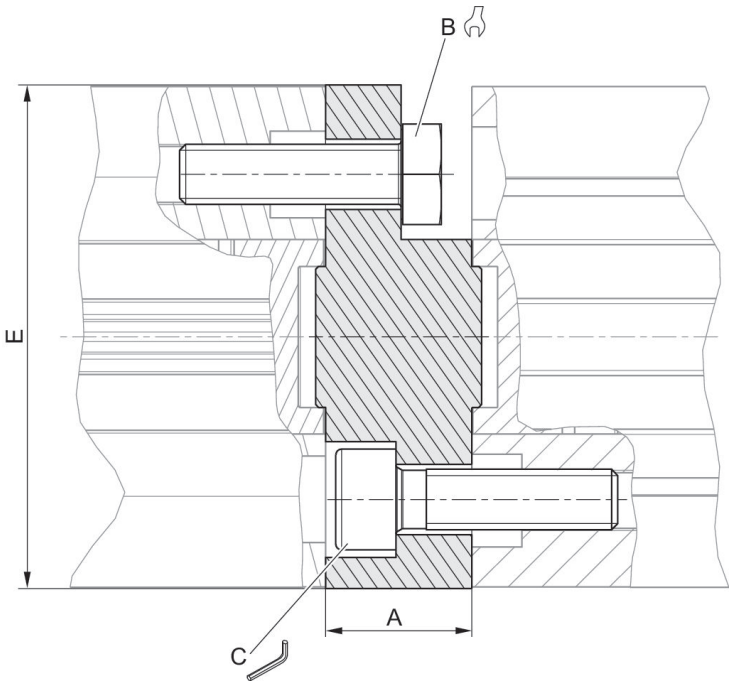
Piston Ø	TG	UF
16	18	55
20	22	70
25	26	76

1) Max.

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	R412024535
100	Aluminum	R412024536

Dimensions



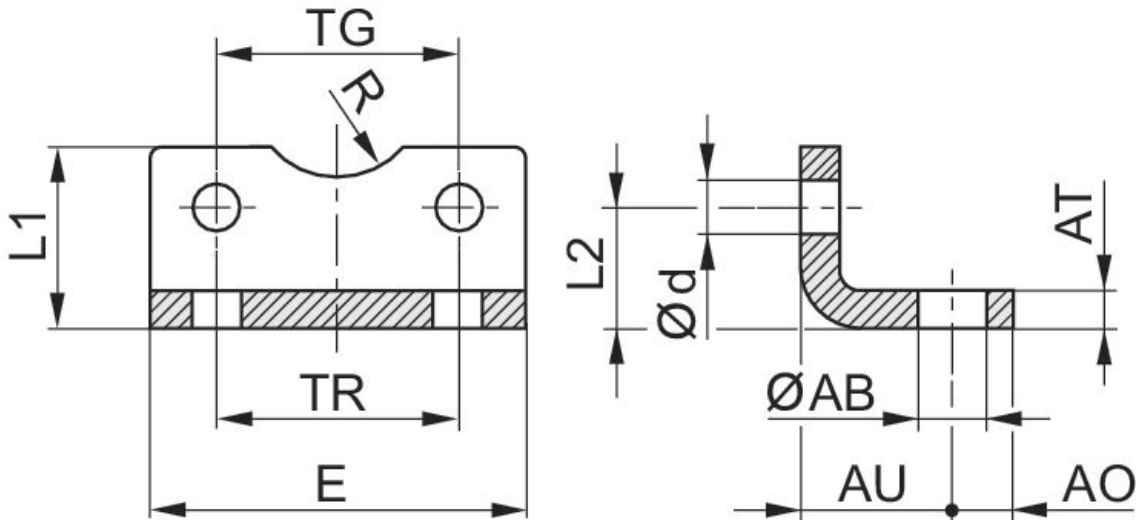
Piston Ø	Part No.	For series	A	B	C	Md [Nm] 1)	E
16	1827020290	CCI, KPZ	12.5	7	–	2.5	28.4
20	1827020267	CCI, KPZ	12.5	8	–	4	35
25	1827020268	CCI, KPZ	13	8	4	4	40
32	1827020269	CCI, KPZ	14.5	10	5	4	50
40	1827020270	CCI, KPZ	14.5	10	5	4	57.1
50	1827020271	CCI, KPZ	14.5	13	6	8	67.4
63	1827020272	CCI, KPZ	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	Standardization	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	PRA/TRB, CCI, CVI	ISO 15552	Steel, chrome-plated	1827001271
40	PRA/TRB, CCI, CVI	ISO 15552	Steel, chrome-plated	1827001272
50	PRA/TRB, CCI, CVI	ISO 15552	Steel, chrome-plated	1827001273
63	PRA/TRB, CCI, CVI	ISO 15552	Steel, chrome-plated	1827001498
80	PRA/TRB, CCI, CVI	ISO 15552	Steel, chrome-plated	1827001275
100	CCI, PRA/TRB, CVI	ISO 15552	Steel, chrome-plated	1827001276
125	PRA/TRB, CVI	ISO 15552	Steel, chrome-plated	1827001310

Dimensions

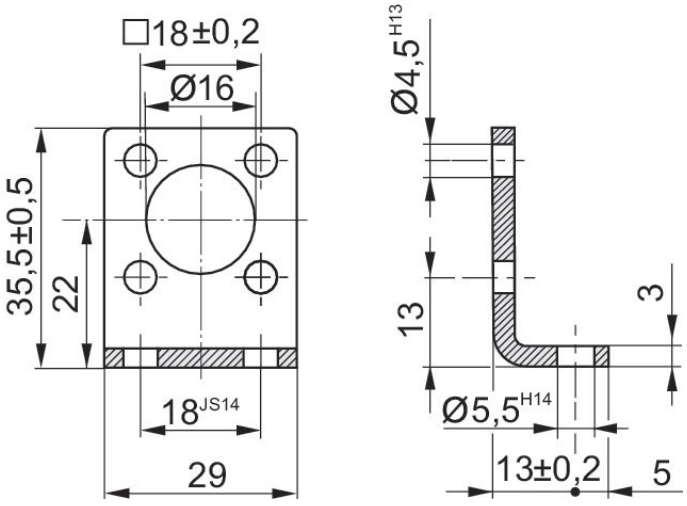


Piston Ø	Part No.	ØAB H14	AO	AT	AU ±0,2	Ød H13	E	L1	L2
20	1827002284	6.6	6	4 ±0,5	16	5.4	36	22	16
25	1827002285	6.6	6	4 ±0,5	16	5.4	40	23	17
32	1827002286	6.6	8	5 ±0,5	18	6.6	50	24	16
32	1827001271	7	8	4 ±0,3	24	6.6	48	25	15,75
40	1827001272	10	10	4 ±0,3	28	6.6	56	26	17
50	1827001273	10	11	5 ±0,3	32	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

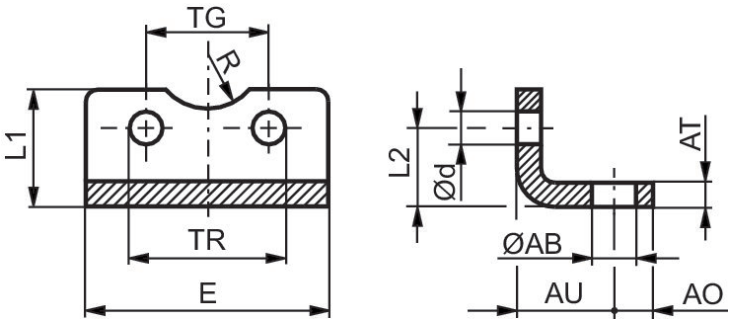
1821332053

Dimensions



Foot mounting MS9, Series CM1

Piston diameter [mm]	Material	Part No.
32	Steel, chrome-plated	1827001018
40	Steel, chrome-plated	1827001019
50	Steel, chrome-plated	1827001020
63	Steel, chrome-plated	1827020085
80	Steel, chrome-plated	1827001022
100	Steel, chrome-plated	1827001023



Piston Ø	Part No.	Ø AB H13	AO	AT	AU	Ø d	E	L1	L2
32	1827001018	7	12	5	18	6.6	79	30	15.8
40	1827001019	10	12	5	18	6.6	90	30	17
50	1827001020	10	14	5	21	9	110	35	21.7
63	1827020085	10	14	5	21	9	120	35	21.7
80	1827001022	12	13	5	27	11	153	50	27
100	1827001023	14.5	13	5	27	11	178	50	26.5

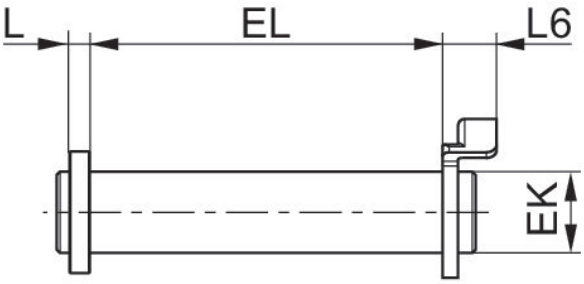
Piston Ø	R	TG ±0,1	TR JS14
32	15	32.5	65
40	17.5	38	75
50	20	46.5	90
63	25	56.5	100
80	22.5	72	128
100	27.5	89	148

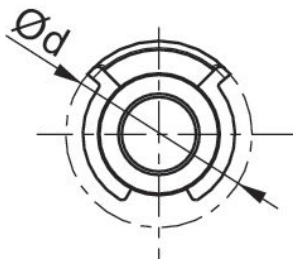
Bolts AA4, Series CM1

Material: Steel, chrome-plated

Piston diameter [mm]	Part No.
32	1823120020
40	1823120021
50	1823120022
63	1823120023
80	1823120024
100	1823120025

Dimensions

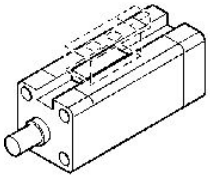


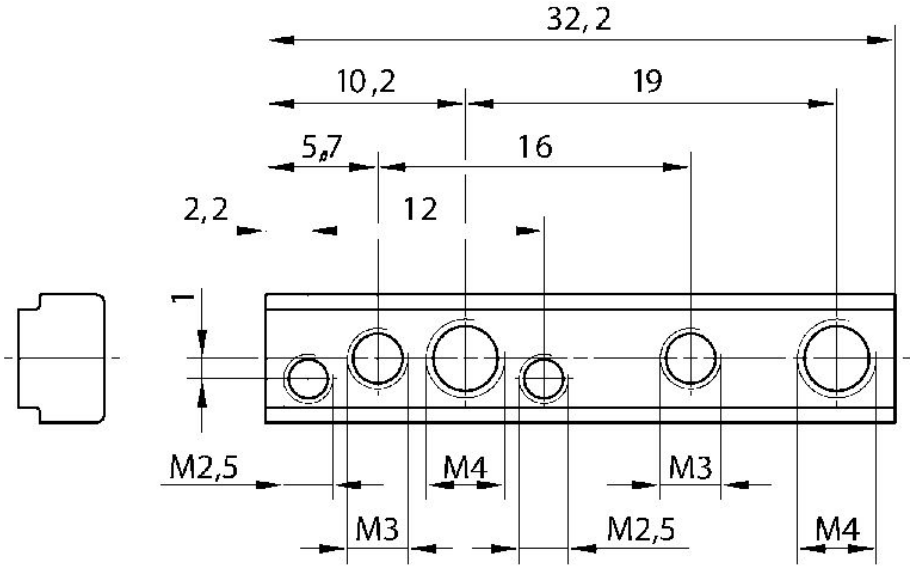


Piston Ø	Part No.	Ø d max.	EK e8	EL	L max.	L6 max.
32	1823120020	20	10	45.2 +0,3	3.5	9
40	1823120021	22	12	52.2 +0,3	4	9
50	1823120022	22	12	60.2 +0,3	4	9
63	1823120023	28	16	70.2 +0,3	4.5	11
80	1823120024	28	16	90.2 +0,3	4.5	11
100	1823120025	38	20	110.2 +0,3	5	11

Mounting kit

Dimensions



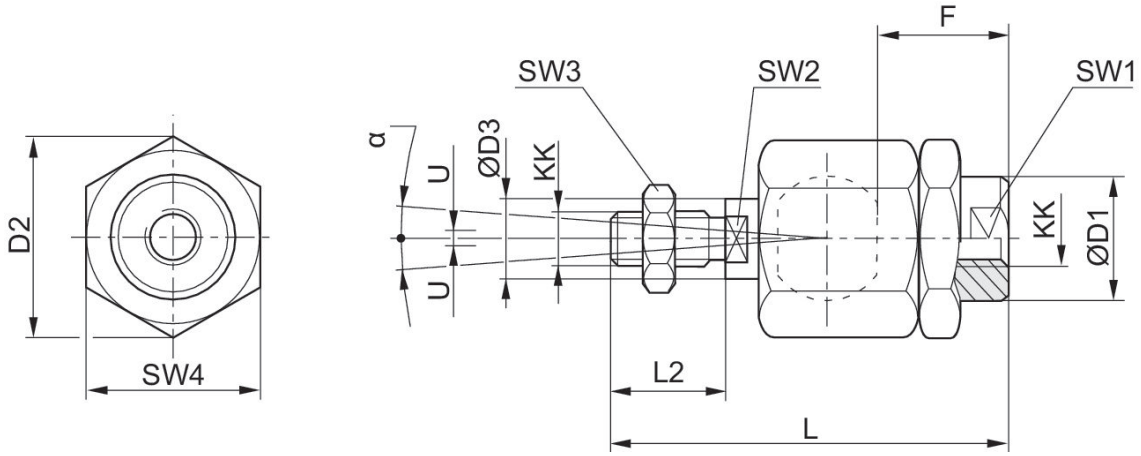


Part No.	Ø mm
1827020275	16–100

Flexible spherical coupling, Series PM5

Suitable piston rod thread	for series	Weight [kg]	Part No.
M6x1	CCL-IC, CCI, MNI	0.02	R412026140
M8x1,25	CCL-IC, CCI, MNI	0.05	R412026141
M10x1,25	PRA/TRB, CCL-IC/-IS, CCI, SSI, KPZ, 167, CVI, RPC	0.21	R412026142
M12x1,25	PRA/TRB, CCL-IC/-IS, CCI, SSI, KPZ, 167, CVI, RPC	0.21	R412026143
M16x1,5	PRA/TRB, CCL-IC/-IS, CCI, KPZ, 167, CVI, RPC, RDC	0.65	R412026144

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

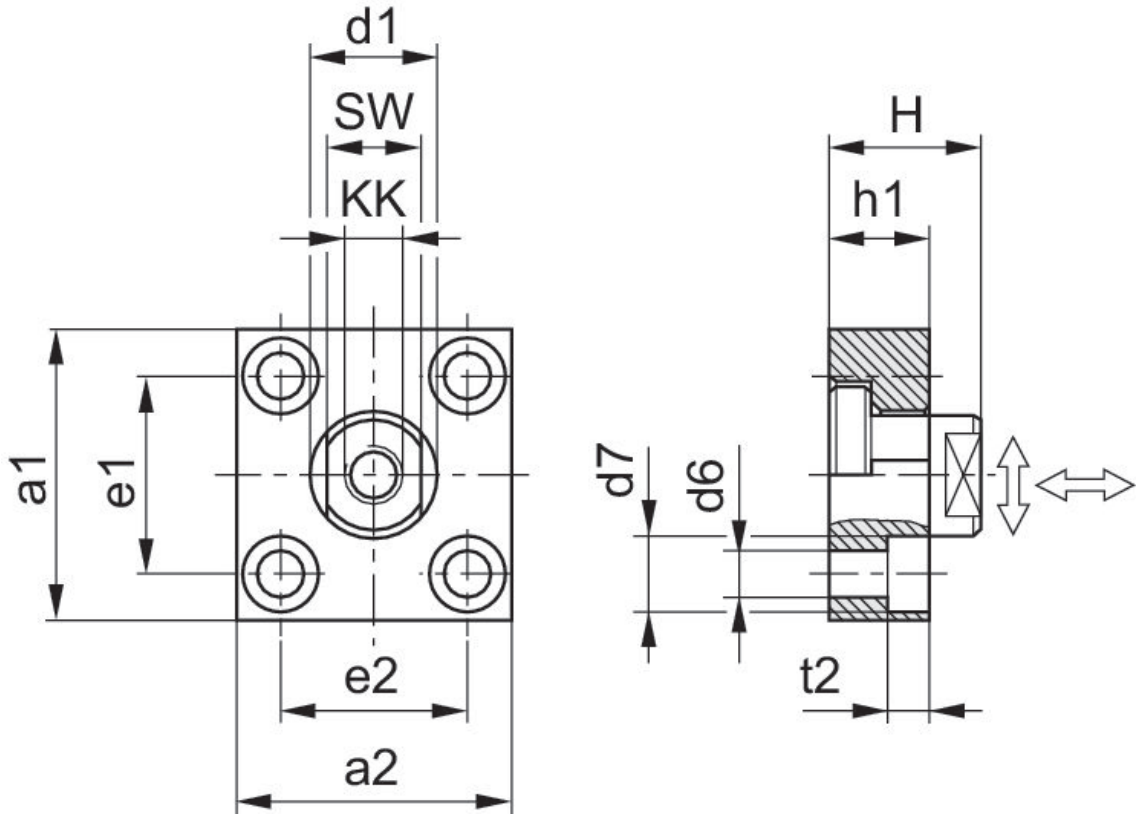
Part No.	SW3	SW4	U	α [°]	1)
1826409008	7	11	0,5	8	0.05-0.2
R412007860	8	13	0,5	8	0.05-0.2
R412026140	10	13	0,7	6	0.05-0.5
R412026141	13	17	0,7	8	0.05-0.5
R412026142	17	30	1	8	0.05-0.5
R412026143	19	30	1	7	0.05-0.5
R412026144	24	41	1	6	0.05-0.5
R412026145	30	41	1	6	0.05-0.5
1826409006	41	55	1	8	0.05-0.2
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	Weight [kg]	Part No.
M10x1,25	PRA/TRB, CCL-IC/-IS, CCI, SSI, KPZ, 167, RPC	0.3	1827001629
M12x1,25	PRA/TRB, CCL-IC/-IS, CCI, SSI, KPZ, 167, RPC	0.4	1827001630
M16x1,5	PRA/TRB, CCL-IC/-IS, CCI, SSI, KPZ, 167, RPC	0.9	1827001631

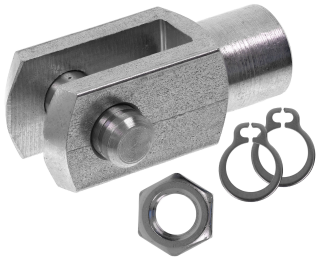
Dimensions



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 with circlip, Series AP2, Stainless Steel



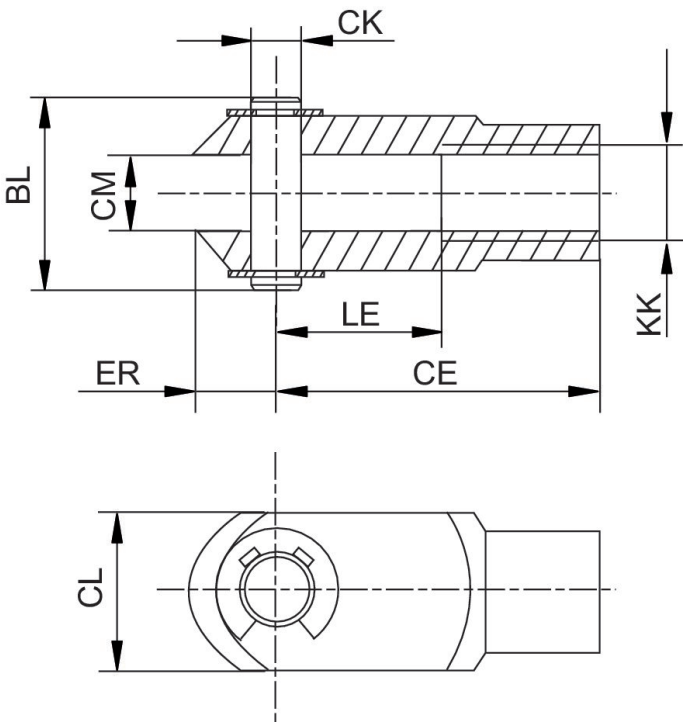
Suitable piston rod thread	for series	Weight [kg]	Part No.
M4	CCL-IC/-IS, CCI, CSL-RD, ICM, ICS-D2, SSI, 167	0.007	3330510000
M6	CCL-IC/-IS, CCI, CSL-RD, ICM, ICS-D2, SSI, 167	0.021	3330516000
M8	CCL-IC/-IS, CCI, CSL-RD, ICM, ICS-D2, SSI	0.05	3330520000
M10x1,25	CCL-IC/-IS, CCI, CSL-RD, ICM, ICS-D2, SSI, 167	0.1	3590502000
M12x1,25	CCL-IC/-IS, CCI, CSL-RD, ICM, ICS-D2, SSI	0.156	3590504000
M16x1,5	CCL-IC/-IS, CCI, CSL-RD, ICM, ICS-D2, SSI	0.362	3590505000

Part No.	CE	ØCK	CL	CM B12	ER	BL	KK	LE
3330510000	16	4 *	8	4	5	11	M4	8
3330516000	24	6 *	12	6	7	17	M6	12
3330520000	32	8 **	16	8	10	24	M8	16
3590502000	40	10 **	20	10	12	27	M10x1,25	20
3590504000	48	12 **	24	12	14	33	M12x1,25	24
3590505000	64	16 **	32	16	19	43	M16x1,5	32
3590508000	80	20 **	40	20	25	53	M20x1,5	40

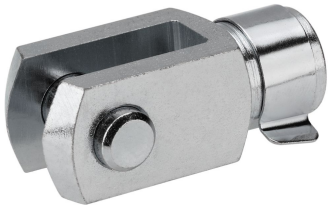
* ØCK h11
** ØCK e8

3330520000, 3590502000, 3590504000, 3590505000

Dimensions

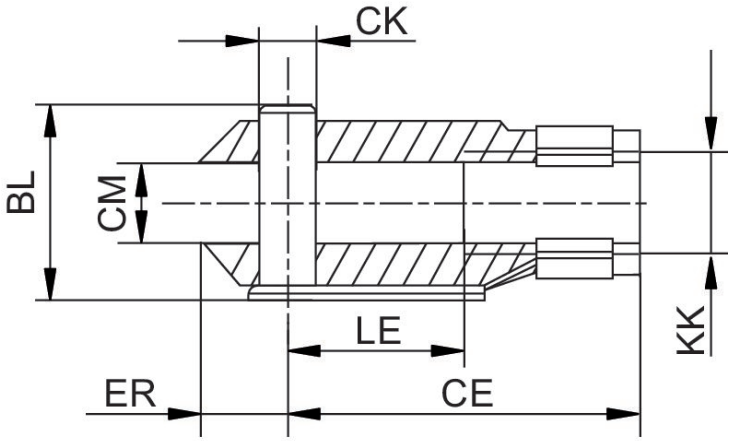


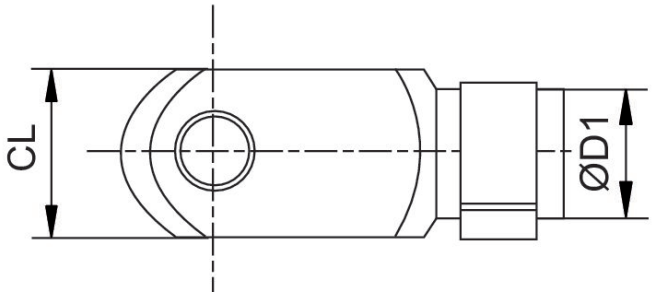
Rod clevis with lock washer, Series AP2, Galvanized Steel



Suitable piston rod thread	for series	Weight [kg]	Part No.
M6	CCI, MNI, ICM, KHZ	0.02	1822122009
M8	CCI, MNI, ICM, KHZ	0.05	1822122010
M10x1,25	PRA, TRB, CCI, MNI, ICM, KPZ, 167, CVI, RPC, RDC	0.1	1822122024
M12x1,25	PRA, TRB, CCI, KPZ, 167, CVI, RPC, 102	0.16	1822122025
M16x1,5	PRA, TRB, CCI, KPZ, 167, CVI, RPC, RDC, 102	0.4	1822122005

Dimensions



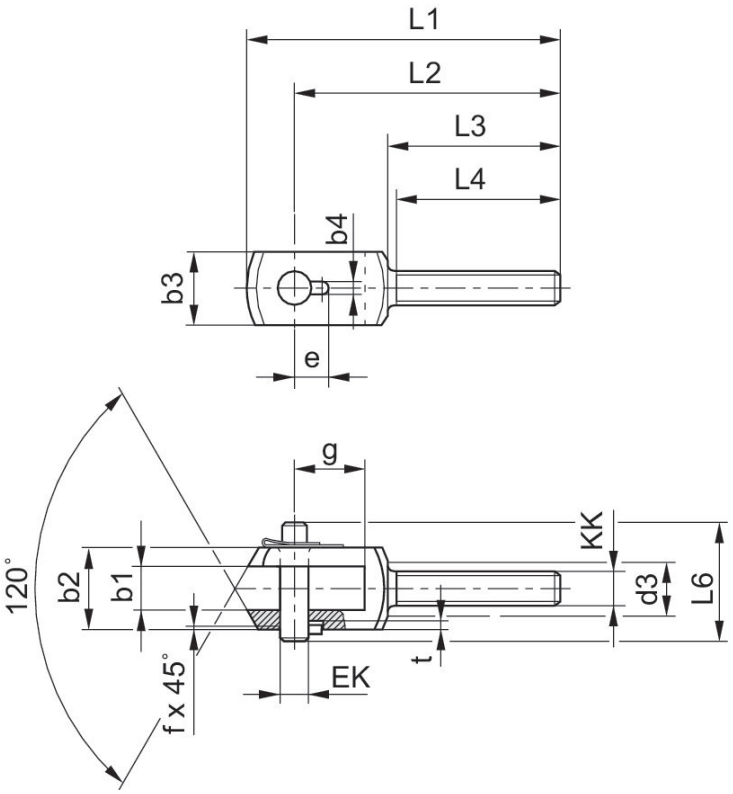


Part No.	BL	CE	ØCK h11	CL	CM	ØD1	ER	KK	LE
1822122028	11	16	4	8	4	8	5	M4	8
1822122008	13.5	20	5	10	5	9	6	M5	10
1822122009	16	24	6	12	6	10	7	M6	12
1822122010	21,5	32	8	16	8	14	10	M8	16
8958000122	26	40	10	20	10	18	12	M10	20
1822122024	26	40	10	20	10	18	12	M10x1,25	20
8958000132	31	48	12	24	12	20	14	M12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

Rod clevis, Series PM6

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

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

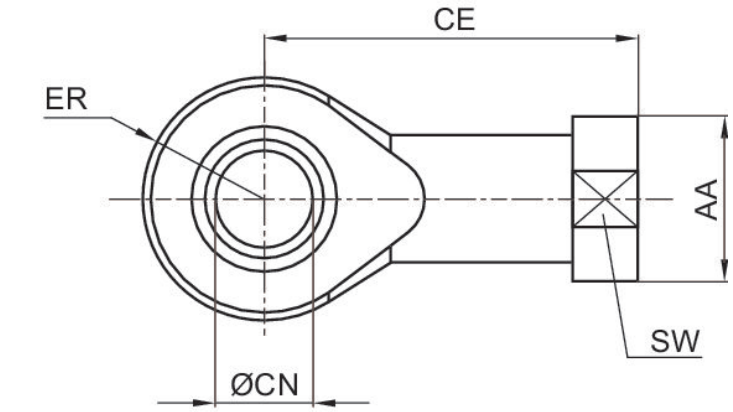
Part No.	L1	L2	L3	L4 +1	L6	KK	t +0,2
1822122032	90	78	53	50	35	14	3
1822122033	108	92	58	55	39	16	3
1822122034	129	108	65	62	50	21	3
1822122035	156	131	73	69	60	25	3
1822122036	200	168	98	92	77	30	5

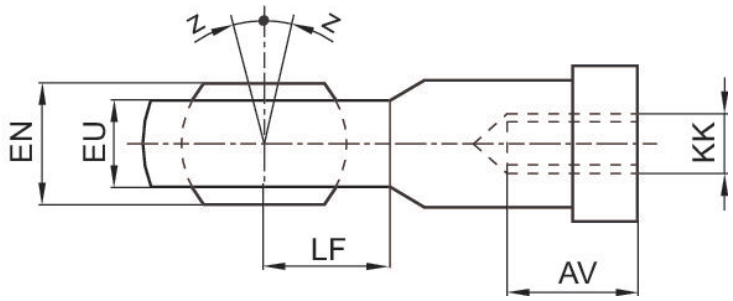
Ball eye rod end AP6, galvanized Steel

Mounting: with flange

Suitable piston rod thread	for series	Swivel bearing Ø [mm]	Weight [kg]	Part No.
M6		6	0.028	1822124001
M8		8	0.049	1822124002
M10x1,25	PRA, TRB, MNI, CCI, SSI, RPC, KPZ, 167, CVI, RDC	10	0.07	1822124003
M12x1,25	PRA, TRB, CCI, SSI, RPC, KPZ, 167, CVI, 102	12	0.12	1822124004
M16x1,5	PRA, TRB, CCI, SSI, RPC, KPZ, 167, CVI, RDC, 102	16	0.21	1822124005

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

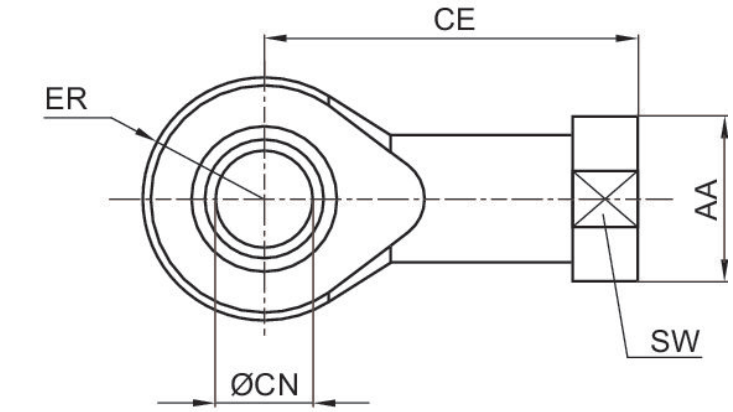
KK	SW	Z [°] max.
M4	9	4
M6	11	4
M8	14	4
M10	17	6
M12	19	13
M10x1,25	17	4
M12x1,25	19	4
M16x1,5	22	4
M20x1,5	30	4
M24x2	36	15
M27x2	41	4
M36x2	50	4
M42x2	55	4
M48x2	65	6

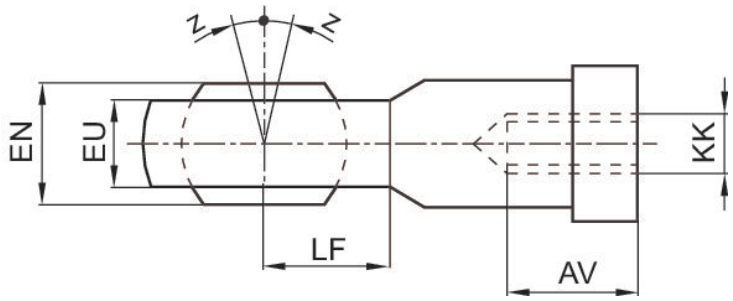
Ball eye rod end AP6, stainless Steel

Mounting: with flange

Suitable piston rod thread	for series	Swivel bearing Ø [mm]	Weight [kg]	Part No.
M10x1,25	CCL-IS, CCL-IC, SSI, CSL-RD, ICM, ICS-D2	10	0.09	8958209032
M12x1,25	CCL-IS, CCL-IC, SSI, ICS-D2	12	0.12	8958209042
M16x1,5	CCL-IS, CCL-IC, SSI, ICS-D2	16	0.23	8958209052

Dimensions





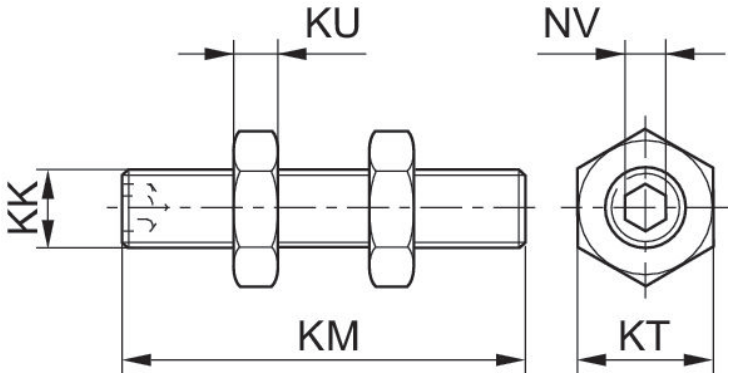
KK	Part No.	AA	AV min.	CE	Ø CN H7	EN –0,1	ER	EU max.	LF
M4	8958209002	11	8	27	5	8	9	6	9
M6	8958209012	13	9	30	6	9	10	6,75	10
M8	8958209022	16	12	36	8	12	12	9	12
M10x1,25	8958209032	19	15	43	10	14	14	10.5	14
M12x1,25	8958209042	22	18	50	12	16	16	12	16
M16x1,5	8958209052	27	24	64	16	21	21	15	21
M20x1,5	8958209062	34	30	77	20	25	25	18	25
M27x2	8958209072	50	45	110	30	37	35	25	35

KK	SW	Z [°] max.
M4	9	6,5
M6	11	6,5
M8	14	6,5
M10x1,25	17	6,5
M12x1,25	19	6,5
M16x1,5	22	7,5
M20x1,5	30	7,5
M27x2	41	7,5

Piston rod extension, series CM2

Thread size	Material	Part No.
M6	Stainless Steel	2701432000
M8	Stainless Steel	2701450000
M10	Stainless Steel	2701463000

Dimensions

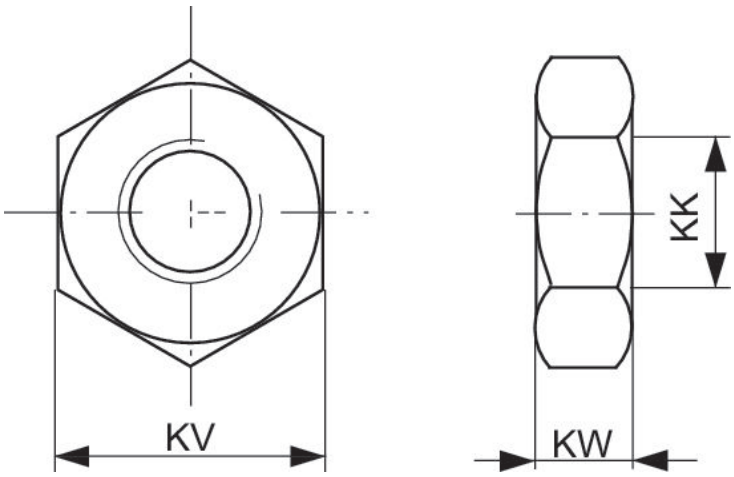


KK	Part No.	KM	KT	KU	NV
M3	2701412000	20	5.5	1.8	1.5
M5	2701420000	25	8	2.7	2.5
M6	2701432000	30	10	3.2	3
M8	2701450000	35	13	4	4
M10	2701463000	40	16	5	5

Piston rod nut MR9

Thread size	Material	Part No.
M6	Steel, chrome-plated	1823300033
M8	Steel, chrome-plated	1823300034
M10x1,25	Steel, chrome-plated	1823A00020
M12x1,25	Steel, chrome-plated	8103190344
M16x1,5	Steel, chrome-plated	1823300030
M8	Stainless Steel	3330320000
M10x1,25	Stainless Steel	3590302000
M12x1,25	Stainless Steel	3590304000
M16x1,5	Stainless Steel	3590305000

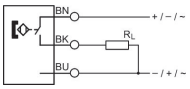
Dimensions

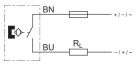
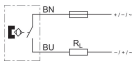
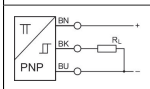
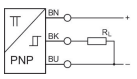
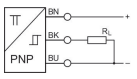
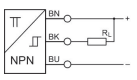
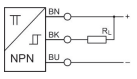


Part No.	KK	KV	KW
8103040114	M4		
1823300033	M6	10	3.2
1823300034	M8	13	4
8103040224	M10	17	8
1823A00020	M10x1,25		
8103060064	M12	19	10
1823A00021	M12x1,25	19	6
8103190344	M12x1,25	19	6
1823300030	M16x1,5	24	8
1823300031	M20x1,5	30	10
8103040344	M20x1,5	30	10
8103190394	M24x2	36	12
1823A00029	M27x2	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

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

Certificates: CE declaration of conformity, cULus, RoHS, UL (Underwriters Laboratories)
Ambient temperature min./max.: -30 °C ... 80 °C

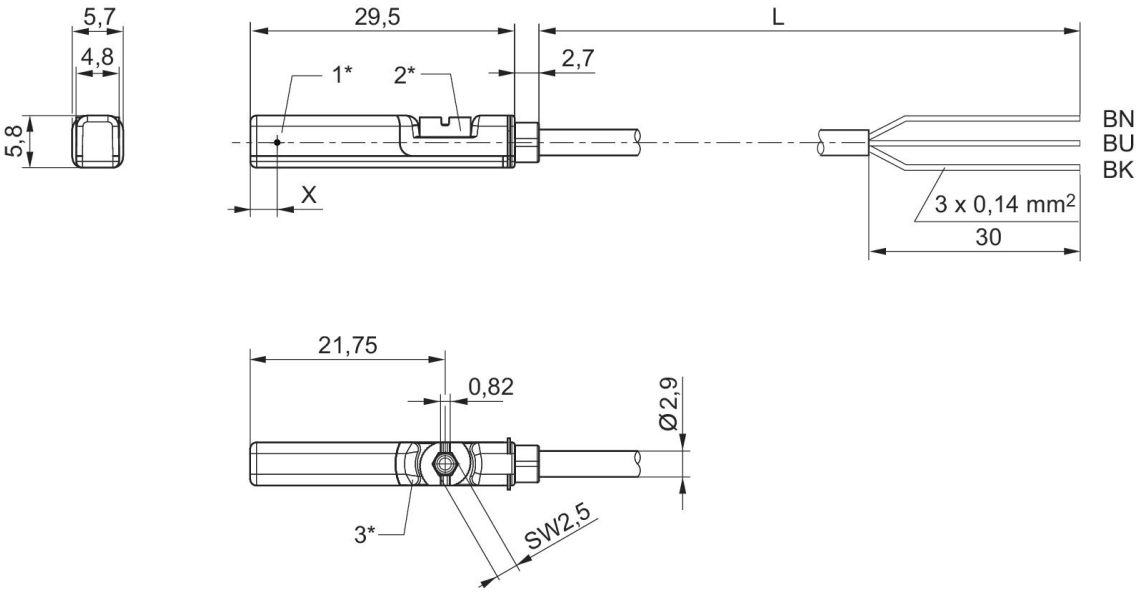


	Switch descr.	Cable sheath	Number of poles	Max. DC switching current [A]	Max. AC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Part No.
	Reed	Polyurethane	2-pin	0.13	0.13	10	230	R412022866
	Reed	Polyurethane	2-pin	0.13	0.13	10	230	R412027170
	Reed	Polyurethane	3-pin	0.3	0.5	10	30	R412022869
	Reed	Polyurethane	3-pin	0.3	0.5	10	30	R412022870
	Reed	Polyurethane	3-pin	0.3	0.5	10	30	R412022871
	electronic PNP	Polyurethane	3-pin	0.13		10	30	R412022853
	electronic PNP	Polyurethane	3-pin	0.13		10	30	R412022855
	electronic PNP	Polyurethane	3-pin	0.13		10	30	R412022857
	NPN	Polyurethane	3-pin	0.13		10	30	R412022849
	NPN	Polyurethane	3-pin	0.13		10	30	R412022850

Min. operating voltage AC [V AC]	Max. operational voltage AC [V AC]	Version	Cable length L [m]	Part No.
10	230	Protected against polarity reversal	3	R412022866
10	230	Protected against polarity reversal	5	R412027170

Min. operating voltage AC [V AC]	Max. operational voltage AC [V AC]	Version	Cable length L [m]	Part No.
10	30	Protected against polarity reversal	3	R412022869
10	30	Protected against polarity reversal	5	R412022870
10	30	Protected against polarity reversal	10	R412022871
		short circuit resistant, Protected against polarity reversal	3	R412022853
		short circuit resistant, Protected against polarity reversal	5	R412022855
		short circuit resistant, Protected against polarity reversal	10	R412022857
		short circuit resistant, Protected against polarity reversal	3	R412022849
		short circuit resistant, Protected against polarity reversal	5	R412022850

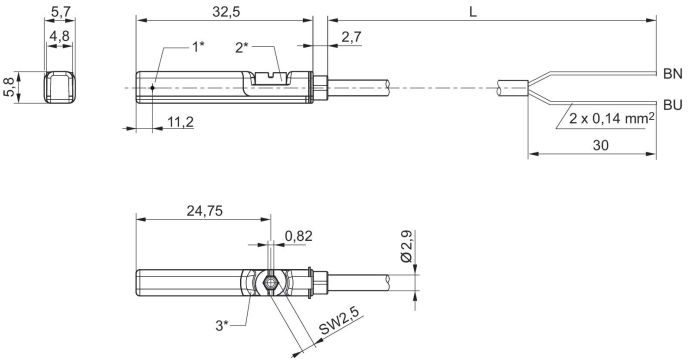
Dimensions



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

R412022866, R412027170

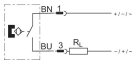
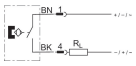
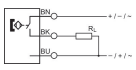
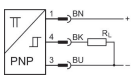
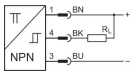
Dimensions



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

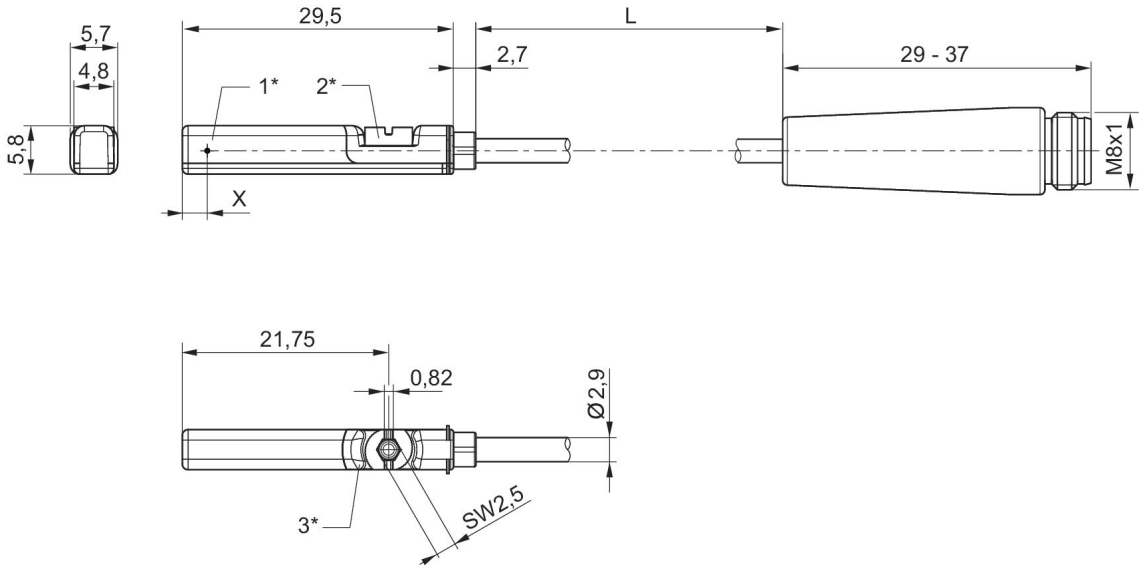
Sensors, Series ST6, plug M8

Electrical connection 2, thread size: M8
Certificates: CE declaration of conformity, cULus, RoHS, UL (Underwriters Laboratories)
Electrical connection 2, number of poles: 3-pin
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

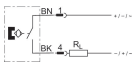
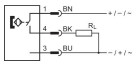
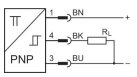
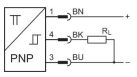
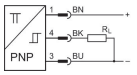
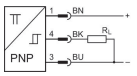
Dimensions



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 M12x1

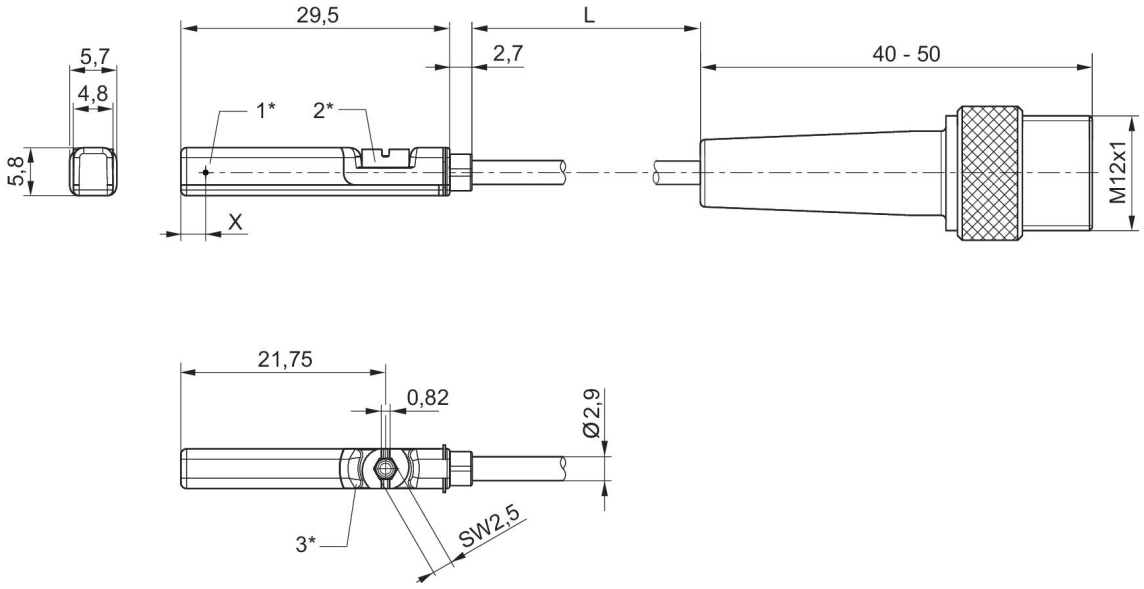
Electrical connection 2, thread size: M12
Certificates: CE declaration of conformity, cULus, RoHS, UL (Underwriters Laboratories)
Electrical connection 2, number of poles: 3-pin
Ambient temperature min./max.: -30 °C ... 80 °C

	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

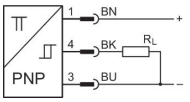
Dimensions



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, plug M12x1, with knurled screw, ATEX

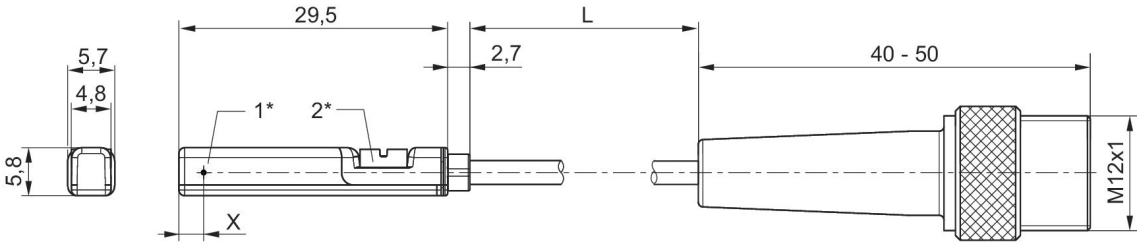
Electrical connection 2, thread size: M12
Certificates: ATEX, CE declaration of conformity, cULus, RoHS, UL (Underwriters Laboratories)
Electrical connection 2, number of poles: 3-pin
Ambient temperature min./max.: -20 °C ... 50 °C

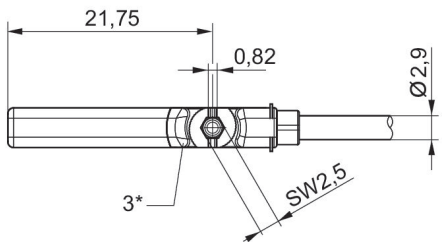


Switch descr.	Cable sheath	Electrical interface 2	Number of poles	Max. DC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Version	Part No.
PNP	Polyurethane	M12x1	3-pin	0.1	10	30	short circuit resistant, Protected against polarity reversal	R412022864

Cable length L [m]	Part No.
0.3	R412022864

Dimensions

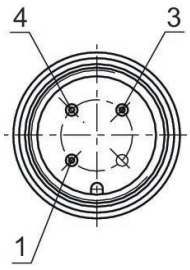




1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = PNP: 11,6 mm, reed: 8,3 mm

R412022864

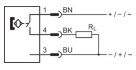
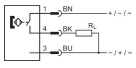
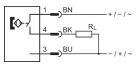
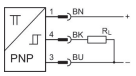
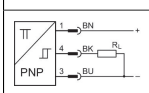
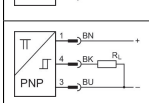
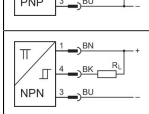
Pin assignments



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

Sensors, Series ST6, plug M8x1, with knurled screw

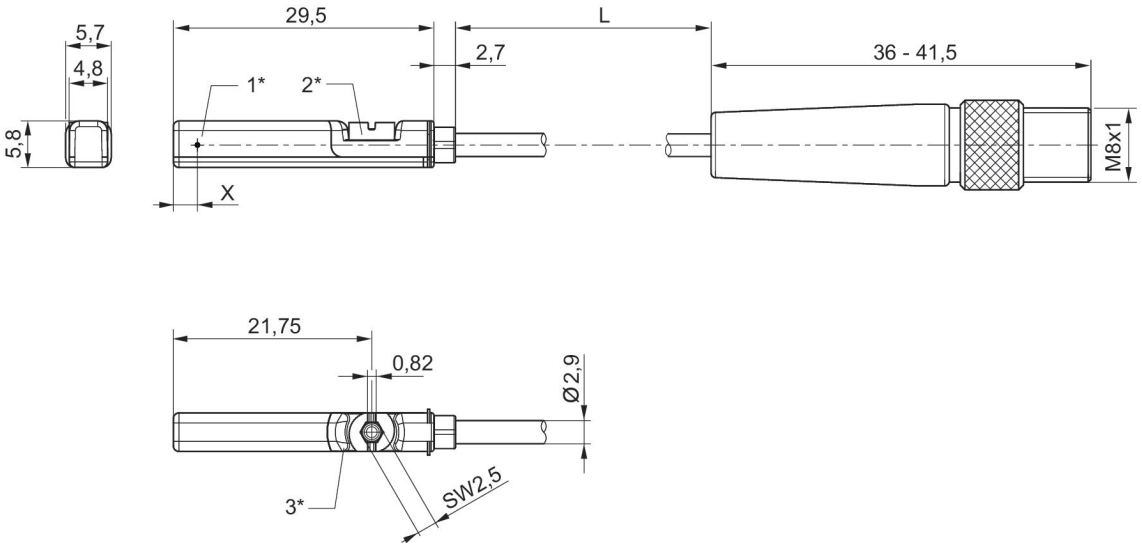
Certificates: CE declaration of conformity, cULus, RoHS, UL (Underwriters Laboratories)
Electrical connection 2, number of poles: 3-pin
Ambient temperature min./max.: -30 °C ... 80 °C

	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

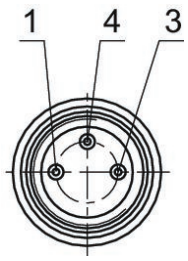
Dimensions



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

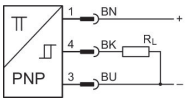
Pin assignment M8x1 (3-pin)



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

Sensors, Series ST6, plug M8x1, ATEX

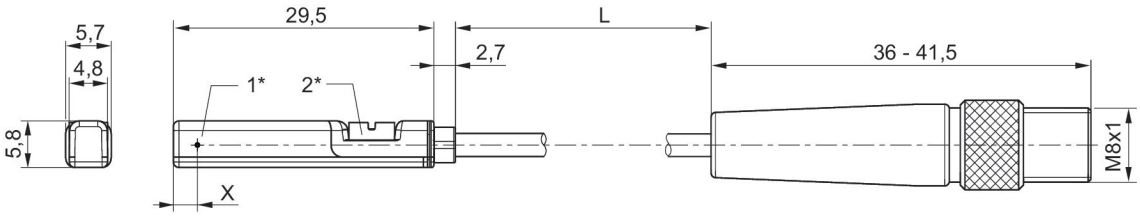
Electrical connection 2, thread size: M8
Certificates: ATEX, CE declaration of conformity, cULus, RoHS, UL (Underwriters Laboratories)
Electrical connection 2, number of poles: 3-pin
Ambient temperature min./max.: -20 °C ... 50 °C

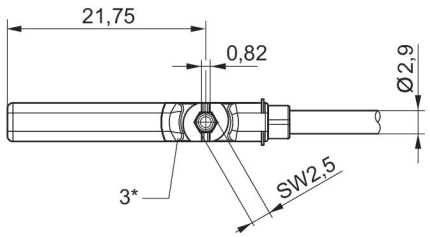


Switch descr.	Cable sheath	Electrical interface 2	Number of poles	Max. DC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Version	Part No.
PNP	Polyurethane	M8x1	3-pin	0.1	10	30	short circuit resistant, Protected against polarity reversal	R412022860

Cable length L [m]	Part No.
0.3	R412022860

Dimensions

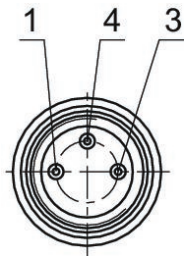




1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = electronic: 11,6 mm, Reed: 8,3 mm

R412022860

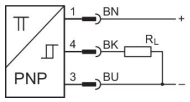
Pin assignment M8x1 (3-pin)



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

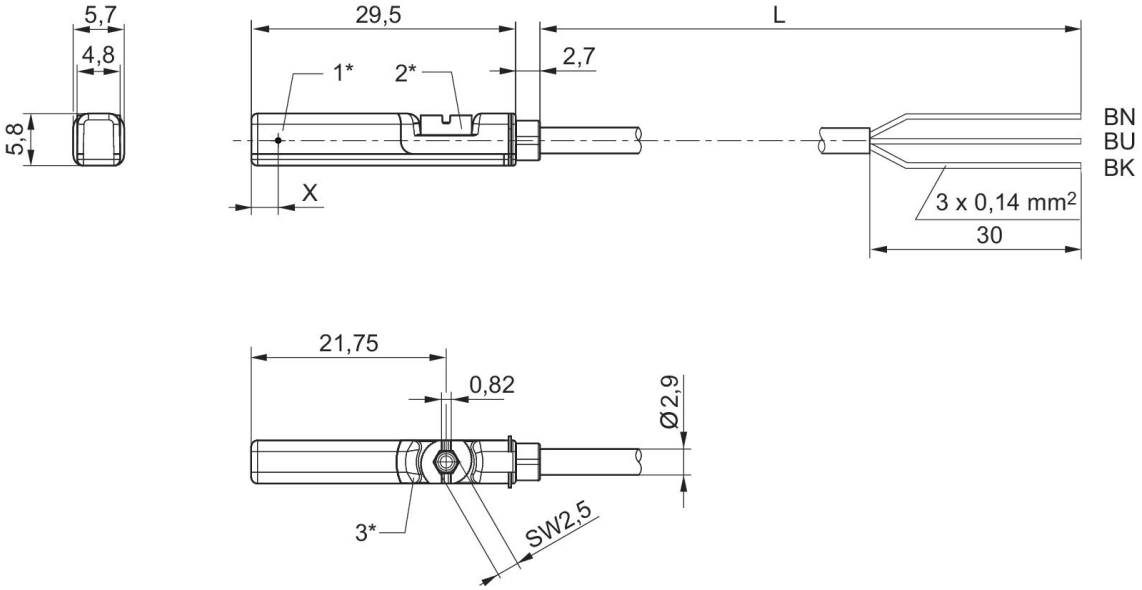
Sensors, Series ST6, open cable ends, 3-pin, PNP, ATEX

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

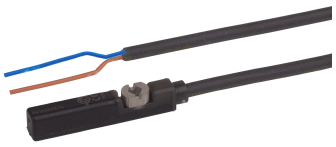
Dimensions

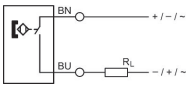


1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length BN = brown, BK = black, BU = blue
X = electronic: 11.6 mm

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

Temperature resistance: Heat resistant
Certificates: RoHS, UL (Underwriters Laboratories)
Ambient temperature min./max.: -20 °C ... 120 °C

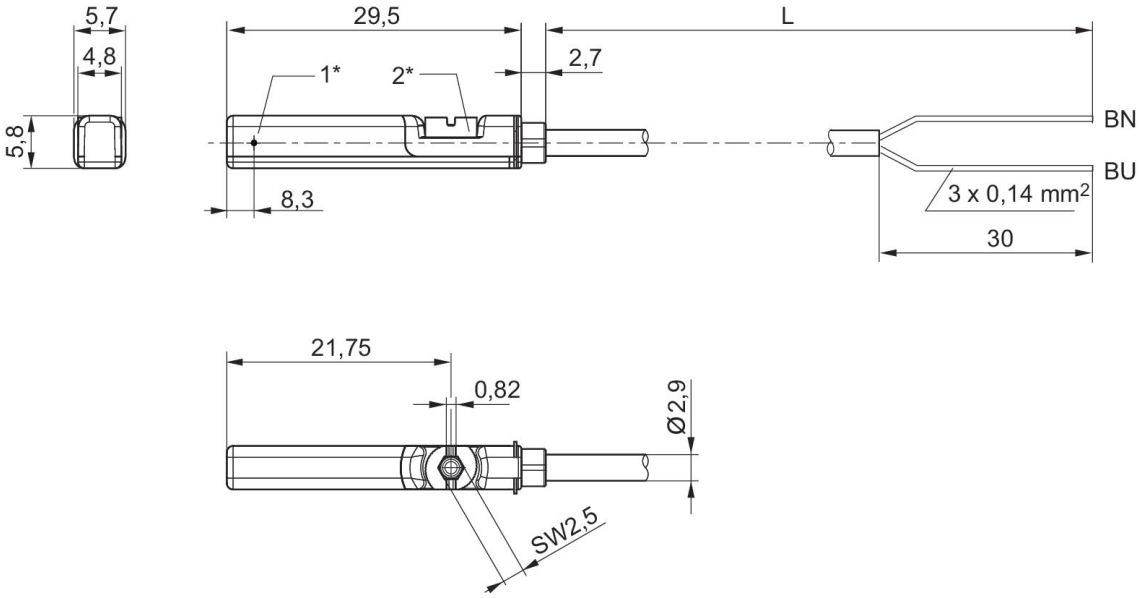




Switch descr.	Cable sheath	Number of poles	Max. DC switching current [A]	Max. AC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Min. operating voltage AC [V AC]	Part No.
Reed	Polyurethane	2-pin	0.13	0.13	0	30	0	R412022865
Reed	Polyurethane	2-pin	0.13	0.13	0	30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

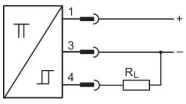
Dimensions



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

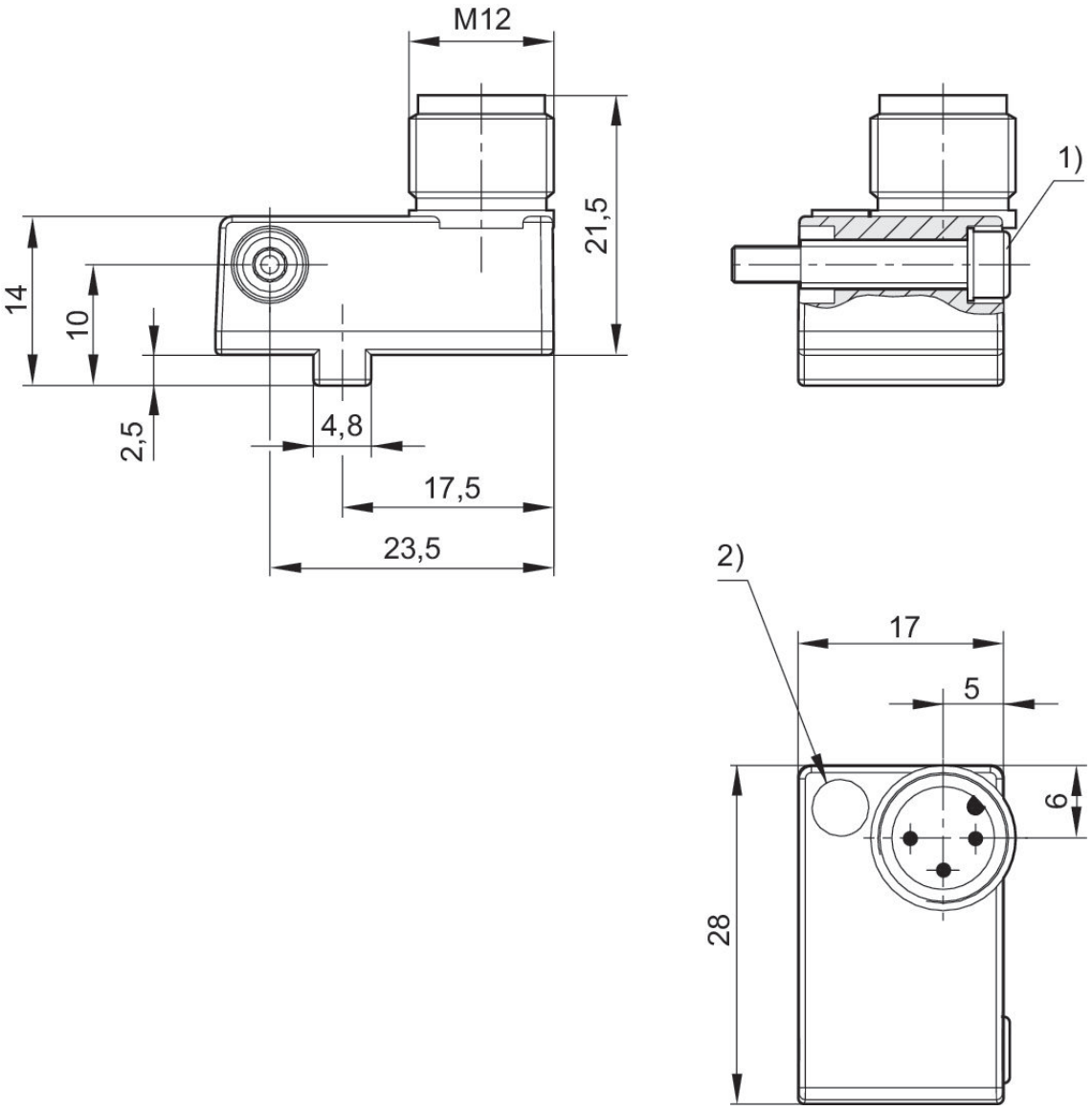
Sensor, Series SN3

Electrical connection 2, thread size: M12
Electrical connection 2, number of poles: 3-pin
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

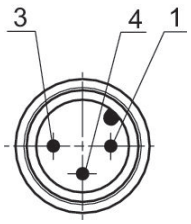
Dimensions



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

0830100438

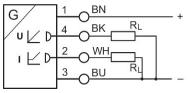
Pin assignments



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

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

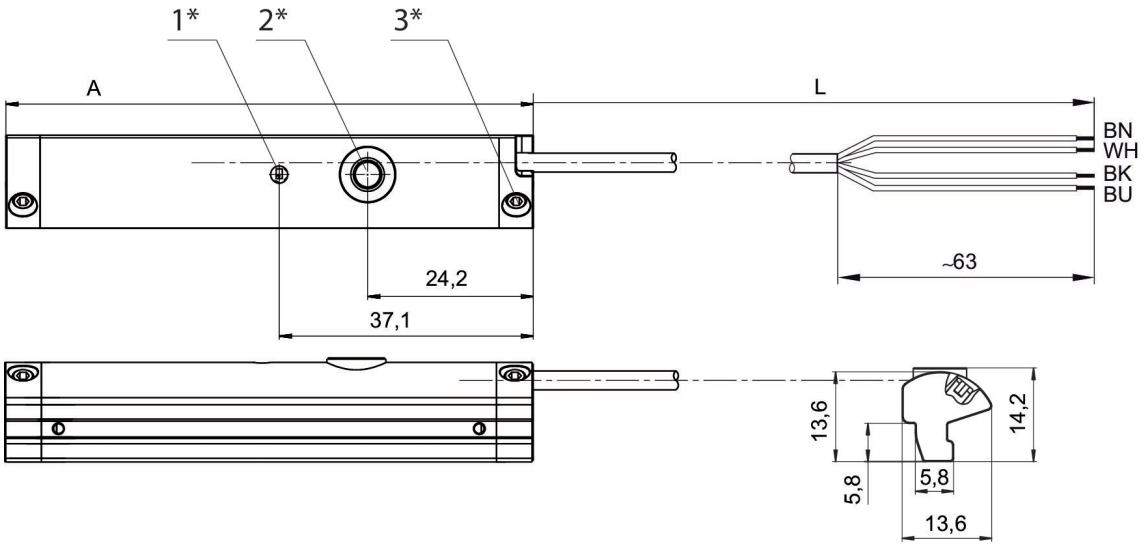
: with cable
Certificates: cULus
Direct mounting for series: PRA, PRE, CCI, KPZ, SSI, GPC, CVI
Indirect mounting for series: TRB, ITS, 167, MNI, ICM, TRR
Ambient temperature min./max.: -20 °C ... 70 °C



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 rever-	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	

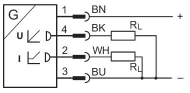
Dimensions



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

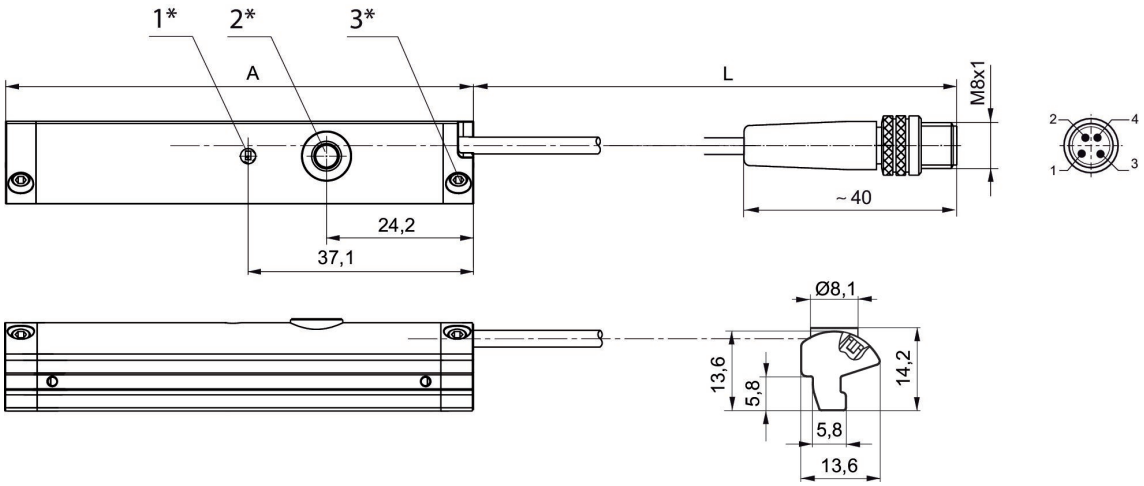
: with cable
Certificates: cULus
Direct mounting for series: PRA, PRE, CCI, KPZ, SSI, GPC, CVI
Indirect mounting for series: TRB, ITS, 167, MNI, ICM, TRR
Ambient temperature min./max.: -20 °C ... 70 °C



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					larity 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



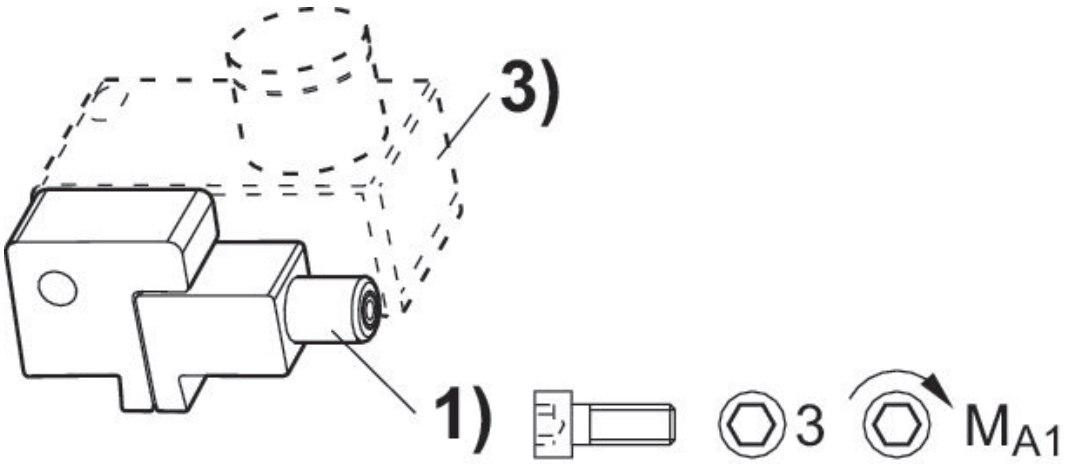
1* = LED 2* = teach button 3* = threaded pin M3x11
L = cable length
Pin assignment: 1 = (+), 2 = (OUT 1) 3 = (GND), 4 = (OUT 2), EN 60947-5-7
A = sensor length

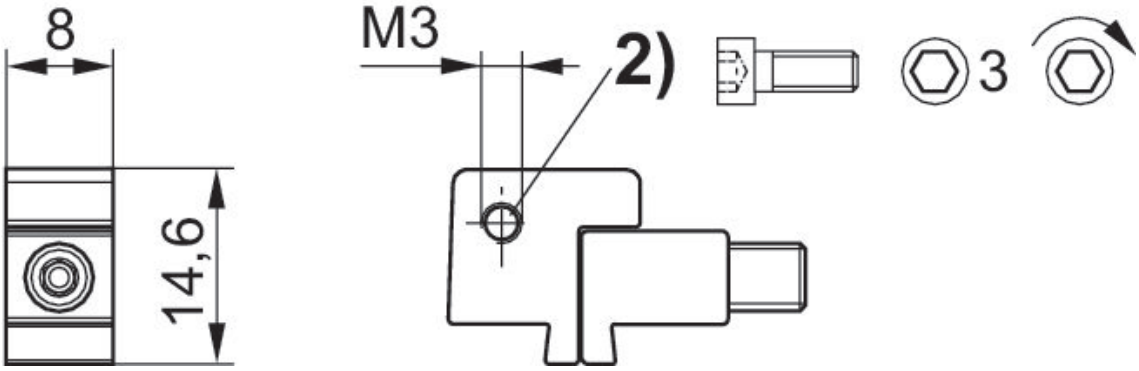
Sensor mounting, Series CB1

To mount on series: SN3
To mount on series: PRA, KPZ, GPC, CCI, KHZ

Material	Part No.
Aluminum	1827020386

Dimensions



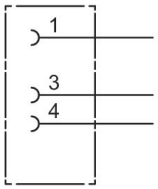


1) Clamping screw 2) Mounting screw for sensor 3) Sensor

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

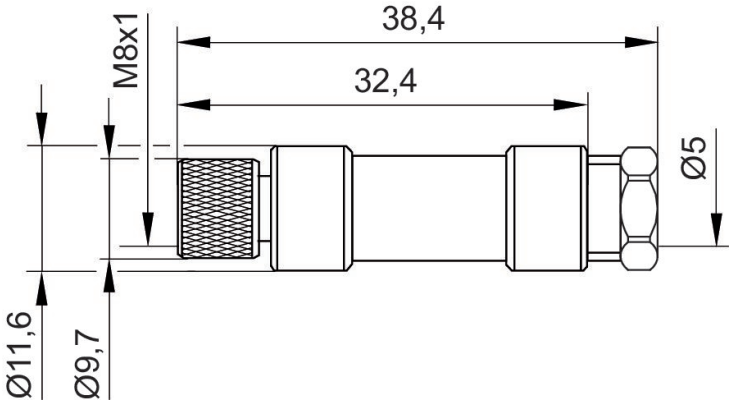
Round plug connector, Series CON-RD

Electrical connection 1: Socket ... M8x1 ... 3-pin ... straight
Connection type: Soldering
Ambient temperature min./max.: -25 °C ... 80 °C



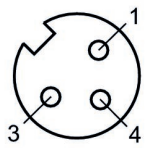
Operational voltage	Coding	Shielding	Connection type	Max. current [A]	min. suitable cable Ø [mm]	max. suitable cable Ø [mm]	Part No.
48 V AC/DC	A-coded	unshielded	Soldering	4	3.5	5	1834484173

Dimensions



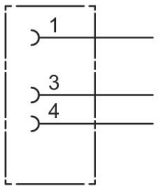
1834484173

Pin assignment, socket



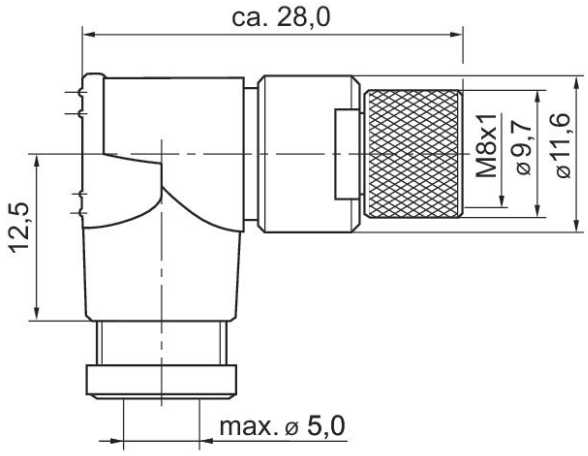
Round plug connector, Series CON-RD

Electrical connection 1: Socket ... M8x1 ... 3-pin ... angled
Connection type: Soldering
Ambient temperature min./max.: -25 °C ... 80 °C



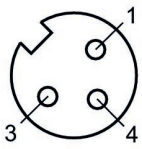
Operational voltage	Coding	Shielding	Connection type	Max. current [A]	min. suitable cable Ø [mm]	max. suitable cable Ø [mm]	Part No.
48 V AC/DC	A-coded	unshielded	Soldering	4	3.5	5	1834484174

Dimensions in mm



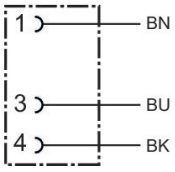
1834484174

Pin assignment, socket



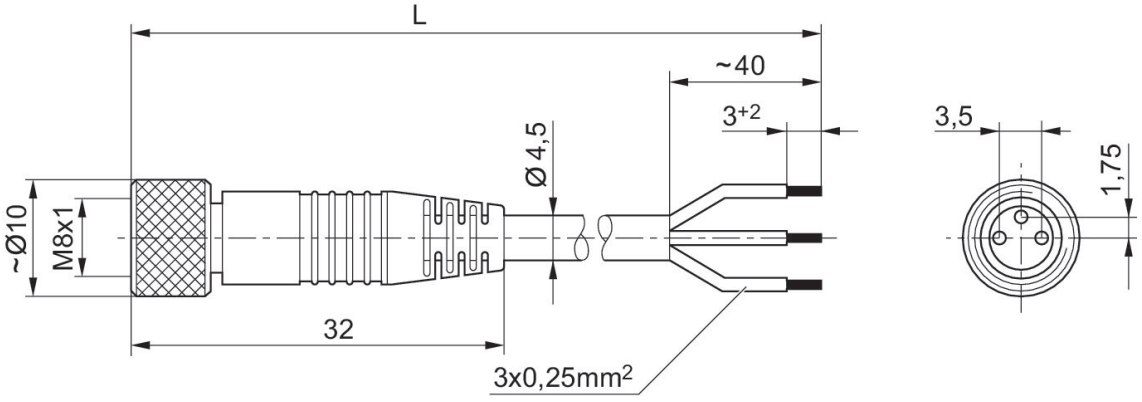
Round plug connector, Series CON-RD

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

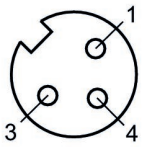
Dimensions



L = length

1834484166, 1834484168, 1834484247

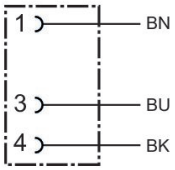
Pin assignment, socket



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

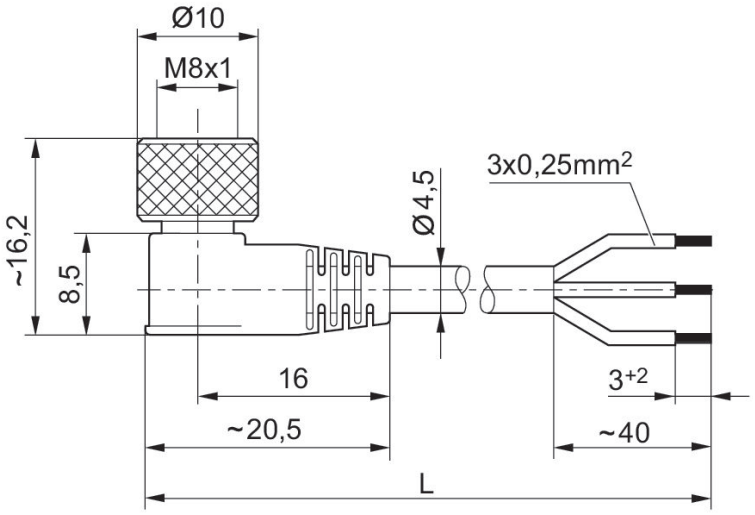
Round plug connector, Series CON-RD

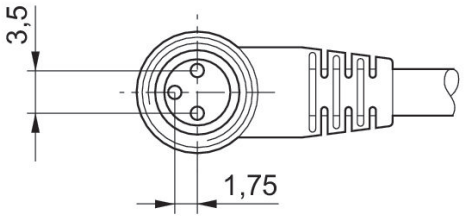
Electrical connection 1: Socket ... M8x1 ... 3-pin ... angled
Electrical connection 2: open cable ends ... 3-pin
Ambient temperature min./max.: -40 °C ... 85 °C



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

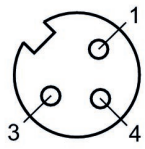




L = length

1834484167, 1834484169, 1834484248

Pin assignment, socket



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

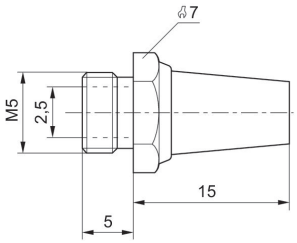
Silencers, series SI1, Sintered bronze

Compressed air connection type: External thread
Silencer material: Sintered bronze
Ambient temperature min./max.: -25 °C ... 80 °C
Working pressure min./max.: 0 bar ... 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
G 1/8	75	1623	10	0.01	1827000000

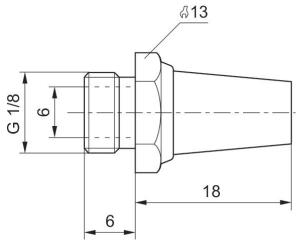
1827000006

Dimensions in mm



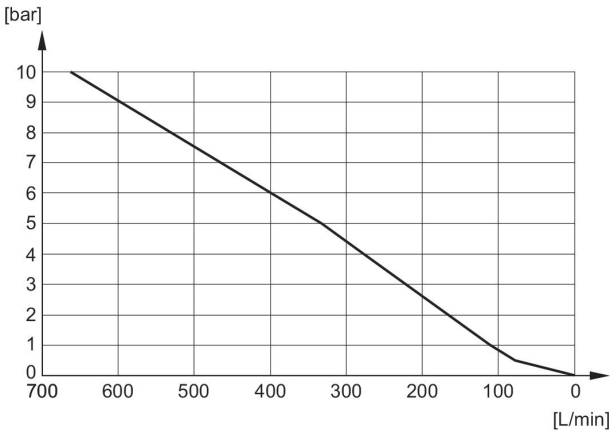
1827000000

Dimensions in mm



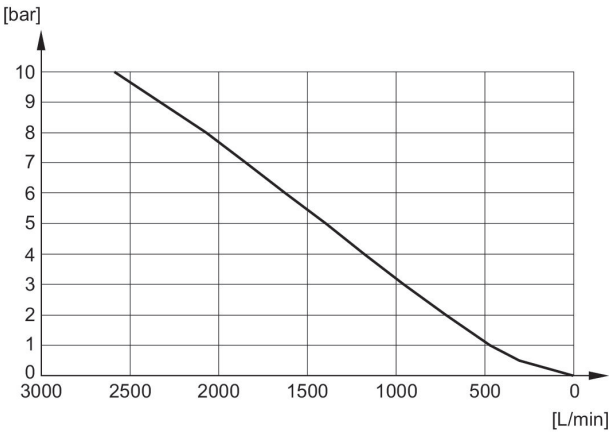
Flow diagram

1827000006



Flow diagram

1827000000

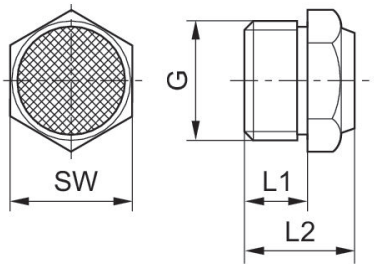


Silencers, series SI1, Sintered bronze

Compressed air connection type: External thread
Silencer material: Sintered bronze
Ambient temperature min./max.: -25 °C ... 80 °C
Working pressure min./max.: 0 bar ... 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

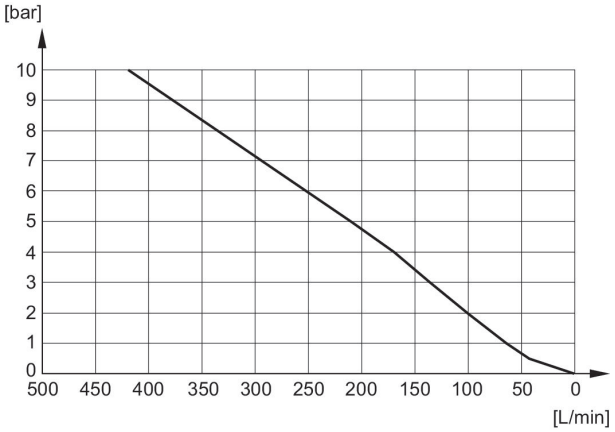
Dimensions



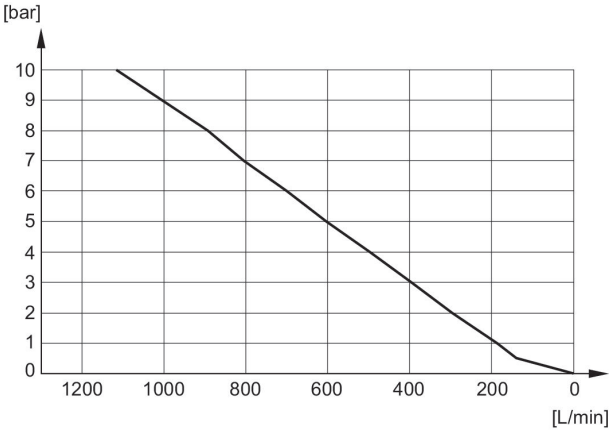
Part No.	Port G	L1	L2	SW
1827000032	M5	5	10.3	7
1827000031	G 1/8	6	11.5	13
1827000033	G 1/4	8	13.5	17
1827000034	G 3/8	10	17.5	22
1827000035	G 1/2	12	19.5	27
8145003400	G 3/4	14	22.5	32
8145001000	G 1	16	22.5	41

Sound pressure level measured at 6 bar at 1 m distance

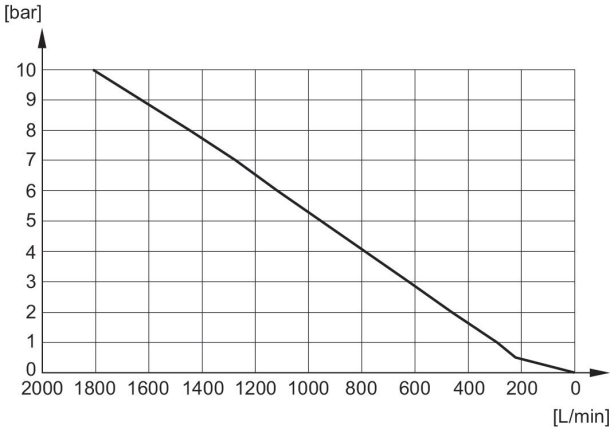
Flow diagram1827000032



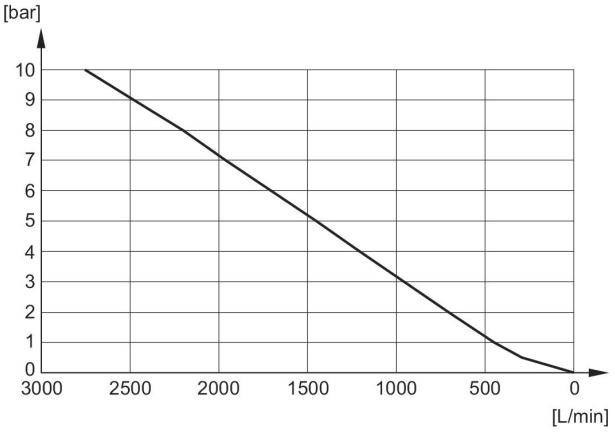
Flow diagram 1827000031



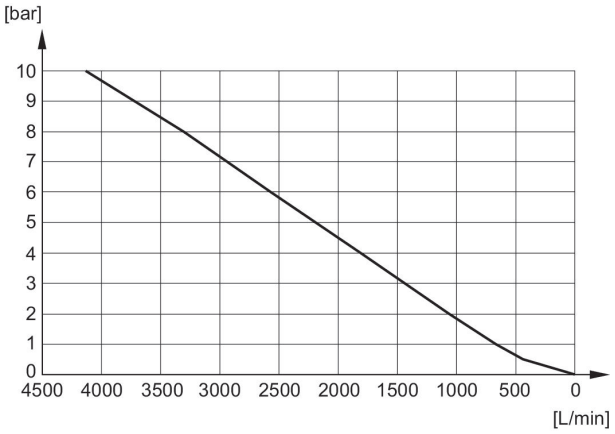
Flow diagram 1827000033



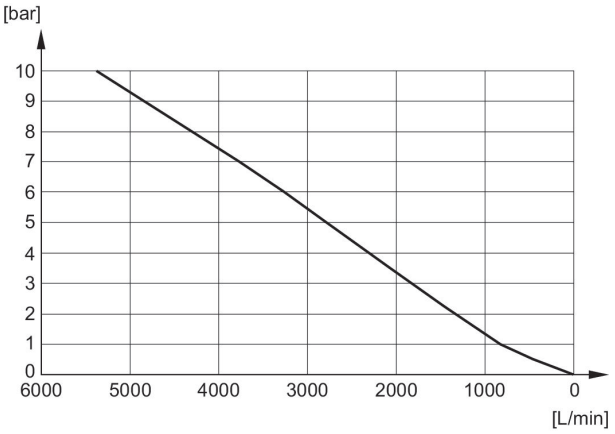
Flow diagram 1827000034



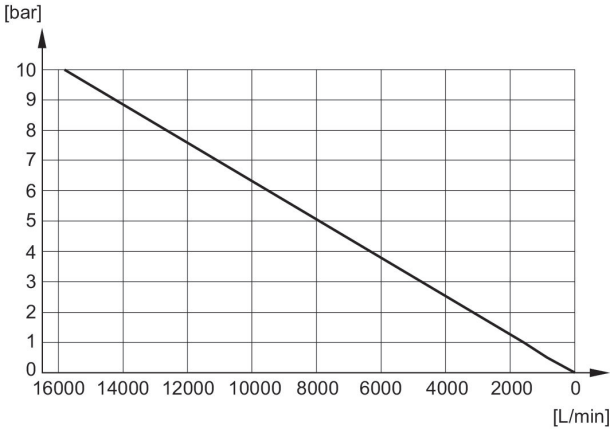
Flow diagram 1827000035



Flow diagram 8145003400



Flow diagram 8145001000



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