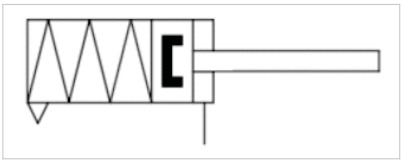
AVENTICS

Compact cylinder ISO 21287, Series CCI

- Ø 16-100 mm
- Ports M5, G 1/8
- Single-acting, extended without pressure
- with magnetic piston
- Cushioning elastic
- Piston rod External thread



Standards	ISO 21287
Compressed air connection	Internal thread
Ambient temperature min./max.	-20 ... 80 °C
Medium temperature min./max.	-20 ... 80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Pressure for determining piston forces	6 bar

Technical data

Piston Ø Piston rod thread Ports Piston rod Ø	16 mm M6x1 M5 8 mm	20 mm M8x1,25 M5 10 mm	25 mm M8x1,25 M5 10 mm	32 mm M10x1,25 G 1/8 12 mm	40 mm M10x1,25 G 1/8 12 mm	50 mm M12x1,25 G 1/8 16 mm	63 mm M12x1,25 G 1/8 16 mm	80 mm M16x1,5 G 1/8 20 mm
Stroke 5	R422001542	R422001543	R422001544	R422001545	R422001546	R422001547	R422001548	R422001549
10	R422001552	R422001553	R422001554	R422001555	R422001556	R422001557	R422001558	R422001559
15	R422001562	R422001563	R422001564	R422001565	R422001566	R422001567	R422001568	R422001569
20	R422001572	R422001573	R422001574	R422001575	R422001576	R422001577	R422001578	R422001579
25	R422001582	R422001583	R422001584	R422001585	R422001586	R422001587	R422001588	R422001589

Piston Ø Piston rod thread Ports Piston rod Ø	100 mm M16x1,5 G 1/8 25 mm
Stroke 5	R422001550
10	R422001560
15	R422001570
20	R422001580
25	R422001590

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Technical data

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Retracting piston force	79 N	124 N	191 N	329 N	517 N	789 N	1396 N
Extracting piston force	12 N	13 N	25 N	35 N	43 N	82 N	82 N
Impact energy	0,11 J	0,15 J	0,2 J	0,4 J	0,52 J	0,64 J	0,75 J
Weight 0 mm stroke	0,066 kg	0,127 kg	0,152 kg	0,26 kg	0,332 kg	0,501 kg	0,742 kg
Weight +10 mm stroke	0,016	0,023	0,026	0,043	0,052	0,07	0,087
Stroke max.	25 mm	25 mm	25 mm	25 mm	25 mm	25 mm	25 mm
Working pressure min./max.	2 ... 10 bar	2 ... 10 bar	2 ... 10 bar	2 ... 10 bar	2 ... 10 bar	2 ... 10 bar	2 ... 10 bar

Piston Ø	80 mm	100 mm
Retracting piston force	2292 N	3671 N
Extracting piston force	105 N	215 N
Impact energy	0,75 J	1 J
Weight 0 mm stroke	1,223 kg	2,28 kg
Weight +10 mm stroke	0,116	0,168
Stroke max.	25 mm	25 mm
Working pressure min./max.	2 ... 10 bar	2 ... 10 bar

Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Aluminum
End cover	Aluminum
Seal	Polyurethane
Nut for cylinder mounting	Steel, galvanized
Scraper	Polyurethane

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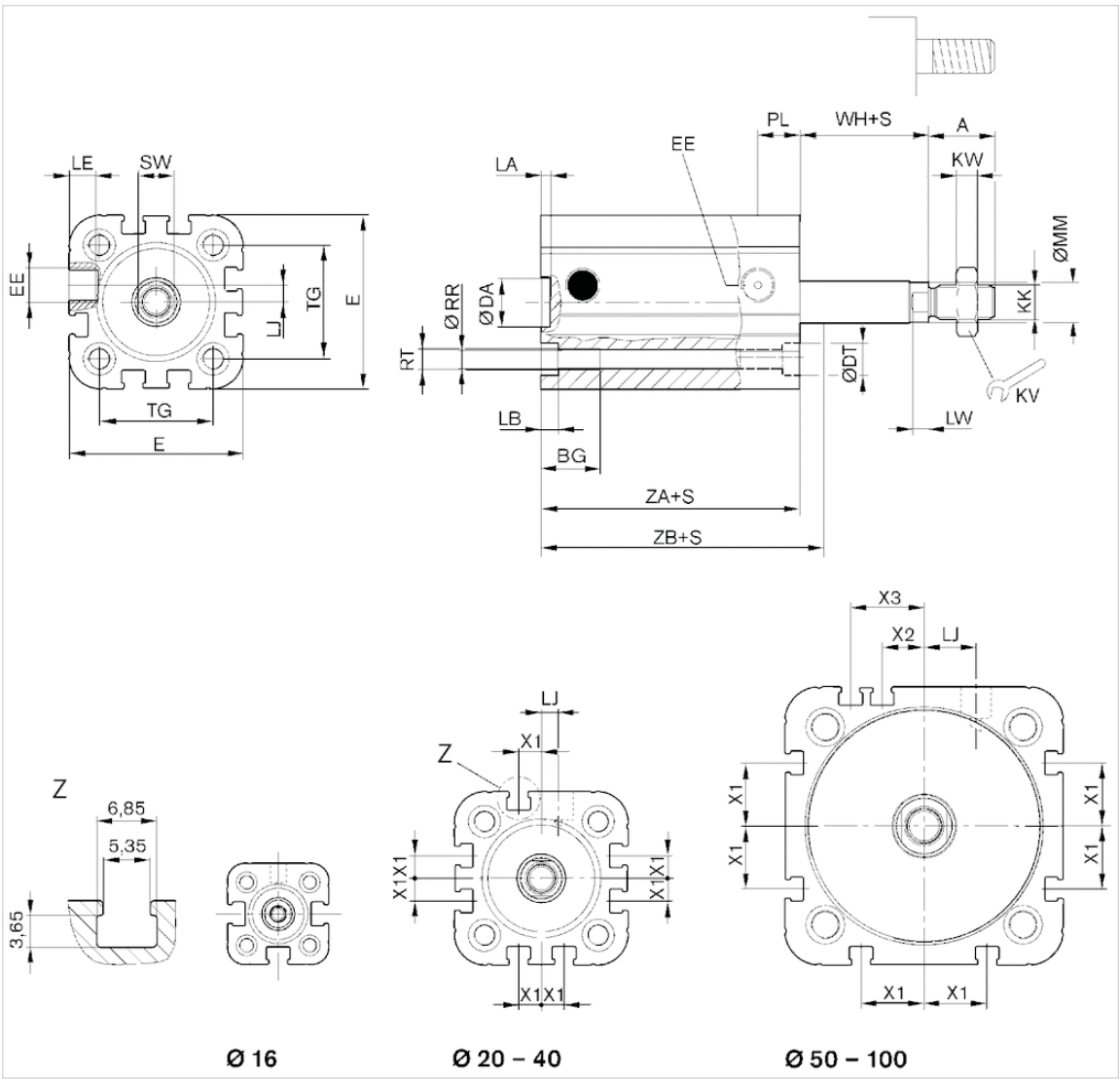
Dimensions

Ø 16 mm ... 100 mm



Dimensions

Piston Ø	A 1)	BG	DA H11	DT	E	EE	KK	KV	KW	LA	LB	LE	LJ	LW	MM f8	PL	RR	RT 6H	SW	TG
16 mm	12	15	10	6	29.3	M5	M6	10	3	2.5	3.5	4.5	0	4	8	8	3.3	M4	7	18
20 mm	16	15.5	12	7.5	36.3	M5	M8	13	4	2.5	4.5	4.5	4.5	4	10	10	4.2	M5	8	22
25 mm	16	15.5	12	8	40.3	M5	M8	13	4	2.5	4.5	4.5	4	4	10	10	4.2	M5	8	26
32 mm	19	17	14	9.2	50	G 1/8	M10x1,25	17	5	2.5	5	7.5	4.85	4.5	12	12	5.1	M6	10	32.5
40 mm	19	17	14	9.2	58	G 1/8	M10x1,25	17	5	2.5	5	7.5	9.85	4.5	12	12	5.1	M6	10	38
50 mm	22	17	18	11	68.3	G 1/8	M12x1,25	19	6	2.5	5	7.5	12	6	16	12	6.7	M8	13	46.5
63 mm	22	17	18	11	80	G 1/8	M12x1,25	19	6	2.5	5	7.5	14.8	6	16	12	6.7	M8	13	56.5
80 mm	28	20	23	15	96	G 1/8	M16x1,5	24	8	3	5	7.5	22	7	20	14	8.5	M10	16	72

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Piston Ø	A 1)	BG	DA H11	DT	E	EE	KK	KV	KW	LA	LB	LE	LJ	LW	MM f8	PL	RR	RT 6H	SW	TG
100 mm	28	20	28	15	116	G 1/8	M16x1,5	24	8	3	5	7.5	27	7	25	16.5	8.5	M10	21	89

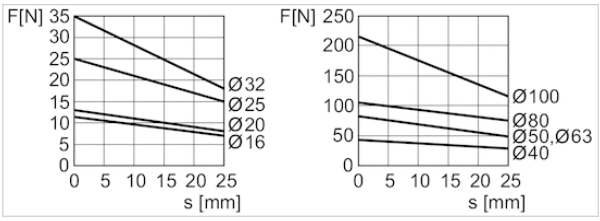
WH 2)	X1	X2	X3	ZA	ZB 2)
4,8 ±0,9	–	–	–	34,9 ±0,1	39,7 ±0,8
6,3 ±0,9	4.2	–	–	37,3 ±0,1	43,6 ±0,8
5,6 ±0,9	4.5	–	–	39 ±0,1	44,5 ±0,9
7,4 ±0,9	6.5	–	–	44 ±0,1	51,4 ±1
7,4 ±0,9	11	–	–	45 ±0,1	52,4 ±1
8,4 ±0,9	13	4	13	45,5 ±0,1	53,6 ±1
8,5 ±0,9	18	12	21	49 ±0,1	57,4 ±1
9,8 ±1	18	16.5	25.5	54,7 ±0,1	64,4 ±1
9,8 ±1	20	20	29	67 ±0,1	76,7 ±1

1) With cylinders with external thread extension, dimension "A" is increased by the value of the thread extension.

2) With cylinders with a piston rod extension, dimensions "WH" and "ZB" are increased by the value of the piston rod extension.

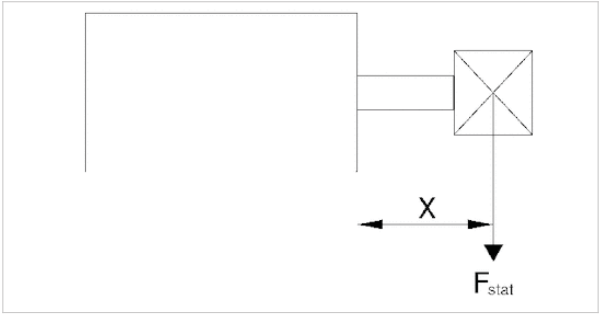
Diagrams

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

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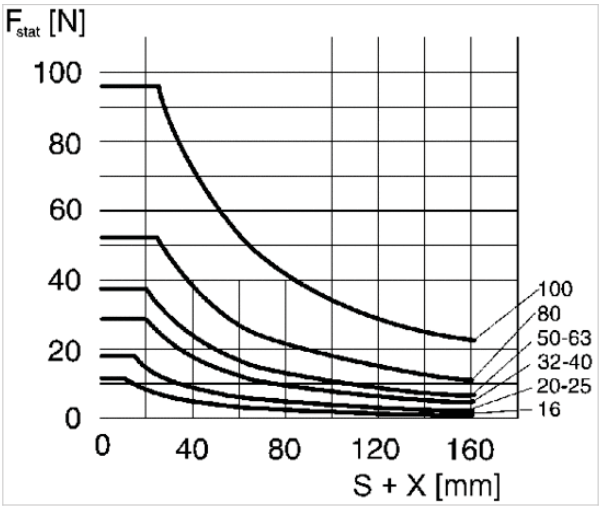
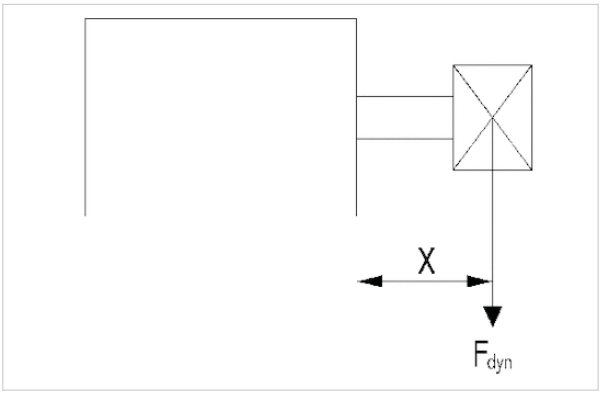
Maximum admissible lateral force static



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
S = stroke

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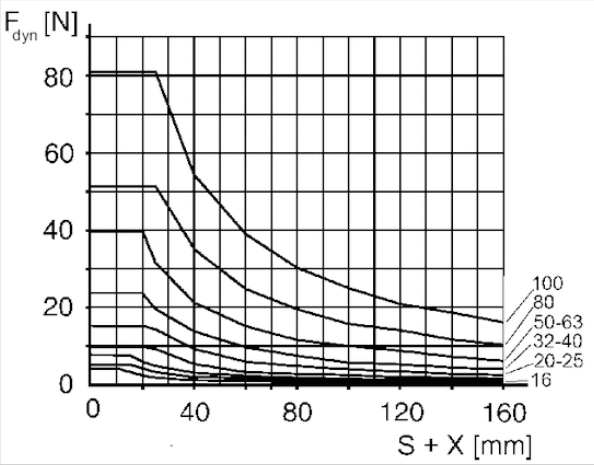
Maximum admissible lateral force dynamic



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

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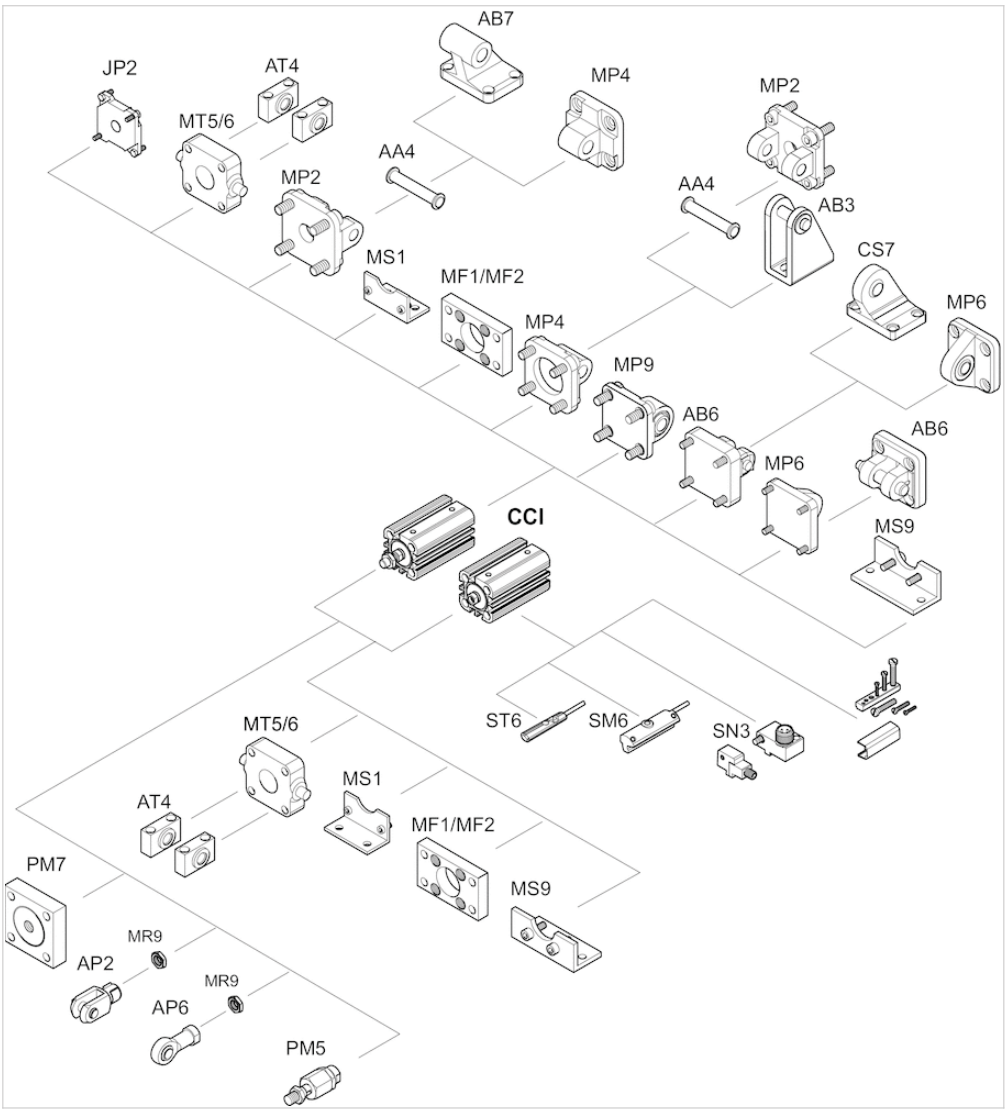
Accessories overview

Overview drawing



Due to the high possible forces, not all add-on parts are suitable for CCI tandem (see CCI-TD accessories overview).
NOTE:This overview drawing is only for orientation to indicate where the various accessory parts can be fastened to the cylinder. The illustration has been simplified for this purpose. It is thus not possible to derive the dimensions from this overview.