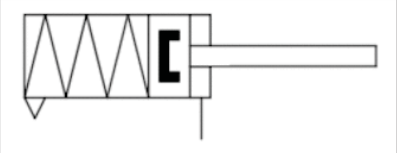
AVENTICS

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 Internal 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 M4 M5 8 mm	20 mm M6 M5 10 mm	25 mm M6 M5 10 mm	32 mm M8 G 1/8 12 mm	40 mm M8 G 1/8 12 mm	50 mm M10 G 1/8 16 mm	63 mm M10 G 1/8 16 mm	80 mm M12 G 1/8 20 mm
Stroke 5	R422001492	R422001493	R422001494	R422001495	R422001496	R422001497	R422001498	R422001499
10	R422001502	R422001503	R422001504	R422001505	R422001506	R422001507	R422001508	R422001509
15	R422001512	R422001513	R422001514	R422001515	R422001516	R422001517	R422001518	R422001519
20	R422001522	R422001523	R422001524	R422001525	R422001526	R422001527	R422001528	R422001529
25	R422001532	R422001533	R422001534	R422001535	R422001536	R422001537	R422001538	R422001539

Piston Ø Piston rod thread Ports Piston rod Ø	100 mm M12 G 1/8 25 mm
Stroke 5	R422001500
10	R422001510
15	R422001520
20	R422001530
25	R422001540

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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	0,061 kg	0,101 kg	0,126 kg	0,237 kg	0,309 kg	0,462 kg	0,703 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	1,5 ... 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	1,142 kg	2,199 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
Scraper	Polyurethane

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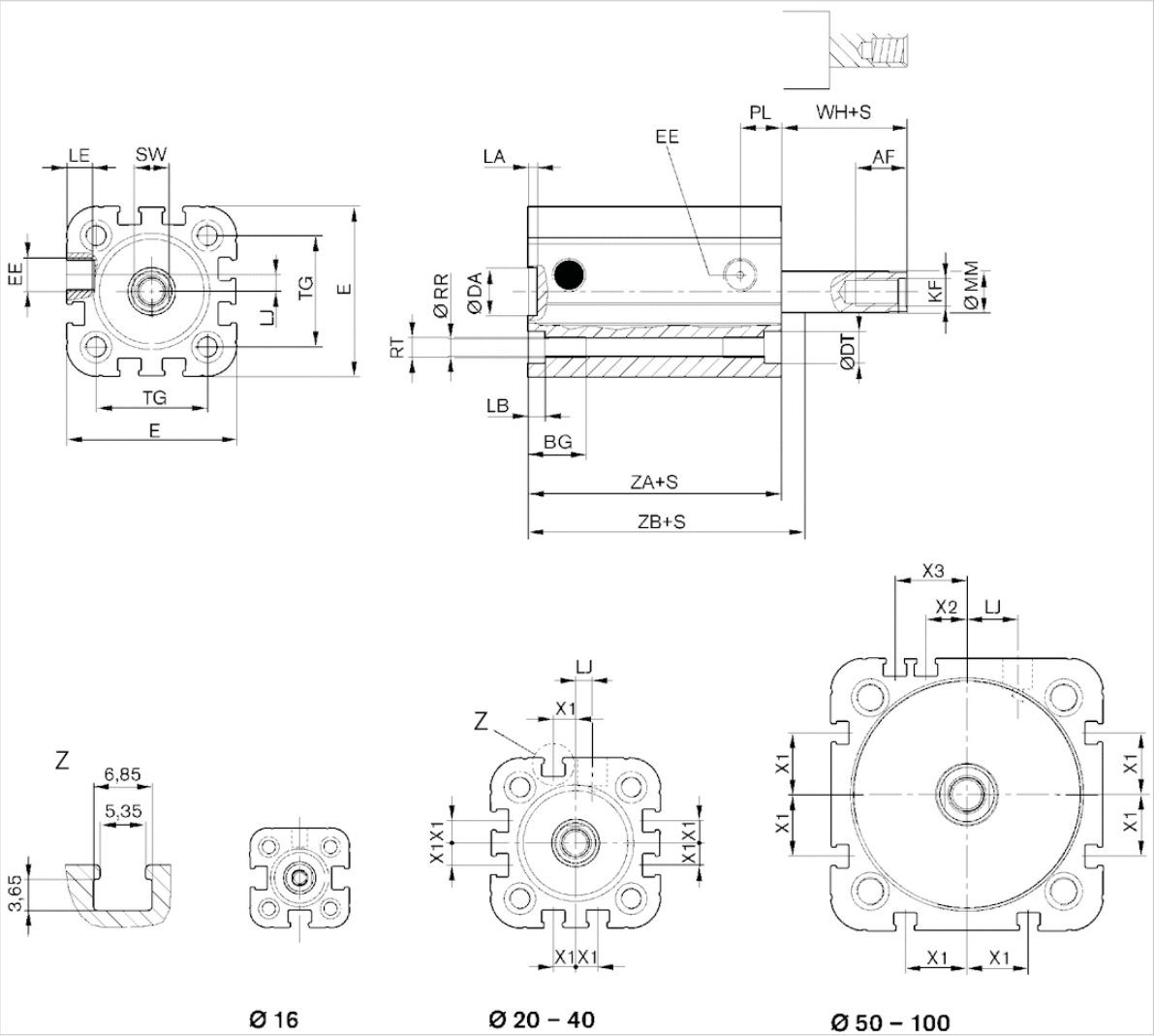
Dimensions

Ø 16 mm ... 100 mm



S = stroke

Dimensions

Piston Ø	AF	BG	DA H11	DT	E	EE	KF	LA	LB	LE	LJ	MM f8	PL	RR	RT 6H	SW	TG	WH 1)	X1	X2	X3
16 mm	10	15	10	6	29.3	M5	M4	2.5	3.5	4.5	0	8	8	3.3	M4	7	18	4,8 ±0,9	–	–	–
20 mm	12	15.5	12	7.5	36.3	M5	M6	2.5	4.5	4.5	4.5	10	10	4.2	M5	8	22	6,3 ±0,9	4.2	–	–
25 mm	12	15.5	12	8	40.3	M5	M6	2.5	4.5	4.5	4	10	10	4.2	M5	8	26	5,6 ±0,9	4.5	–	–
32 mm	12	17	14	9.2	50	G 1/8	M8	2.5	5	7.5	4.85	12	12	5.1	M6	10	32.5	7,4 ±0,9	6.5	–	–
40 mm	12	17	14	9.2	58	G 1/8	M8	2.5	5	7.5	9.85	12	12	5.1	M6	10	38	7,4 ±0,9	11	–	–
50 mm	16	17	18	11	68.3	G 1/8	M10	2.5	5	7.5	12	16	12	6.7	M8	13	46.5	8,4 ±0,9	13	4	13
63 mm	16	17	18	11	80	G 1/8	M10	2.5	5	7.5	14.8	16	12	6.7	M8	13	56.5	8,5 ±0,9	18	12	21

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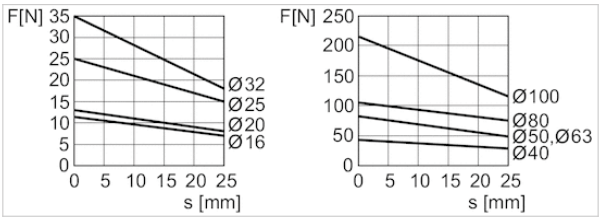
Piston Ø	AF	BG	DA H11	DT	E	EE	KF	LA	LB	LE	LJ	MM f8	PL	RR	RT 6H	SW	TG	WH 1)	X1	X2	X3
80 mm	20	20	23	15	96	G 1/8	M12	3	5	7.5	22	20	14	8.5	M10	16	72	9,8 ±1	18	16.5	25.5
100 mm	20	20	28	15	116	G 1/8	M12	3	5	7.5	27	25	16.5	8.5	M10	21	89	9,8 ±1	20	20	29

Piston Ø	ZA	ZB 1)
16 mm	34,9 ±0,1	39,7 ±0,8
20 mm	37,3 ±0,1	43,6 ±0,8
25 mm	39 ±0,1	44,5 ±0,9
32 mm	44 ±0,1	51,4 ±1
40 mm	45 ±0,1	52,4 ±1
50 mm	45,5 ±0,1	53,6 ±1
63 mm	49 ±0,1	57,4 ±1
80 mm	54,7 ±0,1	64,4 ±1
100 mm	67 ±0,1	76,7 ±1

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

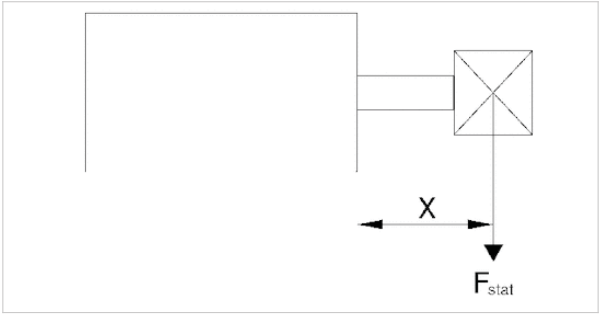
Diagrams

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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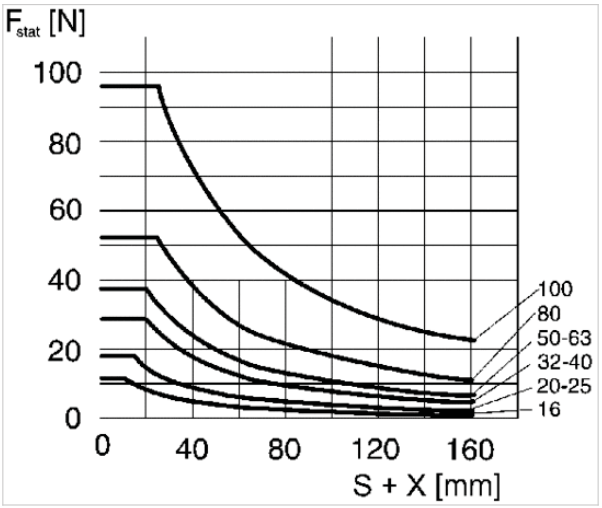
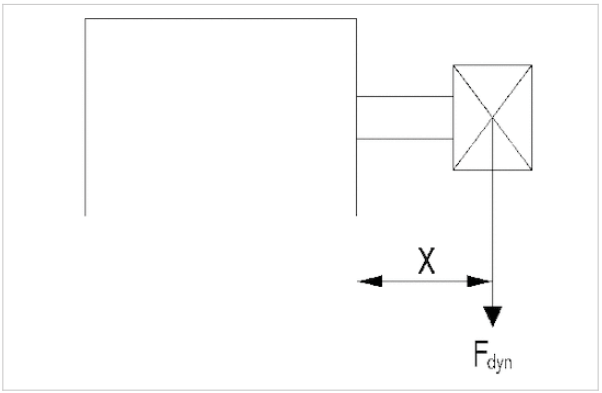
Maximum admissible lateral force static



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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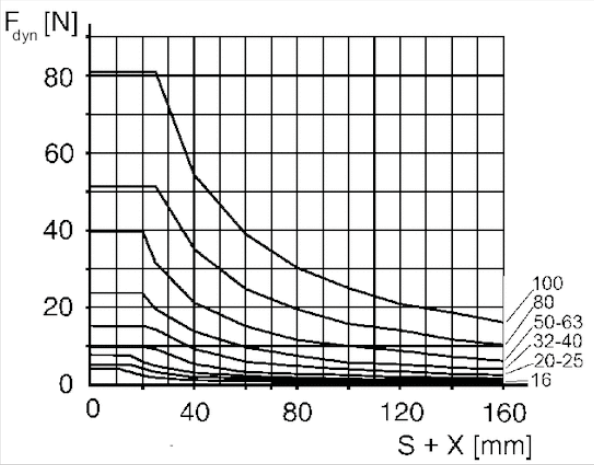
Maximum admissible lateral force dynamic



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

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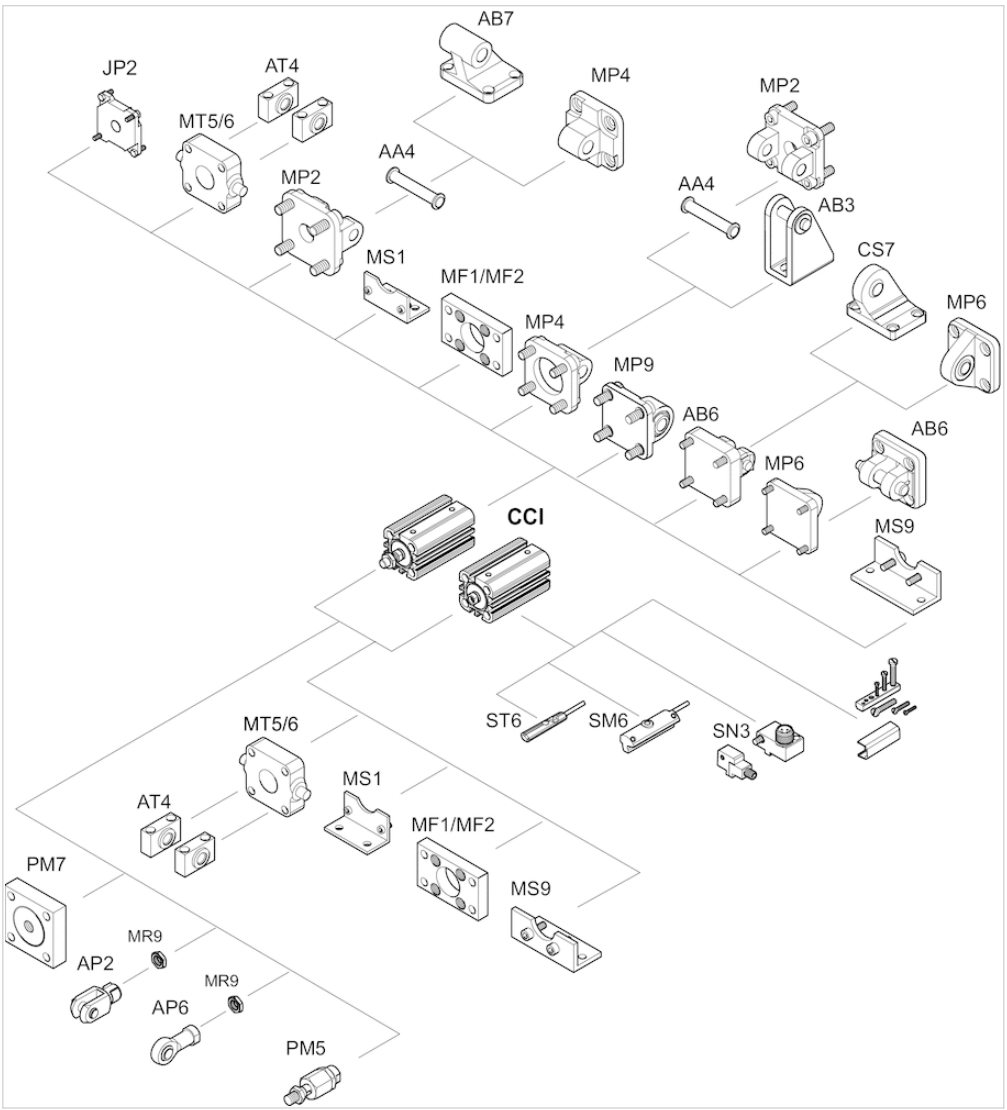
Accessories overview

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.

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