

Short-stroke cylinder, Series SSI

- Ø 12-100 mm
- Ports M5, G 1/8, G 1/4, G 3/8
- double-acting
- with magnetic piston
- Cushioning elastic
- Piston rod Internal thread



Standards	ISO 15524
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	6.3 bar

Technical data

Piston Ø Piston rod thread Ports Piston rod Ø	12 mm M3 M5 6 mm	16 mm M4 M5 8 mm	20 mm M5 M5 10 mm	25 mm M6 M5 12 mm	32 mm M8 G 1/8 16 mm	40 mm M8 G 1/8 16 mm	50 mm M10 G 1/4 20 mm	63 mm M10 G 1/4 20 mm
Stroke 5	R412019800	R412019808	R412019816	R412019824	R412019832	R412019842	R412019852	R412019862
10	R412019801	R412019809	R412019817	R412019825	R412019833	R412019843	R412019853	R412019863
15	R412019802	R412019810	R412019818	R412019826	R412019834	R412019844	R412019854	R412019864
20	R412019803	R412019811	R412019819	R412019827	R412019835	R412019845	R412019855	R412019865
25	R412019804	R412019812	R412019820	R412019828	R412019836	R412019846	R412019856	R412019866
30	R412019805	R412019813	R412019821	R412019829	R412019837	R412019847	R412019857	R412019867
40	R412019806	R412019814	R412019822	R412019830	R412019838	R412019848	R412019858	R412019868
50	R412019807	R412019815	R412019823	R412019831	R412019839	R412019849	R412019859	R412019869
80	-	-	-	-	R412019840	R412019850	R412019860	R412019870
100	-	-	-	-	R412019841	R412019851	R412019861	R412019871

Piston Ø Piston rod thread Ports Piston rod Ø	80 mm M16 G 3/8 25 mm	100 mm M20 G 3/8 32 mm
Stroke 5	R412019872	R412019882

Piston Ø Piston rod thread Ports Piston rod Ø	80 mm M16 G 3/8 25 mm	100 mm M20 G 3/8 32 mm
10	R412019873	R412019883
15	R412019874	R412019884
20	R412019875	R412019885
25	R412019876	R412019886
30	R412019877	R412019887
40	R412019878	R412019888
50	R412019879	R412019889
80	R412019880	R412019890
100	R412019881	R412019891

Technical data

Piston Ø	12 mm	16 mm	20 mm	25 mm
Retracting piston force	53 N	95 N	148 N	238 N
Extracting piston force	71 N	127 N	198 N	309 N
Impact energy	0,03 J	0,06 J	0,08 J	0,1 J
Weight 0 mm stroke	0,04 kg	0,064 kg	0,083 kg	0,099 kg
Weight +10 mm stroke	0,012 kg	0,017 kg	0,021 kg	0,027 kg
Stroke max.	75 mm	100 mm	150 mm	150 mm
Working pressure min./max.	1 ... 10 bar	1 ... 10 bar	1 ... 10 bar	1 ... 10 bar
Material, front cover	Brass	Brass	Brass	Aluminum
Scraper material	Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber
Sealing material	Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber

Piston Ø	32 mm	40 mm	50 mm	63 mm	80 mm	100 mm
Retracting piston force	380 N	665 N	1039 N	1766 N	2857 N	4441 N
Extracting piston force	507 N	792 N	1237 N	1964 N	3167 N	4948 N
Impact energy	0,16 J	0,24 J	0,32 J	0,38 J	0,43 J	0,5 J
Weight 0 mm stroke	0,148 kg	0,245 kg	0,38 kg	0,598 kg	1,093 kg	1,888 kg
Weight +10 mm stroke	0,038 kg	0,044 kg	0,067 kg	0,079 kg	0,122 kg	0,168 kg
Stroke max.	150 mm	150 mm	150 mm	150 mm	150 mm	150 mm
Working pressure min./max.	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar
Material, front cover	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Scraper material	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Sealing material	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane

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).

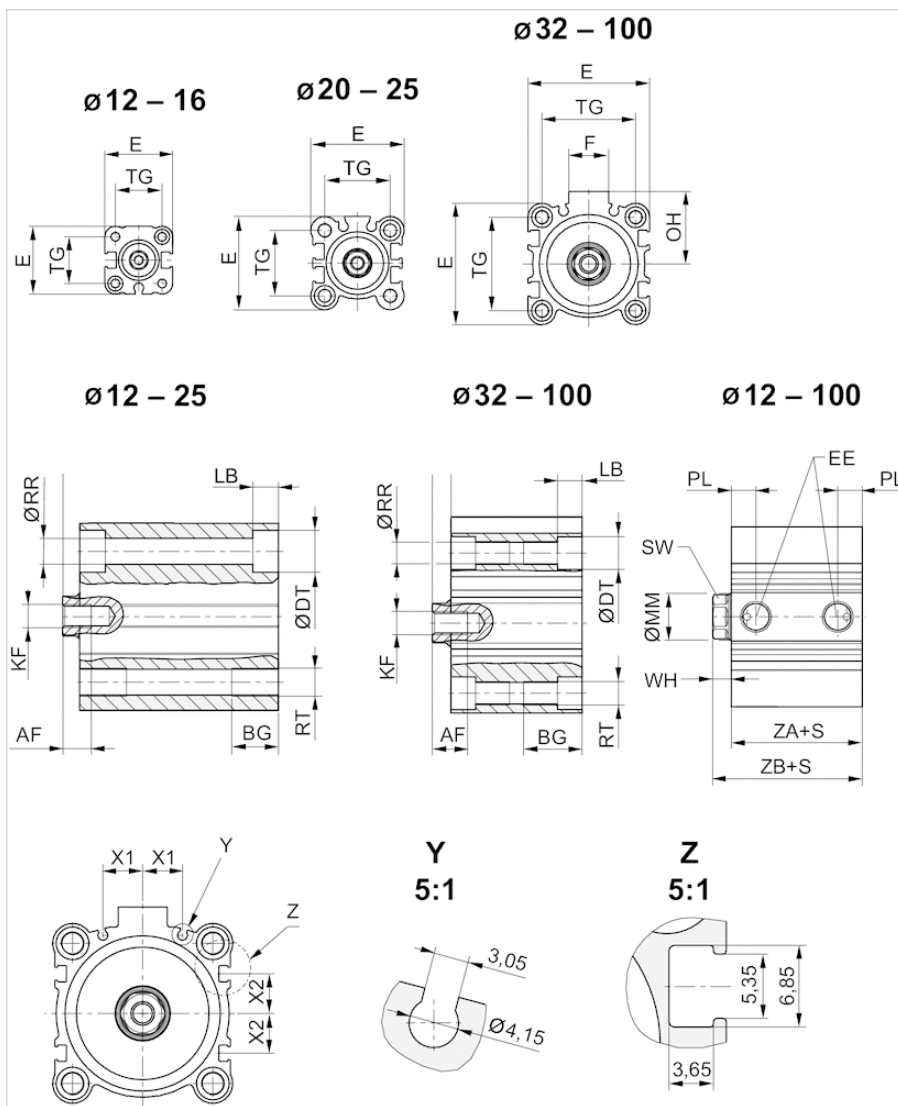
Use our Internet configurator to order variants with an external thread.

Technical information

Material	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Brass, Aluminum
End cover	Aluminum
Seal	Nitrile butadiene rubber, Polyurethane
Scraper	Nitrile butadiene rubber, Polyurethane
See table for additional data on materials.	

Dimensions

Dimensions



S = stroke

Dimensions

Piston $\varnothing$	AF	BG	$\varnothing DT$	E	EE	F	KF	LB 1)	$\varnothing MM f8$	OH	PL	$\varnothing RR$	RT	SW	TG	WH	X1	X2	ZA $\pm 0,2$	ZB ± 2
12 mm	6	7	6.5	25	M5	-	M3	3.5	6	-	5.5	3.7	M4	5	15,5 $\pm 0,3$	3,5 $\pm 1,5$	0	0	28	31.5
16 mm	8	7	6.5	29	M5	-	M4	3.5	8	-	5.5	3.7	M4	7	20 $\pm 0,3$	3,5 $\pm 1,5$	0	0	30.5	34
20 mm	7	10	9	36	M5	-	M5	5.5	10	-	5.5	5.55	M6	8	25,5 $\pm 0,3$	4,5 $\pm 1,5$	5.7	4.3	31.5	36
25 mm	12	10	9	40	M5	-	M6	5.5	12	-	5.5	5.55	M6	10	28 $\pm 0,3$	5 $\pm 1,5$	6	5	32.5	37.5
32 mm	13	16	9	45	G 1/8	17	M8	5.5	16	27	7.5	5.55	M6	13	34 $\pm 0,3$	7 ± 2	8.5	7.5	33	40
40 mm	13	16	9	52	G 1/8	17	M8	5.5	16	31	7.5	5.55	M6	13	40 $\pm 0,3$	7 ± 2	10.8	11	39.5	46.5

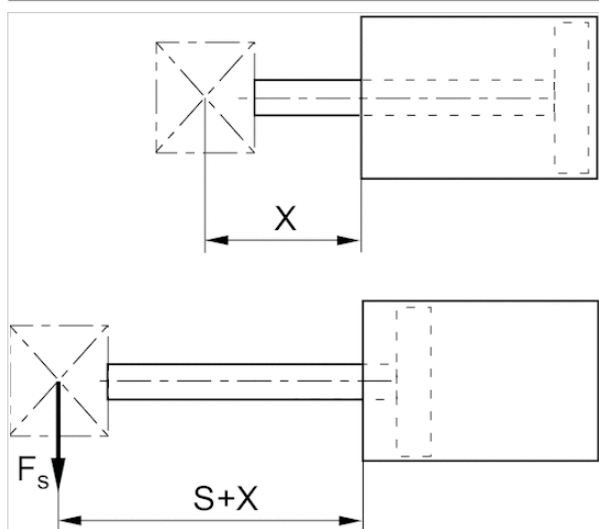
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Piston Ø	AF	BG	ØDT	E	EE	F	KF	LB 1)	ØMM f8	OH	PL	ØRR	RT	SW	TG	WH	X1	X2	ZA±0,2	ZB±2
50 mm	15	20	11	64	G 1/4	21	M10	8	20	39	10.5	7.4	M8	17	50 ±0,5	8 ±2	14	13	40.5	48.5
63 mm	15	25	14	77	G 1/4	21	M10	10.5	20	45.5	10.5	9.3	M10	17	60 ±0,5	8 ±2	17	17	46	54
80 mm	21	30	17.5	98	G 3/8	26	M16	13.5	25	59	12.5	11.2	M12	22	77 ±0,5	10 ±2	23.5	21	53.5	63.5
100 mm	27	30	17.5	117	G 3/8	26	M20	13.5	32	65	14	11.2	M12	27	94 ±0,5	12 ±2,5	31	28	63	75

1) max.

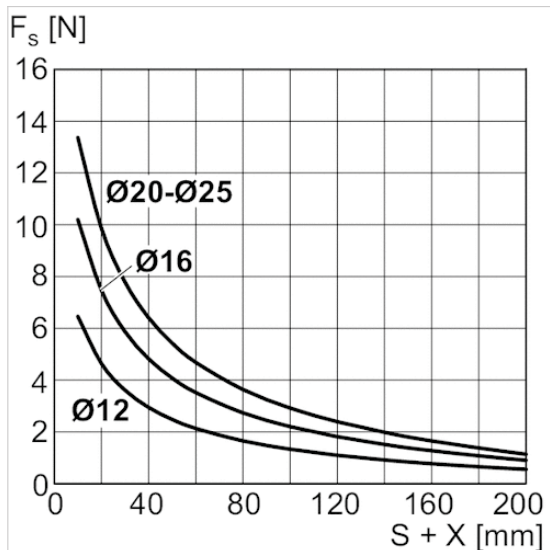
Diagrams

Maximum admissible lateral force Ø 12 ... 25 mm



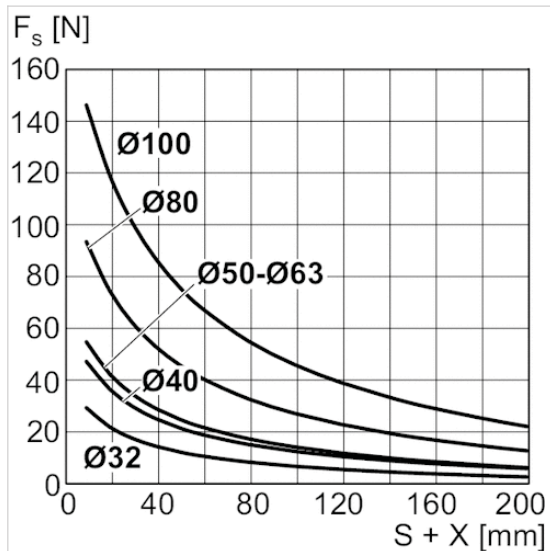
X = distance between force application point and cylinder cover
Fs = lateral force
S = stroke

Maximum admissible lateral force Ø 12 ... 25 mm



X = distance between force application point and cylinder cover
FS = lateral force
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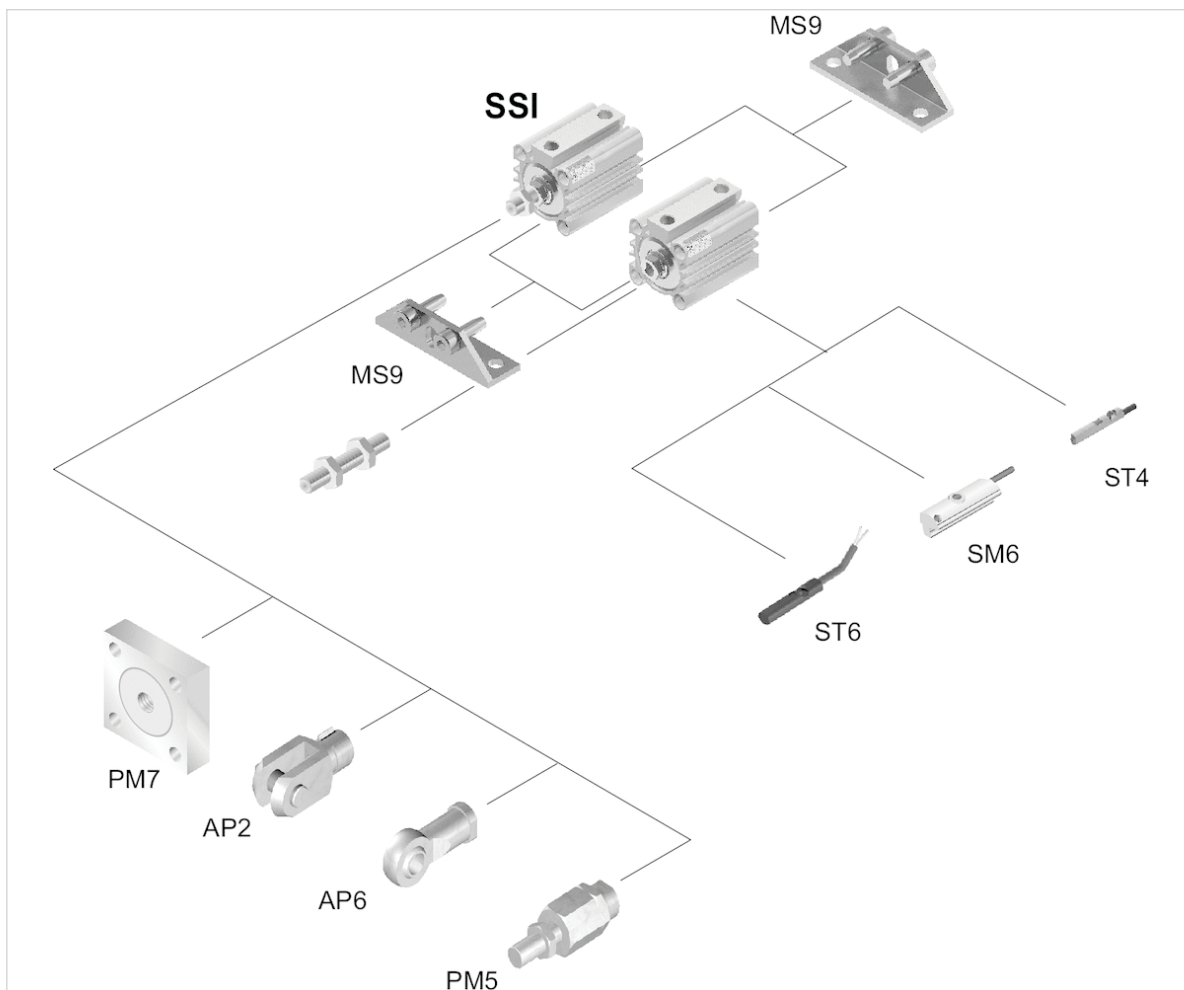
Maximum admissible lateral force Ø 32 ... 100 mm



X = distance between force application point and cylinder cover
FS = lateral force
S = stroke

Accessories overview

Overview drawing



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

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.