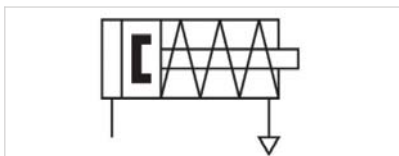


Short-stroke cylinder, Series SSI

- Ø 12-63 mm
- Ports M5 G 1/8 G 1/4
- Single-acting, retracted without pressure
- 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
Stroke 5	R480637920	R480637922	R480637924	R480637927	R480637930	R480637933
10	R480637921	R480637923	R480637925	R480637928	R480637931	R480637934
25	-	-	R480637926	R480637929	R480637932	R480637935

Piston Ø Piston rod thread Ports Piston rod Ø	50 mm M10 G 1/4 20 mm	63 mm M10 G 1/4 20 mm
Stroke 5	-	-
10	R480637936	R480637938
25	R480637937	R480637939

Technical data

Piston Ø	12 mm	16 mm
Extracting piston force	71 N	127 N
Impact energy	0,02 J	0,03 J
Weight 0 mm stroke	0,039 kg	0,061 kg
Weight +10 mm stroke	0,012 kg	0,017 kg
Working pressure min./max.	1,7 ... 10 bar	1,5 ... 10 bar
Material, front cover	Brass	Aluminum
Sealing material	Nitrile butadiene rubber	Nitrile butadiene rubber
Stroke max.	10 mm	10 mm

Piston Ø	20 mm	25 mm
Extracting piston force	198 N	309 N
Impact energy	0,04 J	0,05 J
Weight 0 mm stroke	0,077 kg	0,098 kg
Weight +10 mm stroke	0,02 kg	0,027 kg
Working pressure min./max.	1,5 ... 10 bar	1,5 ... 10 bar
Material, front cover	Aluminum	Aluminum
Sealing material	Nitrile butadiene rubber	Nitrile butadiene rubber
Stroke max.	25 mm	25 mm

Piston Ø	32 mm	40 mm	50 mm	63 mm
Extracting piston force	507 N	792 N	1237 N	1964 N
Impact energy	0,16 J	0,24 J	0,32 J	0,38 J
Weight 0 mm stroke	0,171 kg	0,236 kg	0,385 kg	0,606 kg
Weight +10 mm stroke	0,038 kg	0,044 kg	0,067 kg	0,079 kg
Working pressure min./max.	1,3 ... 10 bar	1,3 ... 10 bar	1 ... 10 bar	1 ... 10 bar
Material, front cover	Aluminum	Aluminum	Aluminum	Aluminum
Sealing material	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Stroke max.	25 mm	25 mm	25 mm	25 mm

Retracting piston force see diagram

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).

Please note that this variant does not use a scraper.

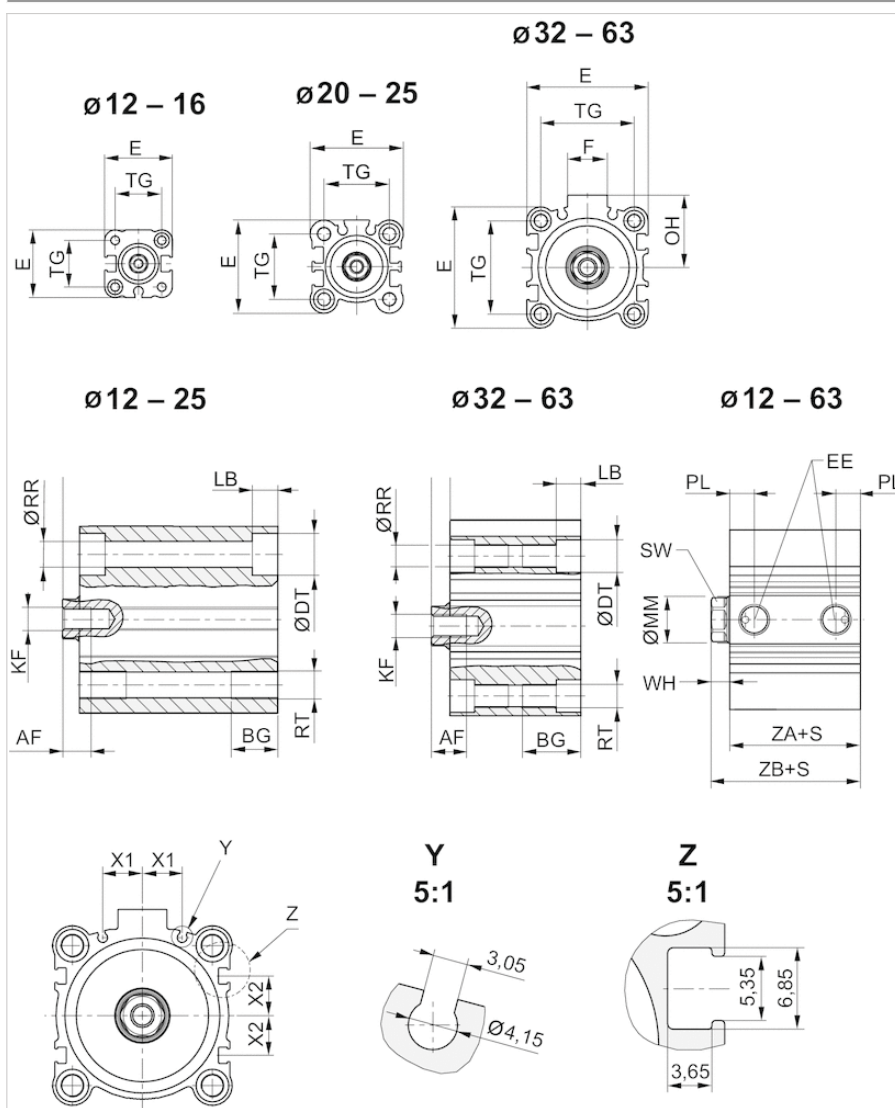
Technical information

Material	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Brass Aluminum

Material	
End cover	Aluminum
Seal	Nitrile butadiene rubber Polyurethane
See table for additional data on materials.	

Dimensions

Dimensions



S = stroke

Dimensions

Piston Ø	AF	BG	ØDT	E	EE	F	KF	LB 1)	ØMM f8	OH	PL	ØRR	RT	SW	TG
12 mm	6	7	6.5	25	M5	-	M3	3.5	6	-	5.5	3.7	M4	5	15,5 ±0,3
16 mm	8	7	6.5	29	M5	-	M4	3.5	8	-	5.5	3.7	M4	7	20 ±0,3
20 mm	7	10	9	36	M5	-	M5	5.5	10	-	5.5	5.55	M6	8	25,5 ±0,3
25 mm	12	10	9	40	M5	-	M6	5.5	12	-	5.5	5.55	M6	10	28 ±0,3
32 mm	13	16	9	45	G 1/8	17	M8	5.5	16	27	7.5	5.55	M6	13	34 ±0,3
40 mm	13	16	9	52	G 1/8	17	M8	5.5	16	31	7.5	5.55	M6	13	40 ±0,3
50 mm	15	20	11	64	G 1/4	21	M10	8	20	39	10.5	7.4	M8	17	50 ±0,5
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

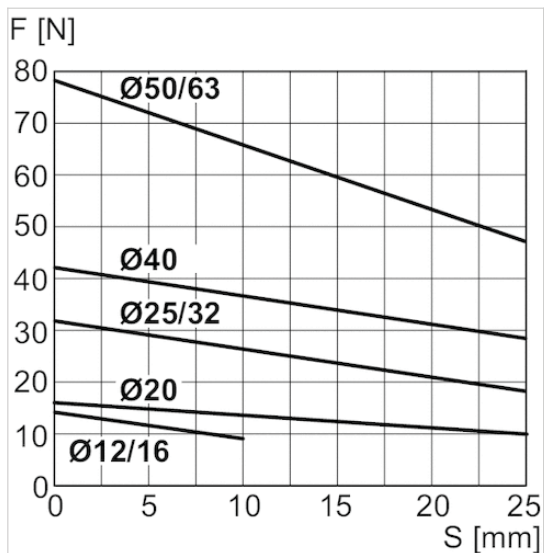
Piston Ø	WH	X1	X2	ZA±0,2	ZB±2
12 mm	3,5 ±1,5	0	0	28	31.5
16 mm	3,5 ±1,5	0	0	30.5	34
20 mm	4,5 ±1,5	5.7	4.3	31,5 *	36 *
25 mm	5 ±1,5	6	5	32,5 *	37,5 *
32 mm	7 ±2	8.5	7.5	33	40
40 mm	7 ±2	10.8	11	39.5	46.5
50 mm	8 ±2	14	13	40.5	48.5
63 mm	8 ±2	17	17	46	54

1) max.

* For stroke 11-25 mm + 6.5 mm

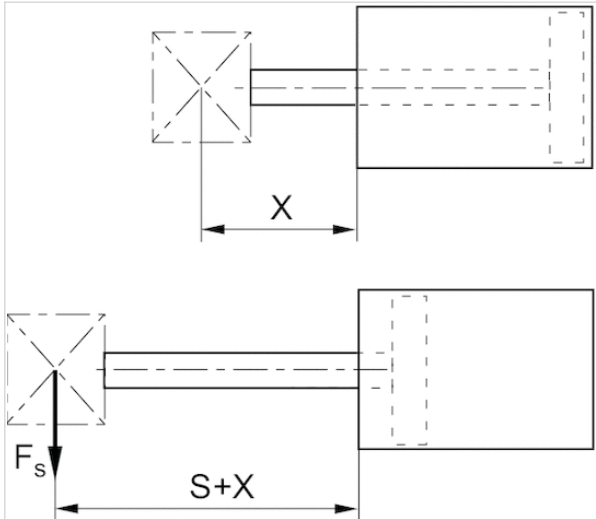
Diagrams

Retracting piston force



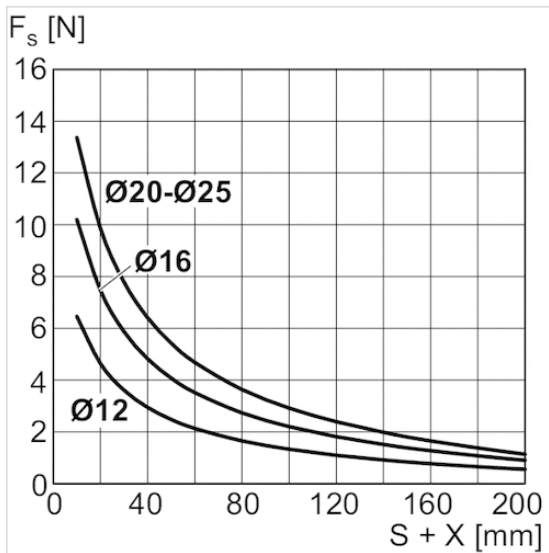
F = spring return force, s = return stroke

Maximum admissible lateral force Ø 12 ... 25 mm



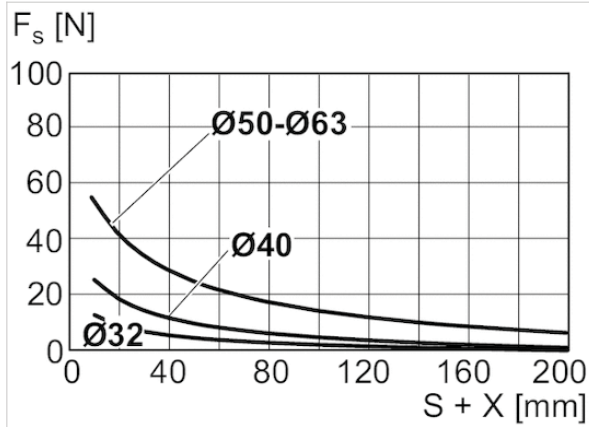
X = distance between force application point and cylinder cover
F_s = lateral force
S = stroke

Maximum admissible lateral force Ø 12 ... 25 mm



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

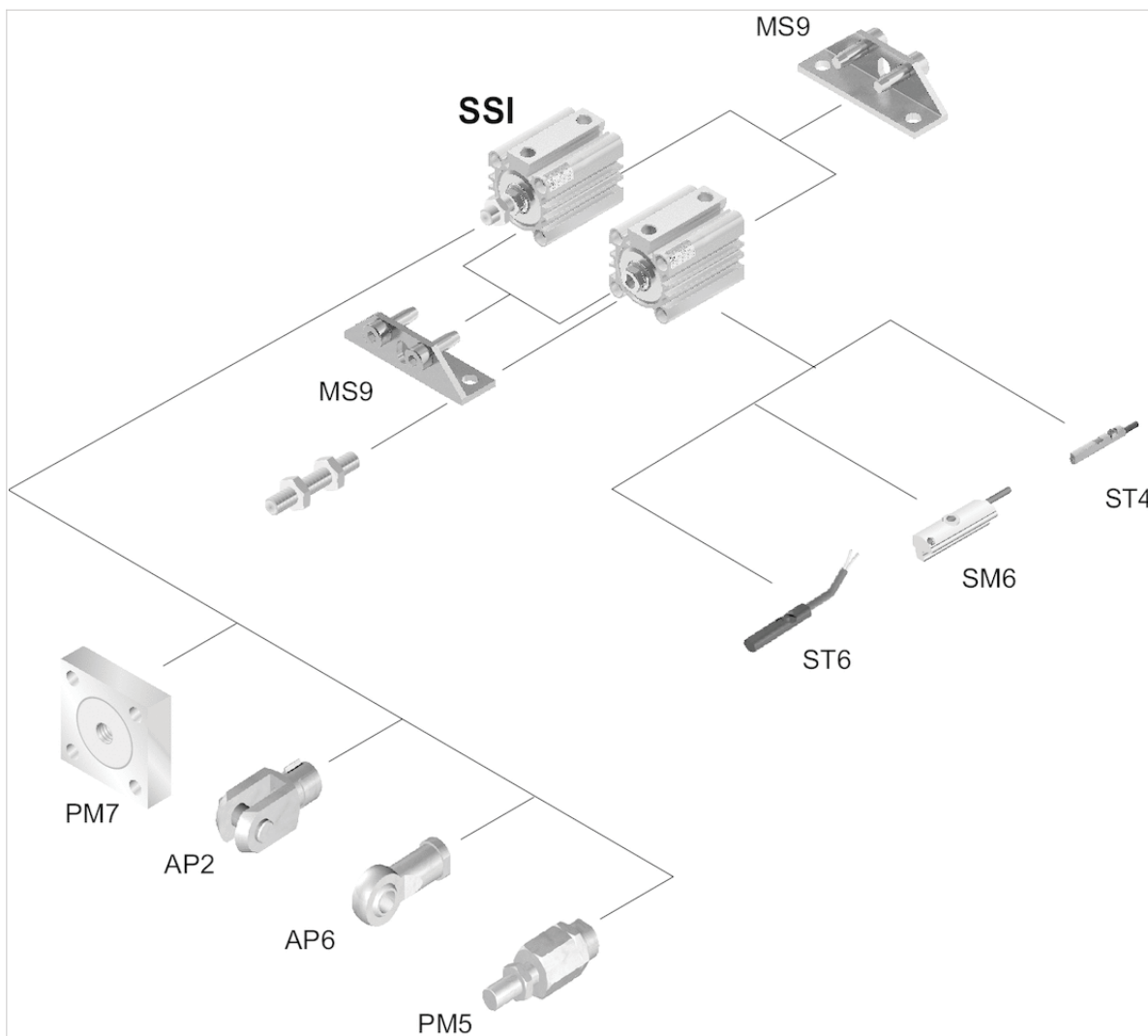
Maximum admissible lateral force Ø 32 mm ... 63 mm



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

Accessories overview

Overview drawing



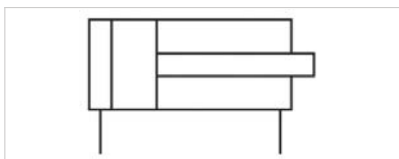
Use our Internet configurator to order variants with an external thread.

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.

Short-stroke cylinder, Series SSI

- Ø 12-100 mm
- Ports M5 G 1/8 G 1/4 G 3/8
- double-acting
- 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
Stroke 5	R480637830	R480637835	R480637841	R480637849	R480637857	R480637865
10	R480637831	R480637836	R480637842	R480637850	R480637858	R480637866
15	R480637832	R480637837	R480637843	R480637851	R480637859	R480637867
20	R480637833	R480637838	R480637844	R480637852	R480637860	R480637868
25	R480637834	R480637839	R480637845	R480637853	R480637861	R480637869
30	-	R480637840	R480637846	R480637854	R480637862	R480637870
40	-	-	R480637847	R480637855	R480637863	R480637871
50	-	-	R480637848	R480637856	R480637864	R480637872
80	-	-	-	-	R480644580	R480641942
100	-	-	-	-	R480644582	R480644583

Piston Ø Piston rod thread Ports Piston rod Ø	50 mm M10 G 1/4 20 mm	63 mm M10 G 1/4 20 mm	80 mm M16 G 3/8 25 mm	100 mm M20 G 3/8 32 mm
Stroke 5	R480637873	R480637883	R480637893	R480637903
10	R480637874	R480637884	R480637894	R480637904

Piston Ø Piston rod thread Ports Piston rod Ø	50 mm M10 G 1/4 20 mm	63 mm M10 G 1/4 20 mm	80 mm M16 G 3/8 25 mm	100 mm M20 G 3/8 32 mm
15	R480637875	R480637885	R480637895	R480637905
20	R480637876	R480637886	R480637896	R480637906
25	R480637877	R480637887	R480637897	R480637907
30	R480637878	R480637888	R480637898	R480637908
40	R480637879	R480637889	R480637899	R480637909
50	R480637880	R480637890	R480637900	R480637910
80	R480637881	R480637891	R480637901	R480637911
100	R480637882	R480637892	R480637902	R480637912

Technical data

Piston Ø	12 mm	16 mm
Retracting piston force	53 N	95 N
Extracting piston force	71 N	127 N
Impact energy	0,03 J	0,06 J
Weight 0 mm stroke	0,023 kg	0,039 kg
Weight +10 mm stroke	0,012 kg	0,017 kg
Working pressure min./max.	1 ... 10 bar	1 ... 10 bar
Material, front cover	Brass	Brass
Scraper material	Nitrile butadiene rubber	Nitrile butadiene rubber
Stroke max.	75 mm	100 mm

Piston Ø	20 mm	25 mm
Retracting piston force	148 N	238 N
Extracting piston force	198 N	309 N
Impact energy	0,08 J	0,1 J
Weight 0 mm stroke	0,052 kg	0,071 kg
Weight +10 mm stroke	0,02 kg	0,027 kg
Working pressure min./max.	1 ... 10 bar	1 ... 10 bar
Material, front cover	Brass	Aluminum
Scraper material	Nitrile butadiene rubber	Nitrile butadiene rubber
Stroke max.	150 mm	150 mm

Piston Ø	32 mm	40 mm
Retracting piston force	380 N	665 N
Extracting piston force	507 N	792 N
Impact energy	0,16 J	0,24 J
Weight 0 mm stroke	0,11 kg	0,193 kg
Weight +10 mm stroke	0,038 kg	0,044 kg
Working pressure min./max.	0,6 ... 10 bar	0,6 ... 10 bar
Material, front cover	Aluminum	Aluminum
Scraper material	Nitrile butadiene rubber	Nitrile butadiene rubber
Stroke max.	150 mm	150 mm

Piston Ø	50 mm	63 mm	80 mm	100 mm
Retracting piston force	1039 N	1766 N	2857 N	4441 N
Extracting piston force	1237 N	1964 N	3167 N	4948 N
Impact energy	0,32 J	0,38 J	0,43 J	0,5 J
Weight 0 mm stroke	0,312 kg	0,523 kg	0,97 kg	1,83 kg
Weight +10 mm stroke	0,067 kg	0,079 kg	0,122 kg	0,168 kg
Working pressure min./max.	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar
Material, front cover	Aluminum	Aluminum	Aluminum	Aluminum
Scraper material	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Stroke max.	150 mm	150 mm	150 mm	150 mm

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).

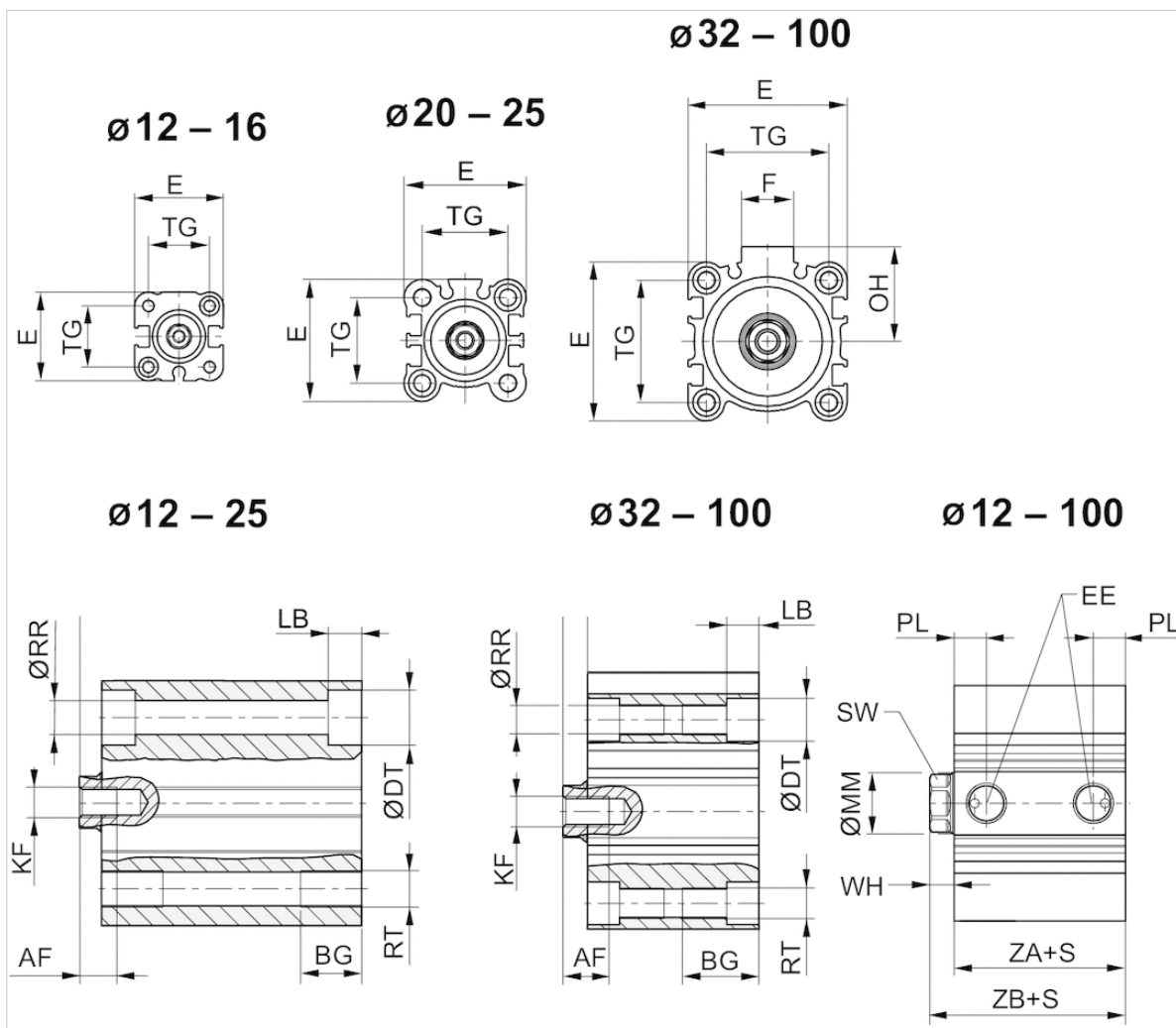
Note the selection of fittings for strokes 10 mm .

Technical information

Material	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Brass Aluminum
End cover	Aluminum
Seal	Nitrile butadiene rubber
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	$\varnothing RR$	RT	SW	TG	WH
12 mm	6	7	6.5	25	M5	-	M3	3.5	6	-	3.7	M4	5	15,5 $\pm$ 0,3	3,5 $\pm$ 1,5
16 mm	8	7	6.5	29	M5	-	M4	3.5	8	-	3.7	M4	7	20 $\pm$ 0,3	3,5 $\pm$ 1,5
20 mm	7	10	9	36	M5	-	M5	5.5	10	-	5.55	M6	8	25,5 $\pm$ 0,3	4,5 $\pm$ 1,5
25 mm	12	10	9	40	M5	-	M6	5.5	12	-	5.55	M6	10	28 $\pm$ 0,3	5 $\pm$ 1,5
32 mm	13	16	9	45	G 1/8	17	M8	5.5	16	27	5.55	M6	13	34 $\pm$ 0,3	7 $\pm$ 2
40 mm	13	16	9	52	G 1/8	17	M8	5.5	16	31	5.55	M6	13	40 $\pm$ 0,3	7 $\pm$ 2
50 mm	15	20	11	64	G 1/4	21	M10	8	20	39	7.4	M8	17	50 $\pm$ 0,5	8 $\pm$ 2
63 mm	15	25	14	77	G 1/4	21	M10	10.5	20	45.5	9.3	M10	17	60 $\pm$ 0,5	8 $\pm$ 2

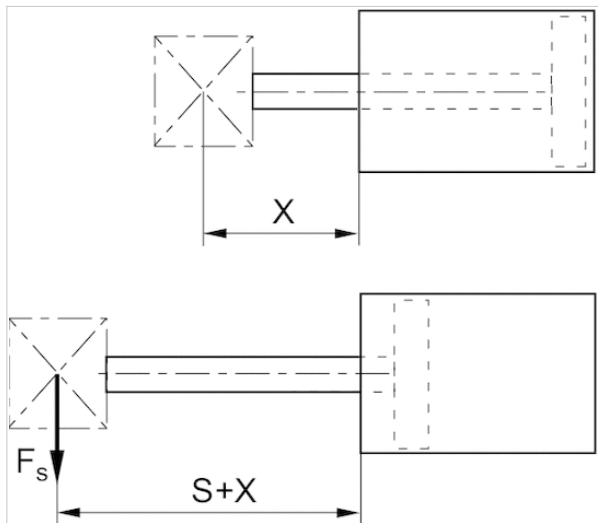
Piston Ø	AF	BG	ØDT	E	EE	F	KF	LB 1)	ØMM f8	OH	ØRR	RT	SW	TG	WH
80 mm	21	30	17.5	98	G 3/8	26	M16	13.5	25	59	11.2	M12	22	77 ±0,5	10 ±2
100 mm	27	30	17.5	117	G 3/8	26	M20	13.5	32	65	11.2	M12	27	94 ±0,5	12 ±2,5

Piston Ø	S	PL	ZA±0,2	ZB±2
12 mm	2-4 ≥5	4,5 5,5	17	20.5
16 mm	≥2	5.5	18.5	22
20 mm	≥2	5.5	19.5	24
25 mm	≥2	5.5	22.5	27
32 mm	2-4 ≥5	6,3 7,5	23	30
40 mm	≥2	7.5	29.5	36.5
50 mm	2-8 ≥9	8,2 10,5	30.5	38.5
63 mm	≥2	10.5	36	44
80 mm	≥2	12.5	43.5	53.5
100 mm	≥2	14	53	65

1) max.

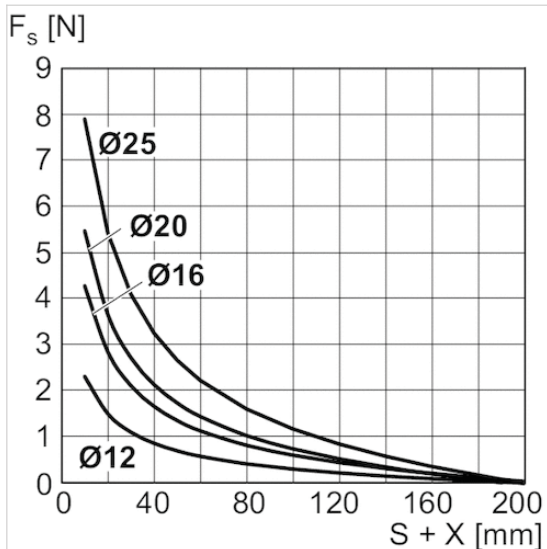
Diagrams

Maximum admissible lateral force Ø 12 ... 25 mm



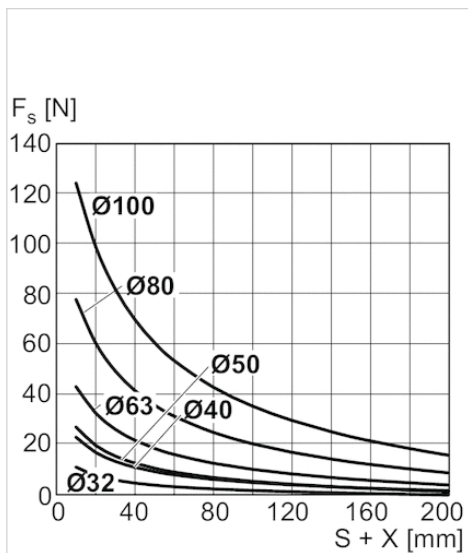
X = distance between force application point and cylinder cover
 F_s = lateral force
 S = stroke

Maximum admissible lateral force Ø 12 ... 25 mm



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

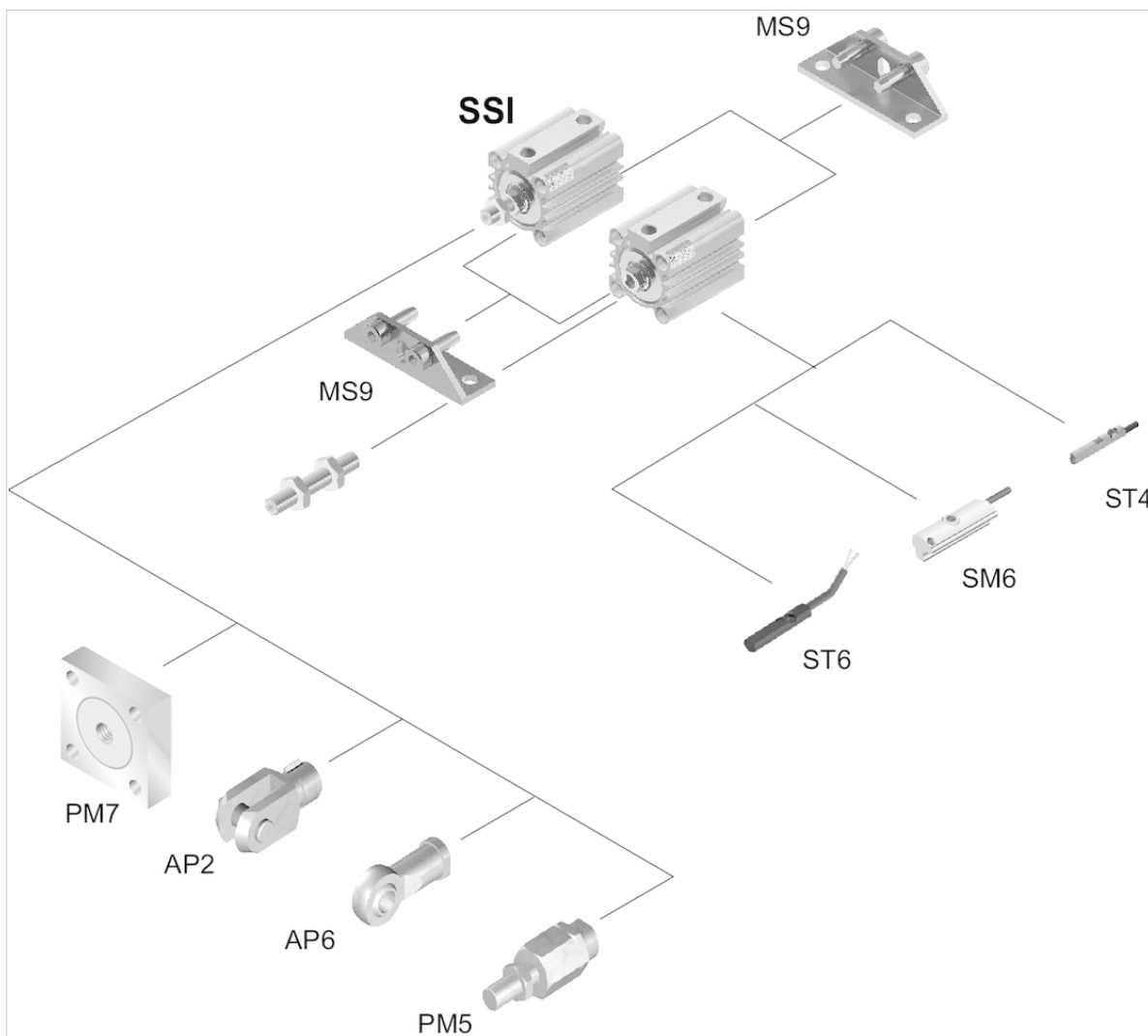
Maximum admissible lateral force Ø 32 ... 100 mm



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.

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
Stroke 5	R412019800	R412019808	R412019816	R412019824	R412019832	R412019842
10	R412019801	R412019809	R412019817	R412019825	R412019833	R412019843
15	R412019802	R412019810	R412019818	R412019826	R412019834	R412019844
20	R412019803	R412019811	R412019819	R412019827	R412019835	R412019845
25	R412019804	R412019812	R412019820	R412019828	R412019836	R412019846
30	R412019805	R412019813	R412019821	R412019829	R412019837	R412019847
40	R412019806	R412019814	R412019822	R412019830	R412019838	R412019848
50	R412019807	R412019815	R412019823	R412019831	R412019839	R412019849
80	-	-	-	-	R412019840	R412019850
100	-	-	-	-	R412019841	R412019851

Piston Ø Piston rod thread Ports Piston rod Ø	50 mm M10 G 1/4 20 mm	63 mm M10 G 1/4 20 mm	80 mm M16 G 3/8 25 mm	100 mm M20 G 3/8 32 mm
Stroke 5	R412019852	R412019862	R412019872	R412019882

Piston Ø Piston rod thread Ports Piston rod Ø	50 mm M10 G 1/4 20 mm	63 mm M10 G 1/4 20 mm	80 mm M16 G 3/8 25 mm	100 mm M20 G 3/8 32 mm
10	R412019853	R412019863	R412019873	R412019883
15	R412019854	R412019864	R412019874	R412019884
20	R412019855	R412019865	R412019875	R412019885
25	R412019856	R412019866	R412019876	R412019886
30	R412019857	R412019867	R412019877	R412019887
40	R412019858	R412019868	R412019878	R412019888
50	R412019859	R412019869	R412019879	R412019889
80	R412019860	R412019870	R412019880	R412019890
100	R412019861	R412019871	R412019881	R412019891

Technical data

Piston Ø	12 mm	16 mm
Retracting piston force	53 N	95 N
Extracting piston force	71 N	127 N
Impact energy	0,03 J	0,06 J
Weight 0 mm stroke	0,04 kg	0,064 kg
Weight +10 mm stroke	0,012 kg	0,017 kg
Working pressure min./max.	1 ... 10 bar	1 ... 10 bar
Material, front cover	Brass	Brass
Scraper material	Nitrile butadiene rubber	Nitrile butadiene rubber
Sealing material	Nitrile butadiene rubber	Nitrile butadiene rubber
Stroke max.	75 mm	100 mm

Piston Ø	20 mm	25 mm
Retracting piston force	148 N	238 N
Extracting piston force	198 N	309 N
Impact energy	0,08 J	0,1 J
Weight 0 mm stroke	0,083 kg	0,099 kg
Weight +10 mm stroke	0,021 kg	0,027 kg
Working pressure min./max.	1 ... 10 bar	1 ... 10 bar
Material, front cover	Brass	Aluminum
Scraper material	Nitrile butadiene rubber	Nitrile butadiene rubber
Sealing material	Nitrile butadiene rubber	Nitrile butadiene rubber
Stroke max.	150 mm	150 mm

Piston Ø	32 mm	40 mm	50 mm	63 mm
Retracting piston force	380 N	665 N	1039 N	1766 N
Extracting piston force	507 N	792 N	1237 N	1964 N
Impact energy	0,16 J	0,24 J	0,32 J	0,38 J
Weight 0 mm stroke	0,148 kg	0,245 kg	0,38 kg	0,598 kg
Weight +10 mm stroke	0,038 kg	0,044 kg	0,067 kg	0,079 kg
Working pressure min./max.	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar
Material, front cover	Aluminum	Aluminum	Aluminum	Aluminum
Scraper material	Polyurethane	Polyurethane	Polyurethane	Polyurethane

Piston Ø	32 mm	40 mm	50 mm	63 mm
Sealing material	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Stroke max.	150 mm	150 mm	150 mm	150 mm

Piston Ø	80 mm	100 mm
Retracting piston force	2857 N	4441 N
Extracting piston force	3167 N	4948 N
Impact energy	0,43 J	0,5 J
Weight 0 mm stroke	1,09 kg	1,89 kg
Weight +10 mm stroke	0,122 kg	0,168 kg
Working pressure min./max.	0,6 ... 10 bar	0,6 ... 10 bar
Material, front cover	Aluminum	Aluminum
Scraper material	Polyurethane	Polyurethane
Sealing material	Polyurethane	Polyurethane
Stroke max.	150 mm	150 mm

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).

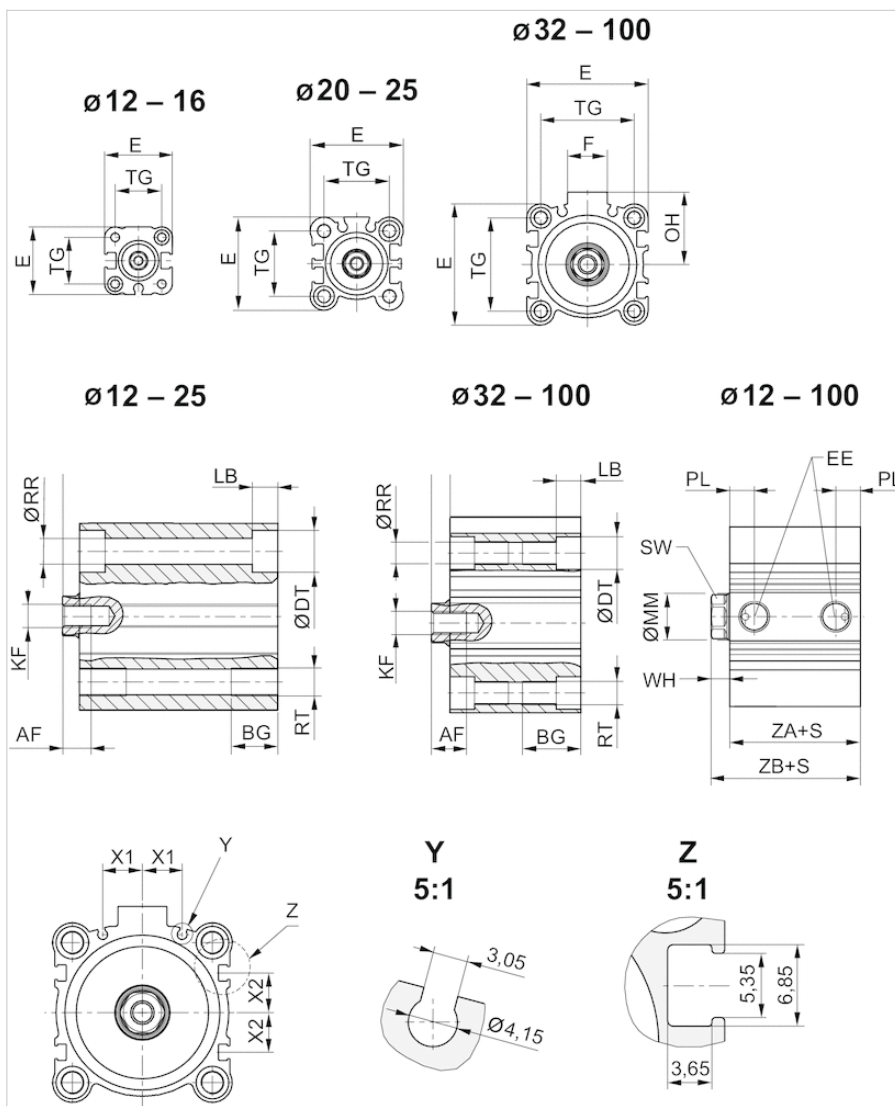
Use our Internet configurator to order variants with an external thread.

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 Ø	AF	BG	ØDT	E	EE	F	KF	LB 1)	ØMM f8	OH	PL	ØRR	RT	SW	TG
12 mm	6	7	6.5	25	M5	-	M3	3.5	6	-	5.5	3.7	M4	5	15,5 ±0,3
16 mm	8	7	6.5	29	M5	-	M4	3.5	8	-	5.5	3.7	M4	7	20 ±0,3
20 mm	7	10	9	36	M5	-	M5	5.5	10	-	5.5	5.55	M6	8	25,5 ±0,3
25 mm	12	10	9	40	M5	-	M6	5.5	12	-	5.5	5.55	M6	10	28 ±0,3
32 mm	13	16	9	45	G 1/8	17	M8	5.5	16	27	7.5	5.55	M6	13	34 ±0,3
40 mm	13	16	9	52	G 1/8	17	M8	5.5	16	31	7.5	5.55	M6	13	40 ±0,3

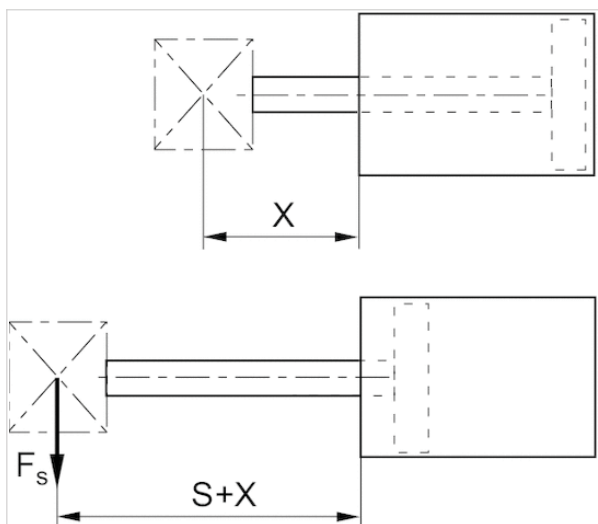
Piston Ø	AF	BG	ØDT	E	EE	F	KF	LB 1)	ØMM f8	OH	PL	ØRR	RT	SW	TG
50 mm	15	20	11	64	G 1/4	21	M10	8	20	39	10.5	7.4	M8	17	50 ±0,5
63 mm	15	25	14	77	G 1/4	21	M10	10.5	20	45.5	10.5	9.3	M10	17	60 ±0,5
80 mm	21	30	17.5	98	G 3/8	26	M16	13.5	25	59	12.5	11.2	M12	22	77 ±0,5
100 mm	27	30	17.5	117	G 3/8	26	M20	13.5	32	65	14	11.2	M12	27	94 ±0,5

Piston Ø	WH	X1	X2	ZA±0,2	ZB±2
12 mm	3,5 ±1,5	0	0	28	31.5
16 mm	3,5 ±1,5	0	0	30.5	34
20 mm	4,5 ±1,5	5.7	4.3	31.5	36
25 mm	5 ±1,5	6	5	32.5	37.5
32 mm	7 ±2	8.5	7.5	33	40
40 mm	7 ±2	10.8	11	39.5	46.5
50 mm	8 ±2	14	13	40.5	48.5
63 mm	8 ±2	17	17	46	54
80 mm	10 ±2	23.5	21	53.5	63.5
100 mm	12 ±2,5	31	28	63	75

1) max.

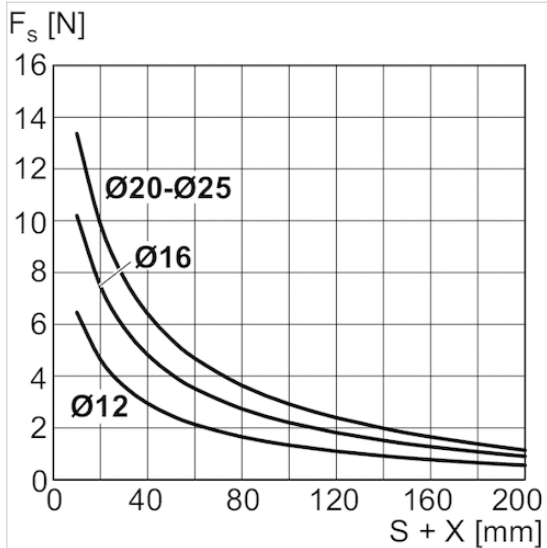
Diagrams

Maximum admissible lateral force Ø 12 ... 25 mm



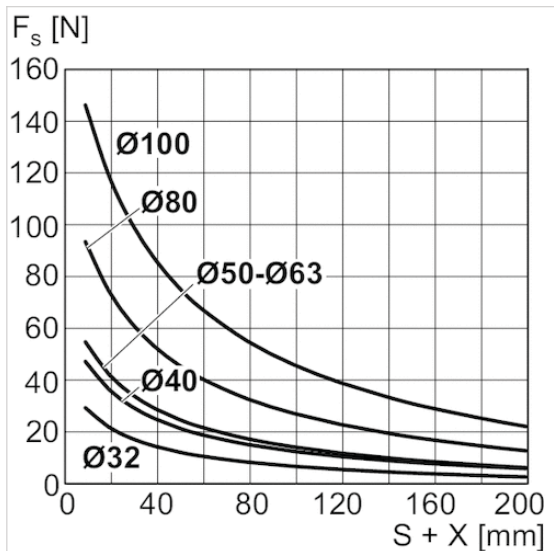
X = distance between force application point and cylinder cover
FS = lateral force
S = stroke

Maximum admissible lateral force Ø 12 ... 25 mm



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

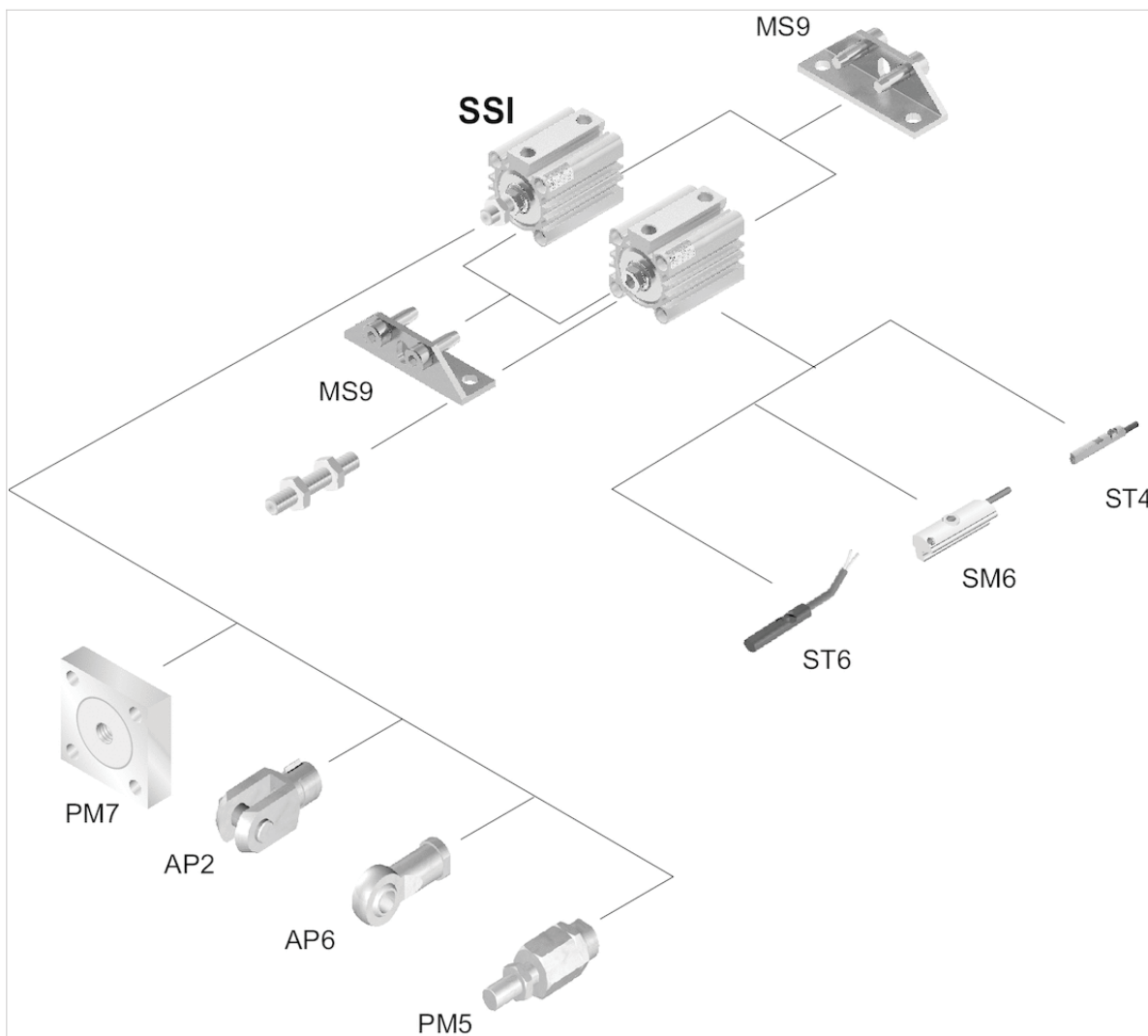
Maximum admissible lateral force Ø 32 ... 100 mm



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

Accessories overview

Overview drawing



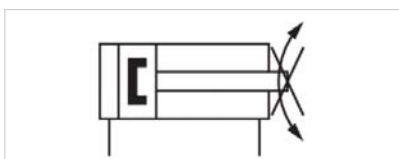
Use our Internet configurator to order variants with an external thread.

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.

Short-stroke cylinder, Series SSI

- Ø 20-63 mm
- Ports M5 G 1/8 G 1/4
- double-acting
- with magnetic piston
- Cushioning elastic
- Piston rod non-rotating, with front plate



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 Ports Piston rod Ø	20 mm M5 10 mm	25 mm M5 12 mm	32 mm G 1/8 16 mm	40 mm G 1/8 16 mm	50 mm G 1/4 20 mm	63 mm G 1/4 20 mm
Stroke 5	R480637940	R480637948	R480637956	R480637964	R480637972	R480637982
10	R480637941	R480637949	R480637957	R480637965	R480637973	R480637983
15	R480637942	R480637950	R480637958	R480637966	R480637974	R480637984
20	R480637943	R480637951	R480637959	R480637967	R480637975	R480637985
25	R480637944	R480637952	R480637960	R480637968	R480637976	R480637986
30	R480637945	R480637953	R480637961	R480637969	R480637977	R480637987
40	R480637946	R480637954	R480637962	R480637970	R480637978	R480637988
50	R480637947	R480637955	R480637963	R480637971	R480637979	R480637989
80	-	-	R480644584	R480644585	R480637980	R480637990
100	-	-	R480641813	R480644586	R480637981	R480637991

Technical data

Piston Ø	20 mm	25 mm
Retracting piston force	148 N	238 N
Extracting piston force	198 N	309 N
Impact energy	0,08 J	0,1 J
Weight 0 mm stroke	0,101 kg	0,14 kg
Weight +10 mm stroke	0,021 kg	0,028 kg
Working pressure min./max.	1 ... 10 bar	1 ... 10 bar
Material, front cover	Brass	Aluminum
Scraper material	Nitrile butadiene rubber	Nitrile butadiene rubber
Sealing material	Nitrile butadiene rubber	Nitrile butadiene rubber
Stroke max.	150 mm	150 mm

Piston Ø	32 mm	40 mm	50 mm	63 mm
Retracting piston force	380 N	665 N	1039 N	1766 N
Extracting piston force	507 N	792 N	1237 N	1964 N
Impact energy	0,16 J	0,24 J	0,32 J	0,38 J
Weight 0 mm stroke	0,216 kg	0,334 kg	0,547 kg	0,842 kg
Weight +10 mm stroke	0,039 kg	0,045 kg	0,07 kg	0,083 kg
Working pressure min./max.	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar
Material, front cover	Aluminum	Aluminum	Aluminum	Aluminum
Scraper material	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Sealing material	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Stroke max.	150 mm	150 mm	150 mm	150 mm

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.

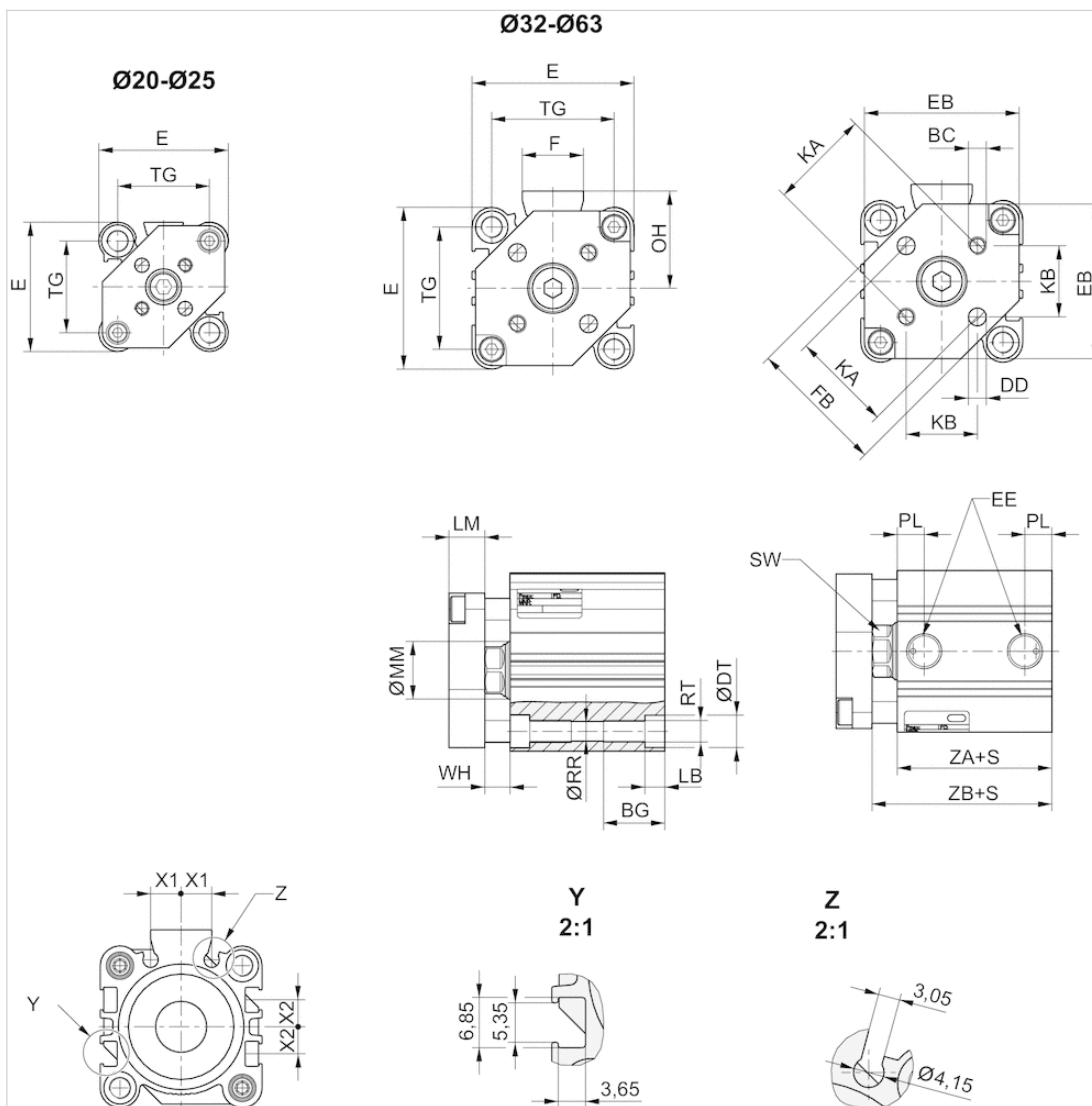
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

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

Dimensions

Dimensions



S = stroke

Dimensions

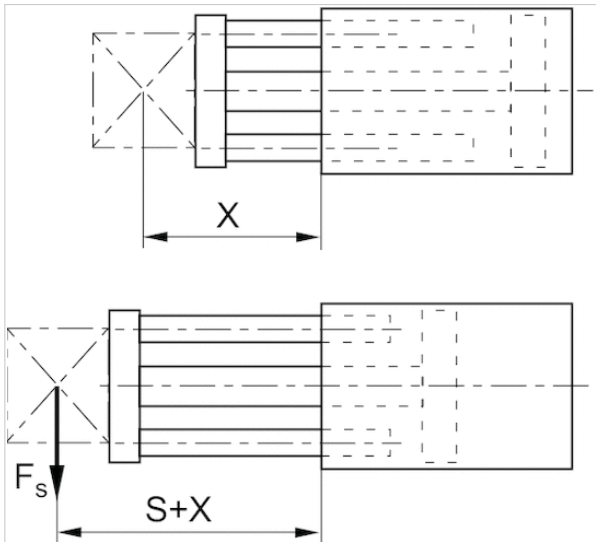
Piston Ø	BC	BG	ØDD H13	ØDT	E	EB	EE	F	FB	KA	KB	LB 1)	LM	ØMM f8	OH
20 mm	M4	16	4	9	36	34	M5	-	26	17 ±0,1	12 ±0,1	5.5	8	10	-
25 mm	M5	16	5	9	40	38	M5	-	30	22 ±0,1	15,6 ±0,1	5.5	8	12	-
32 mm	M5	16	5	9	45	43	G 1/8	17	38	28 ±0,2	19,8 ±0,2	5.5	10	16	27
40 mm	M5	16	5	9	52	50	G 1/8	17	46	33 ±0,2	23,3 ±0,2	5.5	10	16	31
50 mm	M6	20	6	11	64	62	G 1/4	21	58	42 ±0,2	29,7 ±0,2	8	12	20	39
63 mm	M6	25	6	14	77	74	G 1/4	21	69	50 ±0,2	35,4 ±0,2	10.5	12	20	45.5

Piston Ø	PL	ØRR	RT	SW	TG	WH	X1	X2	ZA±0,2	ZB±2
20 mm	5.5	5.55	M6	8	25,5 ±0,3	4,5 ±1,5	5.7	4.3	29.5	34
25 mm	5.5	5.55	M6	10	28 ±0,3	5 ±1,5	6	5	32.5	37.5
32 mm	7.5	5.55	M6	13	34 ±0,3	7 ±2	8.5	7.5	33	40
40 mm	7.5	5.55	M6	13	40 ±0,3	7 ±2	10.8	11	39.5	46.5
50 mm	10.5	7.4	M8	17	50 ±0,5	8 ±2	14	13	40.5	48.5
63 mm	10.5	9.3	M10	17	60 ±0,5	8 ±2	17	17	46	54

1) max.

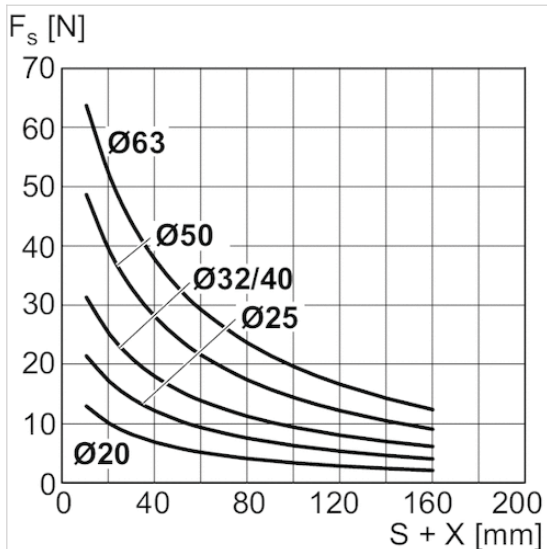
Diagrams

Maximum admissible lateral force dynamic



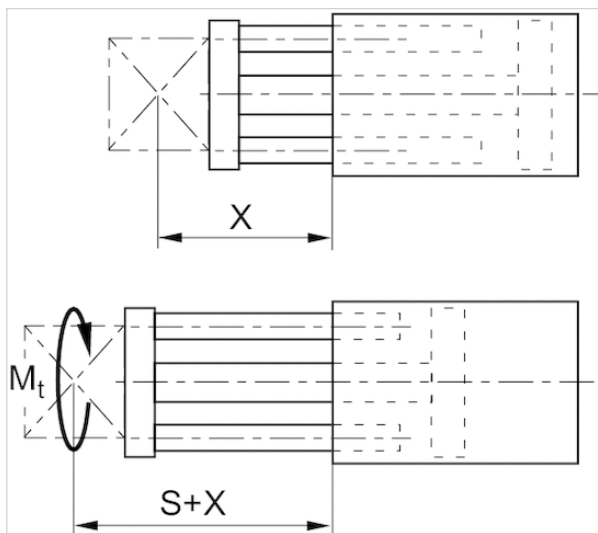
X = distance between force application point and cylinder cover
F_s = lateral force
S = stroke

Maximum admissible lateral force dynamic



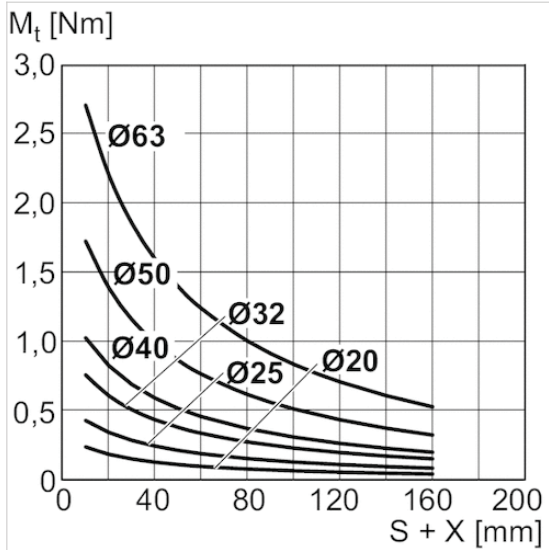
X = distance between force application point and cylinder cover
FS = lateral force
S = stroke

Max. permissible torque Dynamic



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

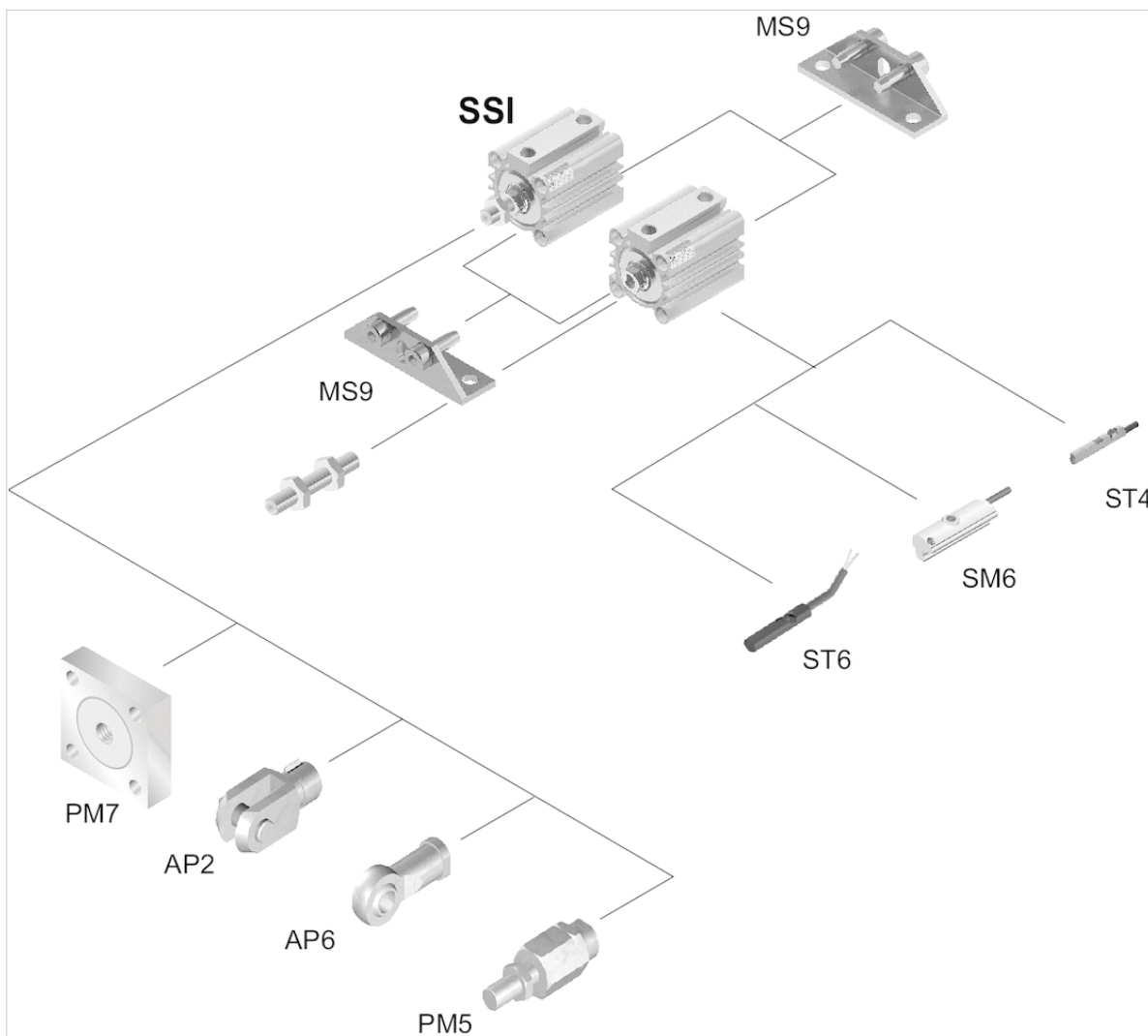
Max. permissible torque Dynamic



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

Short-stroke cylinder, Series SSI

- Cushioning elastic
- Piston rod External thread



Standards

ISO 15524

For additional technical data please see the relevant data sheets for the standard version.

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).

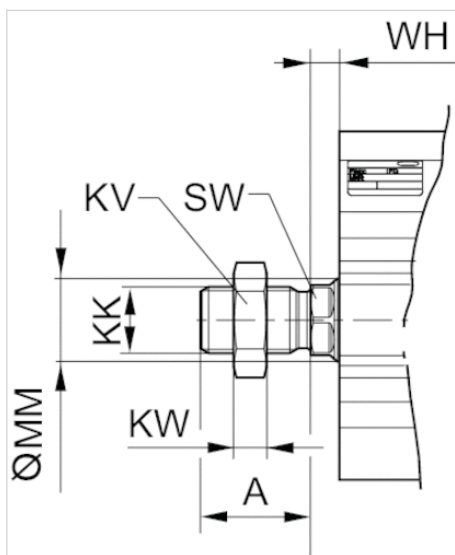
For this variant with external thread, two different external threads with the dimensions indicated below can be selected in the configurator .

Technical information

Material	
Piston rod	Stainless steel
Nut for piston rod	Steel, galvanized

Dimensions

Dimensions



Compatible with piston rod accessories

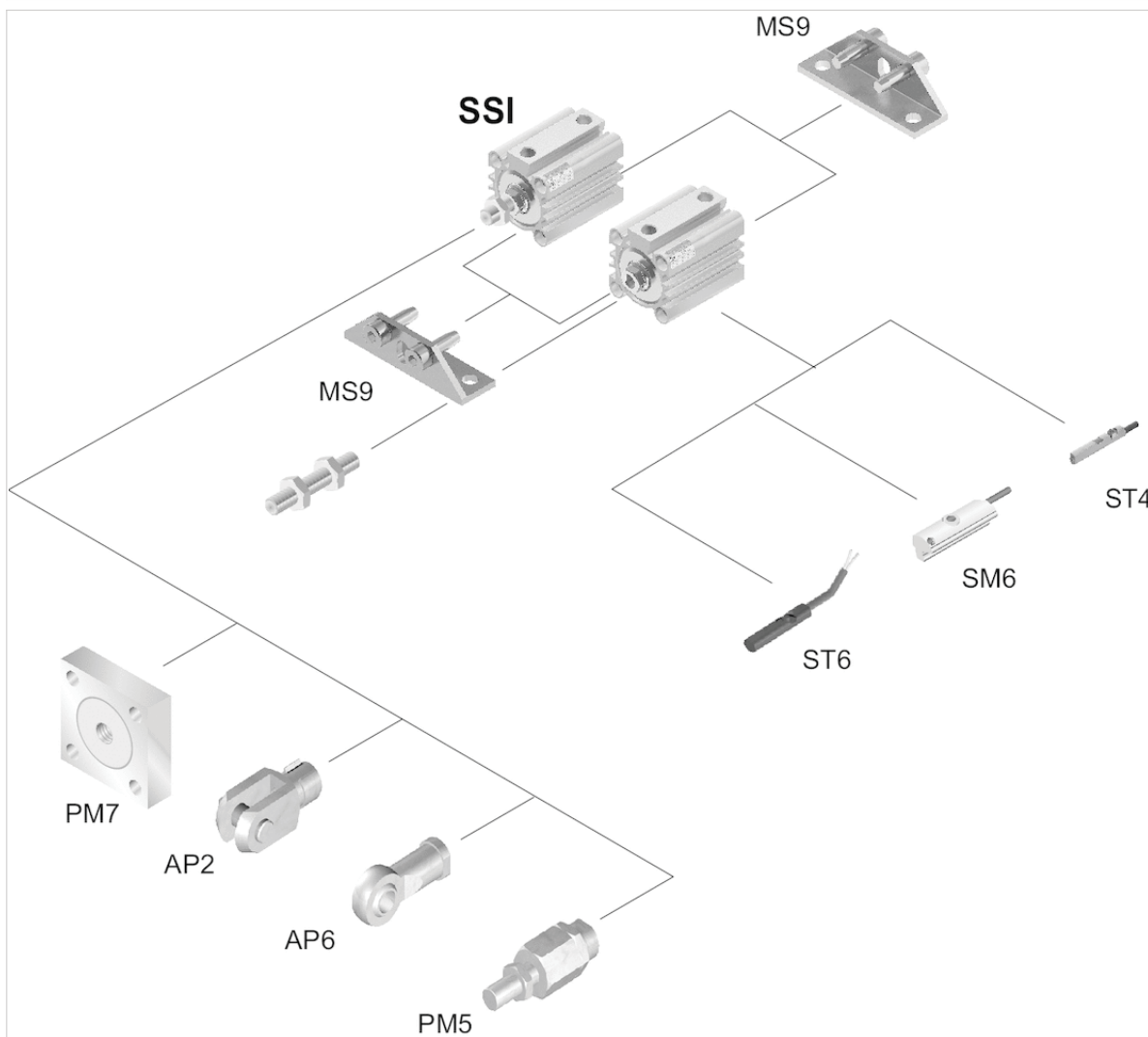
Ø	A ±0,3	KK	KV	KW	ØMM f8	SW	WH
12	10.5	M4	7	2.2	6	5	3,5 ±1,5
16	12	M6	10	3.2	8	7	3,5 ±1,5
20	14	M8	13	4	10	8	4,5 ±1,5
25	17.5	M10x1,25	17	6	12	10	5 ±1,5
32	21.5	M12x1,25	18	6	16	13	7 ±2
40	21.5	M12x1,25	18	6	16	13	7 ±2
50	26.5	M16x1,5	24	8	20	17	7 ±2
63	26.5	M16x1,5	24	8	20	17	7 ±2
80	34	M20x1,5	30	10	25	22	9,5 ±2
100	33	M20x1,5	30	10	32	27	10,5 ±2,5

Compatible with third-party products

Ø	A ±0,3	KK	KV	KW	ØMM f8	SW	WH
12	10.5	M5	8	2.7	6	5	3,5 ±1,5
16	12	M6	10	3.2	8	7	3,5 ±1,5
20	14	M8	13	4	10	8	4,5 ±1,5
25	17.5	M10x1,25	17	6	12	10	5 ±1,5
32	21.5	M14x1,5	22	8	16	13	7 ±2
40	21.5	M14x1,5	22	8	16	13	7 ±2
50	26.5	M18x1,5	27	9	20	17	7 ±2
63	26.5	M18x1,5	27	9	20	17	7 ±2
80	34	M22x1,5	32	10	25	22	9,5 ±2
100	33	M26x1,5	41	13.5	32	27	10,5 ±2,5

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.