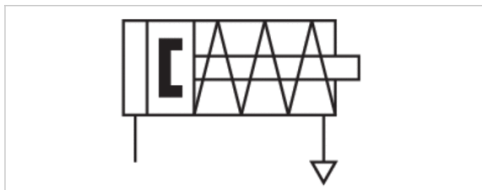


## Short-stroke cylinder, Series SSI

- 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/m <sup>3</sup>
Pressure for determining piston forces	6.3 bar



### Technical data

	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Piston Ø	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Piston rod thread	M3	M4	M5	M6	M8	M8	M10	M10
Ports	M5	M5	M5	M5	G 1/8	G 1/8	G 1/4	G 1/4
Piston rod Ø	6 mm	8 mm	10 mm	12 mm	16 mm	16 mm	20 mm	20 mm
Stroke 5	R480637920	R480637922	R480637924	R480637927	R480637930	R480637933	-	-
10	R480637921	R480637923	R480637925	R480637928	R480637931	R480637934	R480637936	R480637938
25	-	-	R480637926	R480637929	R480637932	R480637935	R480637937	R480637939

### Technical data

	12 mm	16 mm	20 mm	25 mm
Extracting piston force	71 N	127 N	198 N	309 N
Impact energy	0,02 J	0,03 J	0,04 J	0,05 J
Weight 0 mm stroke	0,039 kg	0,061 kg	0,077 kg	0,098 kg
Weight +10 mm stroke	0,012 kg	0,017 kg	0,02 kg	0,027 kg
Stroke max.	10 mm	10 mm	25 mm	25 mm
Working pressure min./max.	1,7 ... 10 bar	1,5 ... 10 bar	1,5 ... 10 bar	1,5 ... 10 bar
Material, front cover	Brass	Aluminum	Aluminum	Aluminum
Sealing material	Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber

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
Stroke max.	25 mm	25 mm	25 mm	25 mm
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

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, see chapter „Technical information“.

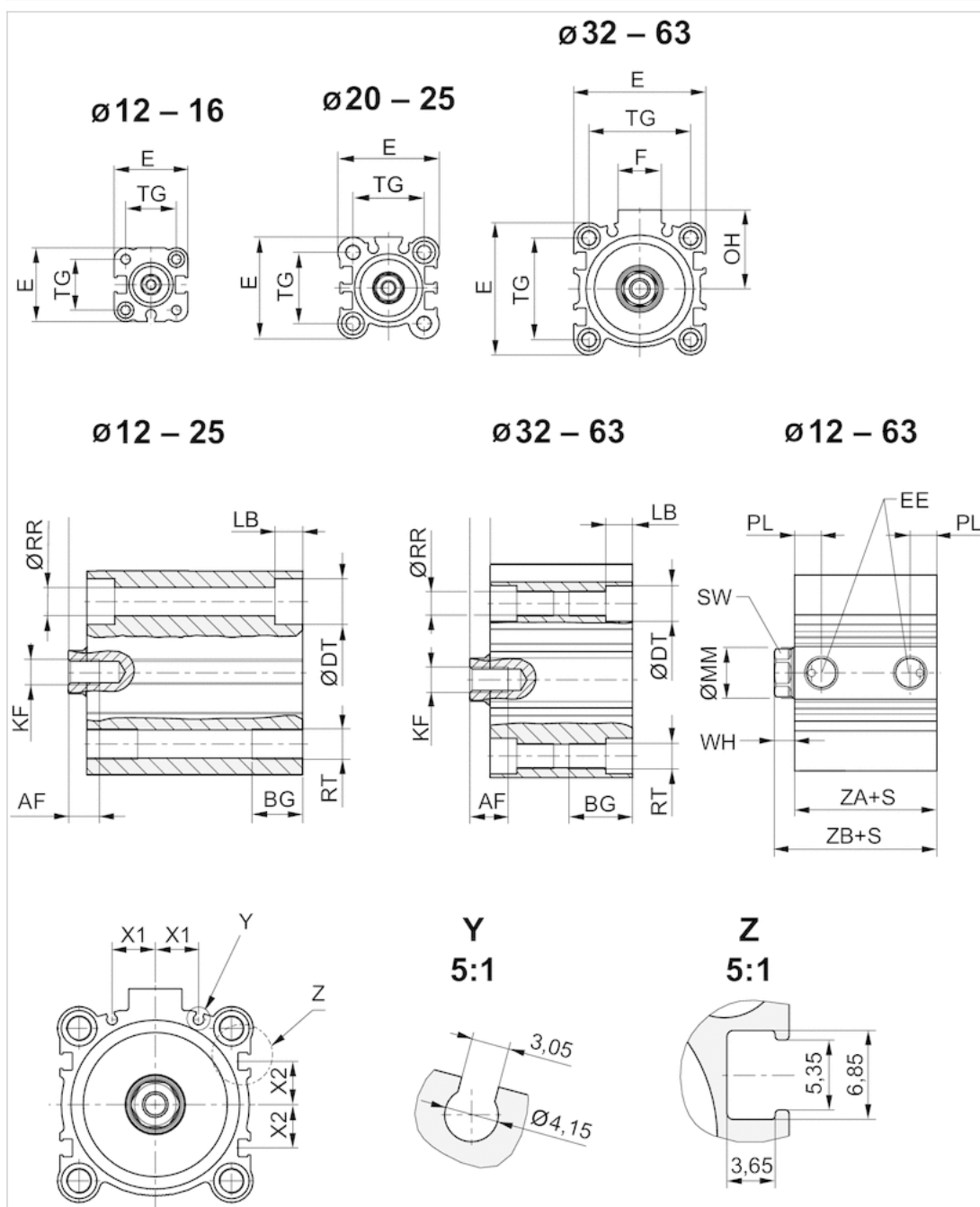
Please note that this variant does not use a scraper.

## Technical information

Material	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Brass, Aluminum
End cover	Aluminum
Seal	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 $\pm 2$
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 $\pm 2$	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 $\pm 2$	10.8	11	39.5	46.5
50 mm	15	20	11	64	G 1/4	21	M10	8	20	39	10.5	7.4	M8	17	50 $\pm 0,5$	8 $\pm 2$	14	13	40.5	48.5

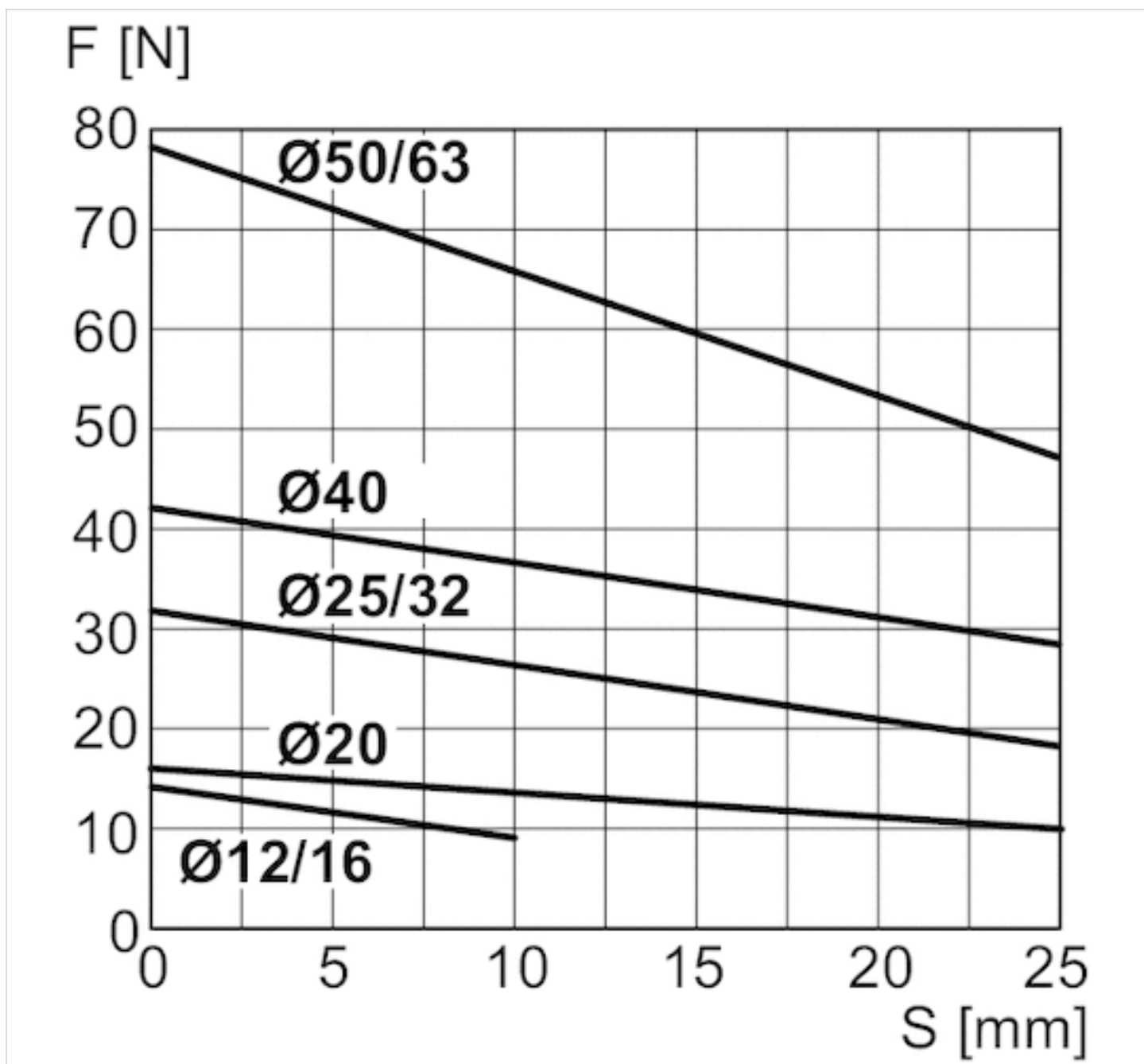
Piston Ø	AF	BG	ØDT	E	EE	F	KF	LB 1)	ØMM f8	OH	PL	ØRR	RT	SW	TG	WH	X1	X2	ZA±0,2	ZB±2
63 mm	15	25	14	77	G 1/4	21	M10	10.5	20	45.5	10.5	9.3	M10	17	60 ±0,5	8 ±2	17	17	46	54

1) max.

\* For stroke 11-25 mm + 6.5 mm

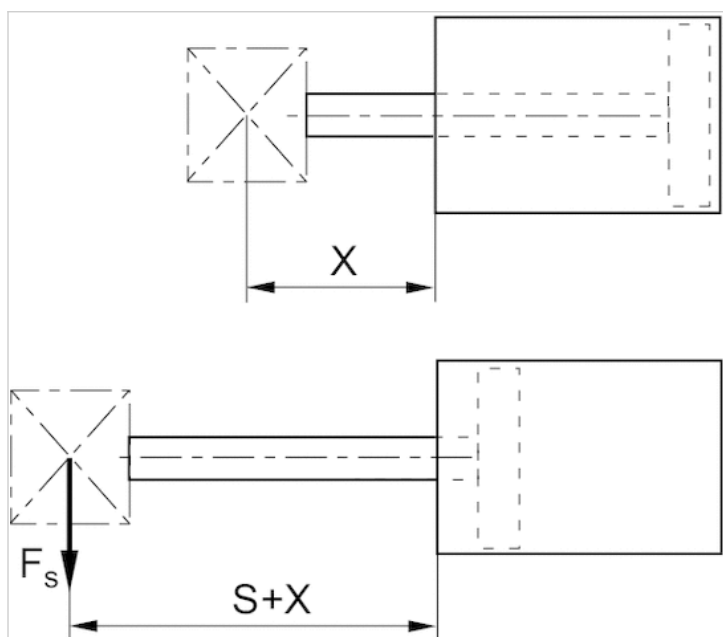
## Diagrams

### Retracting piston force



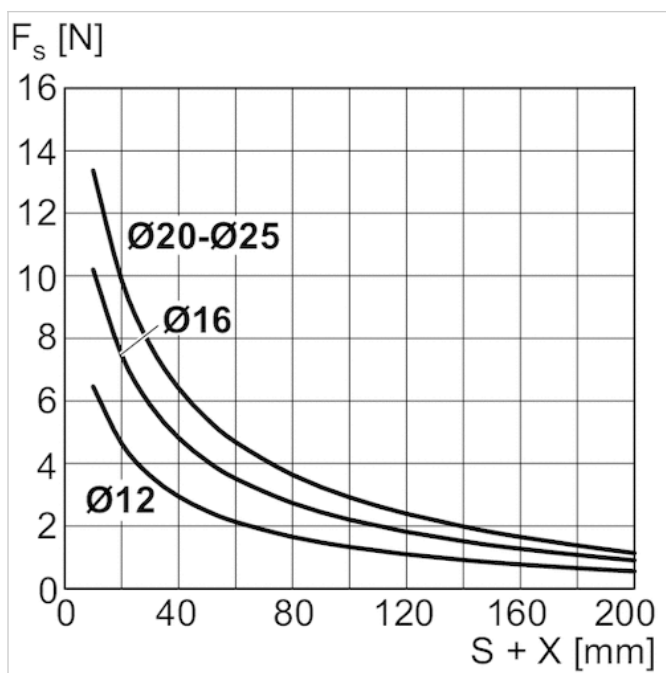
F = spring return force, s = return stroke

### Maximum permissible lateral force $\varnothing 12 - 25$ mm

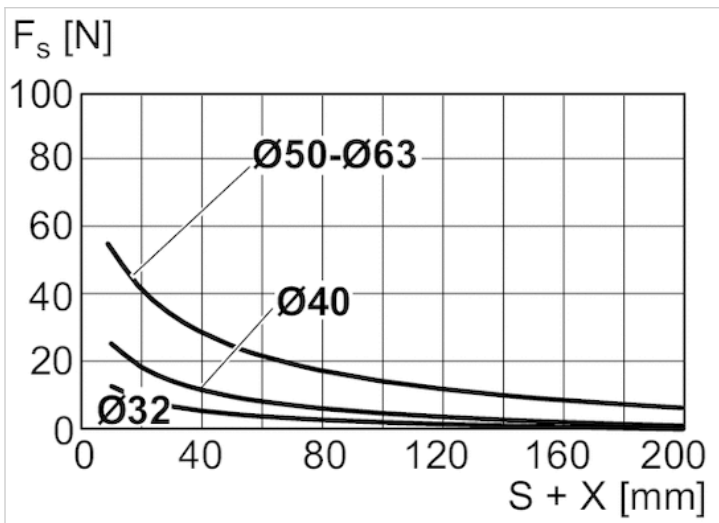


X = spacing between force application point and cylinder cover  
 $F_s$  = lateral force  
 S = stroke

### Maximum permissible lateral force $\varnothing 12 - 25$ mm



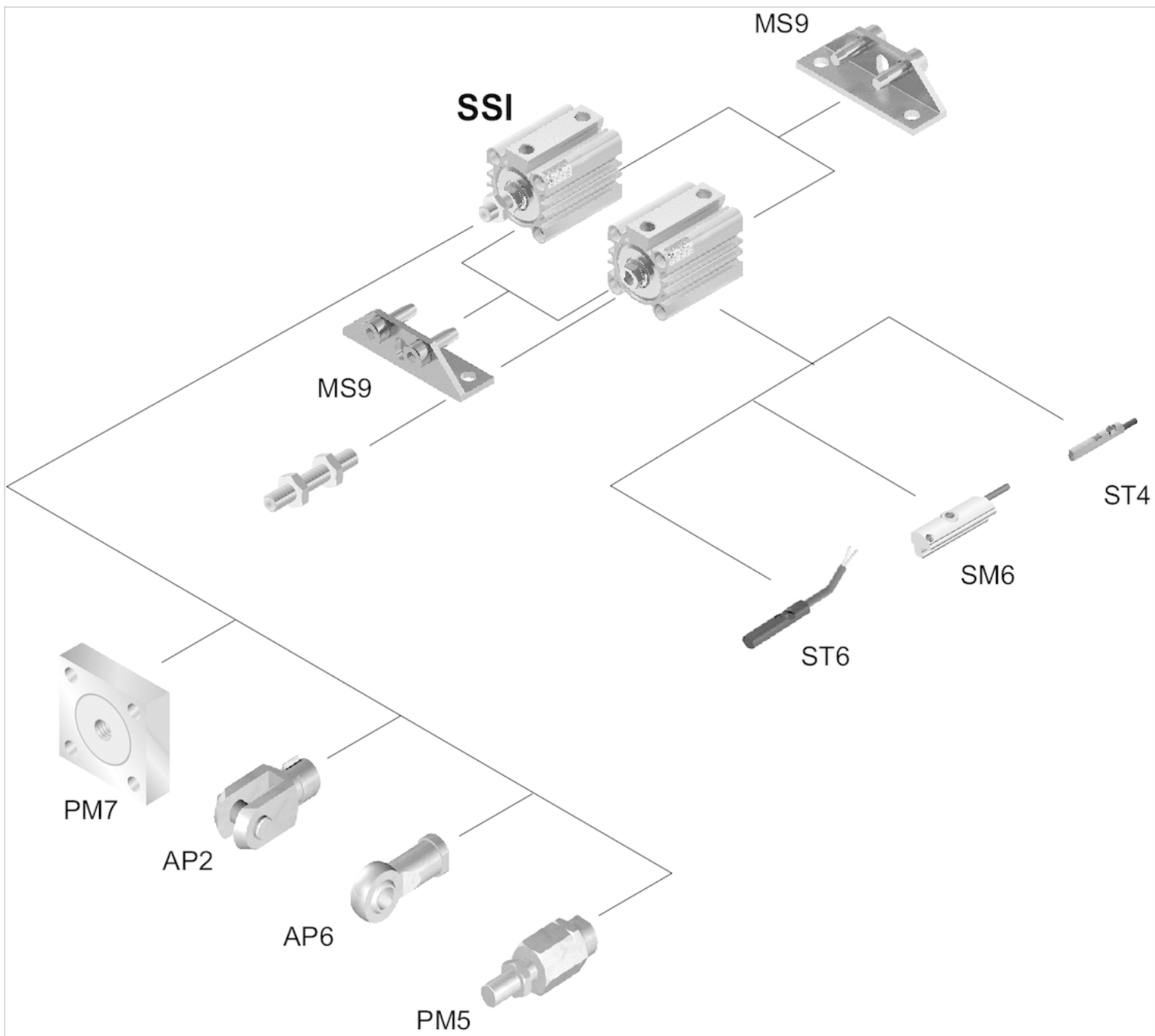
X = spacing between force application point and cylinder cover  
 $F_s$  = lateral force  
 S = stroke

Maximum permissible lateral force  $\varnothing 32 - 63$  mm

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

## Accessories overview

## Overview drawing

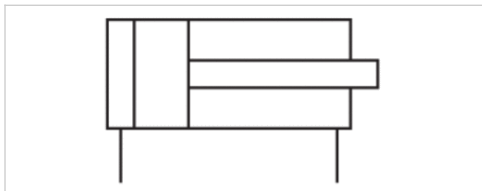


Use our Internet configurator to order variants with an external thread. NOTE:

This overview drawing is only for orientation to see 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/m <sup>3</sup>
Pressure for determining piston forces	6.3 bar

### Technical data

Piston Ø	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Piston rod thread	M3	M4	M5	M6	M8	M8	M10	M10
Ports	M5	M5	M5	M5	G 1/8	G 1/8	G 1/4	G 1/4
Piston rod Ø	6 mm	8 mm	10 mm	12 mm	16 mm	16 mm	20 mm	20 mm
Stroke 5	R480637830	R480637835	R480637841	R480637849	R480637857	R480637865	R480637873	R480637883
10	R480637831	R480637836	R480637842	R480637850	R480637858	R480637866	R480637874	R480637884
15	R480637832	R480637837	R480637843	R480637851	R480637859	R480637867	R480637875	R480637885
20	R480637833	R480637838	R480637844	R480637852	R480637860	R480637868	R480637876	R480637886
25	R480637834	R480637839	R480637845	R480637853	R480637861	R480637869	R480637877	R480637887
30	-	R480637840	R480637846	R480637854	R480637862	R480637870	R480637878	R480637888
40	-	-	R480637847	R480637855	R480637863	R480637871	R480637879	R480637889
50	-	-	R480637848	R480637856	R480637864	R480637872	R480637880	R480637890
80	-	-	-	-	R480644580	R480641942	R480637881	R480637891
100	-	-	-	-	R480644582	R480644583	R480637882	R480637892

Piston Ø	80 mm	100 mm
Piston rod thread	M16	M20
Ports	G 3/8	G 3/8
Piston rod Ø	25 mm	32 mm
Stroke 5	R480637893	R480637903
10	R480637894	R480637904



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
15	R480637895	R480637905
20	R480637896	R480637906
25	R480637897	R480637907
30	R480637898	R480637908
40	R480637899	R480637909
50	R480637900	R480637910
80	R480637901	R480637911
100	R480637902	R480637912

## 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	0,023 kg	0,039 kg	0,052 kg	0,071 kg
Weight +10 mm stroke	0,012 kg	0,017 kg	0,02 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

Piston Ø	32 mm	40 mm	50 mm	63 mm	80 mm
Retracting piston force	380 N	665 N	1039 N	1766 N	2857 N
Extracting piston force	507 N	792 N	1237 N	1964 N	3167 N
Impact energy	0,16 J	0,24 J	0,32 J	0,38 J	0,43 J
Weight 0 mm stroke	0,11 kg	0,193 kg	0,312 kg	0,523 kg	0,97 kg
Weight +10 mm stroke	0,038 kg	0,044 kg	0,067 kg	0,079 kg	0,122 kg
Stroke max.	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
Material, front cover	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Scraper material	Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane	Polyurethane	Polyurethane

Piston Ø	100 mm
Retracting piston force	4441 N
Extracting piston force	4948 N
Impact energy	0,5 J
Weight 0 mm stroke	1,826 kg
Weight +10 mm stroke	0,168 kg
Stroke max.	150 mm
Working pressure min./max.	0,6 ... 10 bar
Material, front cover	Aluminum
Scraper material	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, see chapter „Technical information“.

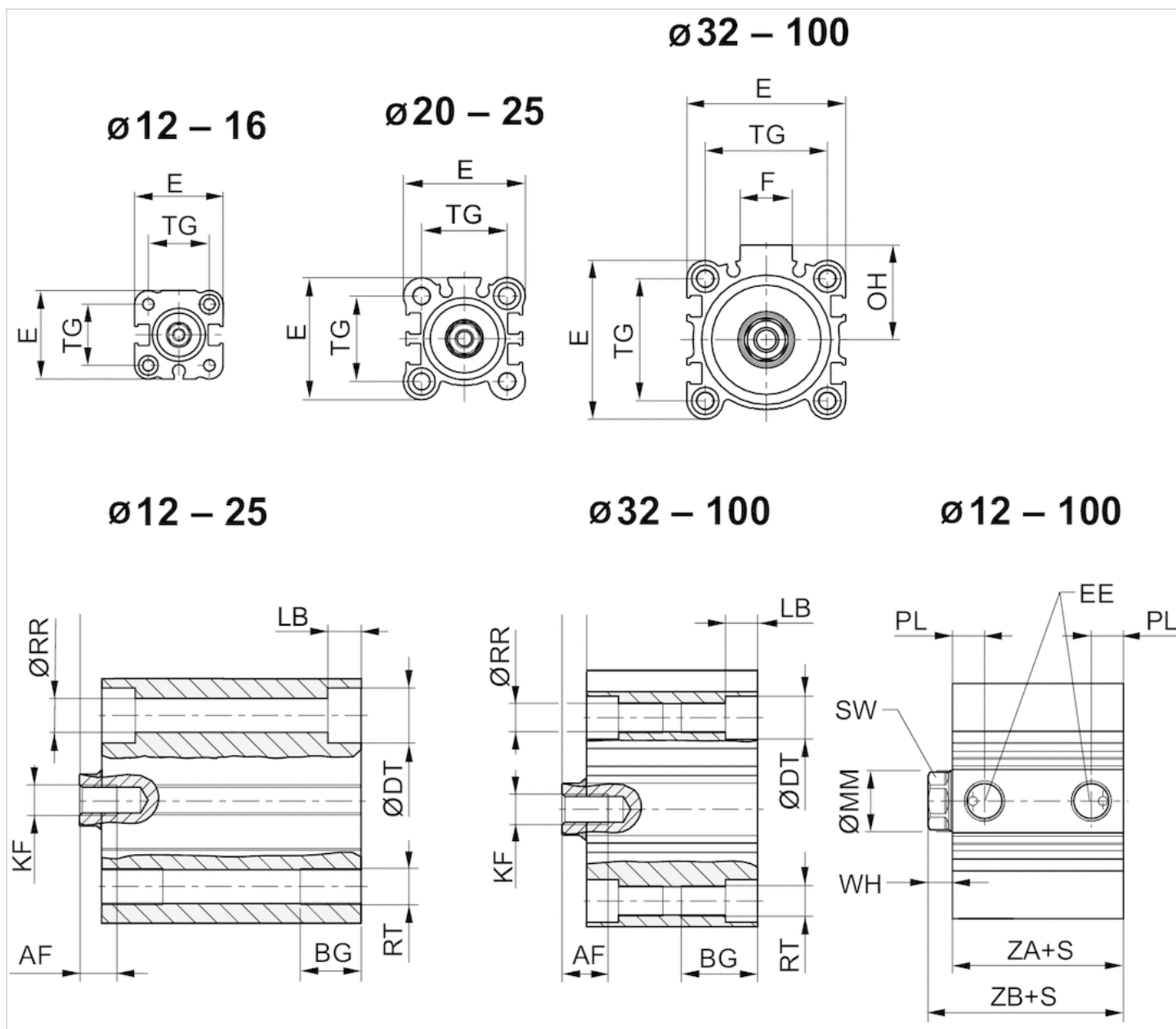
Note the selection of fittings for strokes 10 mm .

## 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

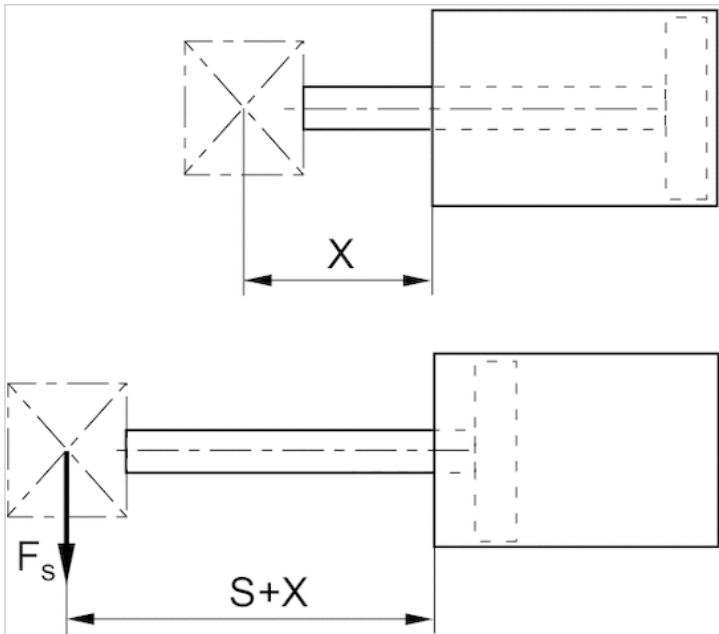
Piston Ø	AF	BG	ØDT	E	EE	F	KF	LB 1)	ØMM f8	OH	ØRR	RT	SW	TG	WH	S	PL	ZA±0,2	ZB±2
12 mm	6	7	6.5	25	M5	-	M3	3.5	6	-	3.7	M4	5	15,5 ±0,3	3,5 ±1,5	2-4≥5	4,55,5	17	20.5
16 mm	8	7	6.5	29	M5	-	M4	3.5	8	-	3.7	M4	7	20 ±0,3	3,5 ±1,5	≥2	5.5	18.5	22
20 mm	7	10	9	36	M5	-	M5	5.5	10	-	5.55	M6	8	25,5 ±0,3	4,5 ±1,5	≥2	5.5	19.5	24
25 mm	12	10	9	40	M5	-	M6	5.5	12	-	5.55	M6	10	28 ±0,3	5 ±1,5	≥2	5.5	22.5	27
32 mm	13	16	9	45	G 1/8	17	M8	5.5	16	27	5.55	M6	13	34 ±0,3	7 ±2	2-4≥5	6,37,5	23	30
40 mm	13	16	9	52	G 1/8	17	M8	5.5	16	31	5.55	M6	13	40 ±0,3	7 ±2	≥2	7.5	29.5	36.5
50 mm	15	20	11	64	G 1/4	21	M10	8	20	39	7.4	M8	17	50 ±0,5	8 ±2	2-8≥9	8,210,5	30.5	38.5
63 mm	15	25	14	77	G 1/4	21	M10	10.5	20	45.5	9.3	M10	17	60 ±0,5	8 ±2	≥2	10.5	36	44
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	≥2	12.5	43.5	53.5

Piston Ø	AF	BG	ØDT	E	EE	F	KF	LB 1)	ØMM f8	OH	ØRR	RT	SW	TG	WH	S	PL	ZA±0,2	ZB±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	≥2	14	53	65

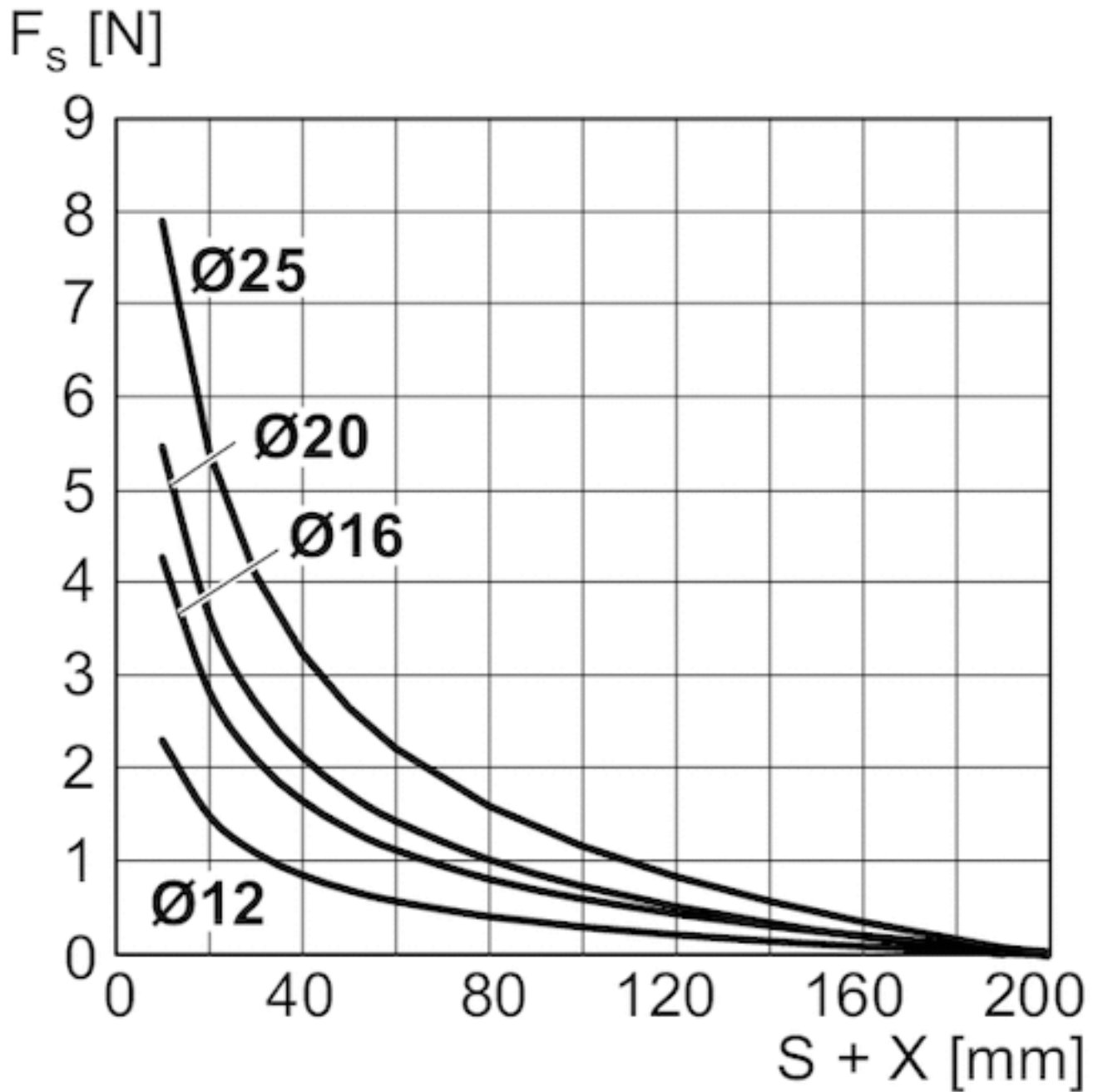
1) max.

## Diagrams

### Maximum permissible lateral force Ø 12 - 25 mm



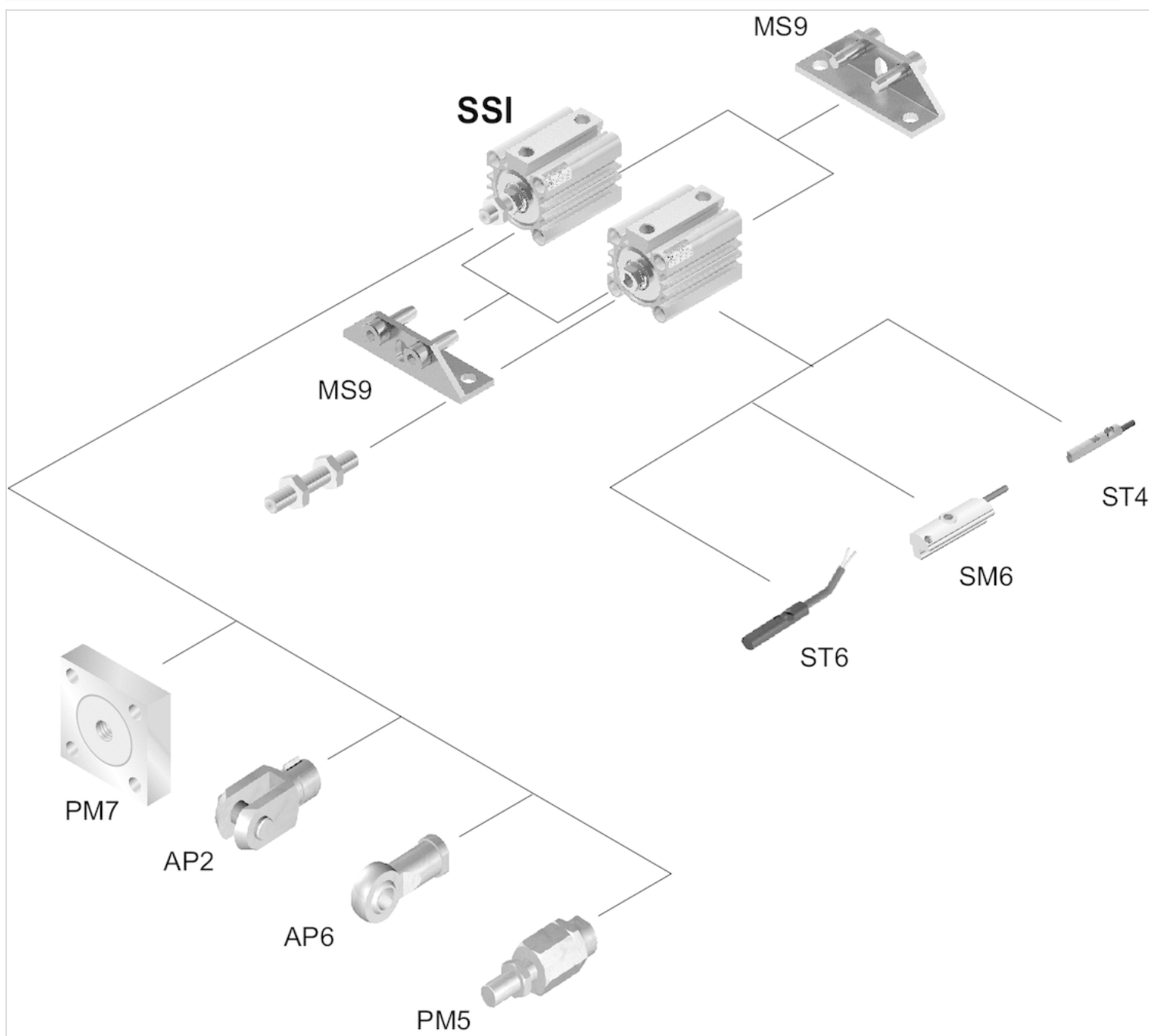
X = spacing between force application point and cylinder cover  
 $F_s$  = lateral force  
 S = stroke

Maximum permissible lateral force  $\varnothing 12 - 25$  mm

X = spacing 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 see 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

Compressed air connection	ISO 15524
Ambient temperature min./max.	Internal thread
Medium temperature min./max.	-20 ... 80 °C
Medium	-20 ... 80 °C
Max. particle size	Compressed air
Oil content of compressed air	50 µm
Pressure for determining piston forces	0 ... 5 mg/m <sup>3</sup>
	6.3 bar

## Technical data

Piston Ø	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm
Piston rod thread	M3	M4	M5	M6	M8	M8	M10	M10
Ports	M5	M5	M5	M5	G 1/8	G 1/8	G 1/4	G 1/4
Piston rod Ø	6 mm	8 mm	10 mm	12 mm	16 mm	16 mm	20 mm	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	80 mm	100 mm
Piston rod thread	M16	M20
Ports	G 3/8	G 3/8
Piston rod Ø	25 mm	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, see chapter „Technical information“.

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

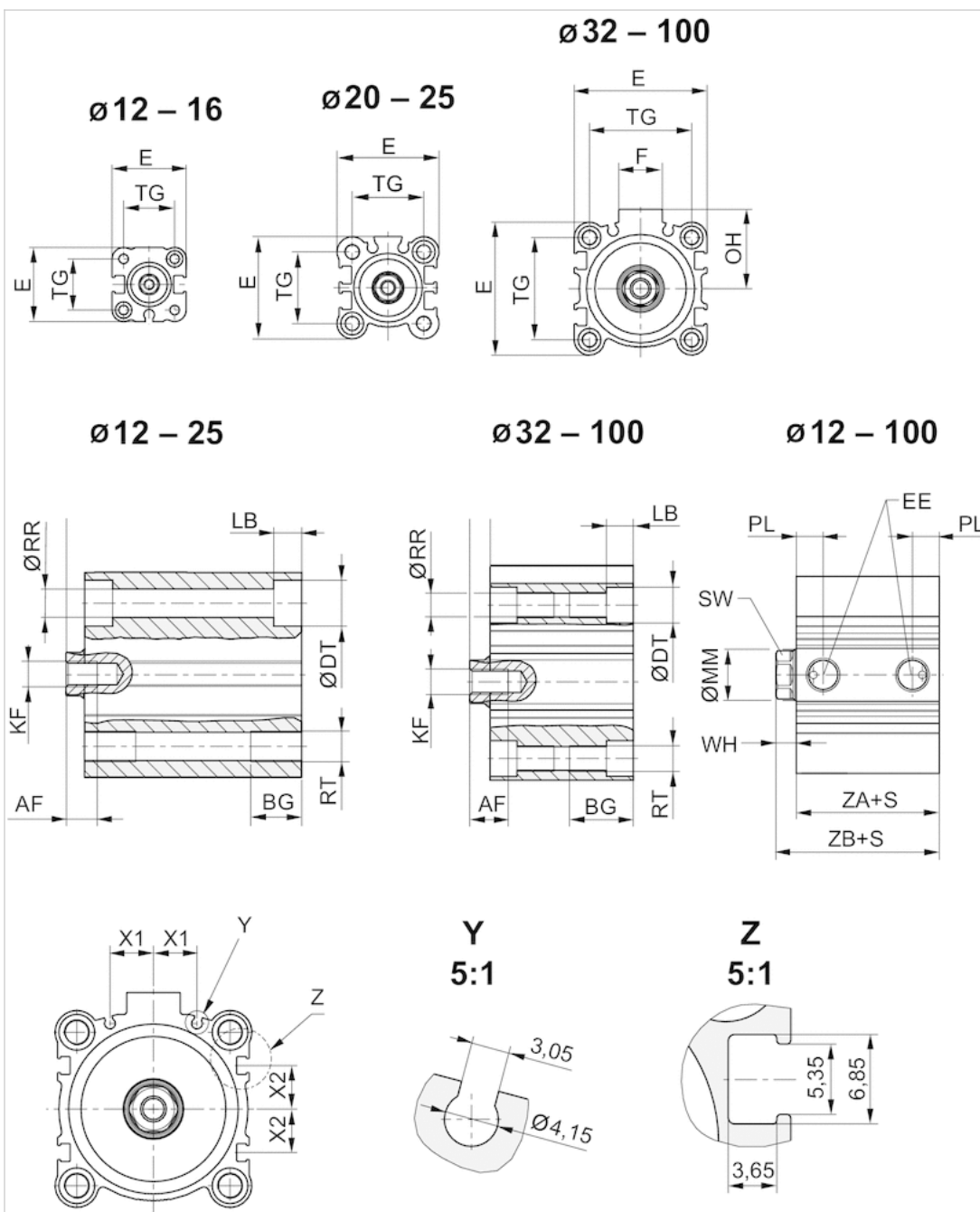


## Technical information

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

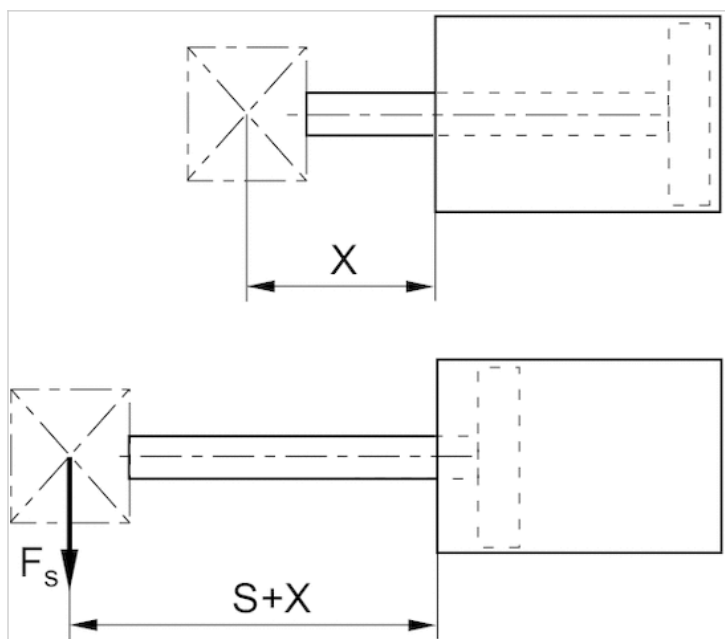
Piston $\varnothing$	AF	BG	$\varnothing$ DT	E	EE	F	KF	LB 1)	$\varnothing$ MM f8	OH	PL	$\varnothing$ RR	RT	SW	TG	WH	X1	X2	ZA $\pm$ 0,2	ZB $\pm$ 2
12 mm	6	7	6.5	25	M5	-	M3	3.5	6	-	5.5	3.7	M4	5	15,5 $\pm$ 0,3	3,5 $\pm$ 1,5	0	0	28	31.5
16 mm	8	7	6.5	29	M5	-	M4	3.5	8	-	5.5	3.7	M4	7	20 $\pm$ 0,3	3,5 $\pm$ 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 $\pm$ 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 $\pm$ 2	10.8	11	39.5	46.5
50 mm	15	20	11	64	G 1/4	21	M10	8	20	39	10.5	7.4	M8	17	50 $\pm$ 0,5	8 $\pm$ 2	14	13	40.5	48.5

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
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.

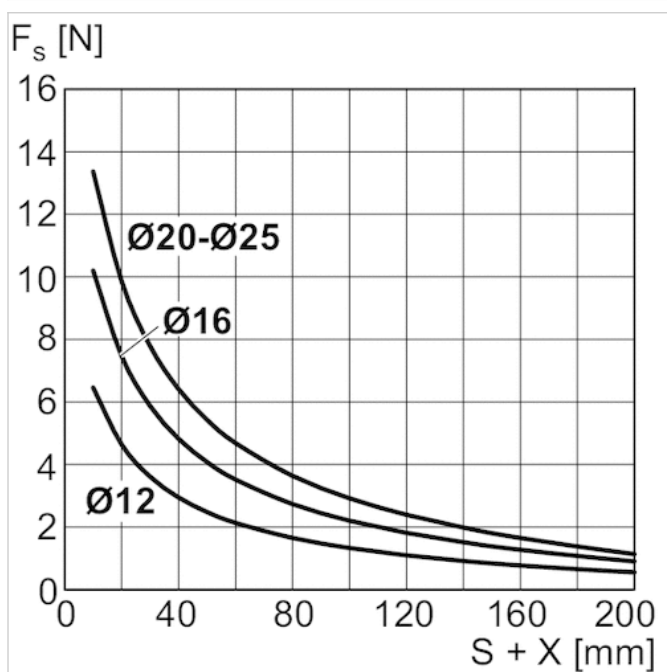
## Diagrams

### Maximum permissible lateral force Ø 12 - 25 mm

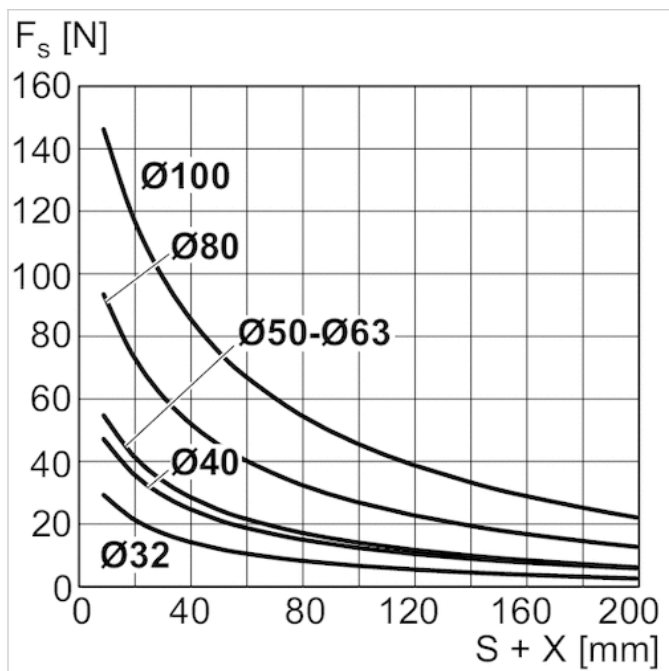


X = spacing between force application point and cylinder cover  
 FS = lateral force  
 S = stroke

### Maximum permissible lateral force Ø 12 - 25 mm



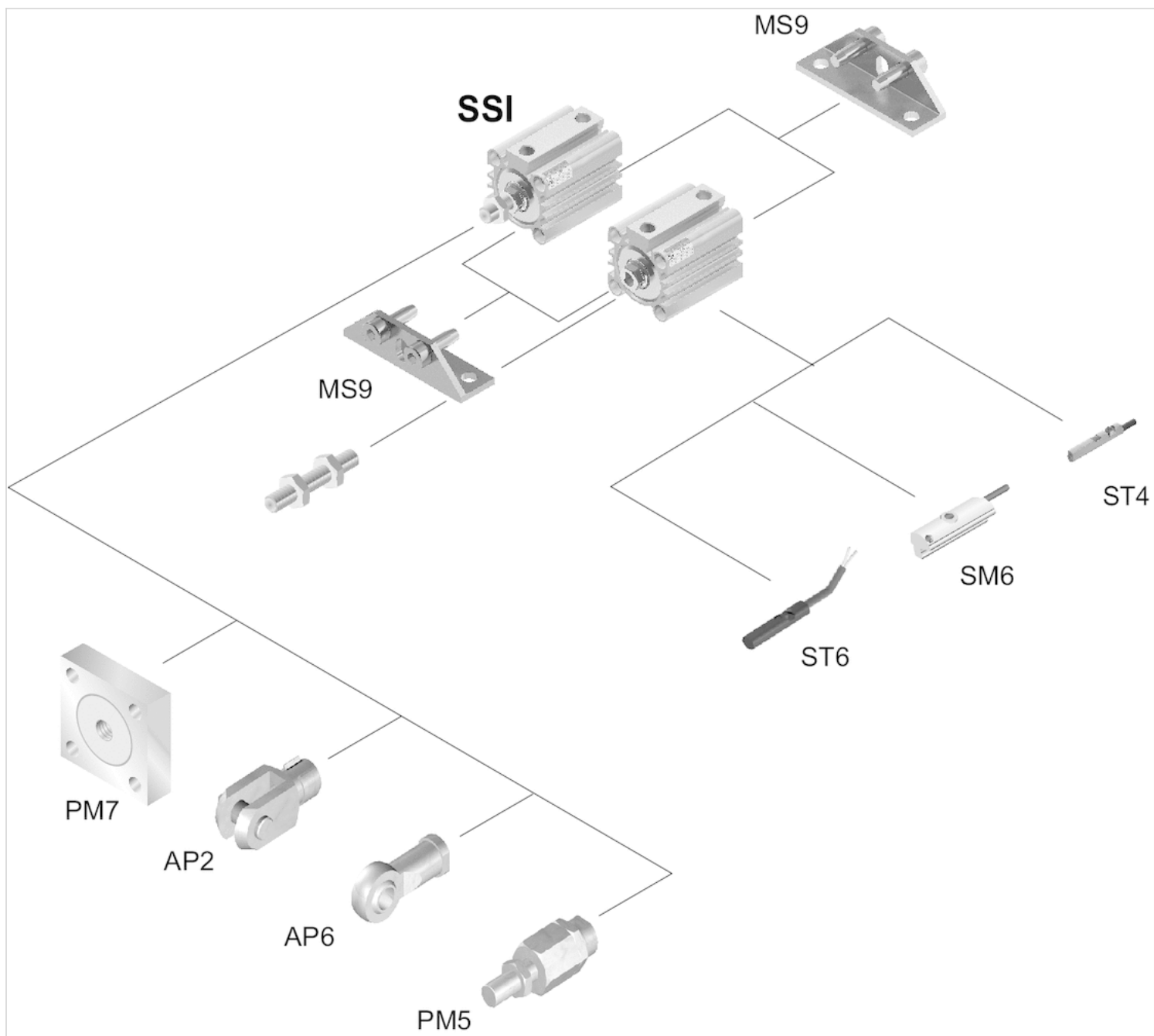
X = spacing between force application point and cylinder cover  
 FS = lateral force  
 S = stroke

Maximum permissible lateral force  $\varnothing 32 - 100$  mm

X = spacing 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 see 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/m <sup>3</sup>
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	32 mm	40 mm	50 mm
Retracting piston force	148 N	238 N	380 N	665 N	1039 N
Extracting piston force	198 N	309 N	507 N	792 N	1237 N
Impact energy	0,08 J	0,1 J	0,16 J	0,24 J	0,32 J
Weight 0 mm stroke	0,101 kg	0,14 kg	0,216 kg	0,334 kg	0,547 kg
Weight +10 mm stroke	0,021 kg	0,028 kg	0,039 kg	0,045 kg	0,07 kg
Stroke max.	150 mm	150 mm	150 mm	150 mm	150 mm
Working pressure min./max.	1 ... 10 bar	1 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar
Material, front cover	Brass	Aluminum	Aluminum	Aluminum	Aluminum
Scraper material	Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane	Polyurethane	Polyurethane
Sealing material	Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane	Polyurethane	Polyurethane

Piston Ø	63 mm
Retracting piston force	1766 N
Extracting piston force	1964 N
Impact energy	0,38 J
Weight 0 mm stroke	0,842 kg
Weight +10 mm stroke	0,083 kg
Stroke max.	150 mm
Working pressure min./max.	0,6 ... 10 bar
Material, front cover	Aluminum
Scraper material	Polyurethane
Sealing material	Polyurethane

## Technical information

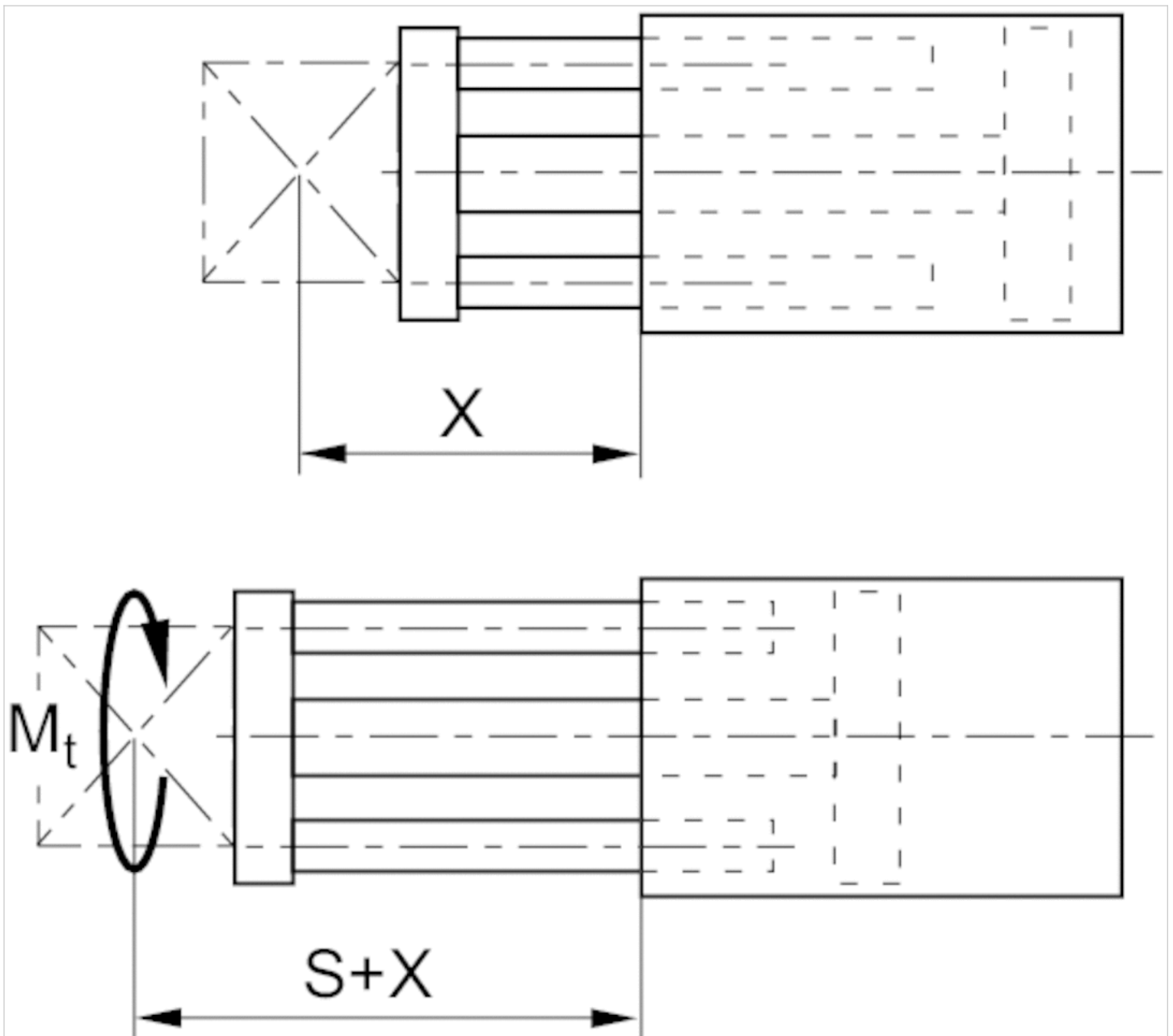
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .  
 The oil content of compressed air must remain constant during the life cycle.  
 Use only the approved oils from AVENTICS, see chapter „Technical information“.

## 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

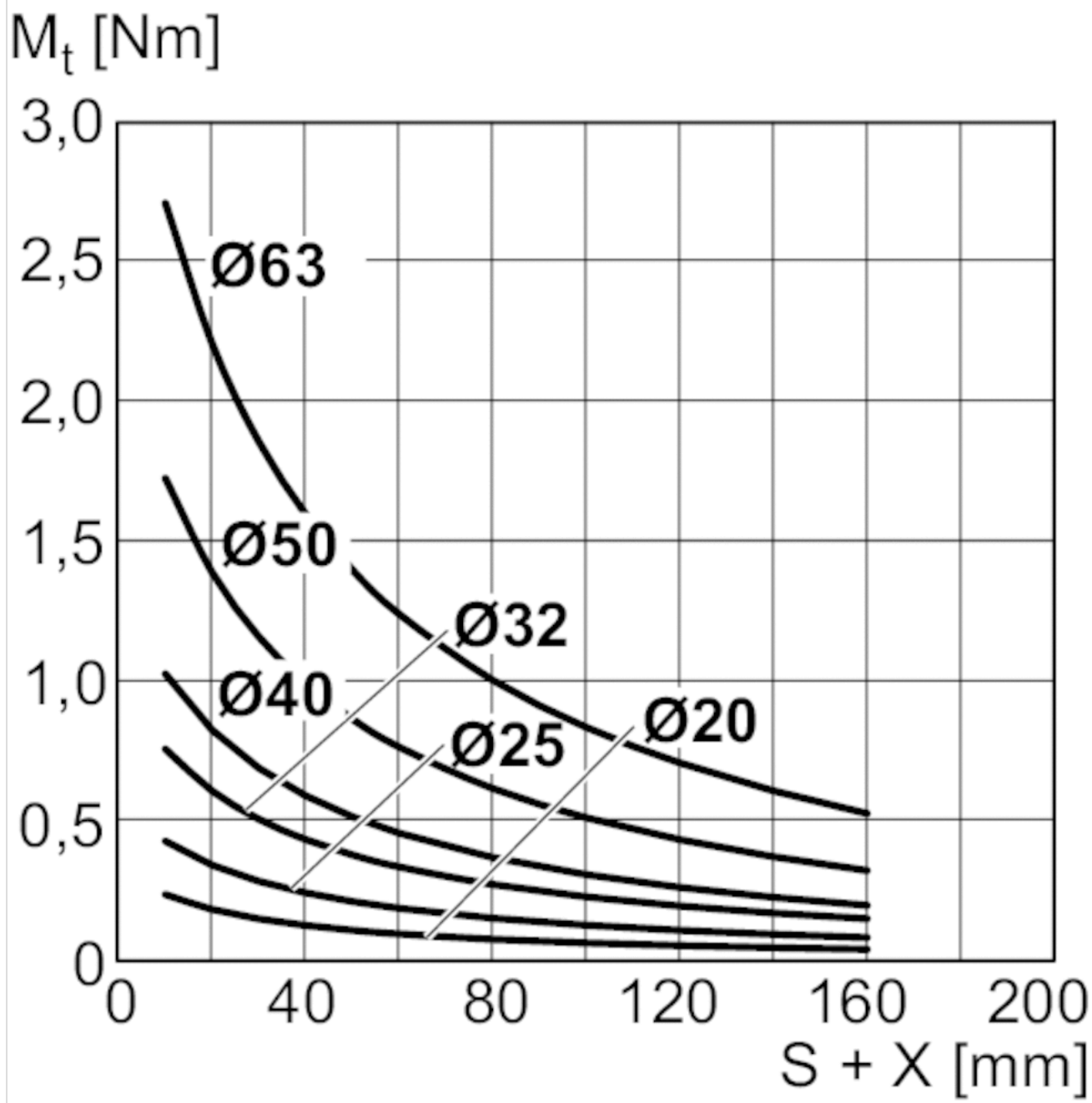
### Max. permissible torque Dynamic



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

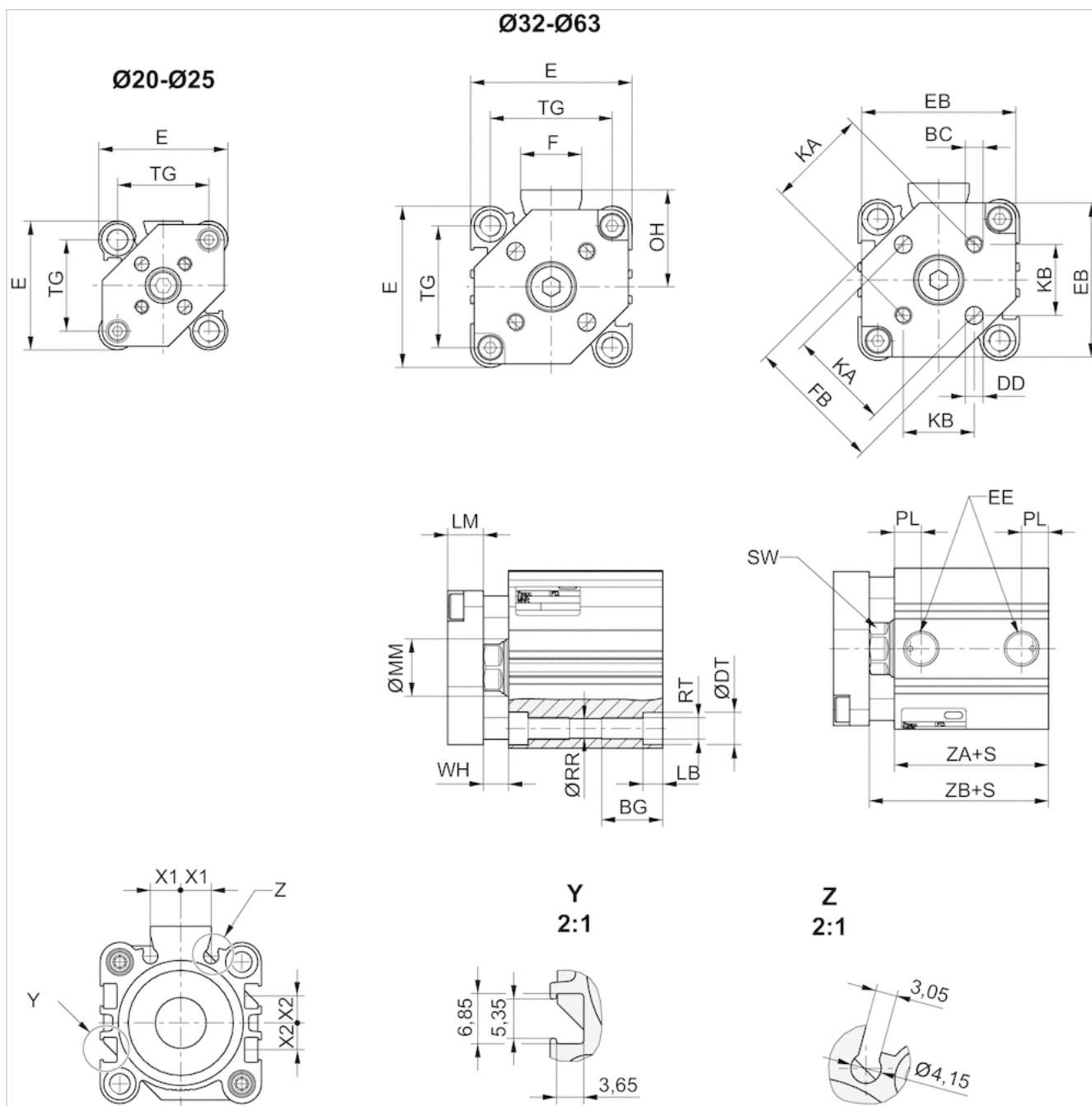


## Max. permissible torque Dynamic



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

Dimensions



S = stroke

Dimensions

Piston Ø	BC	BG	ØDD H13	ØDT	E	EB	EE	F	FB	KA	KB	LB 1)	LM	ØMM f8	OH	PL	ØRR	RT	SW
20 mm	M4	16	4	9	36	34	M5	-	26	17 ±0,1	12 ±0,1	5.5	8	10	-	5.5	5.55	M6	8
25 mm	M5	16	5	9	40	38	M5	-	30	22 ±0,1	15,6 ±0,1	5.5	8	12	-	5.5	5.55	M6	10
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	7.5	5.55	M6	13
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	7.5	5.55	M6	13
50 mm	M6	20	6	11	64	62	G 1/4	21	58	42 ±0,2	29,7 ±0,2	8	12	20	39	10.5	7.4	M8	17
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	10.5	9.3	M10	17

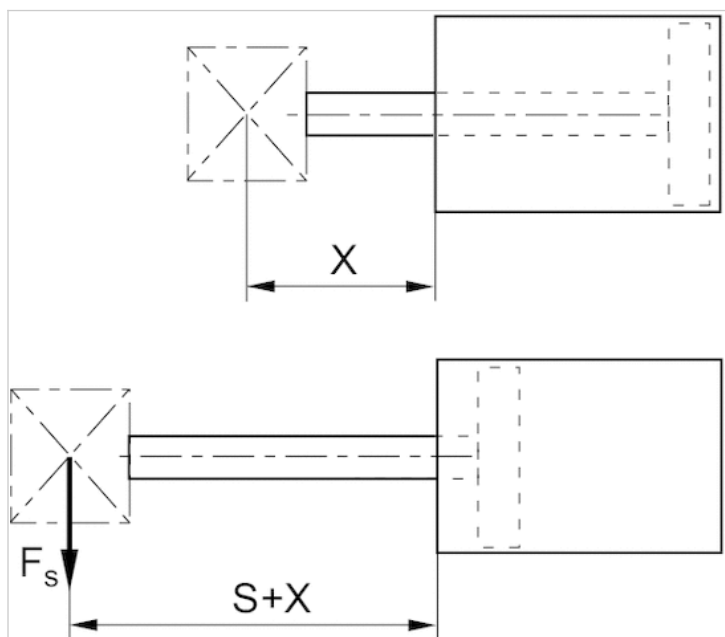
TG	WH	X1	X2	ZA±0,2	ZB±2
25,5 ±0,3	4,5 ±1,5	5.7	4.3	29.5	34

TG	WH	X1	X2	ZA±0,2	ZB±2
28 ±0,3	5 ±1,5	6	5	32.5	37.5
34 ±0,3	7 ±2	8.5	7.5	33	40
40 ±0,3	7 ±2	10.8	11	39.5	46.5
50 ±0,5	8 ±2	14	13	40.5	48.5
60 ±0,5	8 ±2	17	17	46	54

1) max.

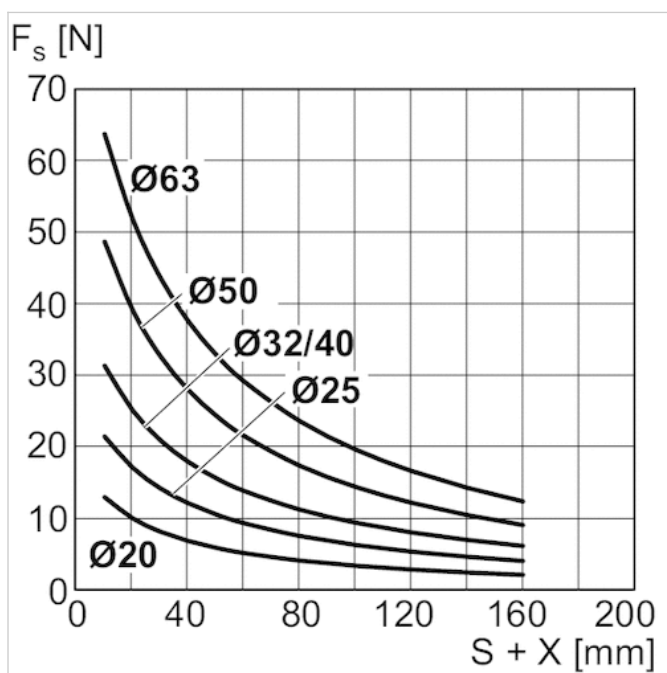
## Diagrams

### Maximum permissible lateral force Ø 12 - 25 mm



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

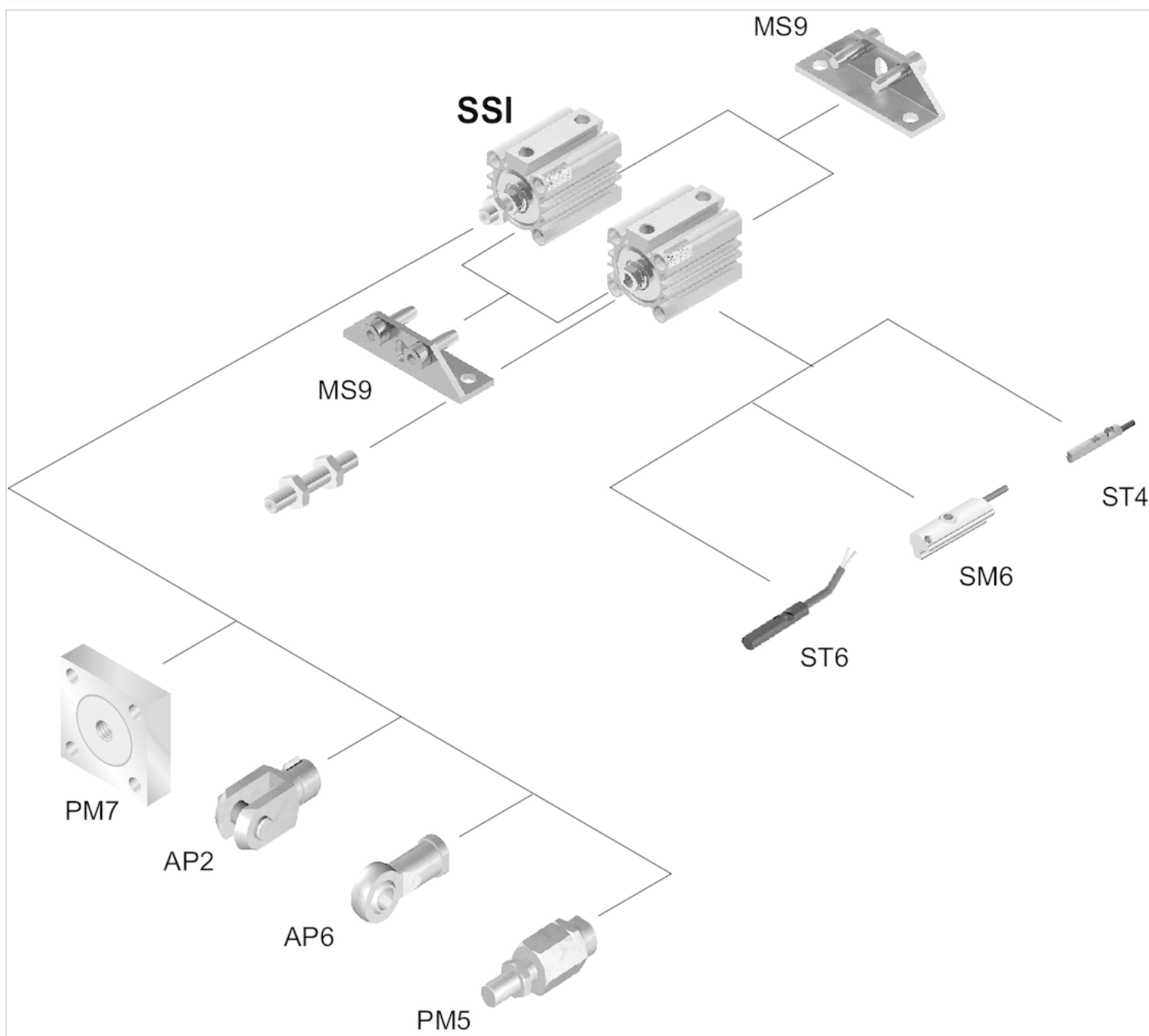
### Maximum permissible lateral force Dynamic



X = spacing 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 see 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  
null

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, see chapter „Technical information“.

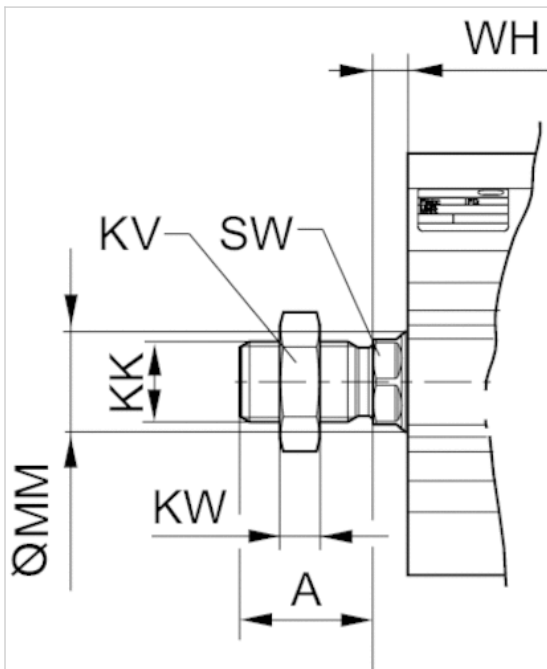
For this variant with external thread, two different external threads with the dimensions indicated below can be selected in the configurator .

### Technical information

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

## Dimensions

## Dimensions



## Dimensions

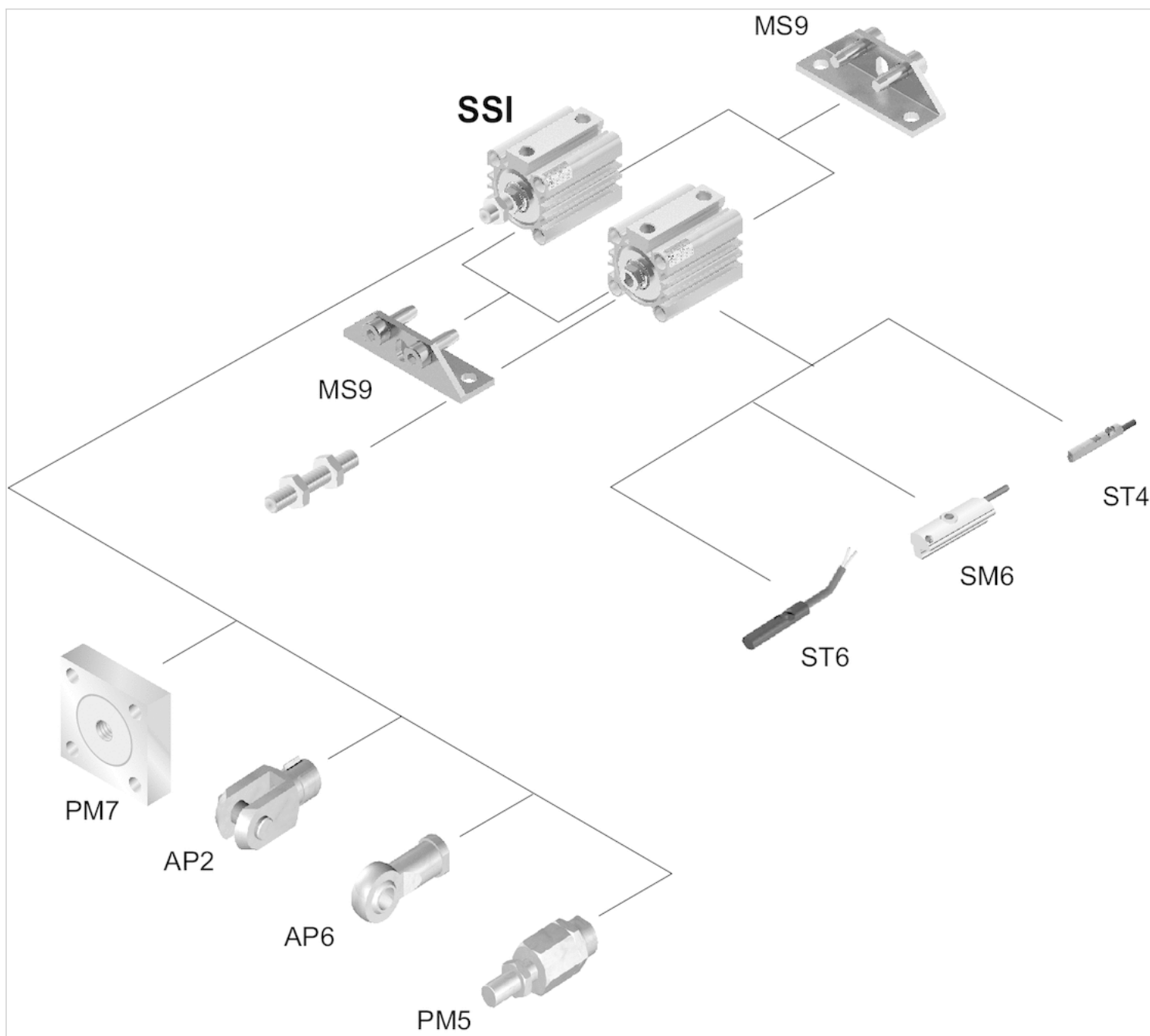
Ø	A ±0,3	KK	KV	KW	ØMMf8	SW	WH
12	10.5	M4	7	2.2	6	5	3,5 ±1,5
16	12	M6	10	3.2	8	7	3,5 ±1,5
20	14	M8	13	4	10	8	4,5 ±1,5
25	17.5	M10x1,25	17	6	12	10	5 ±1,5
32	21.5	M12x1,25	18	6	16	13	7 ±2
40	21.5	M12x1,25	18	6	16	13	7 ±2
50	26.5	M16x1,5	24	8	20	17	7 ±2
63	26.5	M16x1,5	24	8	20	17	7 ±2
80	34	M20x1,5	30	10	25	22	9,5 ±2
100	33	M20x1,5	30	10	32	27	10,5 ±2,5

## Dimensions

Ø	A ±0,3	KK	KV	KW	ØMMf8	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 see 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.

## Foot mounting, Series MS9

- Cylinder mounting for cylinder in accordance with ISO 15524



### Technical data

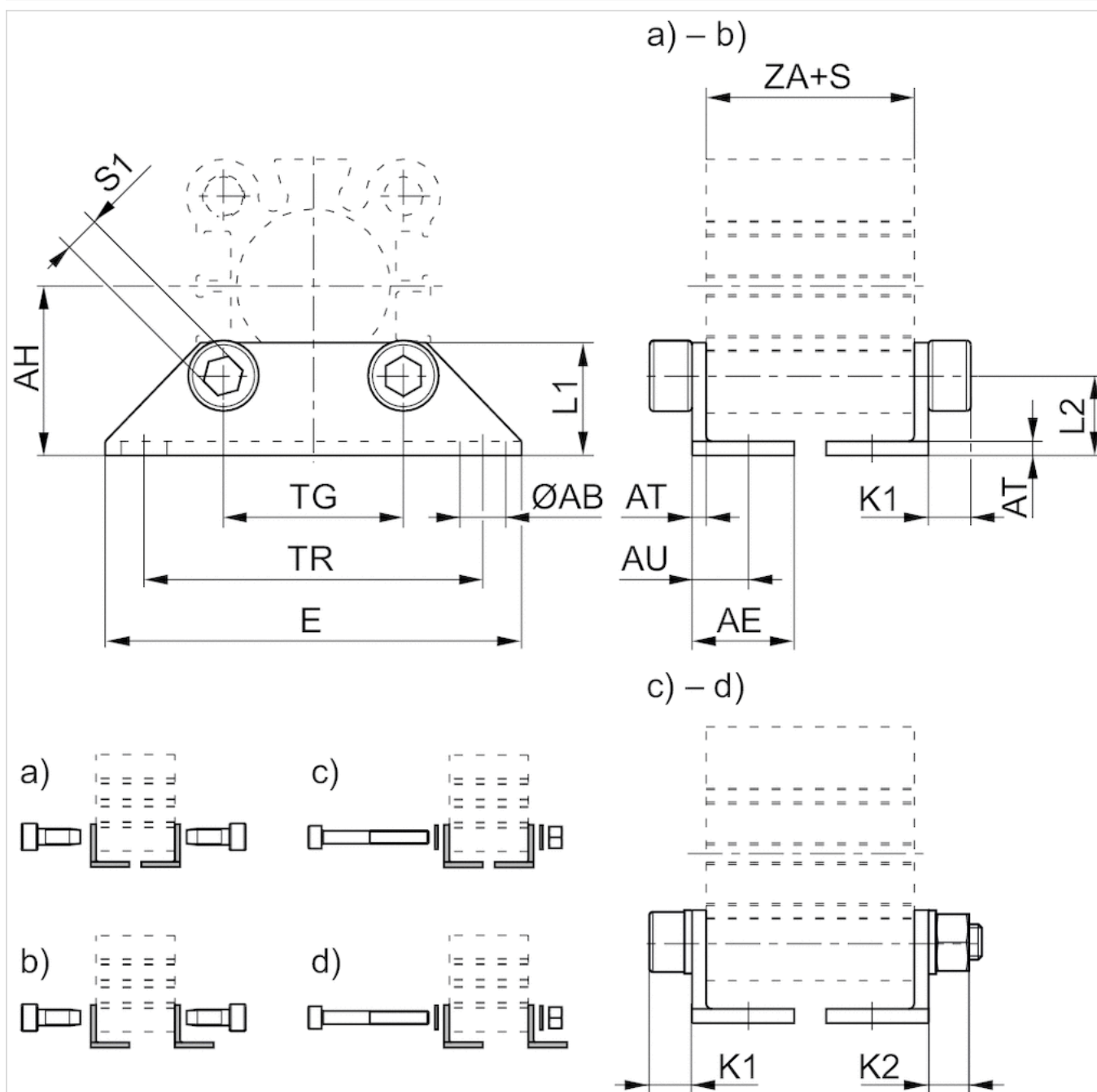
Part No.	Piston Ø	Material	Surface
R402006266	12 mm	Stainless steel	-
R402006267	16 mm	Stainless steel	-
R402006268	20 mm	Stainless steel	-
R402006269	25 mm	Stainless steel	-
R402006270	32 mm	Stainless steel	-
R402006271	40 mm	Stainless steel	-
R402006272	50 mm	Stainless steel	-
R402006273	63 mm	Stainless steel	-
R402006274	80 mm	Steel	galvanized
R402006275	100 mm	Steel	galvanized

### Technical information

Material	
Material	Stainless steel, Steel
	galvanized



## Dimensions



S = stroke

## Dimensions

Part No.	Piston Ø	Installation options	ZA+S, min.	Min. stroke(with magnetic piston)
R402006266	12 mm	b), a) b)	21, 22 mm	2, 2 mm
R402006267	16 mm	b), a) b)	21, 22 mm	2, 2 mm
R402006268	20 mm	d), c) d), a) b)	23,5, 26,5, 29,5 mm	2, 2, 2 mm
R402006269	25 mm	d), a) b)	26,5, 29,5 mm	2, 2 mm
R402006270	32 mm	d), c) d), a) b)	27, 29, 35 mm	2, 2, 2 mm
R402006271	40 mm	c) d), a) b)	33,5, 35,5 mm	2, 2 mm
R402006272	50 mm	d), c) d), a) b)	34,5, 39,5, 45,5 mm	2, 2, 5 mm

Part No.	Piston Ø	Installation options	ZA+S, min.	Min. stroke(with magnetic piston)
R402006273	63 mm	d), c) d), a) b)	40, 43, 53 mm	2, 3, 7 mm
R402006274	80 mm	d), c) d), a) b)	47,5, 51,5, 61,5 mm	2, 2, 8 mm
R402006275	100 mm	d), c) d), a) b)	57, 58, 61 mm	2, 2, 2 mm

Min. stroke(without magnetic piston)	Length of through mounting screw	K1	K2	S1	Ø AB	AE	AH	AT	AU	E
4, 5 mm	-	44	-	33	4.5	12.5	17	2	8	44
4, 4 mm	-	44	-	33	4.5	12.5	19	2	8	47
4, 7, 10 mm	45, 45	666	5,75,7-	445	6.5	14.5	24	2	8	59
4, 7 mm	45	66	5,7-	45	6.5	16	26	2	9.5	63
4, 6, 12 mm	50, 50	666	5,75,7-	445	6.5	16.8	30	3	11	69
4, 6 mm	50	66	5,7-	45	6.5	17	33	3	11	75
4, 9, 15 mm	60, 60	7,67,68	6,86,8-	556	9	22	39	3	14.5	93.5
4, 7, 17 mm	80, 80	9,69,610	8,48,4-	668	11	25	46	4	17	113
4, 8, 18 mm	90, 90	121212	10,410,4-	8810	13	30	59	5	20	138
4, 5, 8 mm	90, 90	121212	10,410,4-	8810	13	33.5	71	5	22	159

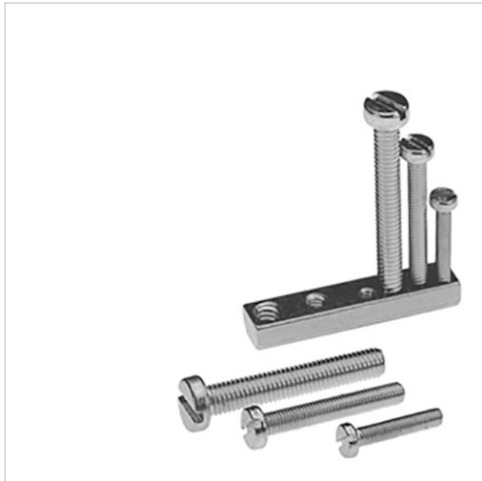
L1	L2	TG	TR
13	9.3	15.5	34
13	9	20	38
16	11.3	25.5	48
17	12	28	52
18.5	13	34	57
20	13	40	64
25	14	50	79
25	16	60	95
35	20.5	77	118
40	24	94	137

Scope of delivery: 2 foot mountings incl. mounting screws

ZA + S = cylinder length incl. stroke

S = stroke

## Mounting kit



Weight

0,02 kg

### Technical data

Part No.

1827020275

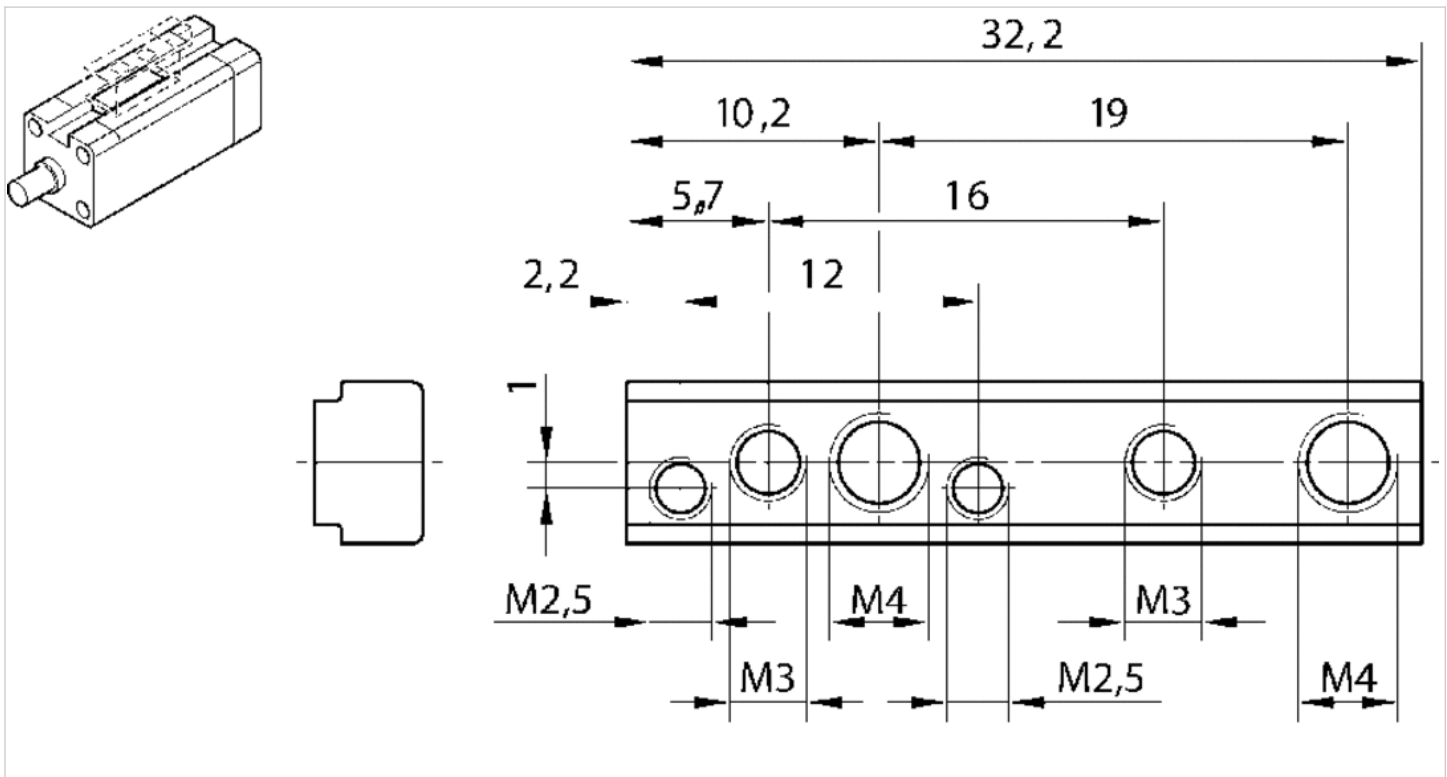
### Technical information

Material

Housing

Brass

## Dimensions



## Dimensions

Part No.	Ø mm	Material Screws	Surface Screws
1827020275	16-100	Steel	galvanized

## Rod clevis with lock washer, Series AP2



Weight

See table below

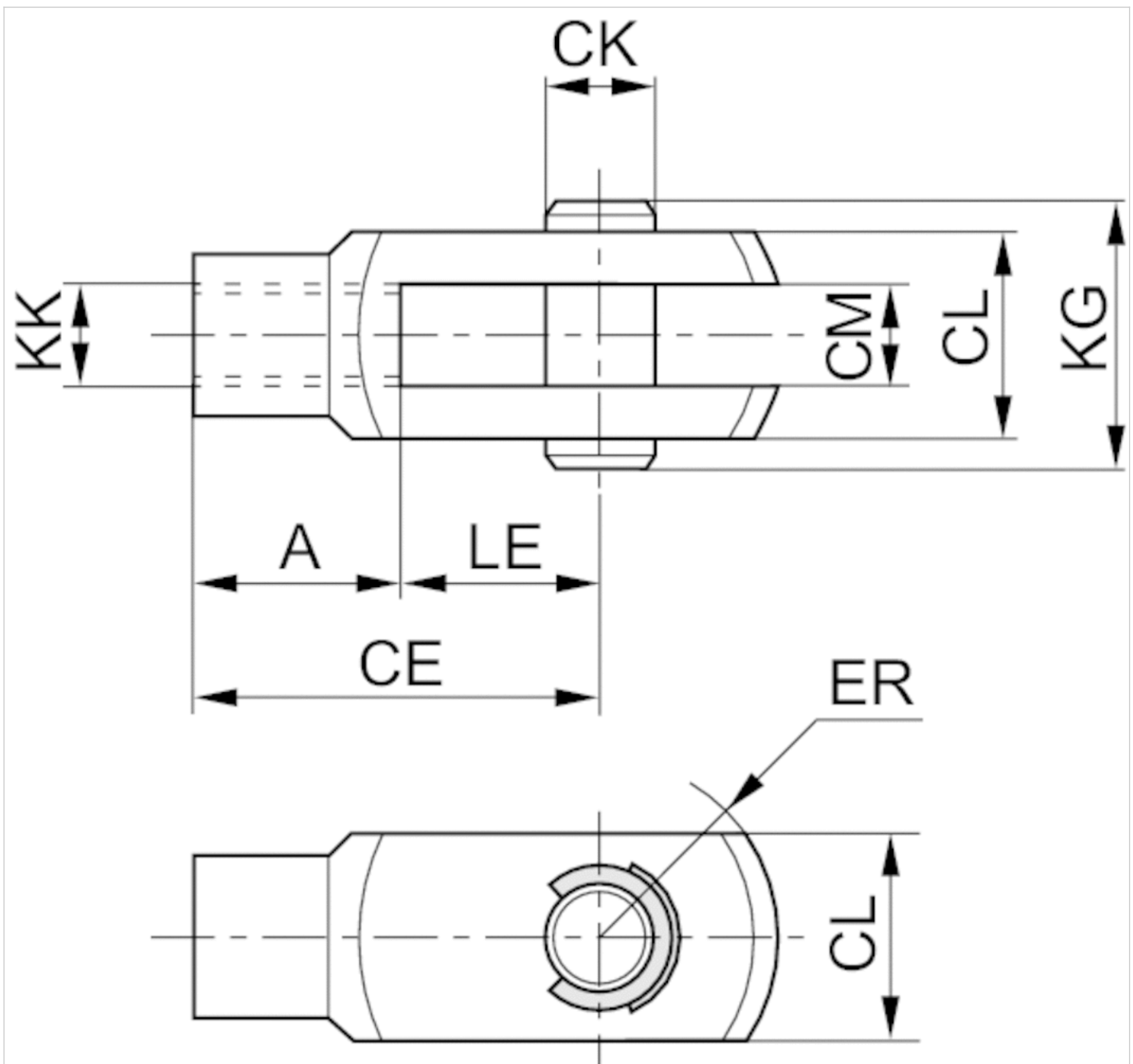
### Technical data

Part No.	Suitable piston rod thread	Weight
3330510000	M4	0,01 kg
3330516000	M6	0,02 kg
3590502000	M10x1,25	0,1 kg
3590504000	M12x1,25	0,16 kg
3590505000	M16x1,5	0,4 kg

### Technical information

Material
Stainless steel

## Dimensions



## Dimensions

Part No.	KK	A	CE	CK e8	CL	CM B12	ER	KG	LE
3330510000	M4	8	16	4	10	5	6	15	8
3330516000	M6	12	24	6	12	6	7	17	12
3590502000	M10x1,25	20	40	10	20	10	12	26	20
3590504000	M12x1,25	24	48	12	24	12	14	31	24
3590505000	M16x1,5	32	64	16	32	16	19	39	32

## Rod clevis with split pin, Series AP2



Weight

See table below

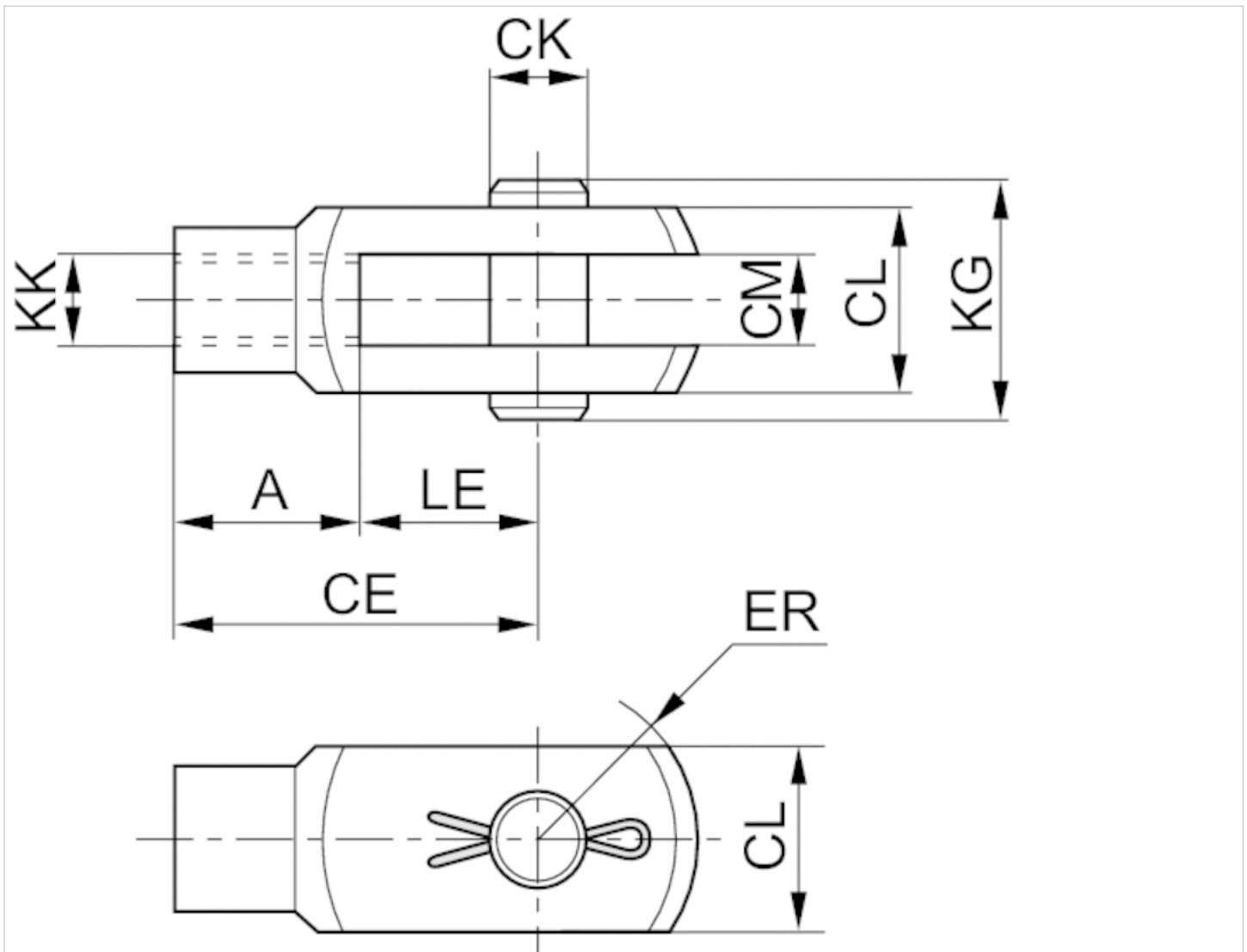
### Technical data

Part No.	Suitable piston rod thread	Weight
2990600503	M10x1,25	0,11 kg
2990600505	M16x1,5	0,41 kg
2990600508	M20x1,5	1,16 kg

### Technical information

Material
Stainless steel, acid-proof

## Dimensions



## Dimensions

Part No.	KK	A	CE	CK e8	CL	CMB12	ER	KG	LE
2990600503	M10x1,25	20	40	10	20	10	12	26	20
2990600505	M16x1,5	32	64	16	32	16	19	39	32
2990600508	M20x1,5	40	80	20	40	20	20	49	40



## Rod clevis, Series PM6



### Technical data

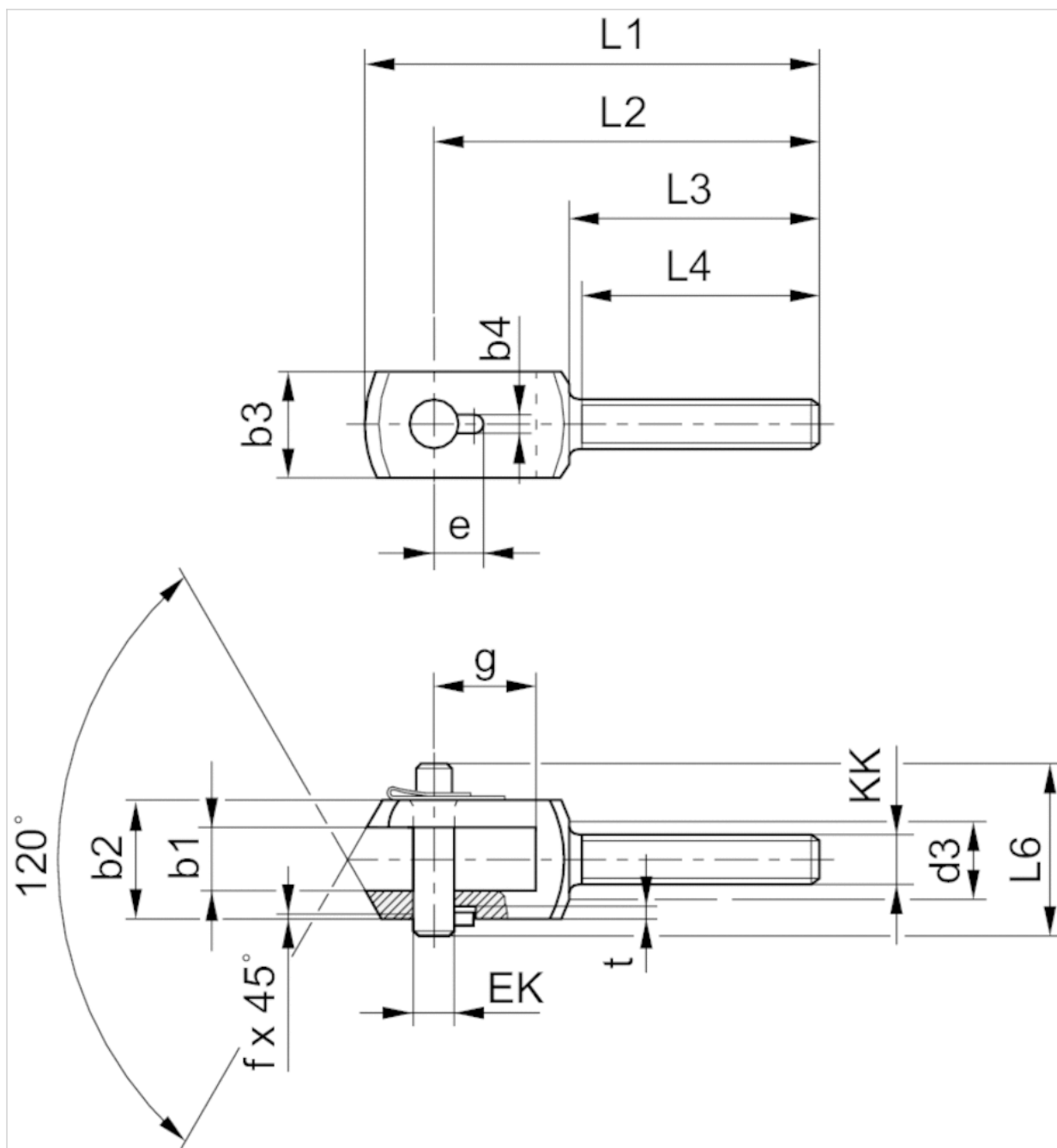
Part No.	Suitable piston rod thread
1822122032	M10x1,25
1822122033	M12x1,25
1822122034	M16x1,5
1822122035	M20x1,5

Scope of delivery incl. bolt

### Technical information

Material	
	Steel
	galvanized

## Dimensions



## Dimensions

Part No.	KK	b1 B12	b2 d12	b3	b4 +0,2	d3	e +0,3	EK	f	g	L1	L2	L3	L4 +1	L6	t +0,2
1822122032	M10x1,25	14	28	20	3.3	17	11.5	10	0.7	20	90	78	53	50	35	3
1822122033	M12x1,25	16	30	25	4.3	19	12	12	1	26	108	92	58	55	39	3
1822122034	M16x1,5	21	40	35	4.3	24	14	16	1	31	129	108	65	62	50	3
1822122035	M20x1,5	25	50	40	4.3	30	16	20	1	43	156	131	73	69	60	3

## Ball eye rod end with flange, Series AP6



Weight

See table below

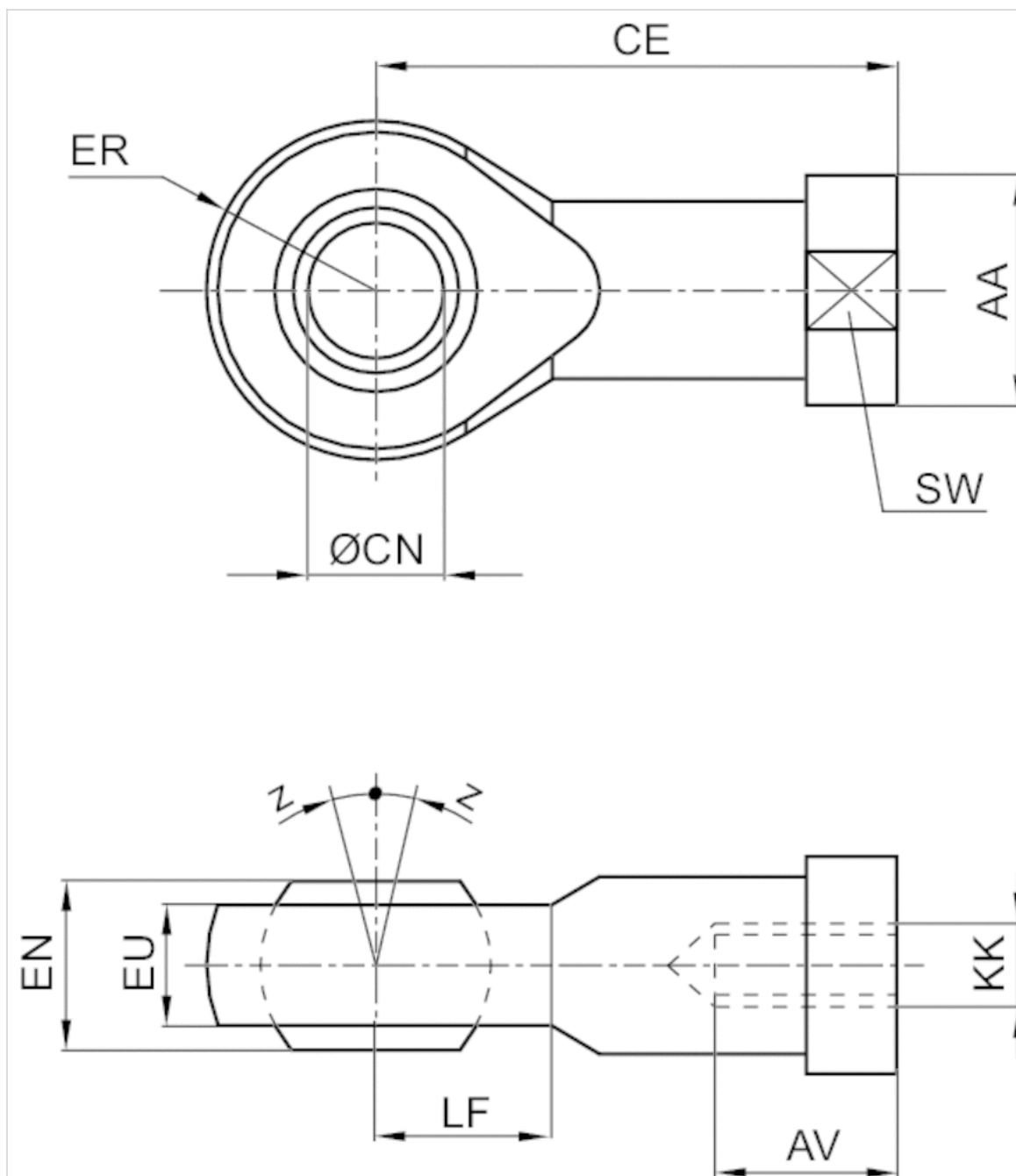
### Technical data

Part No.	Suitable piston rod thread	Weight
1822124000	M4	0,02 kg
1822124001	M6	0,03 kg
1822124002	M8	0,05 kg
1822124003	M10x1,25	0,07 kg
1822124004	M12x1,25	0,12 kg
1822124005	M16x1,5	0,21 kg

### Technical information

Material	
	Steel
	galvanized

## Dimensions



## Dimensions

Part No.	KK	AA	AVmin.	CE	Ø CNH7	EN -0,1	ER	EU max.	LF	SW	Z [°]max.
1822124000	M4	12	8	27	5	8	9	7.5	9	9	4
1822124001	M6	13	9	30	6	9	10	7.5	10	11	4
1822124002	M8	16	12	36	8	12	12	9.5	12	14	4
1822124003	M10x1,25	19	15	43	10	14	14	11.5	14	17	4
1822124004	M12x1,25	22	18	50	12	16	16	12.5	16	19	4
1822124005	M16x1,5	27	24	64	16	21	21	15.5	21	22	4

## Ball eye rod end with flange, Series AP6



Weight

See table below

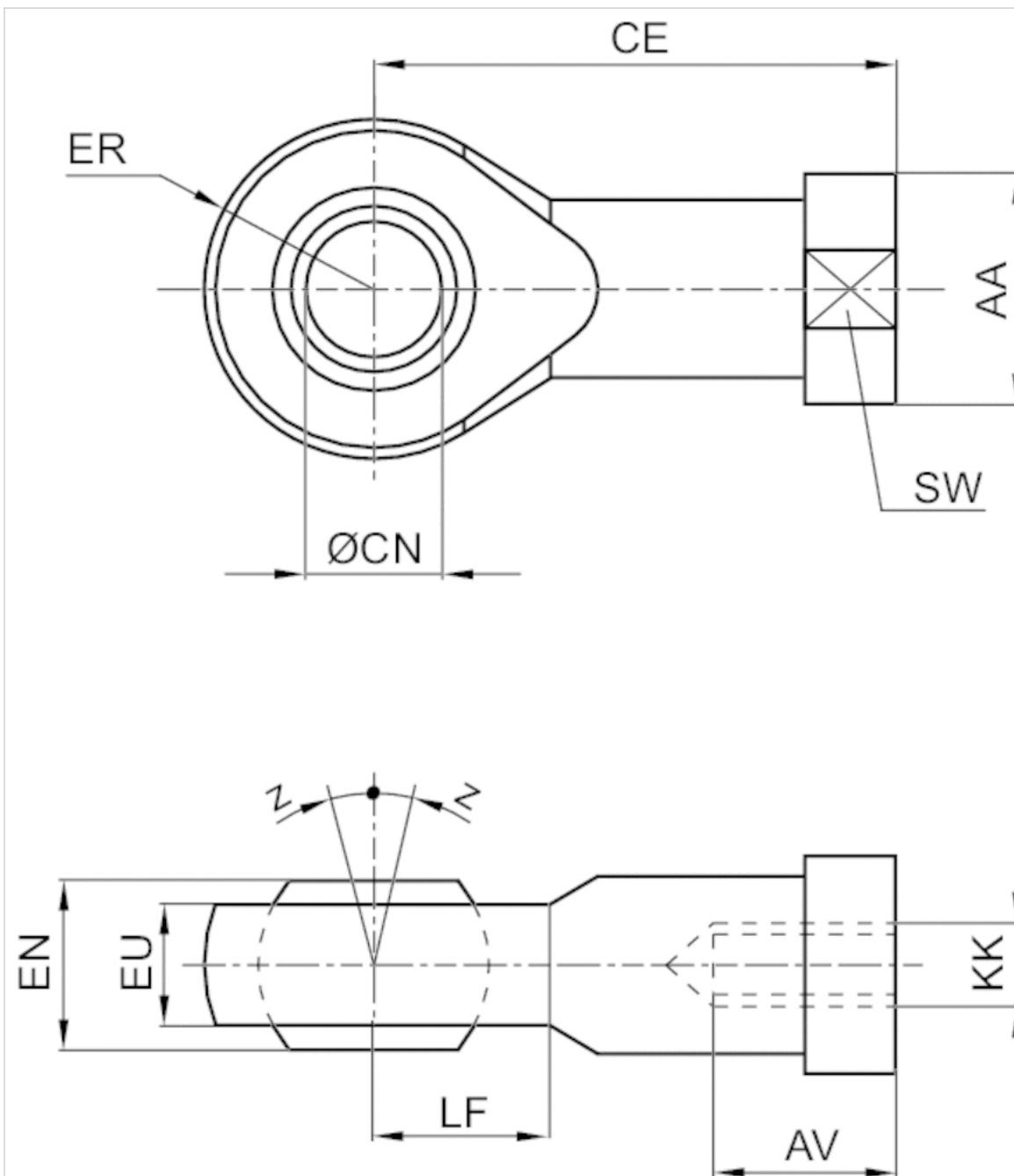
### Technical data

Part No.	Suitable piston rod thread	Weight
8958209032	M10x1,25	0,09 kg
8958209042	M12x1,25	0,12 kg
8958209052	M16x1,5	0,23 kg
8958209062	M20x1,5	0,41 kg

### Technical information

Material
Stainless steel

## Dimensions



## Dimensions

Part No.	KK	AA	AVmin.	CE	$\varnothing$ CNH7	EN -0,1	ER	EU max.	LF	SW	Z [°]max.
8958209032	M10x1,25	19	15	43	10	14	14	10.5	14	17	6,5
8958209042	M12x1,25	22	18	50	12	16	16	12	16	19	6,5
8958209052	M16x1,5	27	24	64	16	21	21	15	21	22	7,5
8958209062	M20x1,5	34	30	77	20	25	25	18	25	30	7,5

## Flexible spherical coupling, Series PM5



Weight

See table below

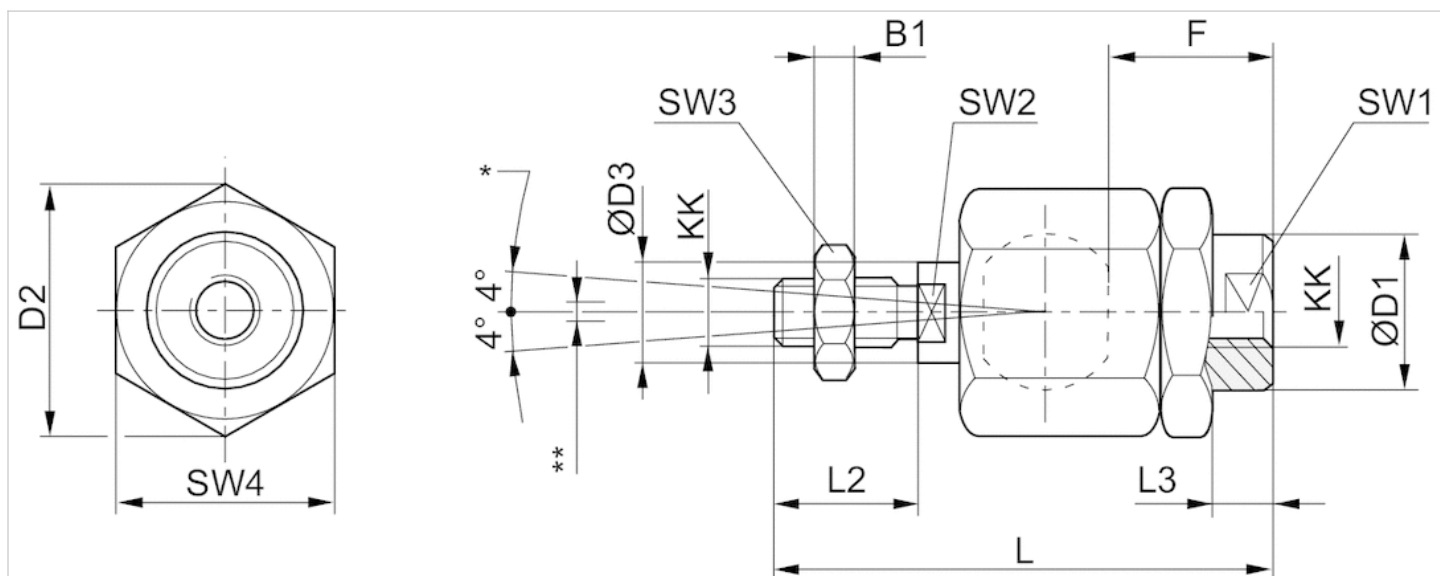
### Technical data

Part No.	Suitable piston rod thread	Weight
1826409008	M4	0,02 kg
1826409000	M6	0,02 kg
1826409001	M8	0,05 kg
1826409002	M10x1,25	0,21 kg
1826409003	M12x1,25	0,21 kg
1826409004	M16x1,5	0,65 kg
1826409005	M20x1,5	0,68 kg

### Technical information

Material	
	Steel
	galvanized

## Dimensions



\* Angle joint\*\* Radial joint from 0,5 - 2 mm Axial play set to 0.05 to 0.2 mm

## Dimensions

Part No.	B1	Ø D1	D2	Ø D3	F	L ±2	L2	L3 ±1	SW1	SW2	SW3	SW4
1826409008	2.2	12	13.5	4	13	33	8	5.6	12	3.2	7	12
1826409000	3.2	8.5	15	6	11.5	39	12	3.5	7	5	10	13
1826409001	4	12.5	20	8	14.5	55	15	5	10	6	13	17
1826409002	6	21.5	34	14	23	73	20	7.5	19	12	17	30
1826409003	7	21.5	34	14	28	77	24	13	19	12	19	30
1826409004	8	33.5	47	22	32	108	32	9	30	19	24	41
1826409005	10	33.5	47	22	42	122	40	19	30	19	30	41



## Flexible plate coupling, Series PM7



Weight

See table below

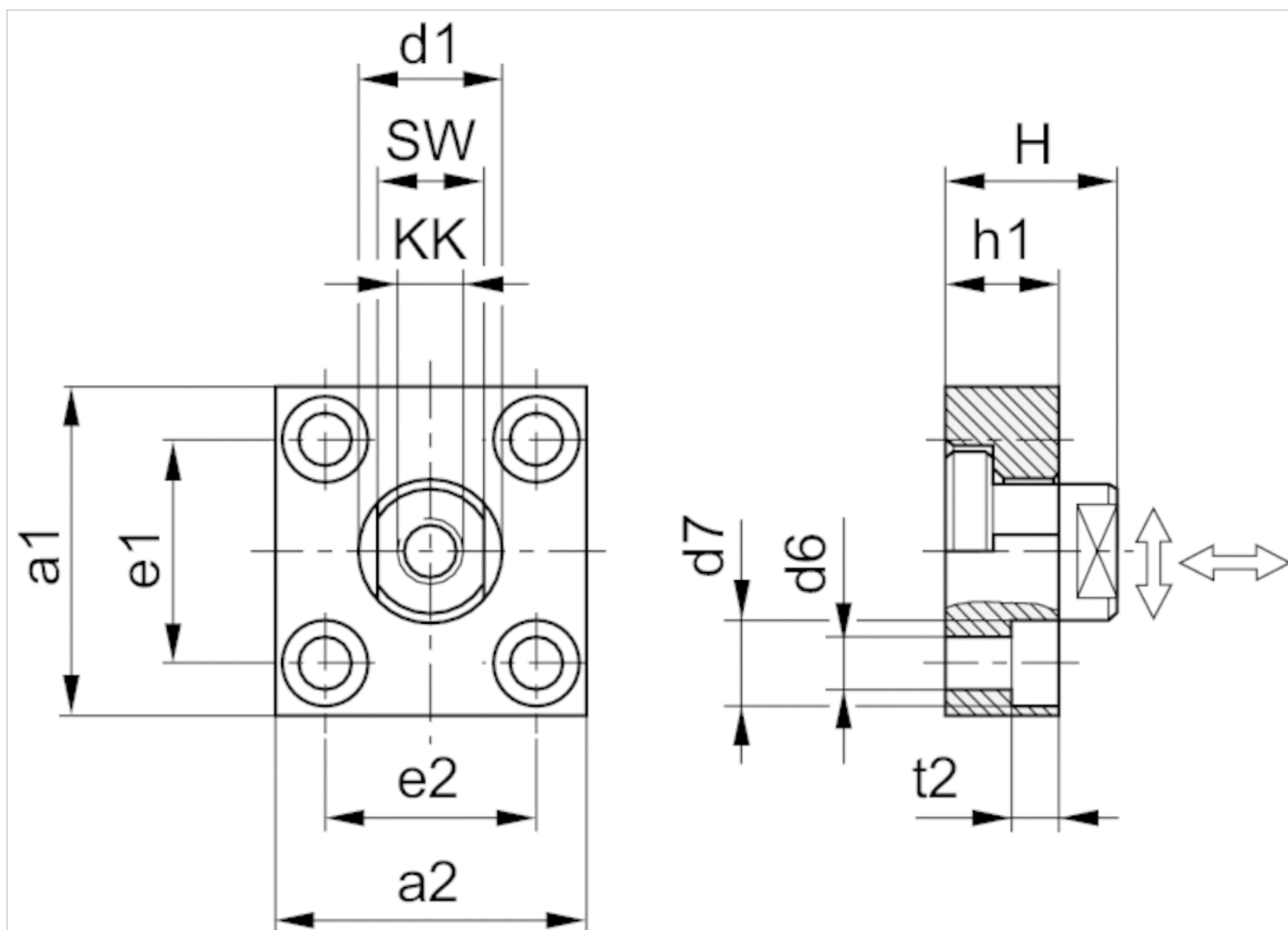
### Technical data

Part No.	Suitable piston rod thread	Weight
1827001629	M10x1,25	0,3 kg
1827001630	M12x1,25	0,4 kg
1827001631	M16x1,5	0,9 kg
1827001632	M20x1,5	1,15 kg

### Technical information

Material	
	Steel
	galvanized

## Dimensions



## Dimensions

Part No.	a1	a2	d1 h11	d6 H13	d7 H13	e1 H13	e2	h1	t2	H	SW	Tightening torque for the coupling pin Ma ± 5%
1827001629	60	37	20	6.6	11	36 ±0,15	23 ±0,15	15	7	24	17	17 Nm
1827001630	60	56	25	9	15	42 ±0,2	38 ±0,2	20	9	30	19	29 Nm
1827001631	80	80	30	11	18	58 ±0,2	58 ±0,2	20	11	32	24	71 Nm
1827001632	90	90	40	14	20	65 ±0,3	65 ±0,3	20	13	35	36	138 Nm

Axial play min./max.	Radial play min./max.
0,4, 0,8 mm	1,9, 2,3 mm
0,4, 0,8 mm	1,9, 2,3 mm
0,4, 0,8 mm	1,9, 2,3 mm
0,4, 0,8 mm	1,9, 2,3 mm

## Male threaded rods

- for series KHZ and SSI with internal thread



Weight

See table below

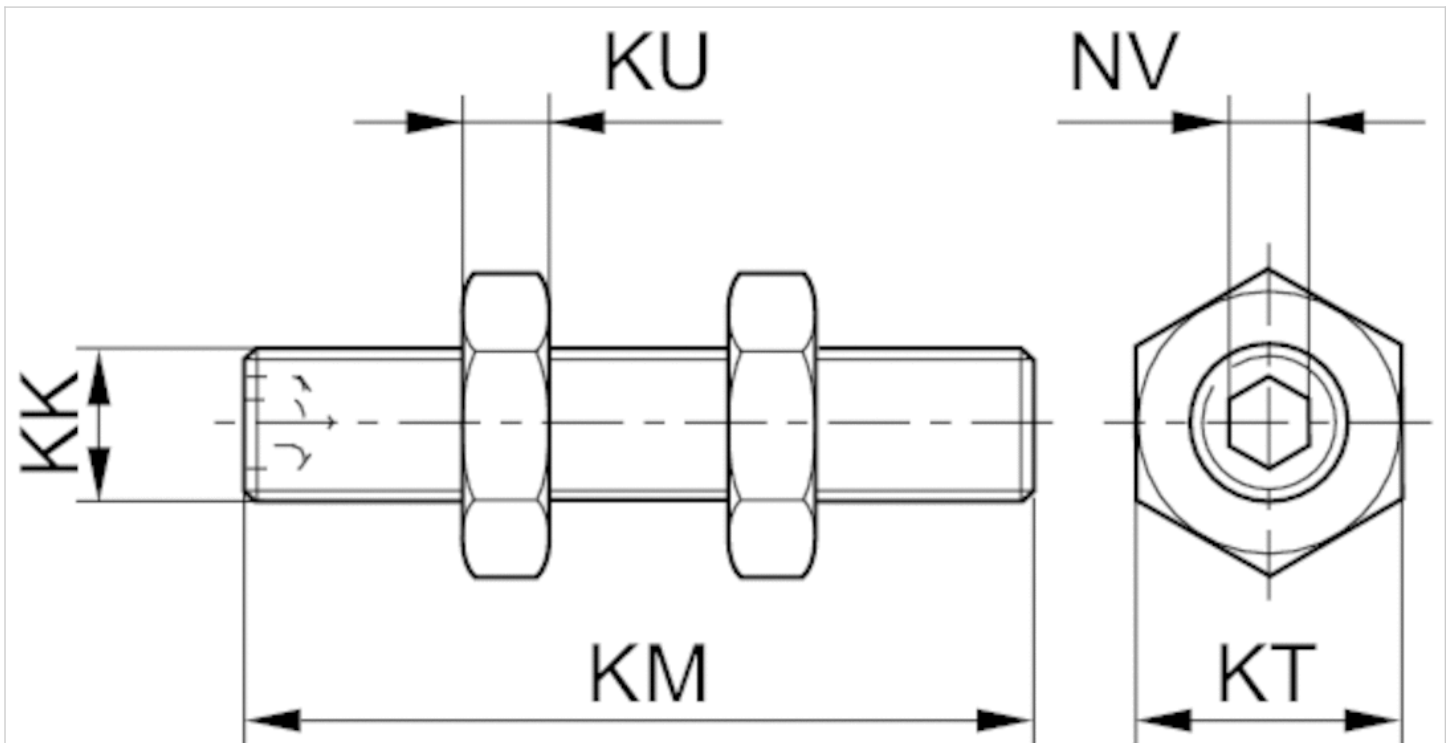
### Technical data

Part No.	Suitable piston rod thread	Weight
2701412000	M3	0,01 kg
2701420000	M5	0,015 kg
2701432000	M6	0,02 kg
2701450000	M8	0,03 kg
2701463000	M10	0,05 kg

### Technical information

Material
Stainless steel

## Dimensions

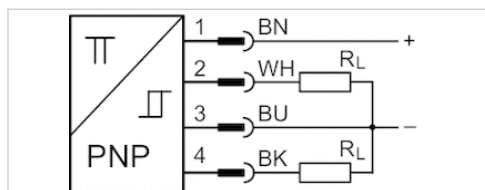


## Dimensions

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

## Sensors, Series ST4-2P

- 4 mm C-slot
- number of switching points 2
- with cable
- without wire end ferrule, tin-plated, 4-pin
- electronic PNP



Certificates	cULus, RoHS
Ambient temperature min./max.	-20 ... 75 °C
Protection class	IP65, IP67
number of switching points	2
Power consumption	15 mA
Min./max. DC operating voltage	12 ... 30 V DC
Repetitive precision,max. measuring range	0,1 mT
Hysteresis	1 mT
Switching logic	NO (make contact)
Display	LED
LED status display	Yellow
Display	2 LED
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Mounting screw	with hexagon socket

### Technical data

Part No.	Type of contact	Cable length	Detection range max.	Voltage drop U at I <sub>max</sub>	DC switching current, max.	Function
R412010139	electronic PNP	2 m	50 mm	≤ 2,2 V	0,15 A	electronic PNP

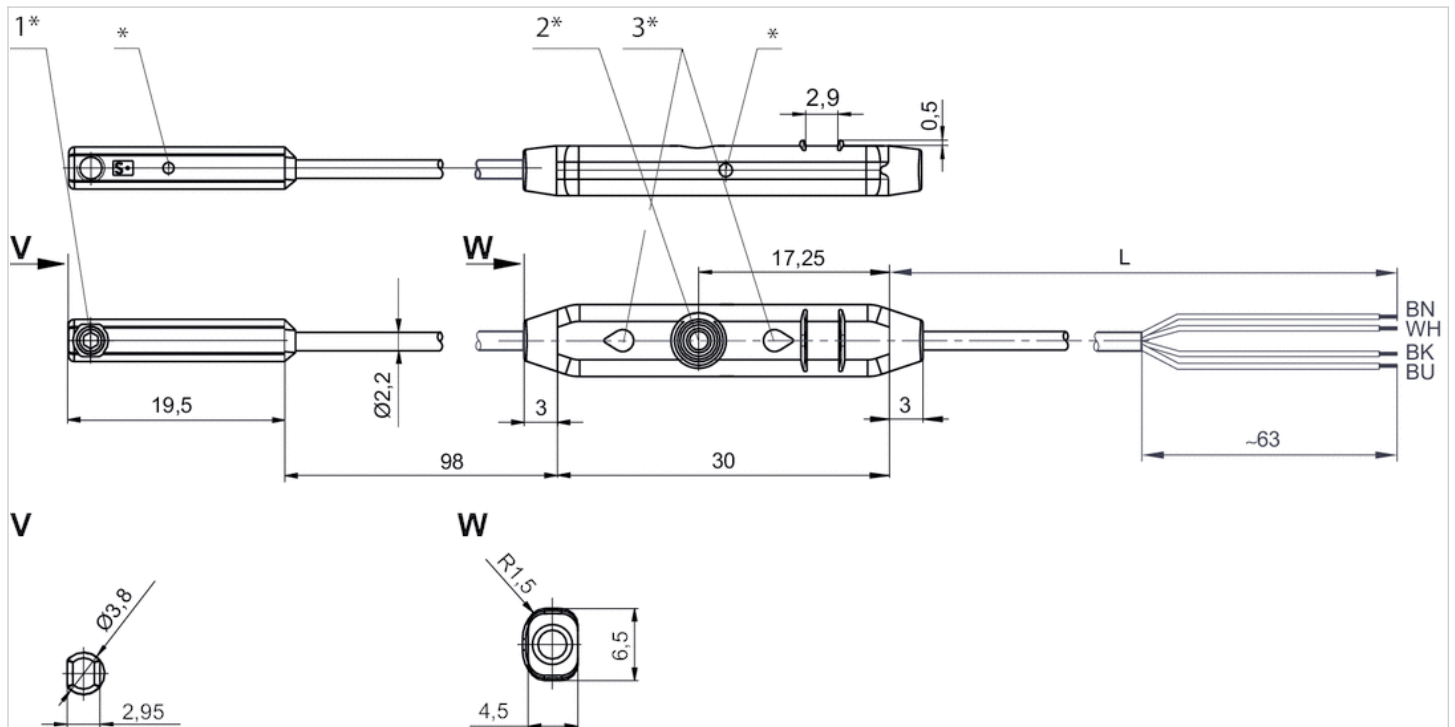
Part No.	Version	Mounting screw
R412010139	short circuit resistant, Protected against polarity reversal	with hexagon socket

### Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane

## Dimensions

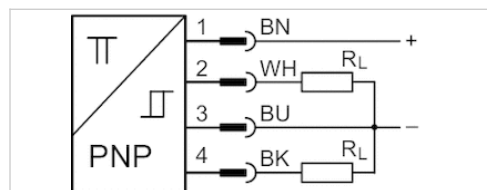
### Dimensions



- 1\* = mounting screw 2\* = teach button 3\* = LEDL = cable length(1) BN=brown  
 (2) WH=white  
 (3) BU=blue  
 (4) BK=black\* Switching point

## Sensors, Series ST4-2P

- 4 mm C-slot
- number of switching points 2
- with cable
- Plug, M8x1, 4-pin, with knurled screw
- electronic PNP



Certificates	cULus, RoHS
Ambient temperature min./max.	-20 ... 75 °C
Protection class	IP65, IP67
number of switching points	2
Power consumption	15 mA
Min./max. DC operating voltage	12 ... 30 V DC
Repetitive precision,max. measuring range	0,1 mT
Hysteresis	1 mT
Switching logic	NO (make contact)
Display	LED
LED status display	Yellow
Display	2 LED
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Mounting screw	with hexagon socket

### Technical data

Part No.	Type of contact	Cable length	Detection range max.	Voltage drop U at I <sub>max</sub>	Function
R412010140	electronic PNP	0,3 m	50 mm	≤ 2,2 V	electronic PNP

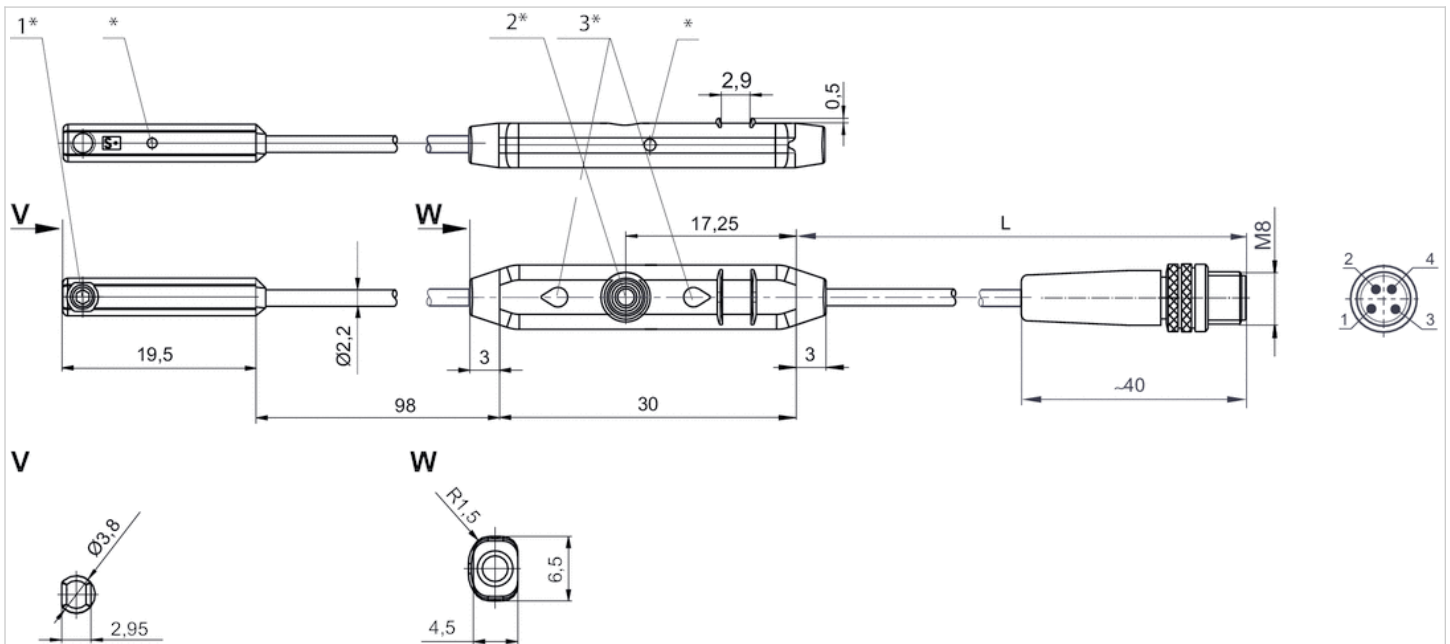
Part No.	Version	Mounting screw
R412010140	short circuit resistant, Protected against polarity reversal	with hexagon socket

### Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane

## Dimensions

## Dimensions



1\* = mounting screw 2\* = teach button 3\* = LED L = cable length Pin assignment: 1 = (+), 2 = (OUT), 3 = (-), 4 = (OUT)\* Switching point



## Sensor, Series ST6

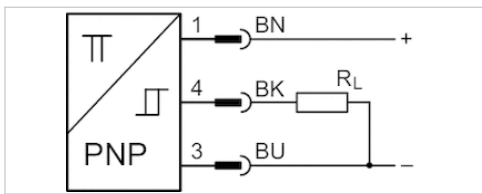
- 6 mm T-slot
- with cable
- open cable ends, 3-pin
- ATEX certified



### Certificates

Ambient temperature min./max.	-20 ... 50 °C
Protection class	IP67
Switching point precision mT	±0,1
Quiescent current (without load)	10 mA
Min./max. DC operating voltage	10 ... 30 V DC
Switching logic	NO (make contact)
LED status display	Yellow, Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

CE declaration of conformity, cULus, RoHS



## Technical data

Part No.	Type of contact	Cable length	Voltage drop U at I <sub>max</sub>	DC switching current, max.	Max. switching frequency
R412022854	electronic PNP	3 m	≤ 2,5 V	0,1 A	1,0
R412022856	electronic PNP	5 m	≤ 2,5 V	0,1 A	1,0

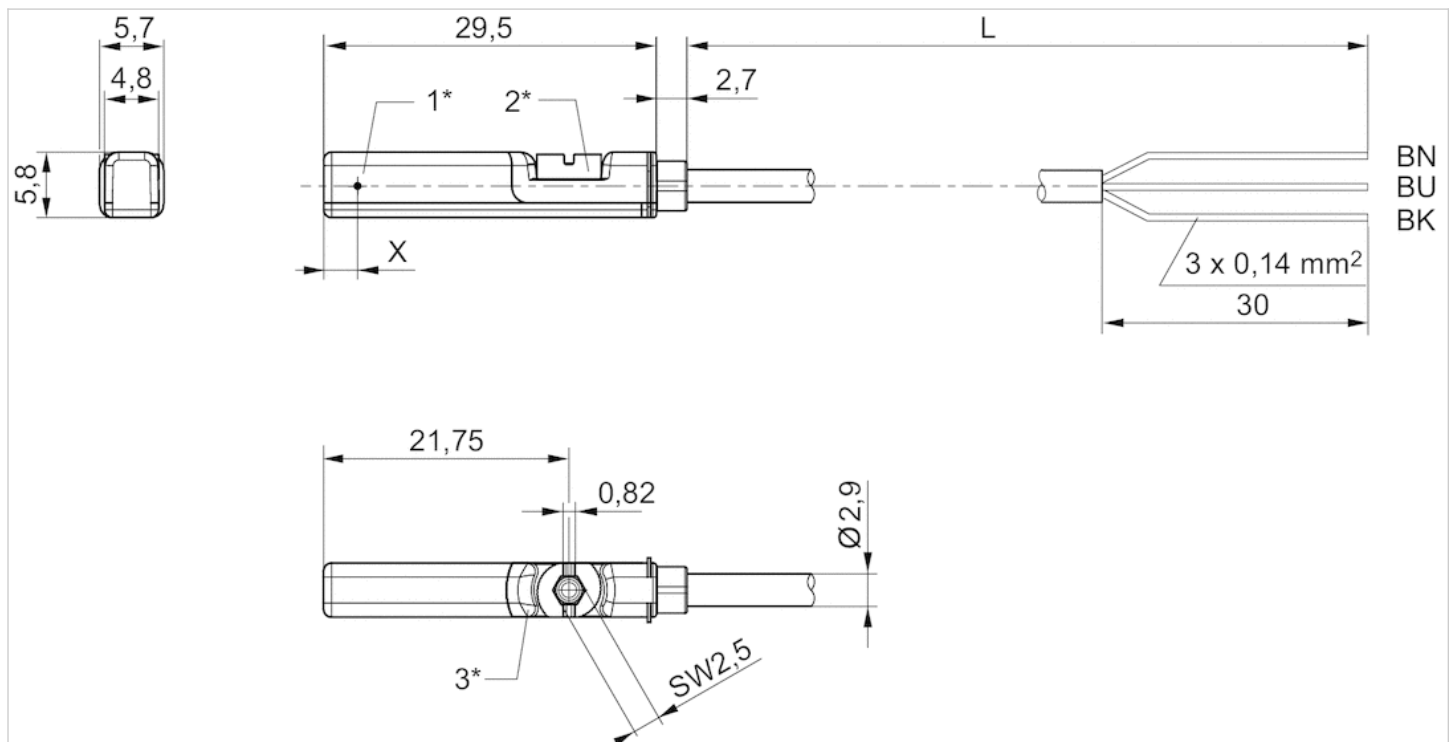
Part No.	Version
R412022854	short circuit resistant, Protected against polarity reversal
R412022856	short circuit resistant, Protected against polarity reversal

## Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

## Dimensions

Fig. 2



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

## Sensor, Series ST6

- 6 mm T-slot
- with cable
- open cable ends, 2-pin, open cable ends, 3-pin



### Certificates

Ambient temperature min./max.

Protection class

Switching point precision mT

Nominal current, actuated state

Quiescent current (without load)

Min./max. DC operating voltage

Min./max. AC operating voltage

Switching logic

LED status display

Vibration resistance

Shock resistance

CE declaration of conformity, cULus,  
RoHS

-30 ... 80 °C

IP65, IP67, IP69K

±0,1

30 mA

8 mA

See table below

See table below










NO (make contact)

Yellow

10 - 55 Hz, 1 mm

30 g / 11 ms

## Technical data

Part No.		Type of contact	Cable length	Min./max. DC operating voltage	Min./max. AC operating voltage	Voltage drop U at I <sub>max</sub>
R412022866		Reed	3 m	10 ... 230 V DC	10 ... 230 V AC	I*Rs
R412022869		Reed	3 m	10 ... 30 V DC	10 ... 30 V AC	I*Rs
R412022870		Reed	5 m	10 ... 30 V DC	10 ... 30 V AC	I*Rs
R412022871		Reed	10 m	10 ... 30 V DC	10 ... 30 V AC	I*Rs
R412022853		electronic PNP	3 m	10 ... 30 V DC	-	≤ 2,5 V
R412022855		electronic PNP	5 m	10 ... 30 V DC	-	≤ 2,5 V
R412022857		electronic PNP	10 m	10 ... 30 V DC	-	≤ 2,5 V
R412022849		electronic NPN	3 m	10 ... 30 V DC	-	≤ 2,5 V
R412022850		electronic NPN	5 m	10 ... 30 V DC	-	≤ 2,5 V

Part No.	DC switching current, max.	AC switching current, max.	Switching capacity
R412022866	0,13 A	0,13 A	Reed, 2-pin: max. 10 W, Reed, 3-pin: max. 6 W
R412022869	0,3 A	0,5 A	Reed, 2-pin: max. 10 W, Reed, 3-pin: max. 6 W
R412022870	0,3 A	0,5 A	Reed, 2-pin: max. 10 W, Reed, 3-pin: max. 6 W
R412022871	0,3 A	0,5 A	Reed, 2-pin: max. 10 W, Reed, 3-pin: max. 6 W
R412022853	0,13 A	-	-
R412022855	0,13 A	-	-
R412022857	0,13 A	-	-
R412022849	0,13 A	-	-
R412022850	0,13 A	-	-

Part No.	Max. switching frequency	Operating current, not switched	Operating current, switched
R412022866	0,4	-	-
R412022869	0,4	-	-
R412022870	0,4	-	-

Part No.	Max. switching frequency	Operating current, not switched	Operating current, switched
R412022871	0,4	-	-
R412022853	1,0	8 mA	30 mA
R412022855	1,0	8 mA	30 mA
R412022857	1,0	8 mA	30 mA
R412022849	1,0	8 mA	30 mA
R412022850	1,0	8 mA	30 mA

Part No.	Version	Fig.
R412022866	Protected against polarity reversal	Fig. 1
R412022869	Protected against polarity reversal	Fig. 2
R412022870	Protected against polarity reversal	Fig. 2
R412022871	Protected against polarity reversal	Fig. 2
R412022853	short circuit resistant, Protected against polarity reversal	Fig. 2
R412022855	short circuit resistant, Protected against polarity reversal	Fig. 2
R412022857	short circuit resistant, Protected against polarity reversal	Fig. 2
R412022849	short circuit resistant, Protected against polarity reversal	Fig. 2
R412022850	short circuit resistant, Protected against polarity reversal	Fig. 2

## Technical information

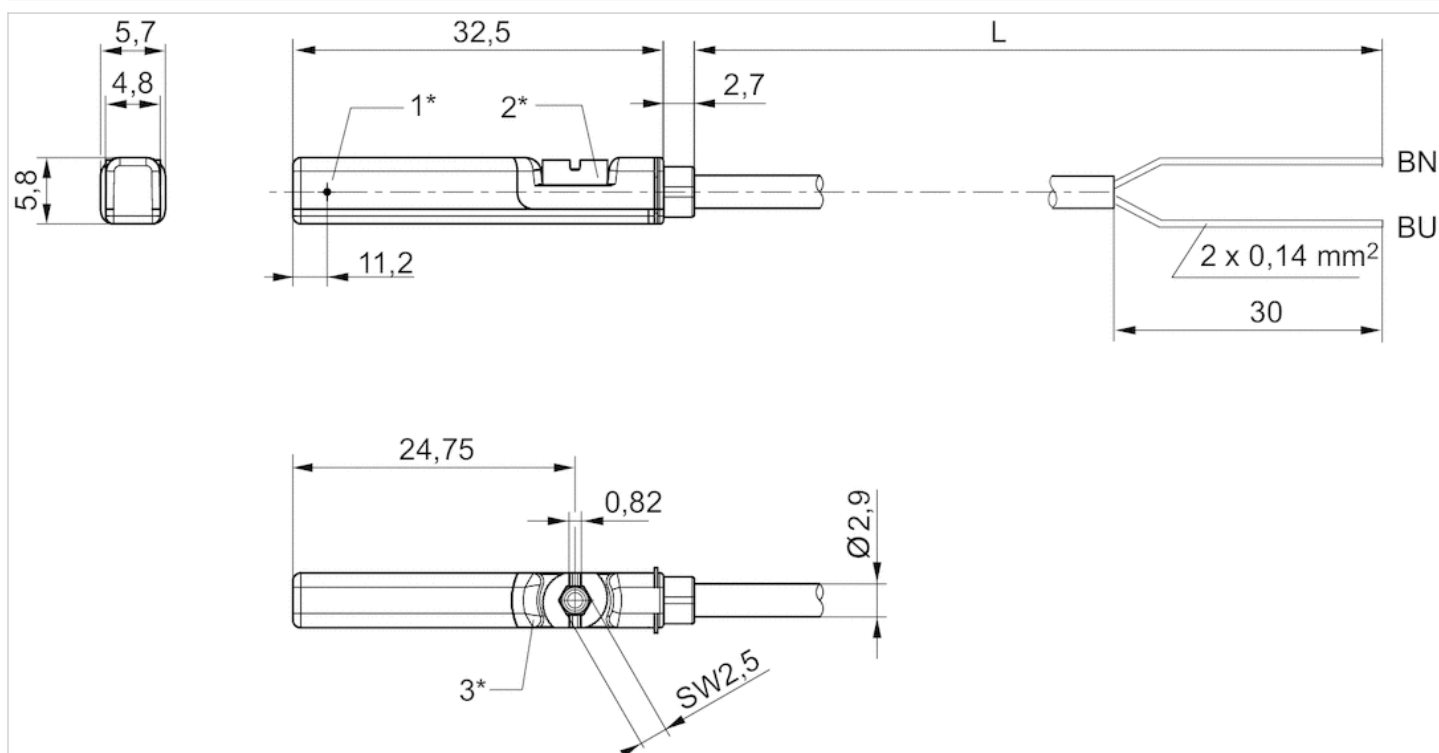
No cULus certification for 230 V variant.

## Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

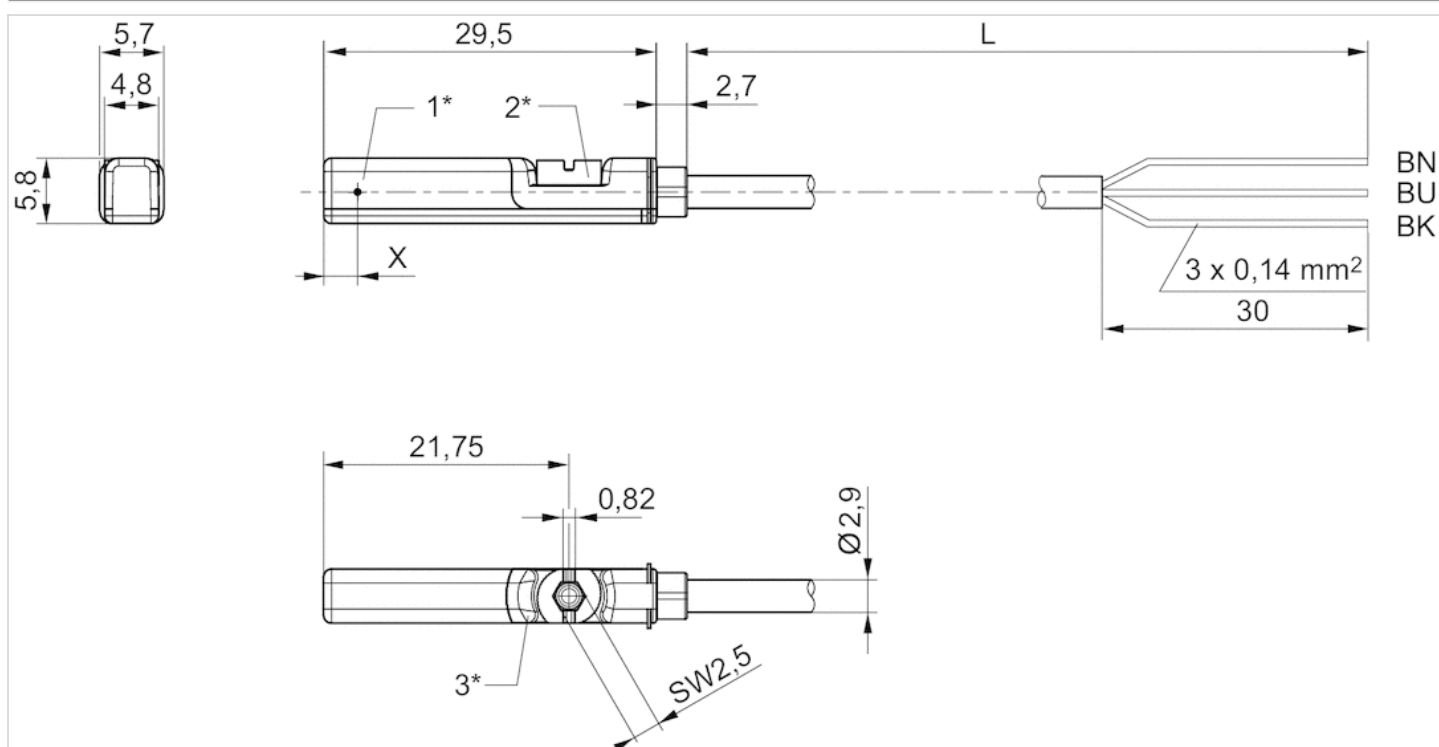
## Dimensions

Fig. 1



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

Fig. 2



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

## Sensor, Series ST6

- 6 mm T-slot
- with cable
- Plug, M8, 3-pin



### Certificates

Ambient temperature min./max.

Protection class

Switching point precision mT

Nominal current, actuated state

Quiescent current (without load)

Min./max. DC operating voltage

Min./max. AC operating voltage

Switching logic

Switching capacity

LED status display

Vibration resistance

Shock resistance

CE declaration of conformity, cULus, RoHS

-30 ... 80 °C

IP65, IP67

±0,1

30 mA

8 mA

10 ... 30 V DC

See table below

NO (make contact)





Reed, 2-pin: max. 10 W, Reed, 3-pin: max. 6 W

Yellow, Yellow

10 - 55 Hz, 1 mm

30 g / 11 ms

## Technical data

Part No.		Type of contact	Cable length	Min./max. AC operating voltage	Voltage drop U at I <sub>max</sub>	DC switching current, max.
R412022868		Reed	0,3 m	10 ... 30 V AC	I*Rs	0,13 A
R412022872		Reed	0,3 m	10 ... 30 V AC	I*Rs	0,3 A
R412022858		electronic PNP	0,3 m	-	≤ 2,5 V	0,13 A
R412022851		electronic NPN	0,3 m	-	≤ 2,5 V	0,13 A

Part No.	AC switching current, max.	Max. switching frequency	Operating current, not switched	Operating current, switched
R412022868	0,13 A	0,4	-	-
R412022872	0,5 A	0,4	-	-
R412022858	-	1,0	8 mA	30 mA
R412022851	-	1,0	8 mA	30 mA

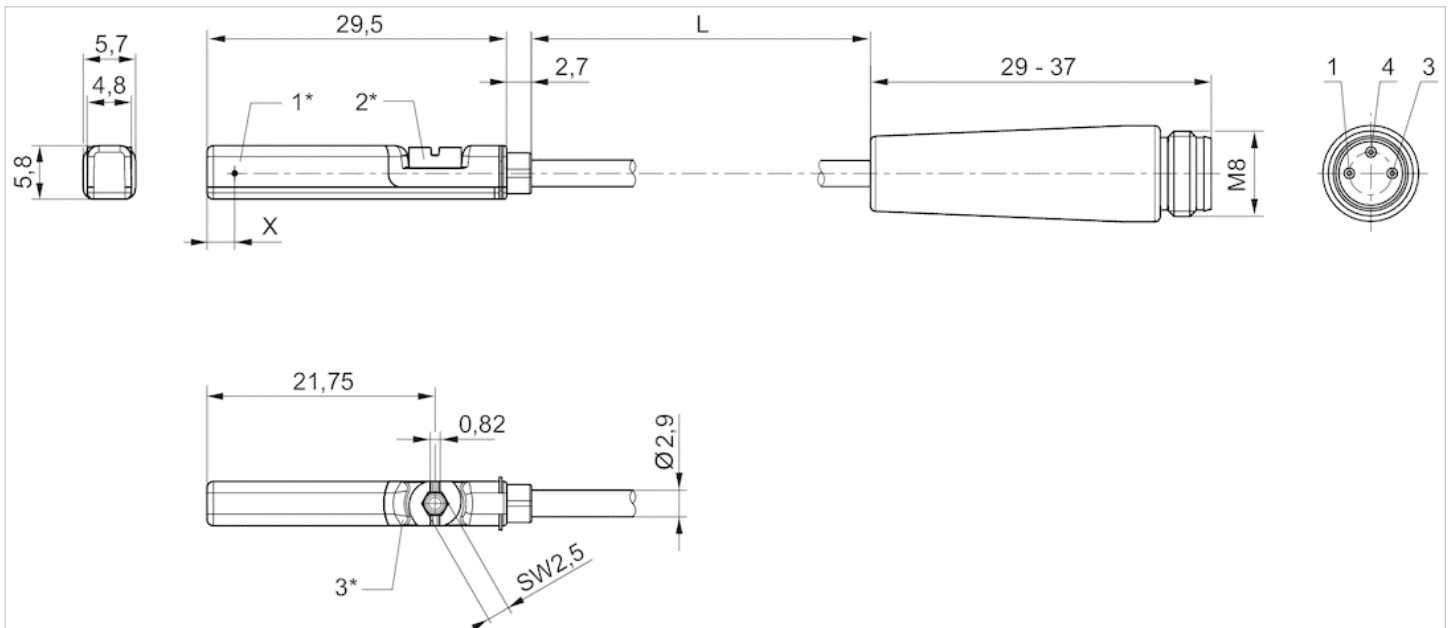
Part No.	Version
R412022868	Protected against polarity reversal
R412022872	Protected against polarity reversal
R412022858	short circuit resistant, Protected against polarity reversal
R412022851	short circuit resistant, Protected against polarity reversal

## Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

## Dimensions

### Dimensions



1\* = switching point 2\* = locking screw 3\* = LED window, transparent L = cable length X = electronic: 11,6 mm, Reed: 8,3 mm  
Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

## Sensor, Series ST6

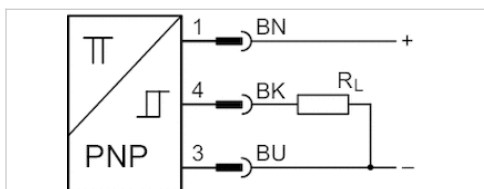
- 6 mm T-slot
- with cable
- Plug, M12, 3-pin, with knurled screw
- ATEX certified



### Certificates

Ambient temperature min./max.  
Protection class  
Switching point precision mT  
Quiescent current (without load)  
Min./max. DC operating voltage  
Switching logic  
LED status display  
Vibration resistance  
Shock resistance

CE declaration of conformity, cULus,  
RoHS  
-20 ... 50 °C  
IP67  
±0,1  
10 mA  
10 ... 30 V DC  
NO (make contact)  
Yellow, Yellow  
10 - 55 Hz, 1 mm  
30 g / 11 ms



## Technical data

Part No.	Type of contact	Cable length	Voltage drop U at I <sub>max</sub>	DC switching current, max.	Max. switching frequency
R412022864	electronic PNP	0,3 m	≤ 2,5 V	0,1 A	1,0

Part No.	Version
R412022864	short circuit resistant, Protected against polarity reversal

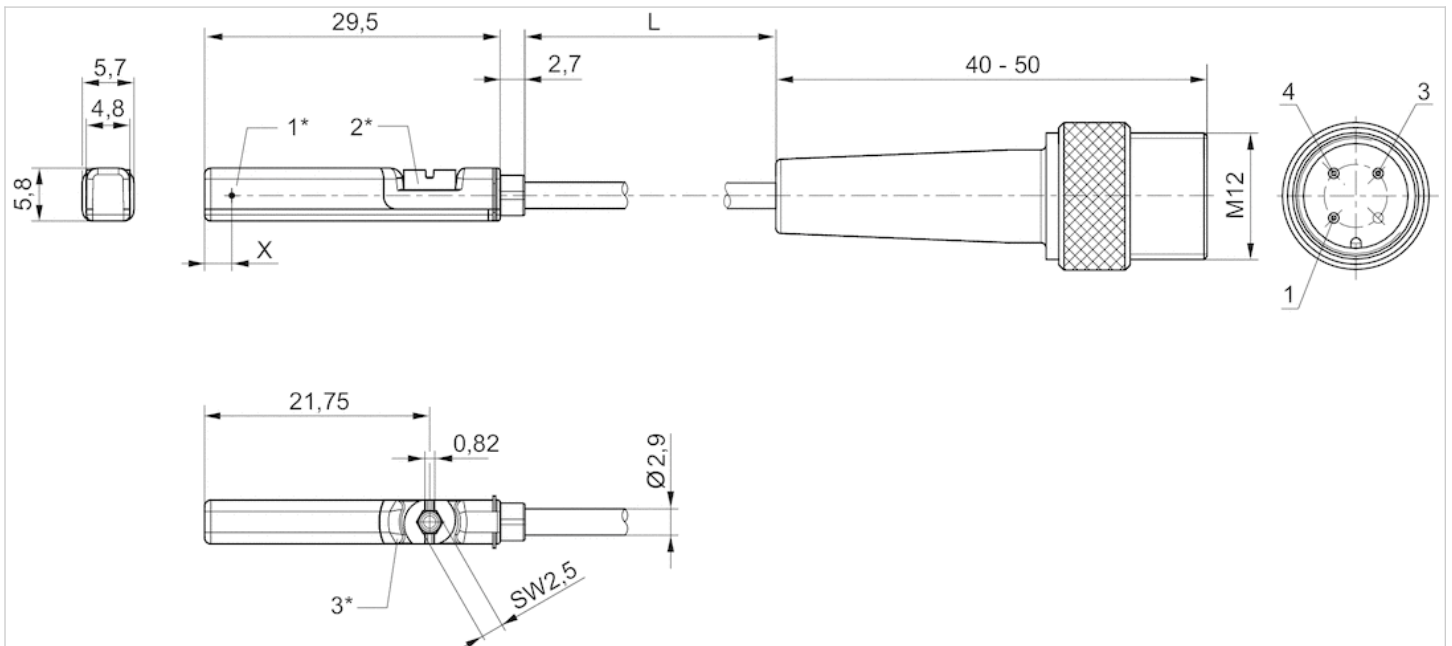
## Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel



## Dimensions

### Dimensions



1\* = switching point 2\* = locking screw 3\* = LED window, transparent  
 L = cable length X = PNP: 11,6 mm  
 Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)






## Sensor, Series ST6

- 6 mm T-slot
- with cable
- Plug, M12, 3-pin, with knurled screw



Certificates	CE declaration of conformity, cULus, RoHS
Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67
Switching point precision mT	±0,1
Nominal current, actuated state	30 mA
Quiescent current (without load)	8 mA
Min./max. DC operating voltage	10 ... 30 V DC
Min./max. AC operating voltage	See table below
Switching logic	NO (make contact)
Switching capacity	Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

### Technical data

Part No.		Type of contact	Cable length	Min./max. AC operating voltage	Voltage drop U at I <sub>max</sub>	DC switching current, max.
R412022876		Reed	0,3 m	10 ... 30 V AC	I*Rs	0,3 A
R412022879		electronic PNP	0,1 m	-	≤ 2,5 V	0,13 A
R412022863		electronic PNP	0,3 m	-	≤ 2,5 V	0,13 A
R412022877		electronic PNP	3 m	-	≤ 2,5 V	0,13 A
R412022878		electronic PNP	5 m	-	≤ 2,5 V	0,13 A

Part No.	AC switching current, max.	Max. switching frequency	Operating current, not switched	Operating current, switched
R412022876	0,5 A	0,4	-	-
R412022879	-	1,0	8 mA	30 mA
R412022863	-	1,0	8 mA	30 mA
R412022877	-	1,0	8 mA	30 mA
R412022878	-	1,0	8 mA	30 mA

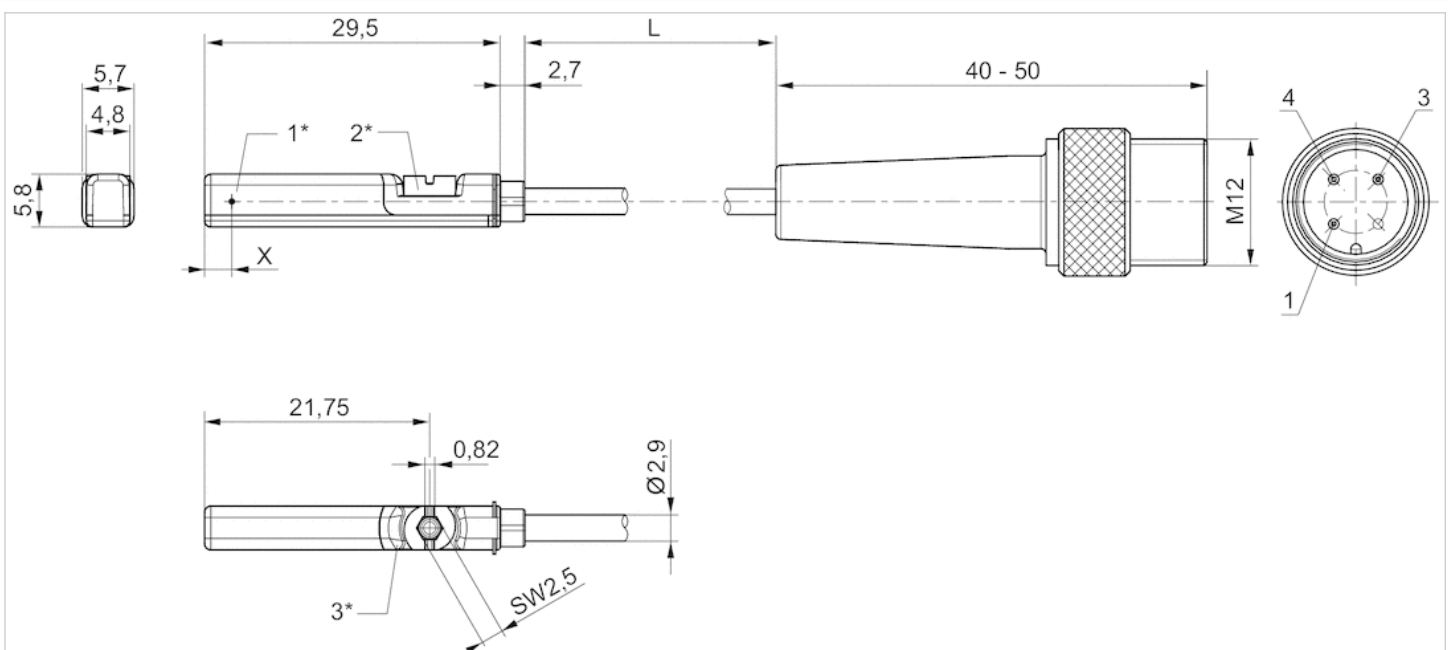
Part No.	Version
R412022876	Protected against polarity reversal
R412022879	short circuit resistant, Protected against polarity reversal
R412022863	short circuit resistant, Protected against polarity reversal
R412022877	short circuit resistant, Protected against polarity reversal
R412022878	short circuit resistant, Protected against polarity reversal

## Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

## Dimensions

### Dimensions



1\* = switching point 2\* = locking screw 3\* = LED window, transparent L = cable length X = PNP: 11,6 mm Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

## Sensor, Series ST6

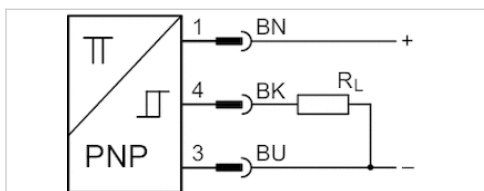
- 6 mm T-slot
- with cable
- Plug, M8, 3-pin, with knurled screw
- ATEX certified



### Certificates

Ambient temperature min./max.	-20 ... 50 °C
Protection class	IP65, IP67
Switching point precision mT	±0,1
Quiescent current (without load)	10 mA
Min./max. DC operating voltage	10 ... 30 V DC
Switching logic	NO (make contact)
LED status display	Yellow, Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

CE declaration of conformity, cULus, RoHS



## Technical data

Part No.	Type of contact	Cable length	Voltage drop U at I <sub>max</sub>	DC switching current, max.	Max. switching frequency
R412022860	electronic PNP	0,3 m	≤ 2,5 V	0,1 A	1,0

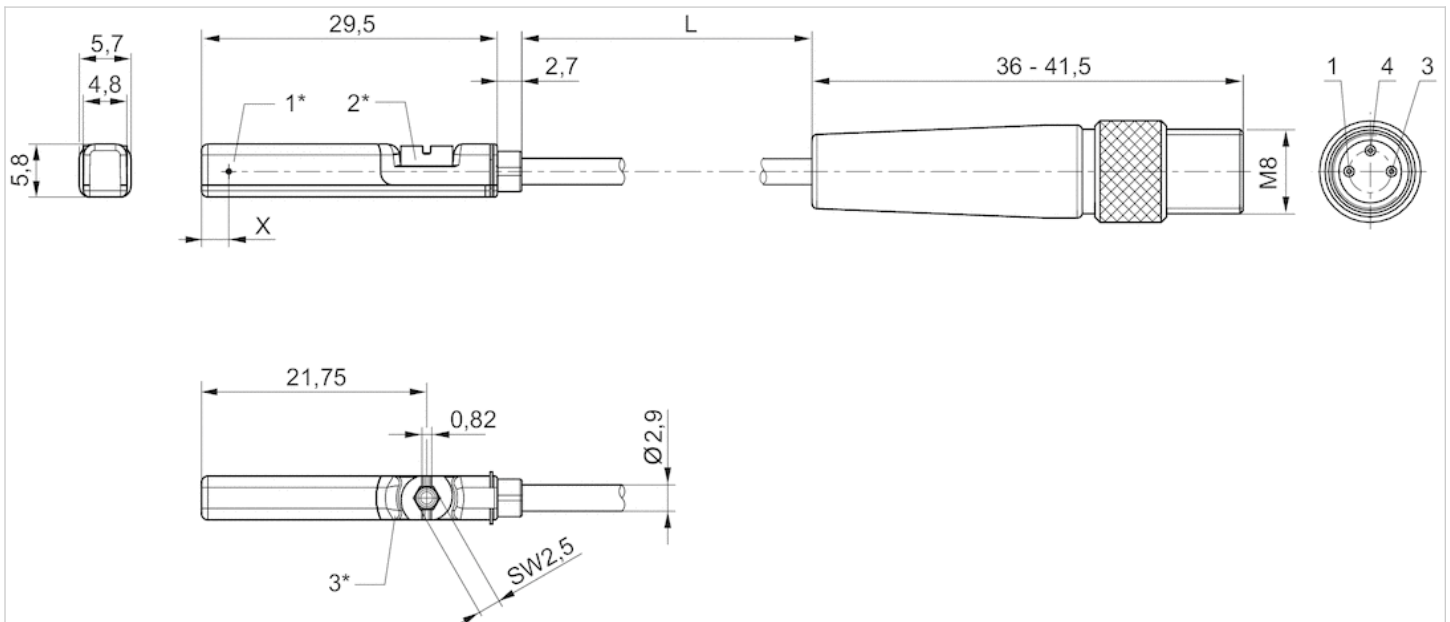
Part No.	Version
R412022860	short circuit resistant, Protected against polarity reversal

## Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

## Dimensions

### Dimensions



1\* = switching point 2\* = locking screw 3\* = LED window, transparent  
 L = cable length X = electronic: 11,6 mm, Reed: 8,3 mm  
 Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)








## Sensor, Series ST6

- 6 mm T-slot
- with cable
- Plug, M8, 3-pin, with knurled screw



Certificates	CE declaration of conformity, cULus, RoHS
Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67
Switching point precision mT	±0,1
Nominal current, actuated state	30 mA
Quiescent current (without load)	8 mA
Min./max. DC operating voltage	10 ... 30 V DC
Min./max. AC operating voltage	See table below
Switching logic	NO (make contact)
Switching capacity	Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

### Technical data

Part No.		Type of contact	Cable sheath	Cable length	Min./max. AC operating voltage	Voltage drop U at I <sub>max</sub>
R412022873		Reed	Polyurethane	0,3 m	10 ... 30 V AC	I*Rs
R412022875		Reed	Polyvinyl chloride	0,3 m	10 ... 30 V AC	I*Rs
R412022874		Reed	Polyurethane	0,5 m	10 ... 30 V AC	I*Rs
R412022859		electronic PNP	Polyurethane	0,3 m	-	≤ 2,5 V
R412022862		electronic PNP	Polyvinyl chloride	0,3 m	-	≤ 2,5 V
R412022861		electronic PNP	Polyurethane	0,5 m	-	≤ 2,5 V
R412022852		electronic NPN	Polyurethane	0,3 m	-	≤ 2,5 V

Part No.	DC switching current, max.	AC switching current, max.	Max. switching frequency	Operating current, not switched	Operating current, switched
R412022873	0,3 A	0,5 A	0,4	-	-
R412022875	0,3 A	0,5 A	0,4	-	-
R412022874	0,3 A	0,5 A	0,4	-	-
R412022859	0,13 A	-	1,0	8 mA	30 mA
R412022862	0,13 A	-	1,0	8 mA	30 mA
R412022861	0,13 A	-	1,0	8 mA	30 mA
R412022852	0,13 A	-	1,0	8 mA	30 mA

Part No.	Version
R412022873	Protected against polarity reversal
R412022875	Protected against polarity reversal
R412022874	Protected against polarity reversal
R412022859	short circuit resistant, Protected against polarity reversal
R412022862	short circuit resistant, Protected against polarity reversal
R412022861	short circuit resistant, Protected against polarity reversal

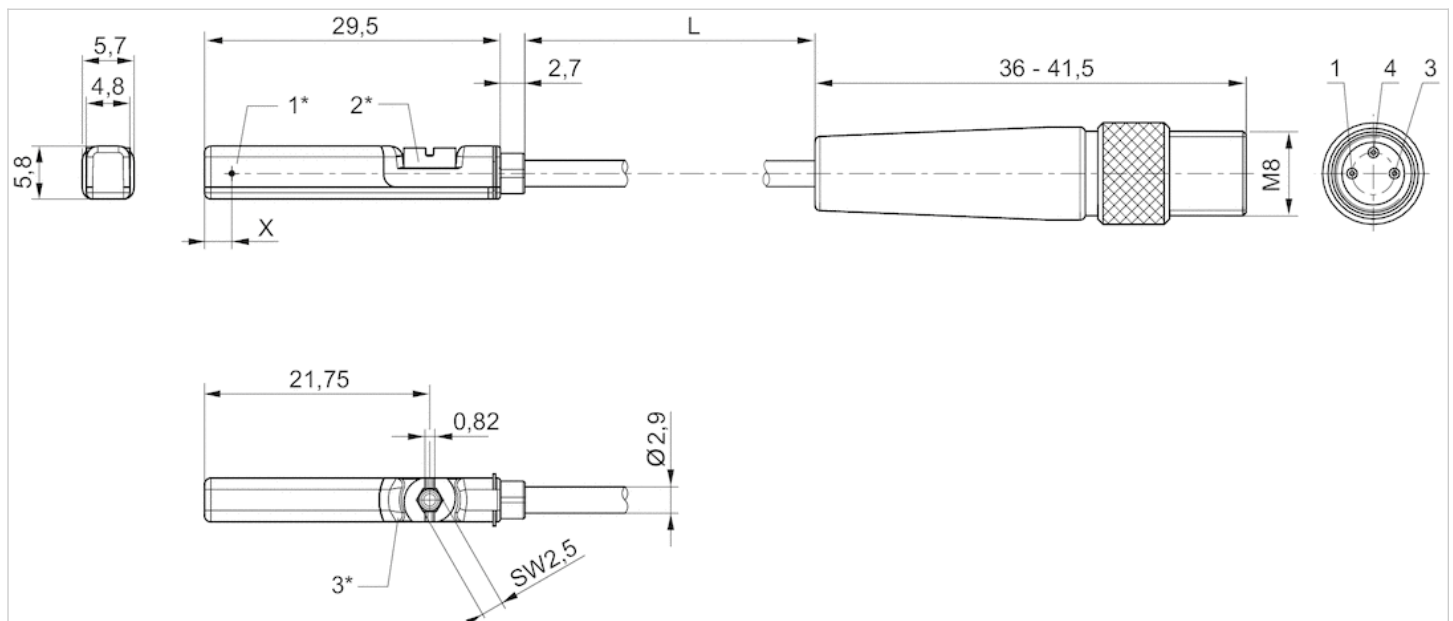
Part No.	Version
R412022852	short circuit resistant, Protected against polarity reversal

## Technical information

Material	
Housing	Polyamide
Cable sheath	Polyurethane, Polyvinyl chloride
Locking screw	Stainless steel

## Dimensions

### Dimensions



1\* = switching point 2\* = locking screw 3\* = LED window, transparent L = cable length X = electronic: 11,6 mm, Reed: 8,3 mm Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)





## Sensor, Series ST4

- 4 mm C-slot
- with cable
- Plug, M8, 3-pin, with knurled screw



Certificates	UL (Underwriters Laboratories), cULus, RoHS
Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67
Switching point precision mT	±0,1
Switching logic	NO (make contact)
Display	LED
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Mounting screw	Combination: slotted and hexagon socket

### Technical data

Part No.		Type of contact	Cable length	Voltage drop U at I <sub>max</sub>	DC switching current, max.	AC switching current, max.
R412019490		Reed	0,3 m	I*Rs	0,13 A	0,13 A
R412019686		Reed	0,5 m	I*Rs	0,13 A	0,13 A
R412019493		electronic PNP	0,3 m	≤ 2,5 V	0,1 A	-
R412019687		electronic PNP	0,5 m	≤ 2,5 V	0,1 A	-

Part No.	Switching capacity	Version	Mounting screw
R412019490	3 W / 3 VA	short circuit resistant, Protected against polarity reversal	Combination: slotted and hexagon socket
R412019686	3 W / 3 VA	short circuit resistant, Protected against polarity reversal	Combination: slotted and hexagon socket
R412019493	-	short circuit resistant, Protected against polarity reversal	Combination: slotted and hexagon socket
R412019687	-	short circuit resistant, Protected against polarity reversal	Combination: slotted and hexagon socket

### Technical information

The max. switching capacity must not be exceeded.

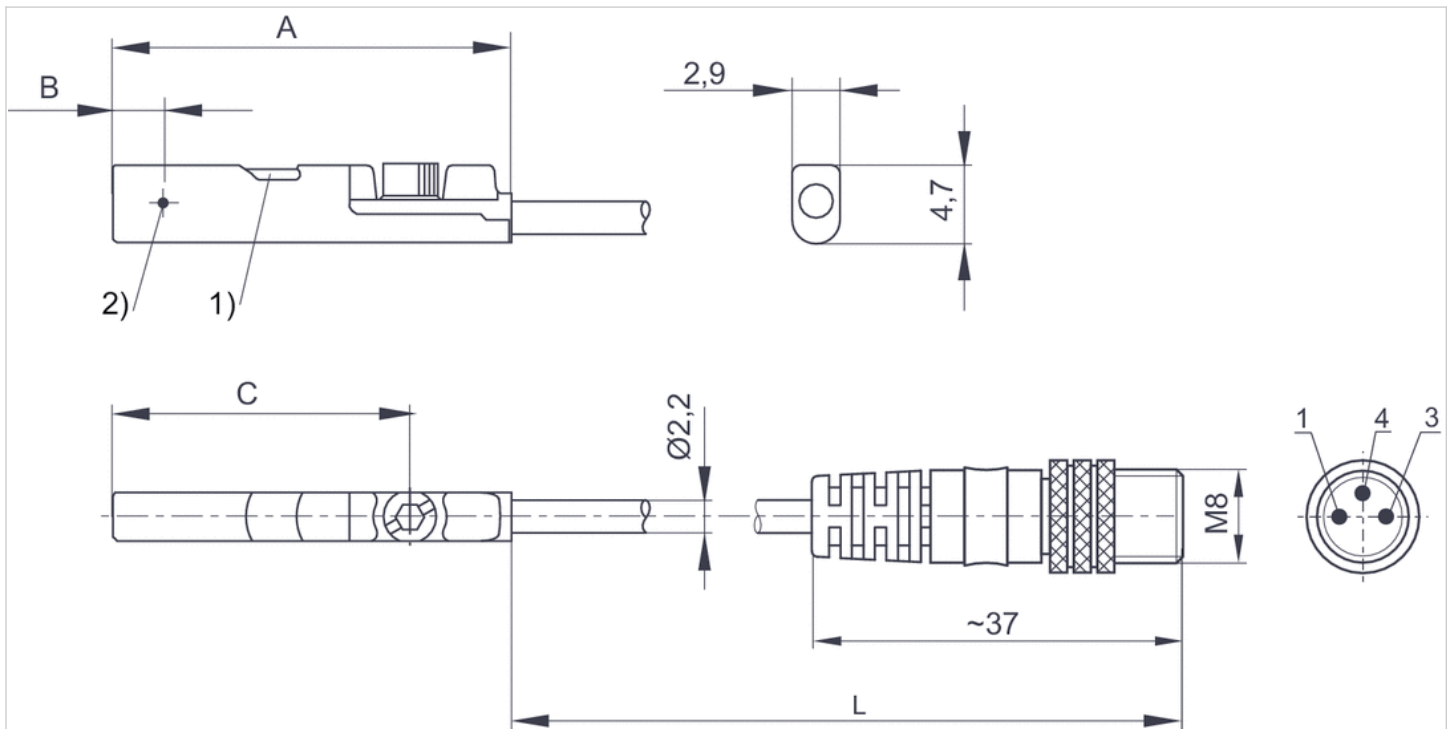
### Technical information

Material	
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane



## Dimensions

### Dimensions



1) LED 2) Switching point L = cable length Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

## Dimensions

Part No.	A	B	C
R412019490	26.3	6.3	20.3
R412019686	26.3	6.3	20.3
R412019493	23.7	2.8	17.7
R412019687	23.7	2.8	17.7



## Sensor, Series ST4

- 4 mm C-slot
- with cable
- Plug, M12, 3-pin, with knurled screw



Certificates	UL (Underwriters Laboratories), cULus, RoHS
Ambient temperature min./max.	-30 ... 80 °C
Protection class	IP65, IP67
Switching point precision mT	±0,1
Switching logic	NO (make contact)
Display	LED
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Mounting screw	Combination: slotted and hexagon socket

### Technical data

Part No.		Type of contact	Cable length	Voltage drop U at I <sub>max</sub>	DC switching current, max.	AC switching current, max.
R412019688		Reed	0,3 m	I*Rs	0,13 A	0,13 A
R412019689		electronic PNP	0,3 m	≤ 2,5 V	0,1 A	-

Part No.	Switching capacity	Version	Mounting screw
R412019688	3 W / 3 VA	short circuit resistant, Protected against polarity reversal	Combination: slotted and hexagon socket
R412019689	-	short circuit resistant, Protected against polarity reversal	Combination: slotted and hexagon socket

### Technical information

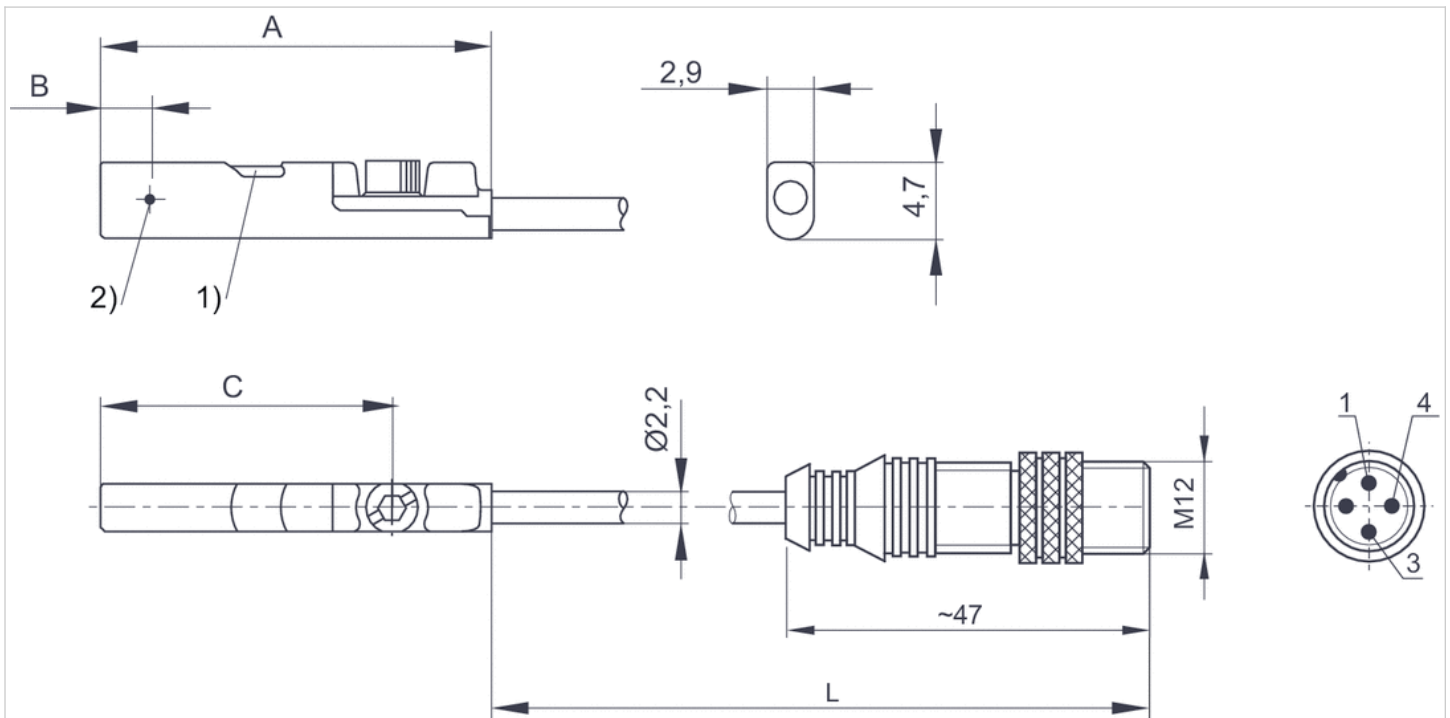
The max. switching capacity must not be exceeded.

### Technical information

Material	
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane

## Dimensions

### Dimensions



1) LED 2) Switching point L = cable length Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

## Dimensions

Part No.	A	B	C
R412019688	26.3	6.3	20.3
R412019689	23.7	2.8	17.7

## Sensor, Series ST4

- 4 mm C-slot
- with cable
- Plug, M8, 3-pin



### Certificates

UL (Underwriters Laboratories), cULus, RoHS

Ambient temperature min./max.

-30 ... 80 °C

Protection class

IP65, IP67

Switching point precision mT

±0,1

Min./max. DC operating voltage

See table below

Switching logic

NO (make contact)

Display

LED

LED status display

Yellow

Vibration resistance

10 - 55 Hz, 1 mm




Shock resistance

30 g / 11 ms

Mounting screw

Combination: slotted and hexagon socket

## Technical data

Part No.		Type of contact	Cable length	Min./max. DC operating voltage	Voltage drop U at I <sub>max</sub>	DC switching current, max.
R412019682		Reed	0,3 m	5 ... 30 V DC	I*Rs	0,13 A
R412019683		electronic PNP	0,3 m	10 ... 30 V DC	≤ 2,5 V	0,1 A
R412019694		electronic NPN	0,3 m	10 ... 30 V DC	≤ 2,5 V	0,1 A

Part No.	AC switching current, max.	Switching capacity	Version
R412019682	0,13 A	3 W / 3 VA	short circuit resistant, Protected against polarity reversal
R412019683	-	-	short circuit resistant, Protected against polarity reversal
R412019694	-	-	short circuit resistant, Protected against polarity reversal

Part No.	Mounting screw
R412019682	Combination: slotted and hexagon socket
R412019683	Combination: slotted and hexagon socket
R412019694	Combination: slotted and hexagon socket

## Technical information

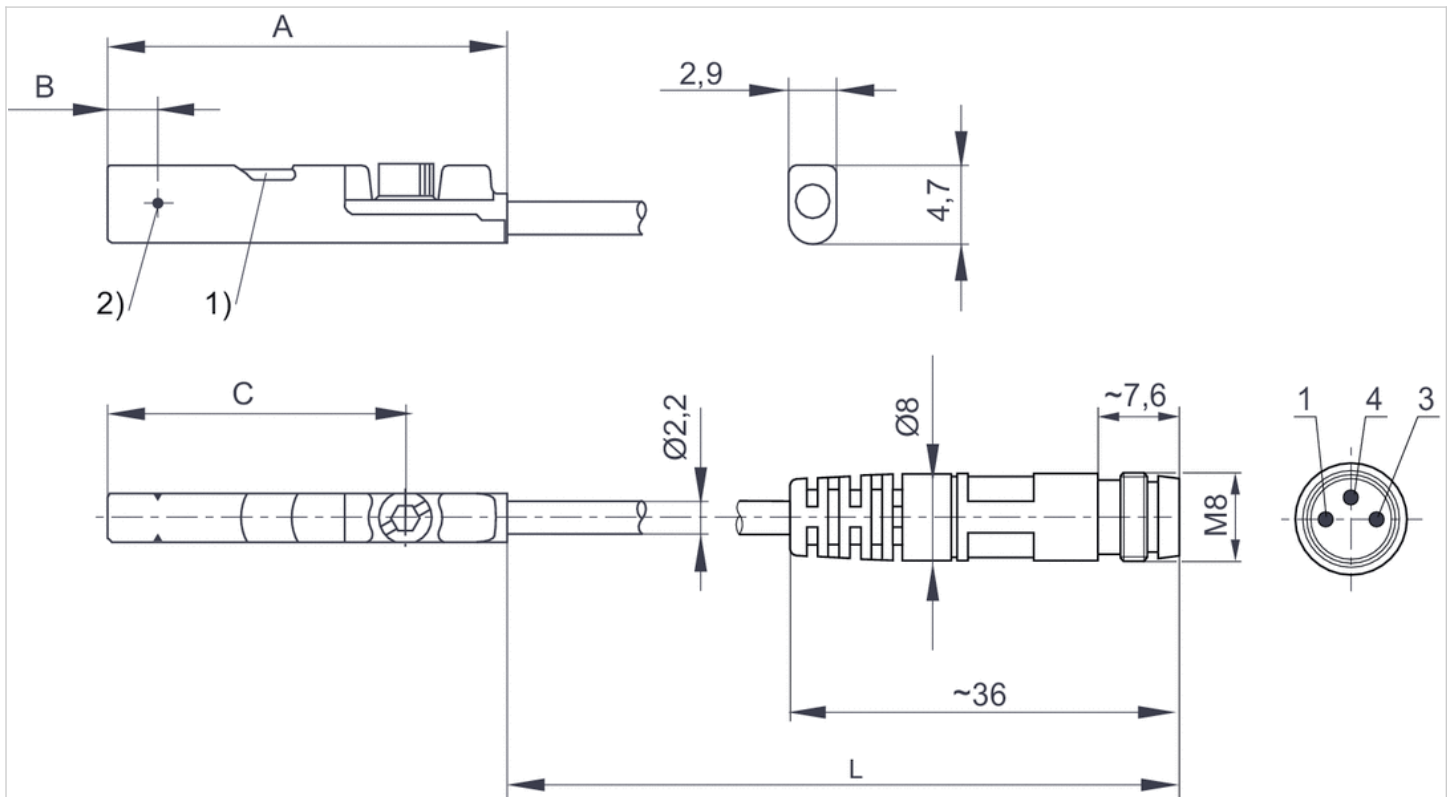
The max. switching capacity must not be exceeded.

## Technical information

Material	
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane

## Dimensions

## Dimensions



1) LED 2) Switching point L = cable length Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

## Sensor, Series ST4

- 4 mm C-slot
- with cable
- open cable ends, 3-pin



### Certificates

UL (Underwriters Laboratories), cULus, RoHS

Ambient temperature min./max.

-30 ... 80 °C

Protection class

IP65, IP67

Switching point precision mT

±0,1

Min./max. DC operating voltage

See table below

Switching logic

NO (make contact)

Display

LED

LED status display

Yellow

Vibration resistance

10 - 55 Hz, 1 mm







Shock resistance

30 g / 11 ms

Mounting screw

Combination: slotted and hexagon socket

## Technical data

Part No.		Type of contact	Cable length	Min./max. DC operating voltage	Voltage drop U at I <sub>max</sub>	DC switching current, max.
R412019488		Reed	3 m	5 ... 30 V DC	I*Rs	0,13 A
R412019489		Reed	5 m	5 ... 30 V DC	I*Rs	0,13 A
R412019680		electronic PNP	3 m	10 ... 30 V DC	≤ 2,5 V	0,1 A
R412019681		electronic PNP	5 m	10 ... 30 V DC	≤ 2,5 V	0,1 A
R412019684		electronic NPN	3 m	10 ... 30 V DC	≤ 2,5 V	0,1 A
R412019685		electronic NPN	5 m	10 ... 30 V DC	≤ 2,5 V	0,1 A

Part No.	AC switching current, max.	Switching capacity	Version
R412019488	0,13 A	3 W / 3 VA	short circuit resistant, Protected against polarity reversal
R412019489	0,13 A	3 W / 3 VA	short circuit resistant, Protected against polarity reversal
R412019680	-	-	short circuit resistant, Protected against polarity reversal
R412019681	-	-	short circuit resistant, Protected against polarity reversal
R412019684	-	-	short circuit resistant, Protected against polarity reversal
R412019685	-	-	short circuit resistant, Protected against polarity reversal

Part No.	Mounting screw
R412019488	Combination: slotted and hexagon socket
R412019489	Combination: slotted and hexagon socket
R412019680	Combination: slotted and hexagon socket
R412019681	Combination: slotted and hexagon socket
R412019684	Combination: slotted and hexagon socket
R412019685	Combination: slotted and hexagon socket

## Technical information

The max. switching capacity must not be exceeded.

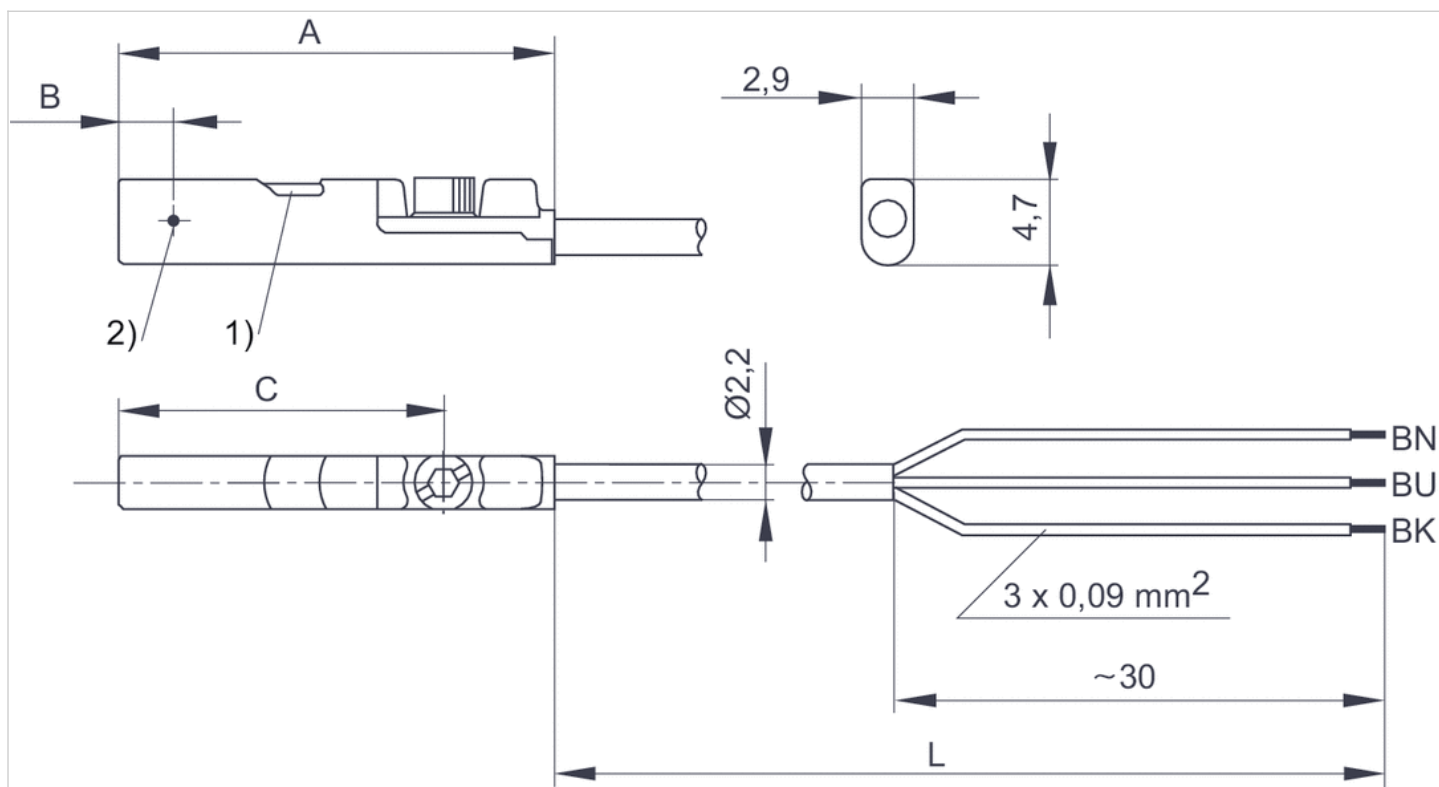
## Technical information

### Material

Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane

## Dimensions

### Dimensions



1) LED 2) Switching point L = cable length

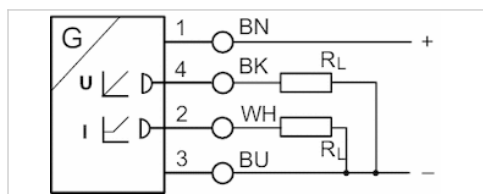
BN = brown, BK = black, BU = blue

## Dimensions

Part No.	A	B	C
R412019488	26.3	6.3	20.3
R412019489	26.3	6.3	20.3
R412019680	23.7	2.8	17.7
R412019681	23.7	2.8	17.7
R412019684	23.7	2.8	17.7
R412019685	23.7	2.8	17.7

## Sensors, Series SM6

- 6 mm groove
- with cable
- without wire end ferrule, tin-plated, 4-pin
- with distance measuring sensor, measurement range 32 - 256 mm



Certificates	cULus
Ambient temperature min./max.	-20 ... 70 °C
Protection class	IP67
Output signal	0 - 10 V DC, 4 - 20 mA
Quiescent current (without load)	25 mA
Maximum load (analog current output)	500 Ω
Residual ripple	≤ 10 %
sampling interval	1 ms
Resolution,max. measuring range	0,05 mm
Repetitive precision,max. measuring range	0.1 mm
Linearity deviation	0,3 mm
Sampling speed	3 m/s
Display	LED
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

### Technical data

Part No.	Type of contact	Cable length	max. measuring range	Overall length Sensor A
R412010141	Analog	2 m	32 mm	45 mm
R412010143	Analog	2 m	64 mm	77 mm
R412010262	Analog	2 m	96 mm	109 mm
R412010264	Analog	2 m	128 mm	141 mm

Part No.	Version
R412010141	short circuit resistant, Protected against polarity reversal, Overload protection
R412010143	short circuit resistant, Protected against polarity reversal, Overload protection
R412010262	short circuit resistant, Protected against polarity reversal, Overload protection
R412010264	short circuit resistant, Protected against polarity reversal, Overload protection

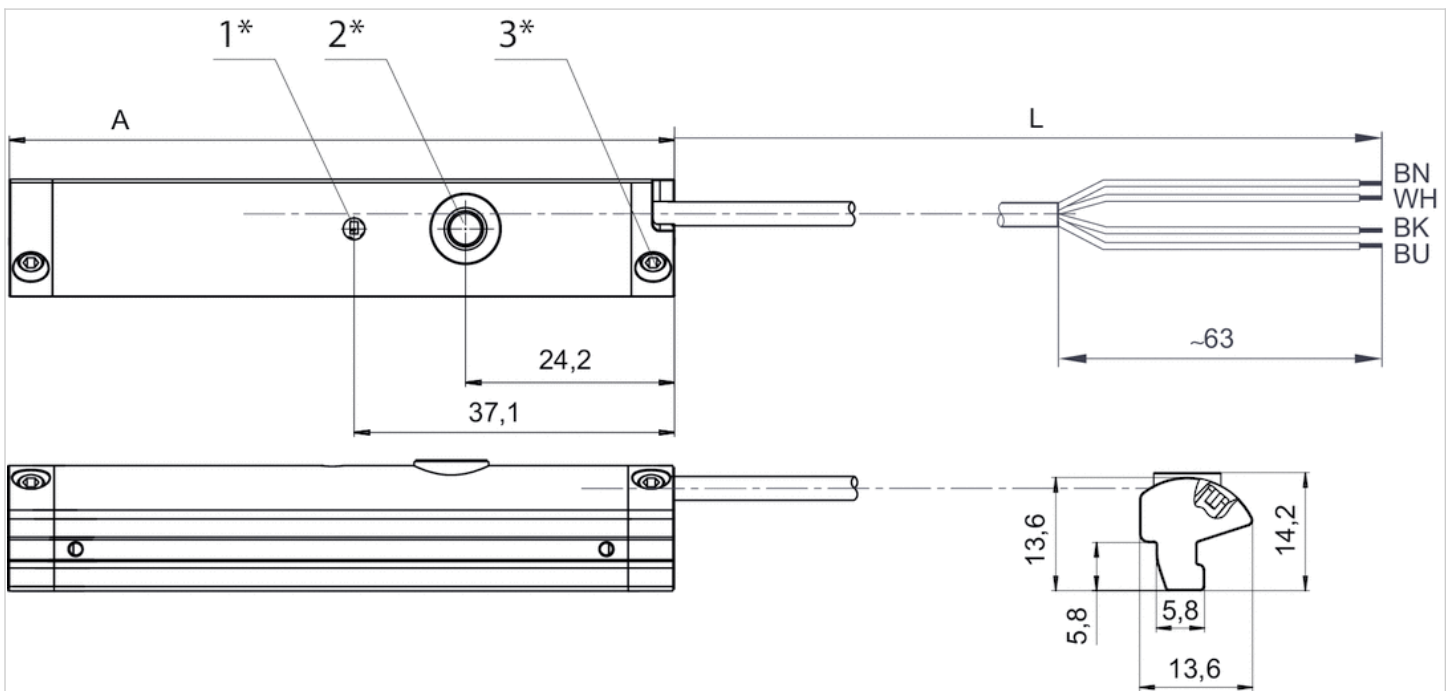
### Technical information

Material	
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane



## Dimensions

### Dimensions



1\* = LED 2\* = teach button 3\* = threaded pin M3x11L = cable length(1) BN=brown

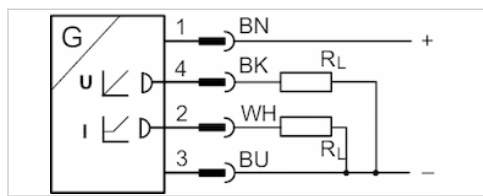
(2) WH=white

(3) BU=blue

(4) BK=black A = sensor length

## Sensors, Series SM6

- 6 mm groove
- with cable
- Plug, M8x1, 4-pin, with knurled screw
- with distance measuring sensor, measurement range 32 - 256 mm



Certificates	cULus
Ambient temperature min./max.	-20 ... 70 °C
Protection class	IP67
Output signal	0 - 10 V DC, 4 - 20 mA
Quiescent current (without load)	25 mA
Min./max. DC operating voltage	15 ... 30 V DC
sampling interval	1 ms
Resolution,max. measuring range	0,05 mm
Repetitive precision,max. measuring range	0.1 mm
Linearity deviation	0,3 mm
Sampling speed	3 m/s
Display	LED
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms

### Technical data

Part No.	Type of contact	Cable length	max. measuring range	Overall length Sensor A
R412010142	Analog	0,3 m	32 mm	45 mm
R412010144	Analog	0,3 m	64 mm	77 mm
R412010263	Analog	0,3 m	96 mm	109 mm
R412010265	Analog	0,3 m	128 mm	141 mm

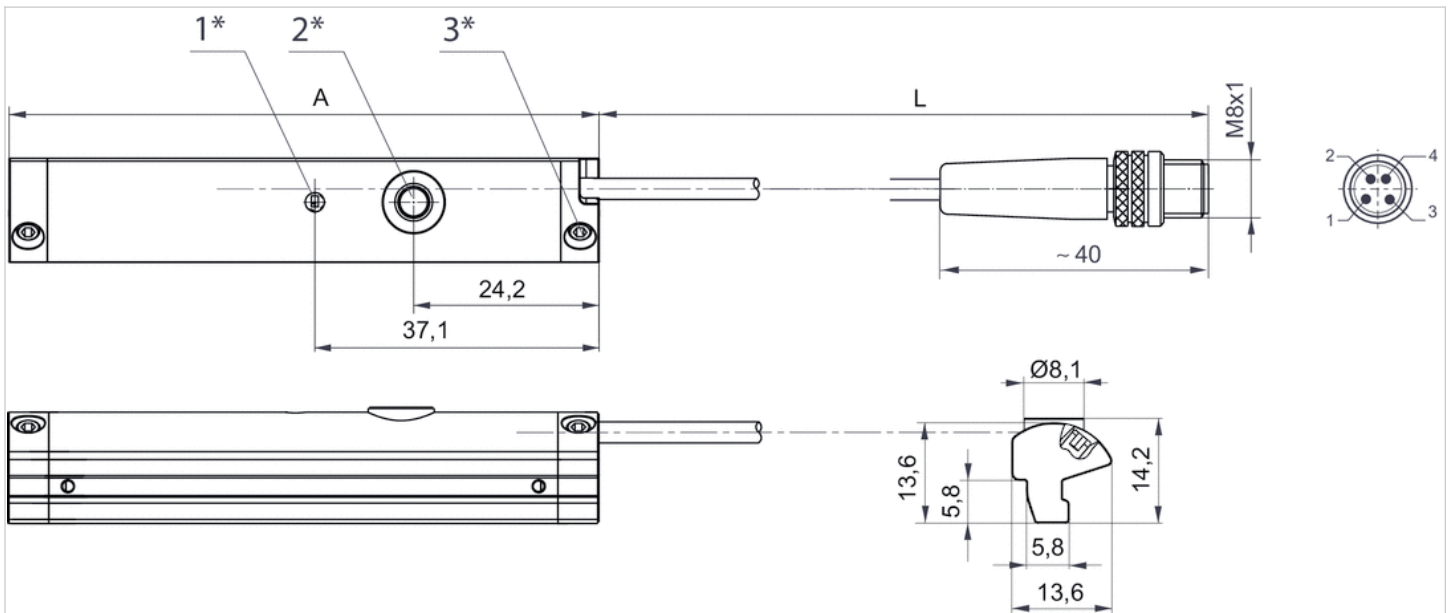
Part No.	Version
R412010142	short circuit resistant, Protected against polarity reversal, Overload protection
R412010144	short circuit resistant, Protected against polarity reversal, Overload protection
R412010263	short circuit resistant, Protected against polarity reversal, Overload protection
R412010265	short circuit resistant, Protected against polarity reversal, Overload protection

### Technical information

Material	
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane

## Dimensions

## Dimensions



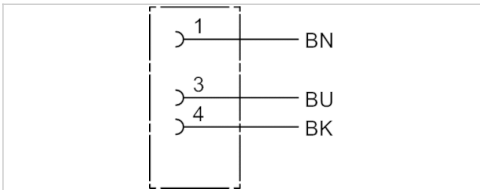
1\* = LED 2\* = teach button 3\* = threaded pin M3x11 L = cable length Pin assignment: 1 = (+), 2 = (OUT 1) 3 = (GND), 4 = (OUT 2), EN 60947-5-7A = sensor length

## Socket, M8x1, Series CN2

- Socket, M8x1, 3-pin



Ambient temperature min./max.	-25 ... 80 °C
Protection class	IP67
Weight	0,008 kg



### Technical data

Part No.	Operating voltage	Max. current	Cable exit	suitable cable-Ø min./max	number of plug options 1	Housing color
	V AC max.					
1834484173	48 V AC	4 A	straight	3,5 / 5 mm	1 position	Black

### Technical information

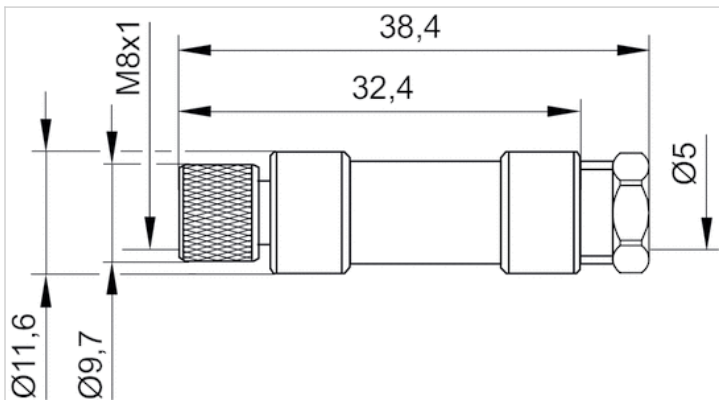
The specified protection class is only valid in assembled and tested state.

### Technical information

Material	
Housing	Polyamide

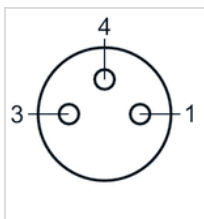
## Dimensions

### Dimensions



## Diagrams

### Pin assignment socket

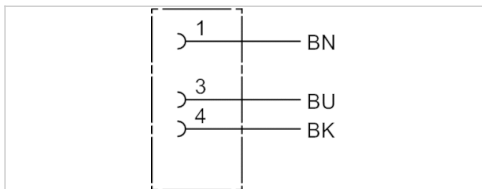


## Socket, M8x1, Series CN2

- Socket, M8x1, 3-pin, angled



Ambient temperature min./max.	-25 ... 85 °C
Protection class	IP65
Weight	0,008 kg



### Technical data

Part No.	Operating voltage	Max. current	Contact assignment	Cable exit	suitable cable-Ø min./max	number of plug options 1	Housing color
	V AC max.						
1834484174	48 V AC	4 A	3	angled 90°	3,5 / 5 mm	1 position	Black

### Technical information

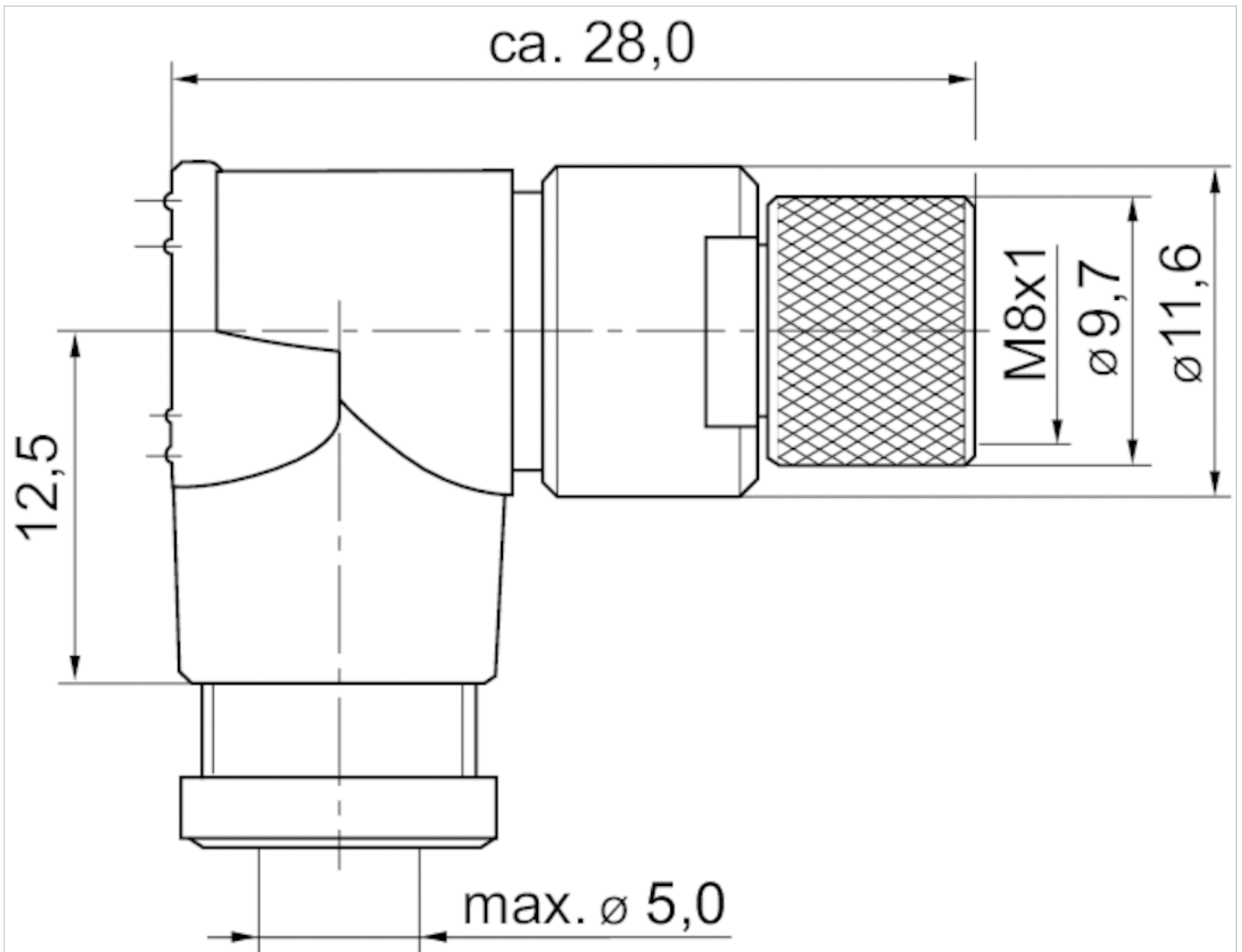
The specified protection class is only valid in assembled and tested state.

### Technical information

Material	
Housing	Polyamide

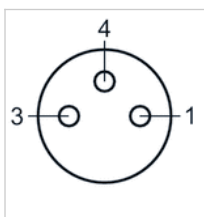
Dimensions

Dimensions



Diagrams

Pin assignment socket



## Connecting cable, Series CN2

- Socket, M8, 3-pin, straight
- open cable ends, 3-pin



Ambient temperature min./max.	-40 ... 85 °C
Protection class	IP65
Wire cross-section	0,24 mm <sup>2</sup>
Weight	See table below

### Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
1834484166	4 A	3	4,5 mm	3 m	0,091 kg
1834484168	4 A	3	4,5 mm	5 m	0,145 kg
1834484247	4 A	3	4,5 mm	10 m	0,33 kg

### Technical information

The specified protection class is only valid in assembled and tested state.

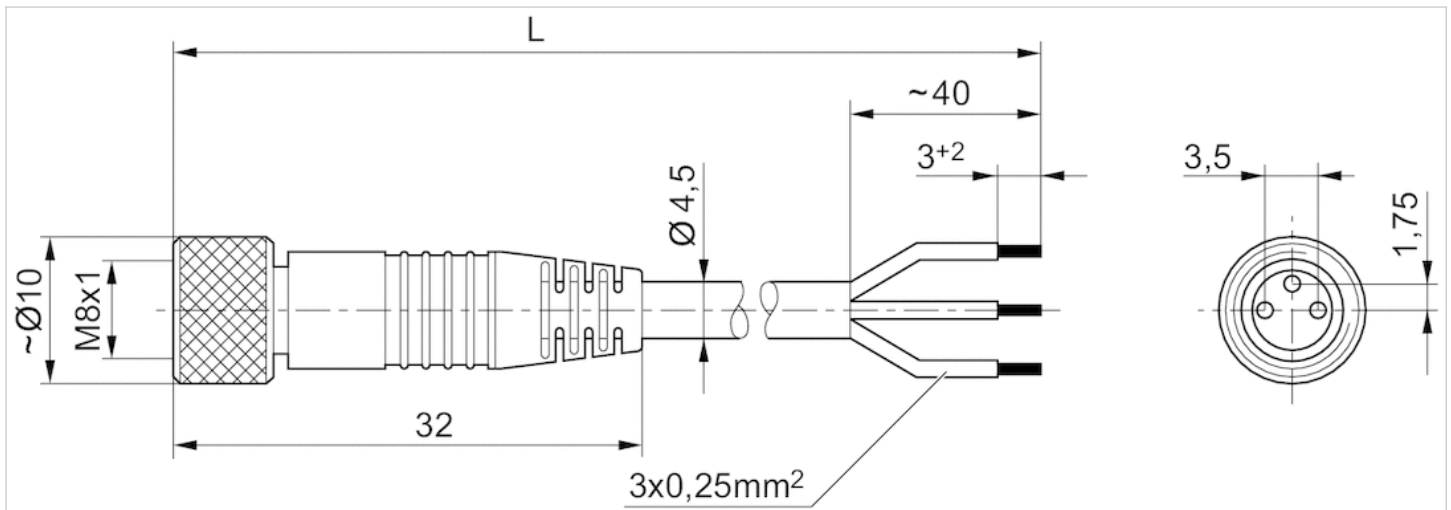
### Technical information

Material	
Cable sheath	Polyurethane



## Dimensions

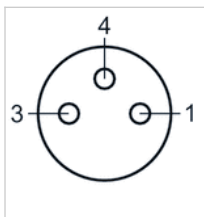
## Dimensions



L = length

## Diagrams

## Pin assignment socket



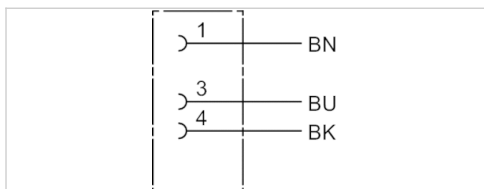
- (1) BN=brown
- (3) BU=blue
- (4) BK=black

## Connecting cable, Series CN2

- Socket, M8x1, 3-pin, angled
- open cable ends, 3-pin



Ambient temperature min./max.	-40 ... 85 °C
Protection class	IP65
Wire cross-section	0,24 mm <sup>2</sup>
Weight	See table below



### Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
1834484167	4 A	3	4,5 mm	3 m	0,092 kg
1834484169	4 A	3	4,5 mm	5 m	0,141 kg
1834484248	4 A	3	4,5 mm	10 m	0,276 kg

### Technical information

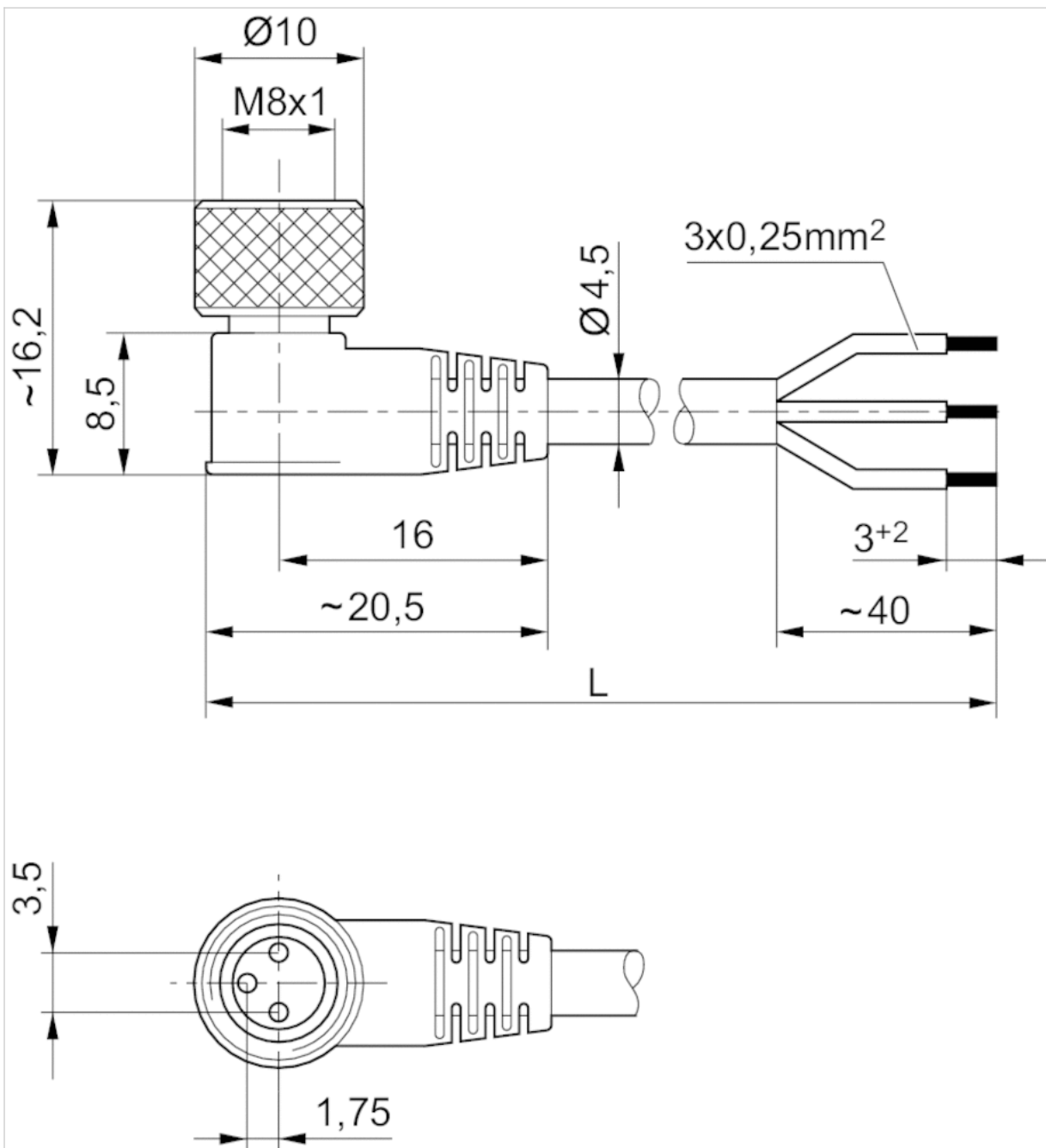
The specified protection class is only valid in assembled and tested state.

### Technical information

Material	
Cable sheath	Polyurethane

## Dimensions

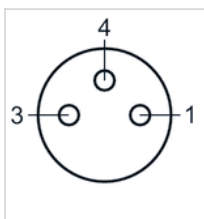
## Dimensions



L = length

## Diagrams

### Pin assignment socket



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

## Silencers, series SI1

- Sintered bronze



Working pressure min./max.

0 ... 10 bar

Ambient temperature min./max.

-25 ... 80 °C

Medium

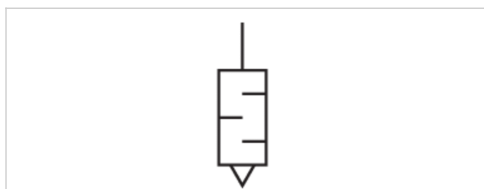
Compressed air

Sound pressure level

See table below

Weight

See table below



### Technical data

Part No.	Compressed air connection	Sound pressure level	Flow Qn	Delivery quantity	Weight
1827000006	M5	72 dB	460 l/min	10 piece	0,004 kg
1827000000	G 1/8	75 dB	1500 l/min	10 piece	0,01 kg
1827000001	G 1/4	79 dB	2900 l/min	10 piece	0,02 kg
1827000002	G 3/8	84 dB	5900 l/min	5 piece	0,05 kg

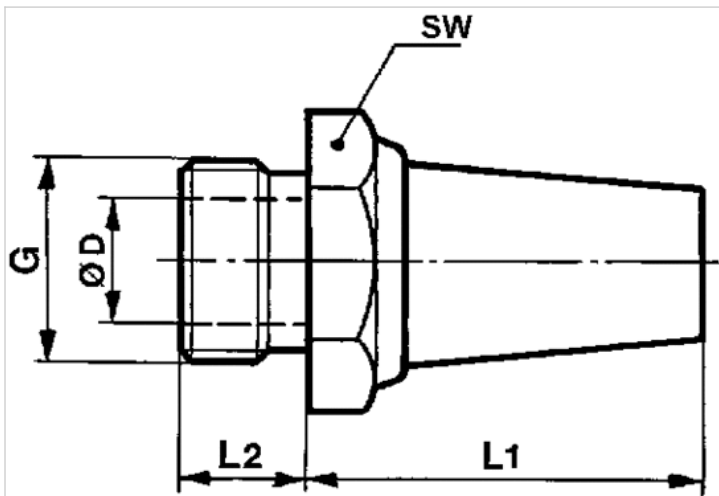
Weight per piece, Sound pressure level measured at 6 bar at 1 m distance

### Technical information

Material	
Silencers	Sintered bronze
Thread	Brass

## Dimensions

## Dimensions



## Dimensions

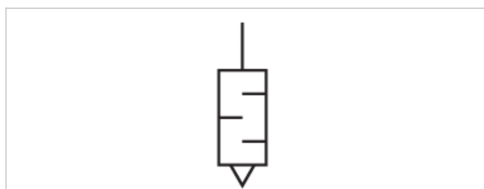
Part No.	Port G	SW	Ø D	L1	L2
1827000006	M5	7	2.5	15	5
1827000000	G 1/8	13	6	18	6
1827000001	G 1/4	17	8.5	25	8
1827000002	G 3/8	22	12	34	10

## Silencers, series SI1

- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	See table below
Weight	See table below



### Technical data

Part No.	Compressed air connection	Sound pressure level	Flow Qn	Delivery quantity	Weight
1827000032	M5	79 dB	280 l/min	10 piece	0,005 kg
1827000031	G 1/8	85 dB	640 l/min	10 piece	0,001 kg
1827000033	G 1/4	88 dB	900 l/min	10 piece	0,01 kg
1827000034	G 3/8	90 dB	1750 l/min	5 piece	0,016 kg

Weight per piece, Sound pressure level measured at 6 bar at 1 m distance

### Technical information

Material	
Silencers	Sintered bronze
Thread	Brass

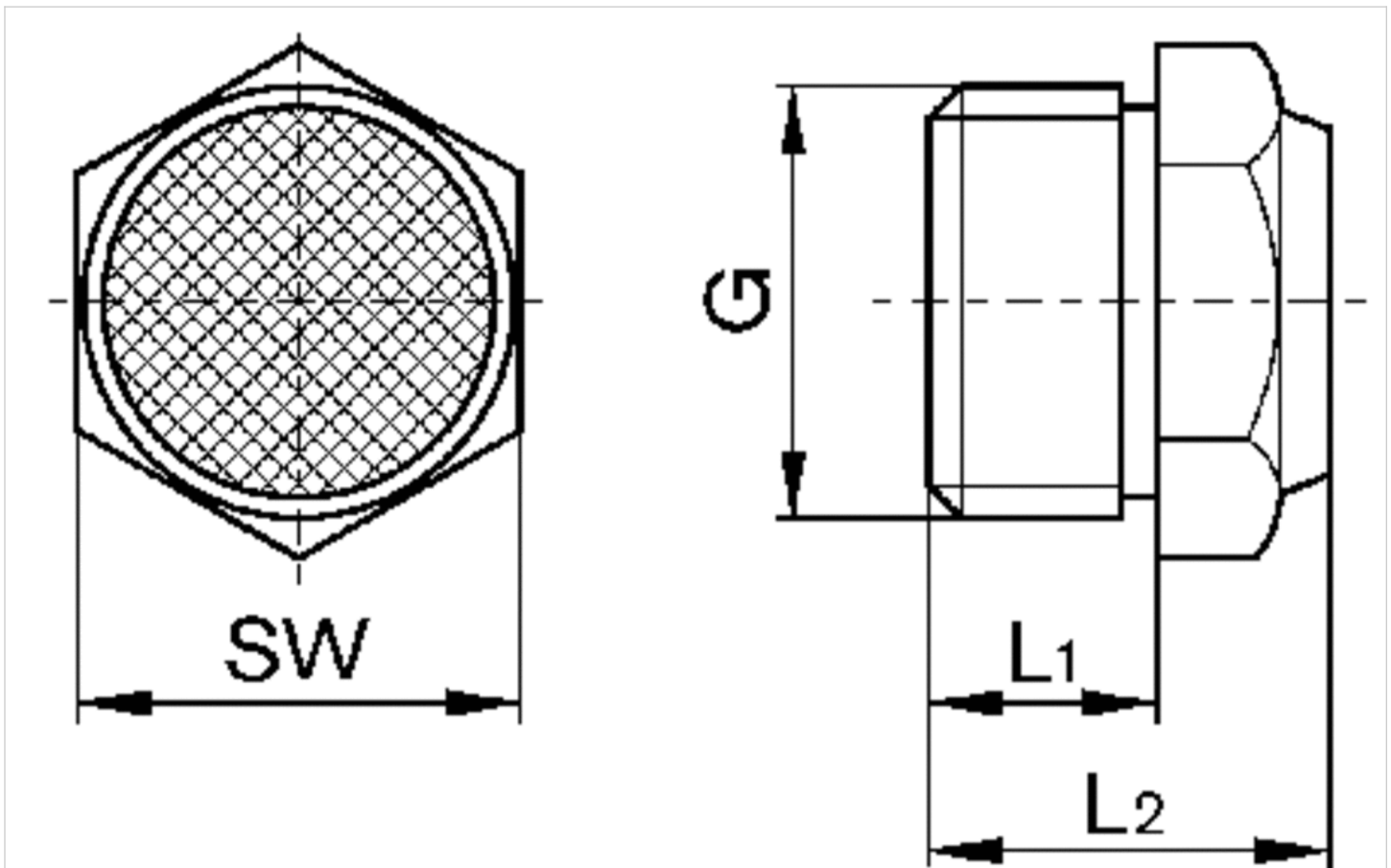


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## Dimensions

## Dimensions



## 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

Sound pressure level measured at 6 bar at 1 m distance