AVENTICS

Piston rod cylinders ► Short-stroke and compact cylinders

Series KPZ

Brochure

Series KPZ

Accessories

Accessories overview

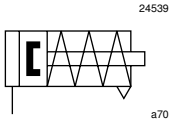
Cylinder mountings

Series KPZ

Other accessories

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► Single-acting, retracted without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Optionally through ► optionally heat-resistant



Standards	NFE 49004
Compressed air connection	Internal thread
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-20°C / +80°C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar
Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Aluminum
End cover	Aluminum

Technical Remarks

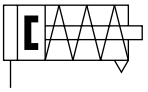
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- The material for heat-resistant scraper and seal variants (ambient temperature: -10 °C/120 °C) is fluorocaoutchouc.
- Further options can be generated in the Internet configurator.

Piston Ø		[mm]	16	20	25	32	40
Retracting piston force		[N]	12	13	25	35	43
Extracting piston force		[N]	115	185	284	472	749
Impact energy		[J]	0.11	0.15	0.2	0.4	0.52
Weight	0 mm stroke	[kg]	0.07	0.098	0.143	0.223	0.333
	+10 mm stroke	[kg]	0.014	0.02	0.02	0.03	0.04
Stroke max.		[mm]	25	25	25	25	25
Working pressure min./max.		[bar]	1.5 - 10	1.5 - 10	1.5 - 10	1.3 - 10	1.3 - 10
Scraper material			-	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Sealing material			Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane	Polyurethane

Piston Ø		[mm]	50	63	80	100	
Retracting piston force		[N]	82	82	105	215	
Extracting piston force		[N]	1155	1882	3062	4733	
Impact energy		[J]	0.64	0.75	0.75	1	
Weight	0 mm stroke	[kg]	0.446	0.757	1.318	2.276	
	+10 mm stroke	[kg]	0.05	0.08	0.11	0.14	
Stroke max.		[mm]	25	25	25	25	
Working pressure min./max.		[bar]	1 - 10	1 - 10	1 - 10	1 - 10	
Scraper material			Polyurethane	Polyurethane	Polyurethane	Polyurethane	
Sealing material			Polyurethane	Polyurethane	Polyurethane	Polyurethane	

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► Single-acting, retracted without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Optionally through ► optionally heat-resistant

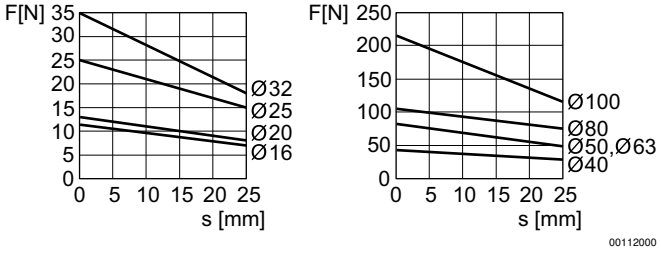


Piston Ø Piston rod thread Ports	16 M4 M5	20 M6 M5	25 M6 M5	32 M8 G 1/8	40 M8 G 1/8
Stroke 5	0822490000	0822491000	**0822492000**	0822493000	0822494000
10	0822490001	0822491001	**0822492001**	0822493001	0822494001
15	0822490002	0822491002	**0822492002**	**0822493002**	0822494002
20	0822490003	0822491003	**0822492003**	**0822493003**	0822494003
25	**0822490004**	0822491004	**0822492004**	**0822493004**	0822494004
Piston Ø Piston rod thread Ports	**50 M10 G 1/8**	**63 M10 G 1/8**	**80 M12 G 1/8**	**100 M16 G 1/8**	
Stroke 5	**0822495000**	0822496000	0822497000	0822498000	
10	**0822495001**	0822496001	0822497001	0822498001	
15	**0822495002**	0822496002	0822497002	0822498002	
20	**0822495003**	**0822496003**	0822497003	0822498003	
25	**0822495004**	0822496004	0822497004	0822498004	

Configurable product

This product is configurable. Please use our Internet configurator at http://www.aventics.com or contact the nearest AVENTICS sales office.

Retracting piston force

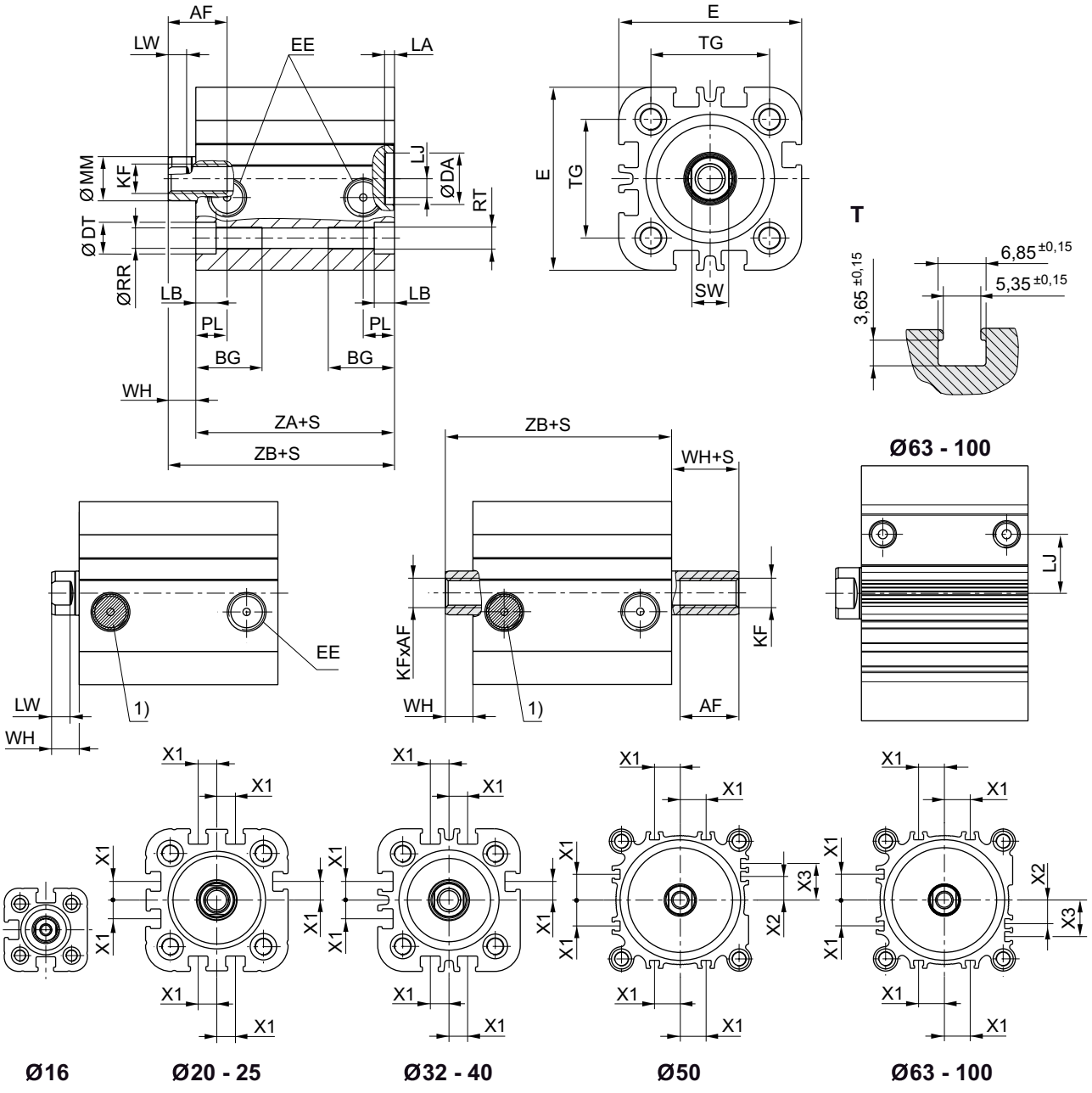


F = spring return force, s = return stroke

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► Single-acting, retracted without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Optionally through ► optionally heat-resistant

Dimensions



S = stroke
T = View for sensor groove
1) Filter

Piston Ø	AF 1)	BG 1)	DA H11	DT H13	E	EE	KF	LA	LB	LJ	LW	MM f8
16	10	14.5	10	6	29.5	M5	M4	2.5	3.5	2.5	2.8	8
20	12 10: S<3 mm 2)	15.5	12	7.5	36	M5	M6	2.5	4.5	4.5	3.7	10

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► Single-acting, retracted without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Optionally through ► optionally heat-resistant

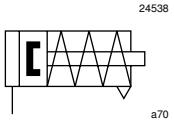
Piston Ø	AF 1)	BG 1)	DA H11	DT H13	E	EE	KF	LA	LB	LJ	LW	MM f8
25	12 10: S<3 mm 2)	15.5	12	8	40	M5	M6	2.5	4.4	5	3.7	10
32	12	18	14	8.6	50	G 1/8	M8	2.5	5.5	5.1	5	12
40	12	18	14	9	58	G 1/8	M8	2.5	5.5	9.6	5	12
50	16 12: S<4 mm 2)	24	18	11	68	G 1/8	M10	2.5	2	8.5	5.7	16
63	16 12: S<4 mm 2)	24	18	11	80	G 1/8	M10	2.5	2	17.8	5.7	16
80	20 15: S<3 mm 2)	28	23	14	99	G 1/8	M12	3	1	22.9	7	20
100	26 21: S<5 mm 2)	27.5	28	15	120	G 1/8	M16	3	3.5	26.5	7.5	25

Piston Ø	PL	Ø RR	RT	SW	TG	WH	X1	X2	X3	ZA +S	ZB +S	
16	7.5	3.3	M4	7	18 ±0,4	4.5	–	–	–	38	42,5 0/+1,4	
20	7.5	4.2	M5	8	22 ±0,4	5	4.2	–	–	38	43 0/+1,4	
25	7.5	4.2	M5	8	26 ±0,4	5.5	4.5	–	–	39	44,5 0/+1,4	
32	8.5	5.1	M6	10	32 ±0,5	7	6.5	–	–	44	51 0/+1,6	
40	8.5	5.1	M6	10	42 ±0,5	7	11	–	–	45	52 0/+1,6	
50	8.5	6.7	M8	13	50 ±0,6	7.5	13	4	13	45.5	53 0/+1,6	
63	8.5	6.7	M8	13	62 ±0,7	8	18	12	21	49	57 0/+2	
80	8.3	8.5	M10	16	82 ±0,7	9.5	18	16.5	25.5	54.5	64 0/+2	
100	9.7	8.5	M10	21	103 ±0,7	10.5	20	20	29	66.5	77 0/+2	

1) Min.
2) Option: through piston rod
S = stroke

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► Single-acting, retracted without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: external thread, Optionally through (hollow) ► optionally heat-resistant



Standards	NFE 49004
Compressed air connection	Internal thread
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-20°C / +80°C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar
Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Aluminum
End cover	Aluminum
Nut for piston rod	Steel, galvanized

Technical Remarks

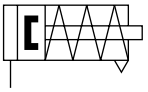
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- The material for heat-resistant scraper and seal variants (ambient temperature: -10 °C/120 °C) is fluorocaoutchouc.
- Further options can be generated in the Internet configurator.

Piston Ø		[mm]	16	20	25	32	40
Retracting piston force		[N]	12	13	25	35	43
Extracting piston force		[N]	115	185	284	472	749
Impact energy		[J]	0.11	0.15	0.2	0.4	0.52
Weight	0 mm stroke	[kg]	0.083	0.112	0.157	0.237	0.347
	+10 mm stroke	[kg]	0.014	0.02	0.02	0.03	0.04
Stroke max.		[mm]	25	25	25	25	25
Working pressure min./max.		[bar]	1.5 - 10	1.5 - 10	1.5 - 10	1.3 - 10	1.3 - 10
Scraper material			-	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Sealing material			Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane	Polyurethane

Piston Ø		[mm]	50	63	80	100	
Retracting piston force		[N]	82	82	105	215	
Extracting piston force		[N]	1155	1882	3062	4733	
Impact energy		[J]	0.64	0.75	0.75	1	
Weight	0 mm stroke	[kg]	0.468	0.779	1.368	2.375	
	+10 mm stroke	[kg]	0.05	0.08	0.11	0.14	
Stroke max.		[mm]	25	25	25	25	
Working pressure min./max.		[bar]	1 - 10	1 - 10	1 - 10	1 - 10	
Scraper material			Polyurethane	Polyurethane	Polyurethane	Polyurethane	
Sealing material			Polyurethane	Polyurethane	Polyurethane	Polyurethane	

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► Single-acting, retracted without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: external thread, Optionally through (hollow) ► optionally heat-resistant



Piston Ø Piston rod thread Ports	16 M8 M5	20 M10x1,25 M5	25 M10x1,25 M5	32 M10x1,25 G 1/8	40 M10x1,25 G 1/8
Stroke 5	0822490200	0822491200	0822492200	0822493200	**0822494200**
10	0822490201	0822491201	**0822492201**	0822493201	**0822494201**
15	**0822490202**	0822491202	**0822492202**	0822493202	0822494202
20	0822490203	0822491203	0822492203	0822493203	0822494203
25	0822490204	0822491204	0822492204	**0822493204**	0822494204
Piston Ø Piston rod thread Ports	**50 M12x1,25 G 1/8**	**63 M12x1,25 G 1/8**	**80 M16x1,5 G 1/8**	**100 M20x1,5 G 1/8**	
Stroke 5	0822495200	0822496200	0822497200	0822498200	
10	0822495201	0822496201	0822497201	0822498201	
15	0822495202	0822496202	0822497202	0822498202	
20	0822495203	0822496203	0822497203	0822498203	
25	0822495204	0822496204	0822497204	0822498204	

Configurable product

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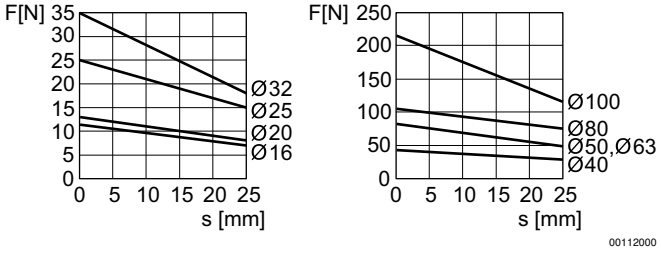
Retracting piston force

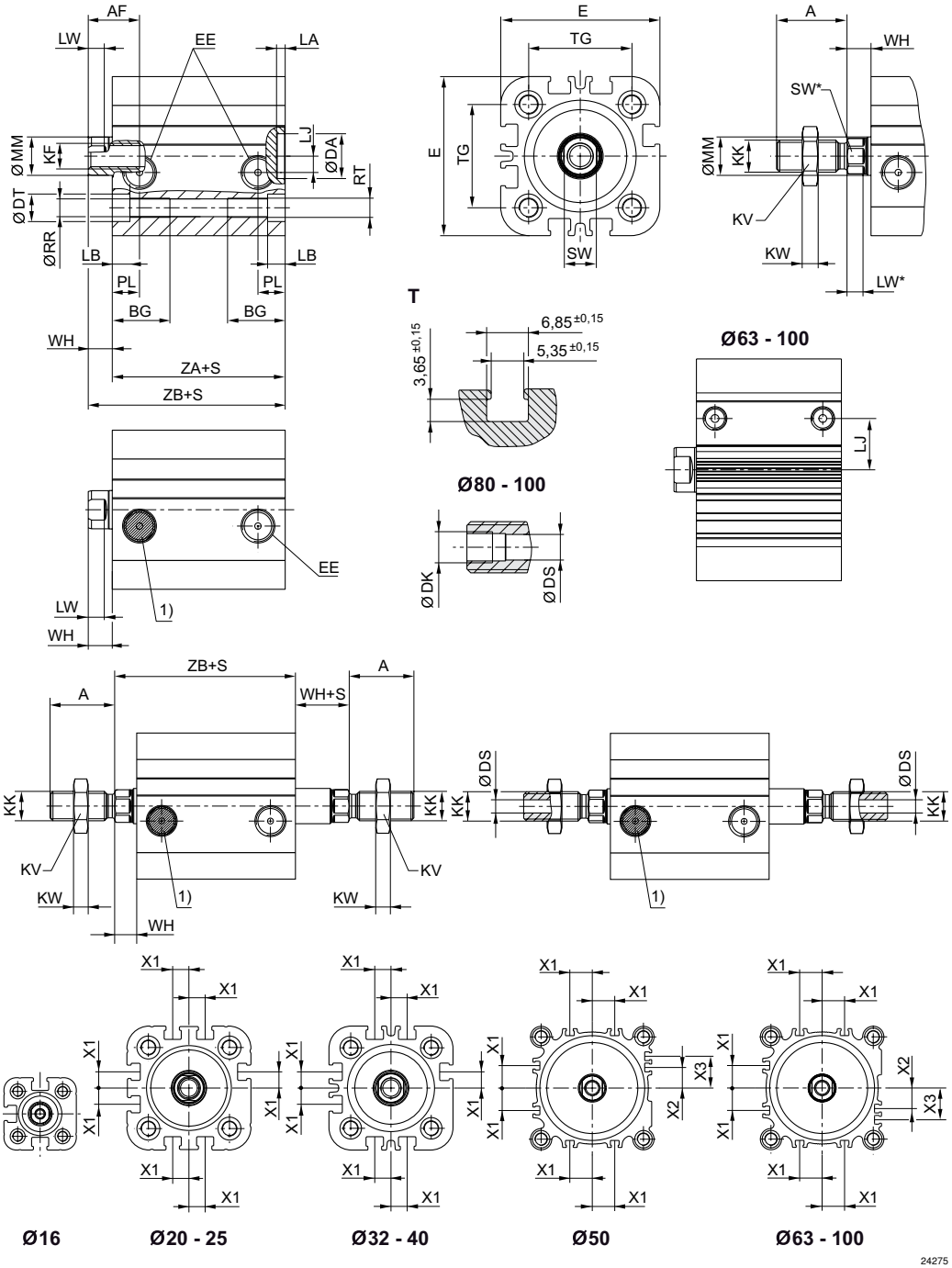


F = spring return force, s = return stroke

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► Single-acting, retracted without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: external thread, Optionally through (hollow) ► optionally heat-resistant

Dimensions



S = stroke
T = View for sensor groove
1) Filter

Piston Ø	A	BG 1)	DA H11	Ø DK	Ø DS	DT H13	E	EE	KK	KV	KW	LA	LB
16	20	14.5	10	–	–	6	29.5	M5	M8x1,25	13	4	2.5	3.5

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► Single-acting, retracted without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: external thread, Optionally through (hollow) ► optionally heat-resistant

Piston Ø	A	BG 1)	DA H11	Ø DK	Ø DS	DT H13	E	EE	KK	KV	KW	LA	LB
20	22	15.5	12	–	3	7.5	36	M5	M10x1,25	16	5	2.5	4.5
25	22	15.5	12	–	3	8	40	M5	M10x1,25	16	5	2.5	4.4
32	22	18	14	–	4.5	8.6	50	G 1/8	M10x1,25	16	5	2.5	5.5
40	22	18	14	–	4.5	9	58	G 1/8	M10x1,25	16	5	2.5	5.5
50	24	24	18	–	6	11	68	G 1/8	M12x1,25	18	6	2.5	2
63	24	24	18	–	6	11	80	G 1/8	M12x1,25	18	6	2.5	2
80	32	28	23	G 1/8	8	14	99	G 1/8	M16x1,5	24	8	3	1
100	40	27.5	28	G 1/4	11.5	15	120	G 1/8	M20x1,5	30	10	3	3.5

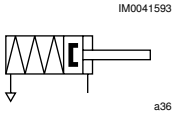
Piston Ø	LJ	LW	MM f8	PL	Ø RR	RT	SW	TG	WH	X1	X2	X4	ZA +S
16	2.5	2.8	8	7.5	3.3	M4	7	18 ±0,4	4.5	–	–	–	38
20	4.5	3.7	10	7.5	4.2	M5	8	22 ±0,4	5	4.2	–	–	38
25	5	3.7	10	7.5	4.2	M5	8	26 ±0,4	5.5	4.5	–	–	39
32	5.1	5*	12	8.5	5.1	M6	10*	32 ±0,5	7	6.5	–	–	44
40	9.6	5*	12	8.5	5.1	M6	10*	42 ±0,5	7	11	–	–	45
50	8.5	4,8*	16	8.5	6.7	M8	13*	50 ±0,6	7.5	13	4	13	45.5
63	17.8	4,8*	16	8.5	6.7	M8	13*	62 ±0,7	8	18	12	21	49
80	22.9	6,4*	20	8.3	8.5	M10	16*	82 ±0,7	9.5	18	16.5	25.5	54.5
100	26.5	6,4*	25	9.7	8.5	M10	21*	103 ±0,7	10.5	20	20	20	66.5

Piston Ø	ZB +S
16	42,5 0/+1,4
20	43 0/+1,4
25	44,5 0/+1,4
32	51 0/+1,6
40	52 0/+1,6
50	53 0/+1,6
63	57 0/+2
80	64 0/+2
100	77 0/+2

1) Min.
S = stroke
* Hexagonal wrench flats

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► Single-acting, extended without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Optionally heat-resistant



Standards	NFE 49004
Compressed air connection	Internal thread
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-20°C / +80°C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar
Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Aluminum
End cover	Aluminum

Technical Remarks

- 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“.
- The material for heat-resistant scraper and seal variants (ambient temperature: -10 °C/120 °C) is fluorocaoutchouc.
- Further options can be generated in the Internet configurator.

Piston Ø		[mm]	16	20	25	32	40
Retracting piston force		[N]	127	198	309	507	792
Extracting piston force		[N]	12	13	25	35	43
Impact energy		[J]	0.11	0.15	0.2	0.4	0.52
Weight	0 mm stroke	[kg]	0.07	0.098	0.143	0.223	0.333
	+10 mm stroke	[kg]	0.014	0.02	0.02	0.03	0.04
Stroke max.		[mm]	25	25	25	25	25
Working pressure min./max.		[bar]	1.5 - 10	1.5 - 10	1.5 - 10	1.3 - 10	1.3 - 10
Scraper material			-	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Sealing material			Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane	Polyurethane

Piston Ø		[mm]	50	63	80	100	
Retracting piston force		[N]	1237	1964	3167	4948	
Extracting piston force		[N]	82	82	105	215	
Impact energy		[J]	0.64	0.75	0.75	1	
Weight	0 mm stroke	[kg]	0.446	0.757	1.318	2.276	
	+10 mm stroke	[kg]	0.05	0.08	0.11	0.14	
Stroke max.		[mm]	25	25	25	25	
Working pressure min./max.		[bar]	1 - 10	1 - 10	1 - 10	1 - 10	
Scraper material			Polyurethane	Polyurethane	Polyurethane	Polyurethane	
Sealing material			Polyurethane	Polyurethane	Polyurethane	Polyurethane	

Compact cylinder, Series KPZ

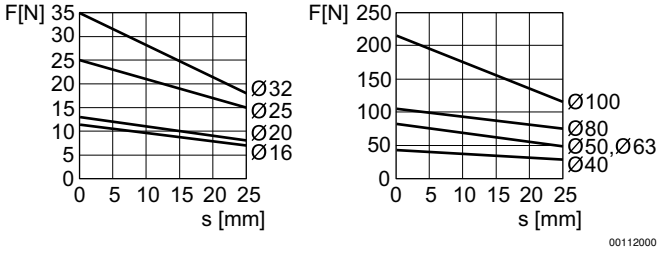
► Ports: M5 - G 1/8 ► Single-acting, extended without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Optionally heat-resistant

Piston Ø Piston rod thread Ports	16 M4 M5	20 M6 M5	25 M6 M5	32 M8 G 1/8	40 M8 G 1/8
Stroke 5	0822490100	0822491100	**0822492100**	0822493100	0822494100
10	0822490101	R480660211	**0822492101**	0822493101	0822494101
15	0822490102	0822491102	0822492102	**0822493102**	0822494102
20	**0822490103**	0822491103	**0822492103**	0822493103	**0822494103**
25	0822490104	**0822491104**	**0822492104**	**0822493104**	0822494104
Piston Ø Piston rod thread Ports	**50 M10 G 1/8**	**63 M10 G 1/8**	**80 M12 G 1/8**	**100 M16 G 1/8**	
Stroke 5	0822495100	0822496100	0822497100	0822498100	
10	0822495101	0822496101	0822497101	0822498101	
15	0822495102	0822496102	0822497102	0822498102	
20	0822495103	0822496103	0822497103	0822498103	
25	0822495104	**0822496104**	0822497104	0822498104	

Configurable product

This product is configurable. Please use our Internet configurator at http://www.aventics.com or contact the nearest AVENTICS sales office.

Extracting piston force

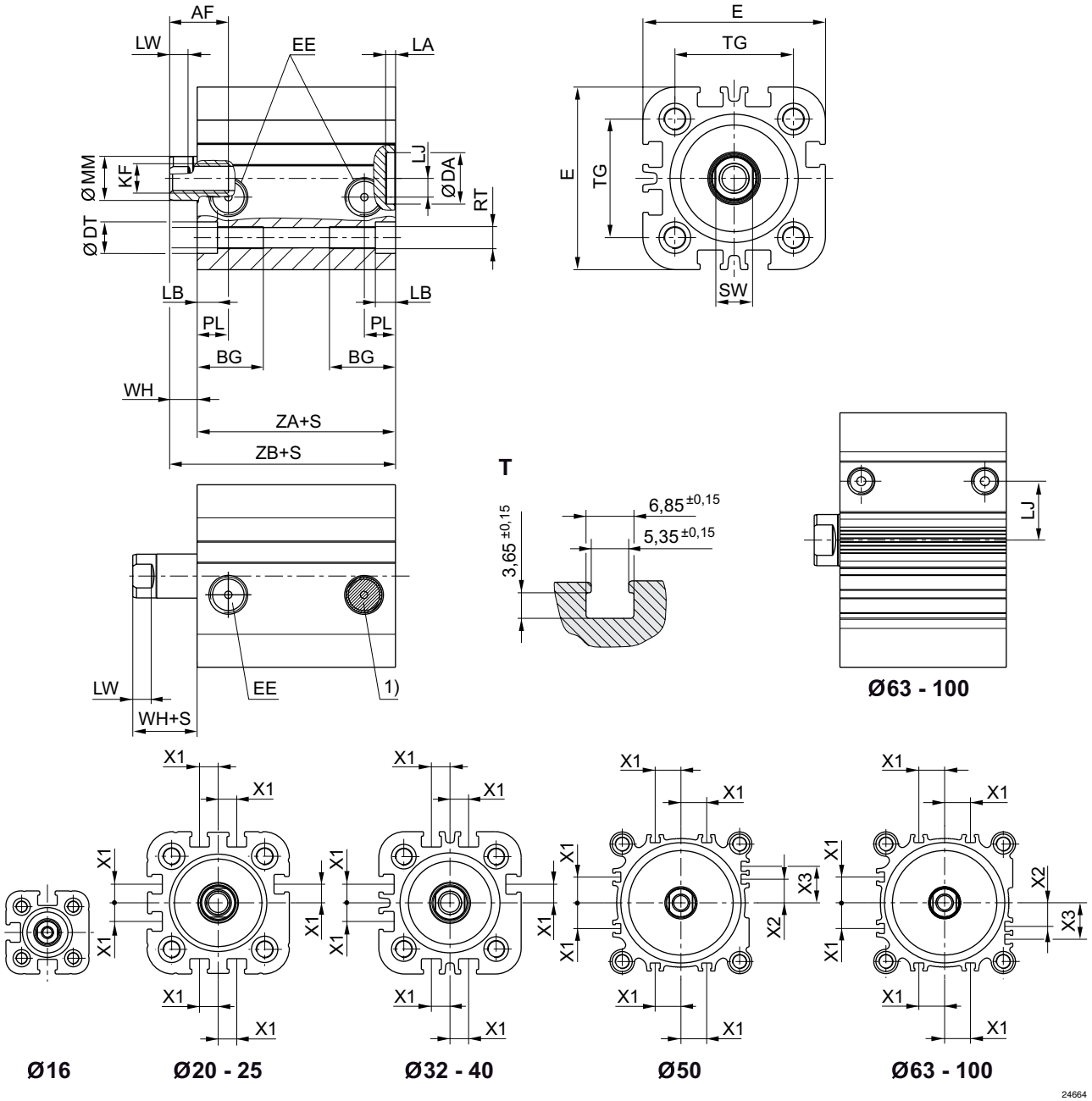


F = spring return force, s = stroke

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► Single-acting, extended without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Optionally heat-resistant

Dimensions



S = stroke
T = View for sensor groove

Piston Ø	AF	BG *)	DA H11	DT H13	E	EE	KF	LA	LB	LJ	LW	MM f8	PL
16	10	14.5	10	6	29.5	M5	M4	2.5	3.5	2.5	2.8	8	7.5
20	12	15.5	12	7.5	36	M5	M6	2.5	4.5	4.5	3.7	10	7.5
25	12	15.5	12	8	40	M5	M6	2.5	4.4	5	3.7	10	7.5
32	12	18	14	8.6	50	G 1/8	M8	2.5	5.5	5.1	5	12	8.5
40	12	18	14	9	58	G 1/8	M8	2.5	5.5	9.6	5	12	8.5

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► Single-acting, extended without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Optionally heat-resistant

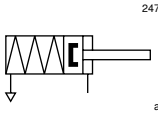
Piston Ø	AF	BG *)	DA H11	DT H13	E	EE	KF	LA	LB	LJ	LW	MM f8	PL
50	16	24	18	11	68	G 1/8	M10	2.5	2	8.5	5.7	16	8.5
63	16	24	18	11	80	G 1/8	M10	2.5	2	17.8	5.7	16	8.5
80	20	28	23	14	99	G 1/8	M12	3	1	22.9	7	20	8.3
100	26	27.5	28	15	120	G 1/8	M16	3	3.5	26.5	7.5	25	9.7

Piston Ø	RT	SW	TG	WH	X1	X2	X3	ZA +S	ZB+S			
16	M4	7	18 ±0,4	4.5	–	–	–	38	42,5 0/+1,2			
20	M5	8	22 ±0,4	5	4.2	–	–	38	43 0/+1,4			
25	M5	8	26 ±0,4	5.5	4.5	–	–	38	44,5 0/+1,4			
32	M6	10	32 ±0,5	7	6.5	–	–	44	51 0/+1,6			
40	M6	10	42 ±0,5	7	11	–	–	45	52 0/+1,6			
50	M8	13	50 ±0,6	7.5	13	4	13	45.5	53 0/+1,6			
63	M8	13	62 ±0,7	8	18	12	21	49	57 0/+2			
80	M10	16	82 ±0,7	9.5	18	16.5	25.5	54.5	64 0/+2			
100	M10	21	103 ±0,7	10.5	20	20	29	66.5	77 0/+2			

* min.

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► Single-acting, extended without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: external thread, Optionally heat-resistant



Standards	NFE 49004
Compressed air connection	Internal thread
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-20°C / +80°C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar
Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Aluminum
End cover	Aluminum
Nut for piston rod	Steel, galvanized

Technical Remarks

- 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“.
- The material for heat-resistant scraper and seal variants (ambient temperature: -10 °C/120 °C) is fluorocaoutchouc.
- Further options can be generated in the Internet configurator.

Piston Ø		[mm]	16	20	25	32	40
Retracting piston force		[N]	127	198	309	507	792
Extracting piston force		[N]	12	13	25	35	43
Impact energy		[J]	0.11	0.15	0.2	0.4	0.52
Weight	0 mm stroke	[kg]	0.083	0.112	0.157	0.237	0.347
	+10 mm stroke	[kg]	0.014	0.02	0.02	0.03	0.04
Stroke max.		[mm]	25	25	25	25	25
Working pressure min./max.		[bar]	1.5 - 10	1.5 - 10	1.5 - 10	1.3 - 10	1.3 - 10
Scraper material			-	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Sealing material			Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane	Polyurethane

Piston Ø		[mm]	50	63	80	100	
Retracting piston force		[N]	1237	1964	3167	4948	
Extracting piston force		[N]	82	82	105	215	
Impact energy		[J]	0.64	0.75	0.75	1	
Weight	0 mm stroke	[kg]	0.468	0.779	1.368	2.375	
	+10 mm stroke	[kg]	0.05	0.08	0.11	0.14	
Stroke max.		[mm]	25	25	25	25	
Working pressure min./max.		[bar]	1 - 10	1 - 10	1 - 10	1 - 10	
Scraper material			Polyurethane	Polyurethane	Polyurethane	Polyurethane	
Sealing material			Polyurethane	Polyurethane	Polyurethane	Polyurethane	

Compact cylinder, Series KPZ

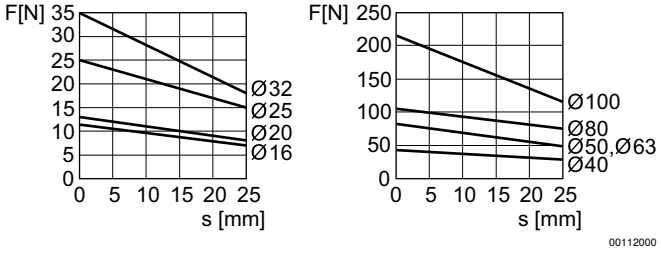
► Ports: M5 - G 1/8 ► Single-acting, extended without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: external thread, Optionally heat-resistant

	Piston Ø Piston rod thread Ports	16 M8 M5	20 M10x1,25 M5	25 M10x1,25 M5	32 M10x1,25 G 1/8	40 M10x1,25 G 1/8
	Stroke 5	0822490300	0822491300	0822492300	0822493300	0822494300
	10	**0822490301**	0822491301	0822492301	**0822493301**	0822494301
	15	0822490302	0822491302	0822492302	0822493302	0822494302
	20	0822490303	0822491303	**0822492303**	**0822493303**	**0822494303**
	25	0822490304	0822491304	0822492304	0822493304	0822494304
	Piston Ø Piston rod thread Ports	**50 M12x1,25 G 1/8**	**63 M12x1,25 G 1/8**	**80 M16x1,5 G 1/8**	**100 M20x1,5 G 1/8**	
	Stroke 5	0822495300	0822496300	0822497300	0822498300	
	10	0822495301	0822496301	0822497301	0822498301	
	15	0822495302	0822496302	0822497302	0822498302	
	20	0822495303	0822496303	0822497303	0822498303	
	25	**0822495304**	0822496304	0822497304	0822498304	

Configurable product

This product is configurable. Please use our Internet configurator at http://www.aventics.com or contact the nearest AVENTICS sales office.

Extracting piston force

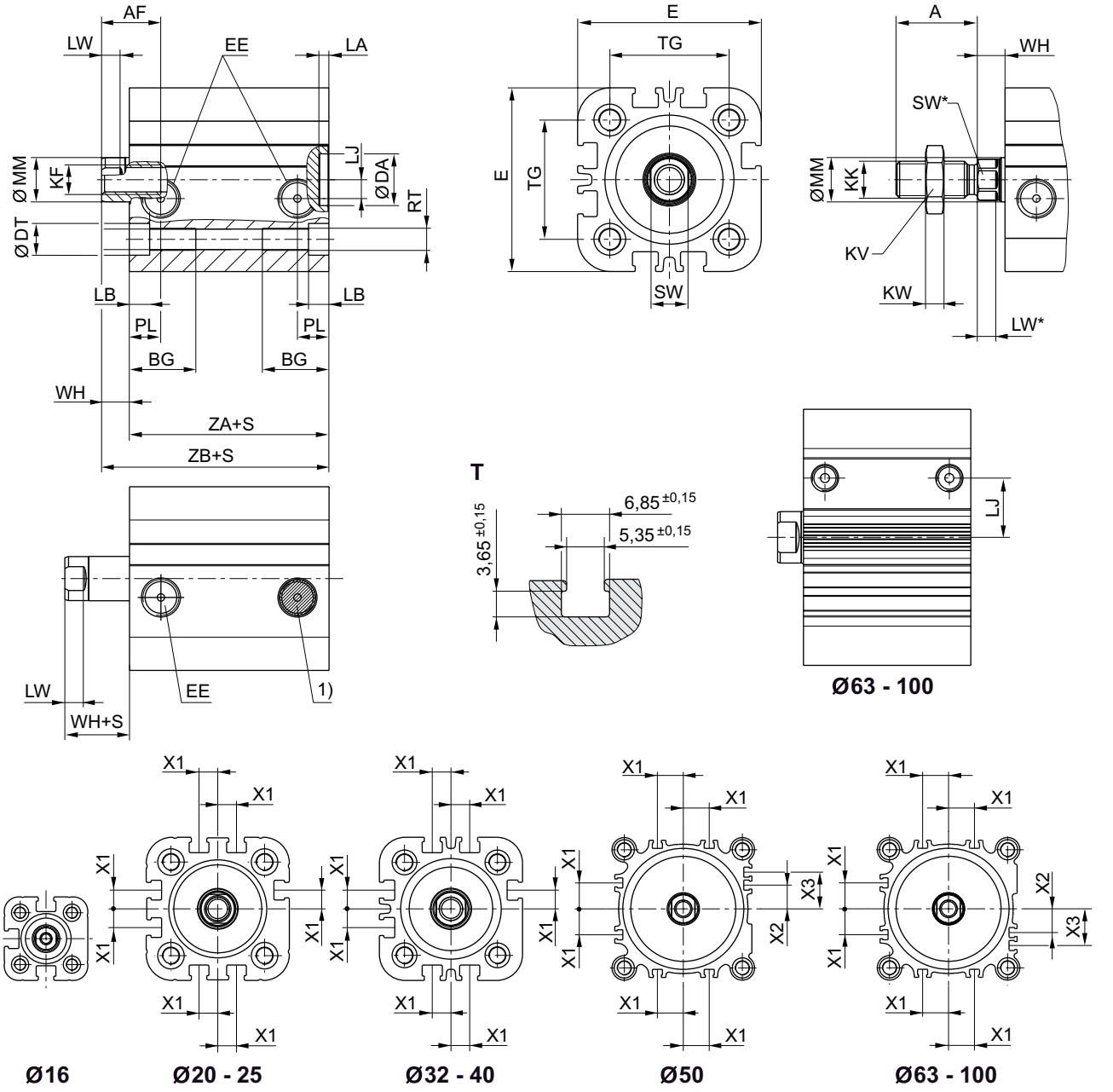


F = spring return force, s = stroke

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► Single-acting, extended without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: external thread, Optionally heat-resistant

Dimensions



S = stroke
T = View for sensor groove

Piston Ø	A	BG 1)	DA H11	DT H13	E	EE	KK	KV	KW	LA	LB	LJ	LW
16	20	14.5	10	6	29.5	M5	M8x1,25	13	4	2.5	3.5	2.5	2.8
20	22	15.5	12	7.5	36	M5	M10x1,25	16	5	2.5	4.5	4.5	3.7
25	22	15.5	12	8	40	M5	M10x1,25	16	5	2.5	4.4	5	3.7
32	22	18	14	8.6	50	G 1/8	M10x1,25	16	5	2.5	5.5	5.1	5*
40	22	18	14	9	58	G 1/8	M10x1,25	16	5	2.5	5.5	9.6	5*

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► Single-acting, extended without pressure ► with magnetic piston ► Cushioning: elastic ► Piston rod: external thread, Optionally heat-resistant

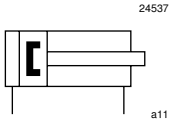
Piston Ø	A	BG 1)	DA H11	DT H13	E	EE	KK	KV	KW	LA	LB	LJ	LW
50	24	24	18	11	68	G 1/8	M12x1,25	18	6	2.5	2	8.5	4,8*
63	24	24	18	11	80	G 1/8	M12x1,25	18	6	2.5	2	17.8	4,8*
80	32	28	23	14	99	G 1/8	M16x1,5	24	8	3	1	22.9	6,4*
100	40	27.5	28	15	120	G 1/8	M20x1,5	30	10	3	3.5	26.5	6,4*

Piston Ø	MM f8	PL	RT	SW	TG	WH	X1	X2	X4	ZA +S	ZB +S	
16	8	7.5	M4	7	18 ±0,4	4.5	–	–	–	38	42,5 0/+1,4	
20	10	7.5	M5	8	22 ±0,4	5	4.2	–	–	38	43 0/+1,4	
25	10	7.5	M5	8	26 ±0,4	5.5	4.5	–	–	39	44,5 0/+1,4	
32	12	8.5	M6	10*	32 ±0,5	7	6.5	–	–	44	51 0/+1,6	
40	12	8.5	M6	10*	42 ±0,5	7	11	–	–	45	52 0/+1,6	
50	16	8.5	M8	13*	50 ±0,6	7.5	13	4	13	45.5	53 0/+1,6	
63	16	8.5	M8	13*	62 ±0,7	8	18	12	21	49	57 0/+2	
80	20	8.3	M10	16*	82 ±0,7	9.5	18	16.5	25.5	54.5	64 0/+2	
100	25	9.7	M10	21*	103 ±0,7	10.5	20	20	20	66.5	77 0/+2	

1) Min.
* Hexagonal wrench flats

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Optionally through ► ATEX optional ► optionally heat-resistant



Standards	NFE 49004
Compressed air connection	Internal thread
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-20°C / +80°C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar
Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Aluminum
End cover	Aluminum

Technical Remarks

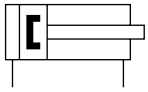
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- ATEX-certified cylinders can be generated in the Internet configurator.
- ATEX ID: II 2G c IIB T4 II 2D c IP65 T125°C X
- The operating temperature range for ATEX-certified cylinders is -20 °C ... 50 °C.
- The material for heat-resistant scraper and seal variants (ambient temperature: -10 °C/120 °C) is fluorocaoutchouc.
- Further options can be generated in the Internet configurator.

Piston Ø	[mm]	16	20	25	32	40
Retracting piston force	[N]	95	148	260	435	720
Extracting piston force	[N]	127	198	309	507	792
Impact energy	[J]	0.15	0.2	0.3	0.5	0.7
Stroke max.	[mm]	300	300	300	300	300
Working pressure min./max.	[bar]	1 - 10	1 - 10	1 - 10	0.6 - 10	0.6 - 10
Scraper material		Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Sealing material		Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane	Polyurethane

Piston Ø	[mm]	50	63	80	100	
Retracting piston force	[N]	1110	1827	2969	4639	
Extracting piston force	[N]	1237	1964	3167	4948	
Impact energy	[J]	1	1.3	1.8	2.5	
Stroke max.	[mm]	300	300	500	500	
Working pressure min./max.	[bar]	0.6 - 10	0.6 - 10	0.6 - 10	0.6 - 10	
Scraper material		Polyurethane	Polyurethane	Polyurethane	Polyurethane	
Sealing material		Polyurethane	Polyurethane	Polyurethane	Polyurethane	

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Optionally through ► ATEX optional ► optionally heat-resistant



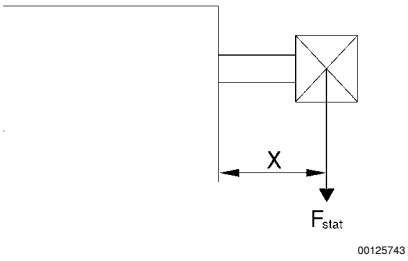
Piston Ø Piston rod thread Ports	16 M4 M5	20 M6 M5	25 M6 M5	32 M8 G 1/8	40 M8 G 1/8
Stroke 5	**0822390000**	**0822391000**	**0822392000**	**0822393000**	**0822394000**
10	**0822390001**	**0822391001**	**0822392001**	**0822393001**	**0822394001**
15	**0822390002**	**0822391002**	**0822392002**	**0822393002**	**0822394002**
20	**0822390003**	**0822391003**	**0822392003**	**0822393003**	**0822394003**
25	**0822390004**	**0822391004**	**0822392004**	**0822393004**	**0822394004**
30	**0822390005**	**0822391005**	**0822392005**	**0822393005**	**0822394005**
40	**0822390006**	**0822391006**	**0822392006**	**0822393006**	**0822394006**
50	**0822390007**	**0822391007**	**0822392007**	**0822393007**	**0822394007**
60	0822390008	**0822391008**	**0822392008**	**0822393008**	**0822394008**
80	-	-	-	**0822393009**	**0822394009**
100	-	-	-	**0822393010**	**0822394010**

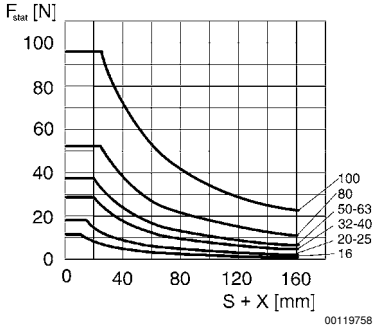
Piston Ø Piston rod thread Ports	50 M10 G 1/8	63 M10 G 1/8	80 M12 G 1/8	100 M16 G 1/8	
Stroke 5	**0822395000**	**0822396000**	**0822397000**	0822398000	
10	**0822395001**	**0822396001**	**0822397001**	0822398001	
15	**0822395002**	**0822396002**	**0822397002**	0822398002	
20	**0822395003**	**0822396003**	**0822397003**	0822398003	
25	**0822395004**	**0822396004**	**0822397004**	0822398004	
30	**0822395005**	**0822396005**	**0822397005**	**0822398005**	
40	**0822395006**	**0822396006**	**0822397006**	**0822398006**	
50	**0822395007**	**0822396007**	**0822397007**	**0822398007**	
60	**0822395008**	**0822396008**	**0822397008**	**0822398008**	
80	**0822395009**	**0822396009**	**0822397009**	**0822398009**	
100	**0822395010**	**0822396010**	**0822397010**	**0822398010**	

Configurable product

This product is configurable. Please use our Internet configurator at http://www.aventics.com or contact the nearest AVENTICS sales office.

Maximum permissible lateral force, Static





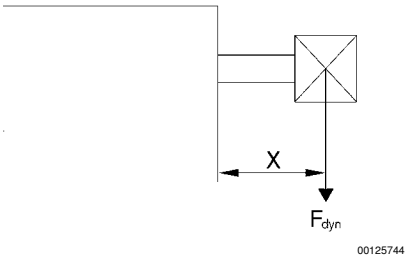
F stat. = static lateral force
X = spacing between force application point and cylinder cover

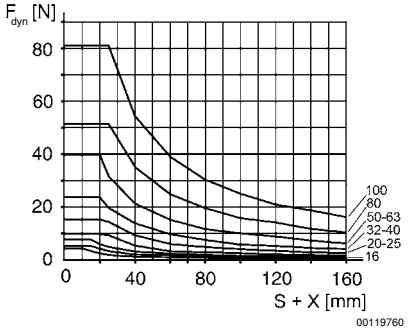
S = stroke

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Optionally through ► ATEX optional ► optionally heat-resistant

Maximum permissible lateral force, Dynamic





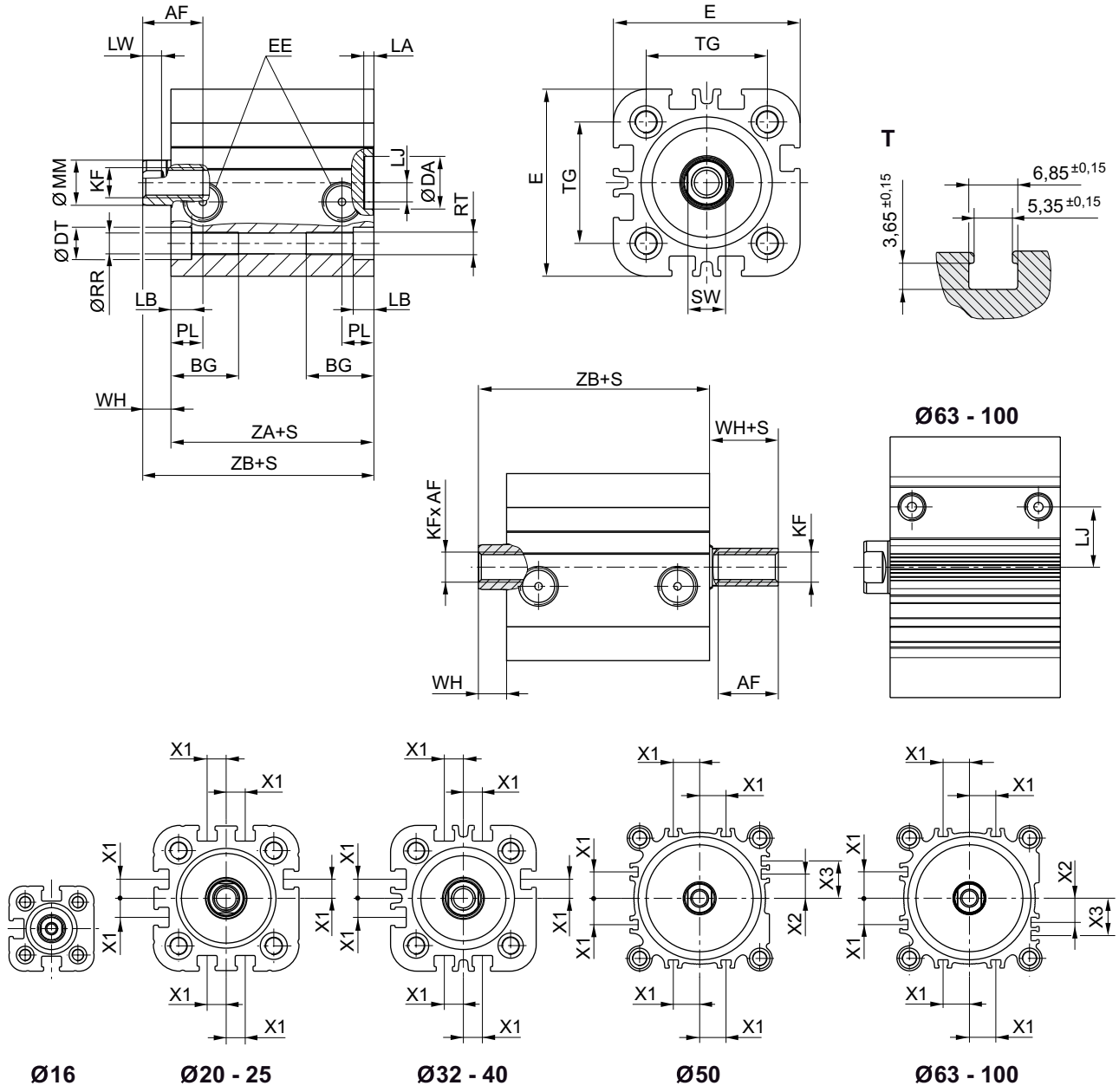
F dyn. = dynamic lateral force
X = spacing between force application point and cylinder cover

S = stroke

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Optionally through ► ATEX optional ► optionally heat-resistant

Dimensions



S = stroke
T = View for sensor groove

Piston Ø	AF 1)	BG 1)	DA H11	DT H13	E	EE	KF	LA	LB	LJ	LW	MM f8
16	10	14.5	10	6	29.5	M5	M4	2.5	3.5	2.5	2.8	8
20	12 10: S<3 mm 2)	15.5	12	7.5	36	M5	M6	2.5	4.5	4.5	3.7	10
25	12 10: S<3 mm 2)	15.5	12	8	40	M5	M6	2.5	4.4	5	3.7	10
32	12	18	14	8.6	50	G 1/8	M8	2.5	5.5	5.1	5	12

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Optionally through ► ATEX optional ► optionally heat-resistant

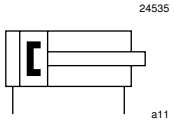
Piston Ø	AF 1)	BG 1)	DA H11	DT H13	E	EE	KF	LA	LB	LJ	LW	MM f8
40	12	18	14	9	58	G 1/8	M8	2.5	5.5	9.6	5	12
50	16 12: S<4 mm 2)	24	18	11	68	G 1/8	M10	2.5	2	8.5	4.8	16
63	16 12: S<4 mm 2)	24	18	11	80	G 1/8	M10	2.5	2	17.8	4.8	16
80	20 15: S<5 mm 2)	28	23	14	99	G 1/8	M12	3	1	22.9	6.4	20
100	26 21: S<5 mm 2)	27.5	28	15	120	G 1/8	M16	3	3.5	26.5	6.4	25

Piston Ø	PL	Ø RR	RT	SW	TG	WH	X1	X2	X3	ZA +S	ZB +S	
16	7.5	3.3	M4	7	18 ±0,4	4.5	–	–	–	38	42,5 0/+1,4	
20	7.5	4.2	M5	8	22 ±0,4	5	4.2	–	–	38	43 0/+1,4	
25	7.5	4.2	M5	8	26 ±0,4	5.5	4.5	–	–	39	44,5 0/+1,4	
32	8.5	5.1	M6	10	32 ±0,5	7	6.5	–	–	44	51 0/+1,6	
40	8.5	5.1	M6	10	42 ±0,5	7	11	–	–	45	52 0/+1,6	
50	8.5	6.7	M8	13	50 ±0,6	7.5	13	4	13	45.5	53 0/+1,6	
63	8.5	6.7	M8	13	62 ±0,7	8	18	12	21	49	57 0/+2	
80	8.3	8.5	M10	16	82 ±0,7	9.5	18	16.5	25.5	54.5	64 0/+2	
100	9.7	8.5	M10	21	103 ±0,7	10.5	20	20	29	66.5	77 0/+2	

1) Min.
2) Option: through piston rod
S = stroke

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: external thread, Optionally through (hollow) ► ATEX optional ► optionally heat-resistant



Standards	NFE 49004
Compressed air connection	Internal thread
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-20°C / +80°C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar
Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Aluminum
End cover	Aluminum
Nut for piston rod	Steel, galvanized

Technical Remarks

- 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“.
- ATEX-certified cylinders can be generated in the Internet configurator.
- ATEX ID: II 2G c IIB T4 II 2D c IP65 T125°C X
- The operating temperature range for ATEX-certified cylinders is -20 °C ... 50 °C.
- The material for heat-resistant scraper and seal variants (ambient temperature: -10 °C/120 °C) is fluorocaoutchouc.
- Further options can be generated in the Internet configurator.

Piston Ø	[mm]	16	20	25	32	40
Retracting piston force	[N]	95	148	260	435	720
Extracting piston force	[N]	127	198	309	507	792
Impact energy	[J]	0.15	0.2	0.3	0.5	0.7
Stroke max.	[mm]	300	300	300	300	300
Working pressure min./max.	[bar]	1 - 10	1 - 10	1 - 10	0.6 - 10	0.6 - 10
Scraper material		Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Sealing material		Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane	Polyurethane

Piston Ø	[mm]	50	63	80	100	
Retracting piston force	[N]	1110	1837	2969	4639	
Extracting piston force	[N]	1237	1964	3167	4948	
Impact energy	[J]	1	1.3	1.8	2.5	
Stroke max.	[mm]	300	300	500	500	
Working pressure min./max.	[bar]	0.6 - 10	0.6 - 10	0.6 - 10	0.6 - 10	
Scraper material		Polyurethane	Polyurethane	Polyurethane	Polyurethane	
Sealing material		Polyurethane	Polyurethane	Polyurethane	Polyurethane	

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: external thread, Optionally through (hollow) ► ATEX optional ► optionally heat-resistant

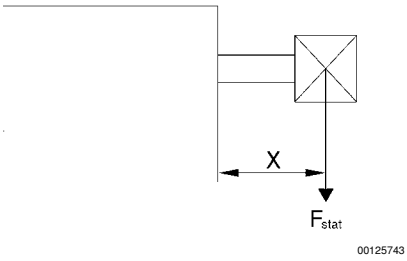
Piston Ø Piston rod thread Ports	16 M8 M5	20 M10x1,25 M5	25 M10x1,25 M5	32 M10x1,25 G 1/8	40 M10x1,25 G 1/8
Stroke 5	0822390200	**0822391200**	0822392200	**0822393200**	**0822394200**
10	**0822390201**	**0822391201**	**0822392201**	**0822393201**	**0822394201**
15	**0822390202**	**0822391202**	**0822392202**	**0822393202**	**0822394202**
20	**0822390203**	**0822391203**	**0822392203**	**0822393203**	**0822394203**
25	**0822390204**	**0822391204**	**0822392204**	**0822393204**	**0822394204**
30	**0822390205**	**0822391205**	**0822392205**	**0822393205**	**0822394205**
40	**0822390206**	**0822391206**	**0822392206**	**0822393206**	**0822394206**
50	**0822390207**	**0822391207**	**0822392207**	**0822393207**	**0822394207**
60	**0822390208**	**0822391208**	**0822392208**	**0822393208**	**0822394208**
80	-	-	-	**0822393209**	**0822394209**
100	-	-	-	**0822393210**	**0822394210**

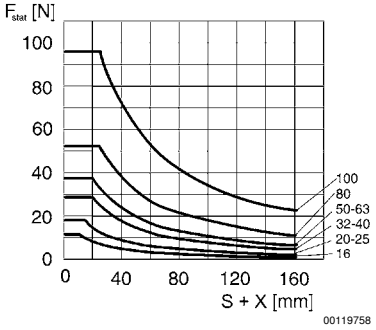
Piston Ø Piston rod thread Ports	50 M12x1,25 G 1/8	63 M12x1,25 G 1/8	80 M16x1,5 G 1/8	100 M20x1,5 G 1/8	
Stroke 5	**0822395200**	0822396200	0822397200	0822398200	
10	**0822395201**	**0822396201**	0822397201	0822398201	
15	**0822395202**	**0822396202**	0822397202	0822398202	
20	**0822395203**	**0822396203**	**0822397203**	0822398203	
25	**0822395204**	**0822396204**	**0822397204**	**0822398204**	
30	**0822395205**	**0822396205**	**0822397205**	0822398205	
40	**0822395206**	**0822396206**	**0822397206**	0822398206	
50	**0822395207**	**0822396207**	**0822397207**	**0822398207**	
60	**0822395208**	**0822396208**	0822397208	**0822398208**	
80	**0822395209**	**0822396209**	**0822397209**	**0822398209**	
100	**0822395210**	**0822396210**	**0822397210**	0822398210	

Configurable product

This product is configurable. Please use our Internet configurator at http://www.aventics.com or contact the nearest AVENTICS sales office.

Maximum permissible lateral force, Static





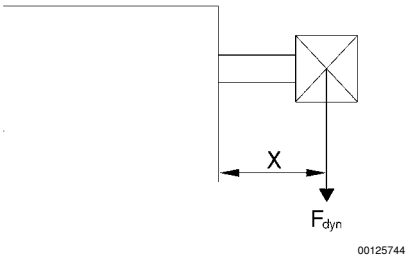
F stat. = static lateral force
X = spacing between force application point and cylinder cover

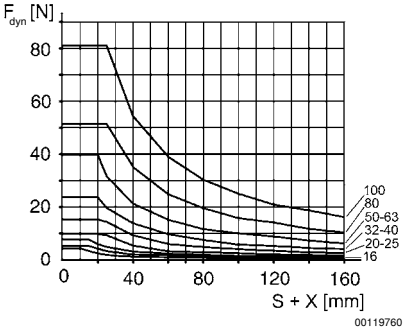
S = stroke

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: external thread, Optionally through (hollow) ► ATEX optional ► optionally heat-resistant

Maximum permissible lateral force, Dynamic





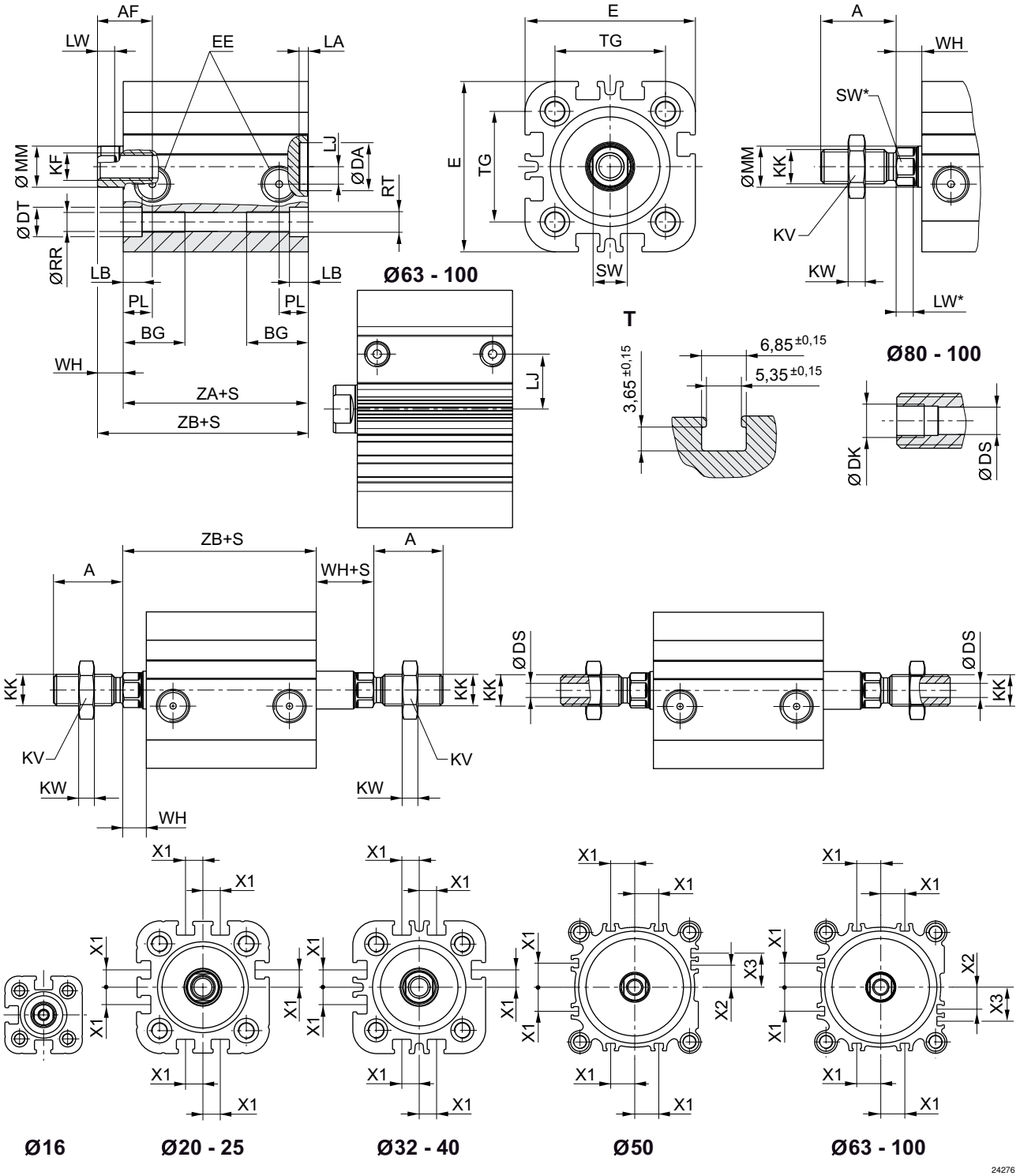
F dyn. = dynamic lateral force
X = spacing between force application point and cylinder cover

S = stroke

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: external thread, Optionally through (hollow) ► ATEX optional ► optionally heat-resistant

Dimensions



S = stroke
T = View for sensor groove

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: external thread, Optionally through (hollow) ► ATEX optional ► optionally heat-resistant

Piston Ø	A	BG 1)	DA H11	Ø DK	Ø DS	DT H13	E	EE	KK	KV	KW	LA	LB
16	20	14.5	10	–	–	6	29.5	M5	M8x1,25	13	4	2.5	3.5
20	22	15.5	12	–	3	7.5	36	M5	M10x1,25	16	5	2.5	4.5
25	22	15.5	12	–	3	8	40	M5	M10x1,25	16	5	2.5	4.4
32	22	18	14	–	4.5	8.6	50	G 1/8	M10x1,25	16	5	2.5	5.5
40	22	18	14	–	4.5	9	58	G 1/8	M10x1,25	16	5	2.5	5.5
50	24	24	18	–	6	11	68	G 1/8	M12x1,25	18	6	2.5	2
63	24	24	18	–	6	11	80	G 1/8	M12x1,25	18	6	2.5	2
80	32	28	23	G 1/8	8	14	99	G 1/8	M16x1,5	24	8	3	1
100	40	27.5	28	G 1/4	11.5	15	120	G 1/8	M20x1,5	30	10	3	3.5

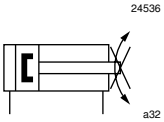
Piston Ø	LJ	LW	MM f8	PL	Ø RR	RT	SW	TG	WH	X1	X2	X3	ZA +S
16	2.5	2.8	8	7.5	3.3	M4	7	18 ±0,4	4.5	–	–	–	38
20	4.5	3.7	10	7.5	4.2	M5	8	22 ±0,4	5	4.2	–	–	38
25	5	3.7	10	7.5	4.2	M5	8	26 ±0,4	5.5	4.5	–	–	39
32	5.1	5*	12	8.5	5.1	M6	10*	32 ±0,5	7	6.5	–	–	44
40	9.6	5*	12	8.5	5.1	M6	10*	42 ±0,5	7	11	–	–	45
50	8.5	4,8*	16	8.5	6.7	M8	13*	50 ±0,6	7.5	13	4	13	45.5
63	17.8	4,8*	16	8.5	6.7	M8	13*	62 ±0,7	8	18	12	21	49
80	22.9	6,4*	20	8.3	8.5	M10	16*	82 ±0,7	9.5	18	16.5	25.5	54.5
100	26.5	6,4*	25	9.7	8.5	M10	21*	103 ±0,7	10.5	20	20	29	66.5

Piston Ø	ZB +S
16	42,5 0/+1,4
20	43 0/+1,4
25	44,5 0/+1,4
32	51 0/+1,6
40	52 0/+1,6
50	53 0/+1,6
63	57 0/+2
80	64 0/+2
100	77 0/+2

1) Min.
S = stroke
* Hexagonal wrench flats

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: non-rotating, with front plate, Optionally through ► optionally heat-resistant



Standards	NFE 49004
Compressed air connection	Internal thread
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-20°C / +80°C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar
Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Aluminum
End cover	Aluminum
Front plate	Aluminum

Technical Remarks

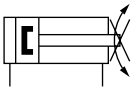
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- The material for heat-resistant scraper and seal variants (ambient temperature: -10 °C/120 °C) is fluorocaoutchouc.
- Further options can be generated in the Internet configurator.

Piston Ø	[mm]	16	20	25	32	40
Retracting piston force	[N]	95	148	260	435	720
Extracting piston force	[N]	127	198	309	507	792
Impact energy	[J]	0.15	0.2	0.3	0.5	0.7
Stroke max.	[mm]	300	300	300	300	300
Working pressure min./max.	[bar]	1 - 10	1 - 10	1 - 10	0.6 - 10	0.6 - 10
Scraper material		Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Sealing material		Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane	Polyurethane

Piston Ø	[mm]	50	63	80	100	
Retracting piston force	[N]	1110	1837	2969	4639	
Extracting piston force	[N]	1237	1964	3167	4948	
Impact energy	[J]	1	1.3	1.8	2.5	
Stroke max.	[mm]	300	300	300	300	
Working pressure min./max.	[bar]	0.6 - 10	0.6 - 10	0.6 - 10	0.6 - 10	
Scraper material		Polyurethane	Polyurethane	Polyurethane	Polyurethane	
Sealing material		Polyurethane	Polyurethane	Polyurethane	Polyurethane	

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: non-rotating, with front plate, Optionally through ► optionally heat-resistant



Piston Ø Ports	16 M5	20 M5	25 M5	32 G 1/8	40 G 1/8
Stroke 5	0822390600	**0822391600**	**0822392600**	0822393600	0822394600
10	**0822390601**	**0822391601**	**0822392601**	**0822393601**	0822394601
15	**0822390602**	**0822391602**	**0822392602**	**0822393602**	0822394602
20	**0822390603**	**0822391603**	**0822392603**	**0822393603**	**0822394603**
25	**0822390604**	**0822391604**	**0822392604**	**0822393604**	**0822394604**
30	0822390605	**0822391605**	**0822392605**	**0822393605**	**0822394605**
40	**0822390606**	**0822391606**	**0822392606**	**0822393606**	**0822394606**
50	**0822390607**	**0822391607**	**0822392607**	**0822393607**	**0822394607**
60	**0822390608**	**0822391608**	**0822392608**	**0822393608**	**0822394608**
80	-	-	-	**0822393609**	**0822394609**
100	-	-	-	**0822393610**	**0822394610**

Piston Ø Ports	50 G 1/8	63 G 1/8	80 G 1/8	100 G 1/8	
Stroke 5	**0822395600**	0822396600	0822397600	0822398600	
10	**0822395601**	**0822396601**	0822397601	0822398601	
15	**0822395602**	0822396602	0822397602	0822398602	
20	**0822395603**	**0822396603**	0822397603	0822398603	
25	**0822395604**	**0822396604**	0822397604	0822398604	
30	**0822395605**	0822396605	0822397605	0822398605	
40	**0822395606**	0822396606	0822397606	0822398606	
50	**0822395607**	**0822396607**	0822397607	0822398607	
60	**0822395608**	**0822396608**	0822397608	0822398608	
80	0822395609	0822396609	0822397609	0822398609	
100	**0822395610**	0822396610	0822397610	0822398610	

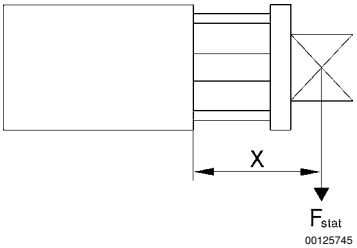
Configurable product

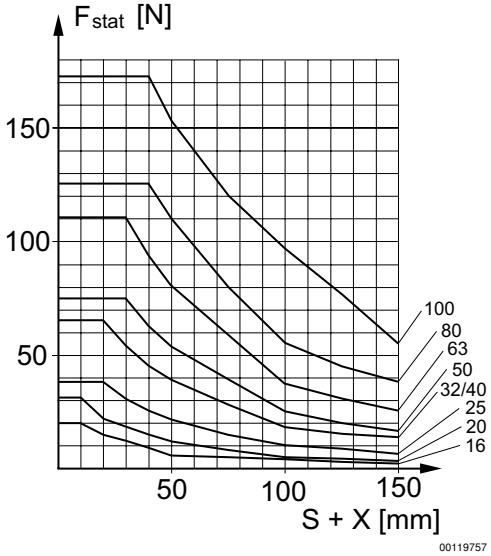
This product is configurable. Please use our Internet configurator at http://www.aventics.com or contact the nearest AVENTICS sales office.

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: non-rotating, with front plate, Optionally through ► optionally heat-resistant

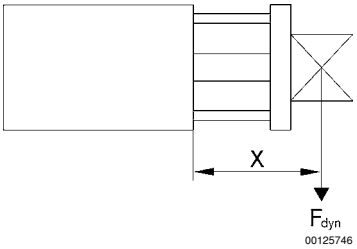
Maximum permissible lateral force, Static

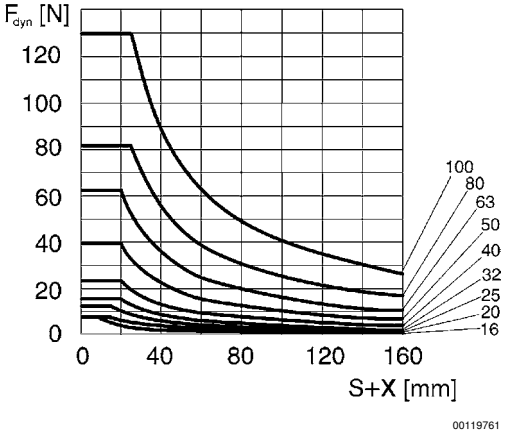




F stat. = static lateral force
X = spacing between force application point and cylinder cover
S = stroke

Maximum permissible lateral force, Dynamic



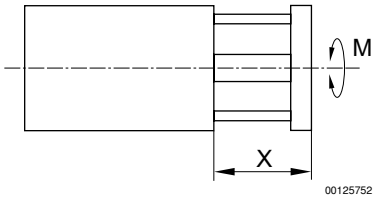


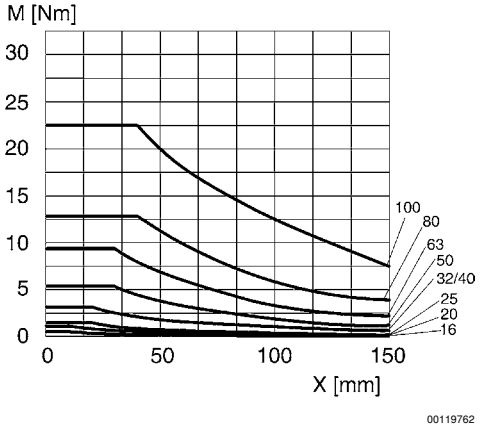
F dyn. = dynamic lateral force
X = spacing between force application point and cylinder cover
S = stroke

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: non-rotating, with front plate, Optionally through ► optionally heat-resistant

Max. permissible torque



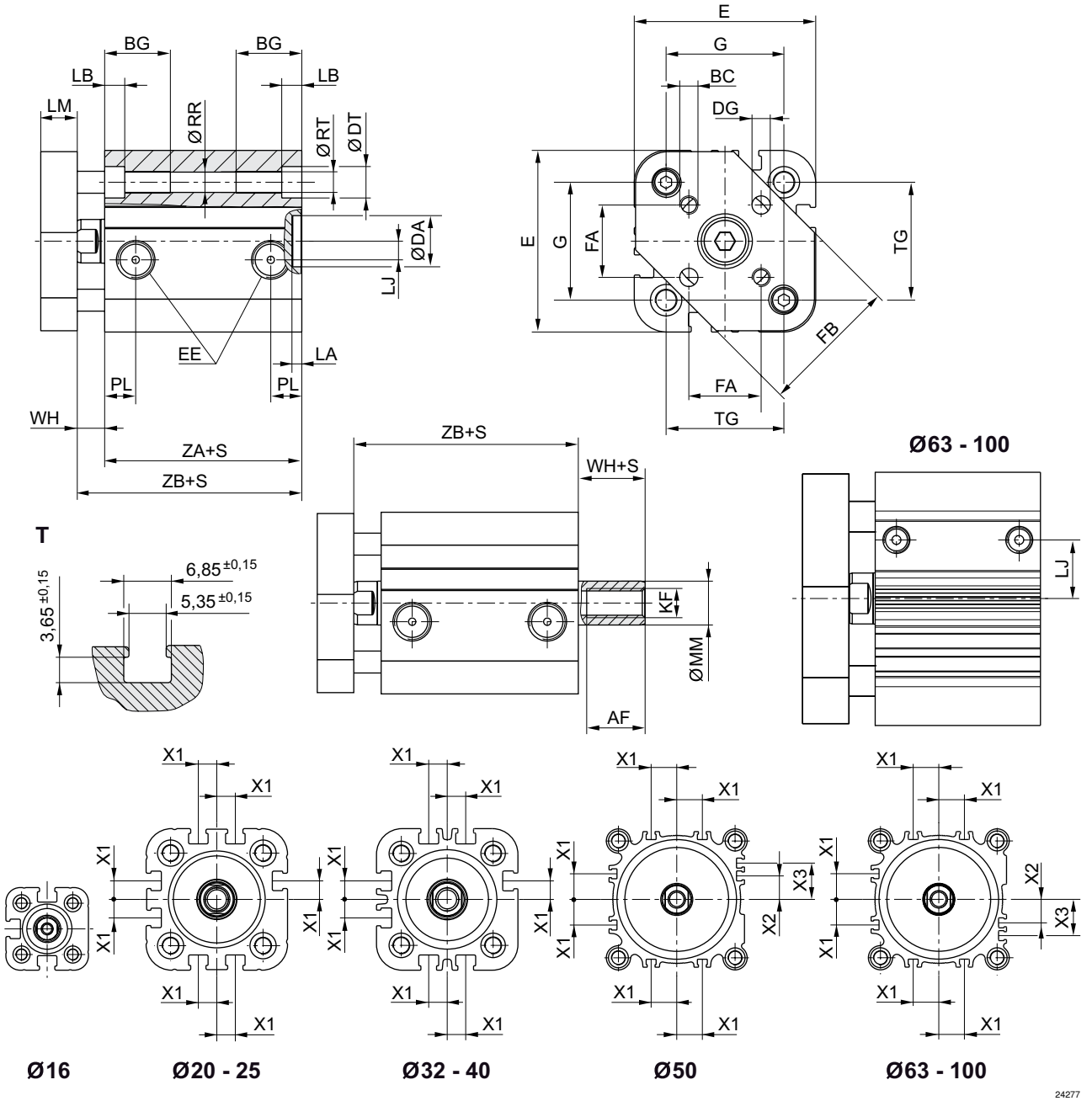


M = max. permissible torque
X = spacing between force application point and cylinder cover

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: non-rotating, with front plate, Optionally through ► optionally heat-resistant

Dimensions



S = stroke
T = View for sensor groove without guide plate

Piston Ø	AF 1)	BC	BG 1)	DA H11	DG H13	DT H13	E	EE	FA ±0,1	FB	G	KF
16	10	M3	14.5	10	3	6	29.5	M5	9.9	20	19	M4
20	12 10: S<3 mm 2)	M4	15.5	12	4	7.5	36	M5	12	24	25	M6
25	12 10: S<3 mm 2)	M5	15.5	12	5	8	40	M5	15.6	30	27	M6

Compact cylinder, Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: non-rotating, with front plate, Optionally through ► optionally heat-resistant

Piston Ø	AF 1)	BC	BG 1)	DA H11	DG H13	DT H13	E	EE	FA ±0,1	FB	G	KF
32	12	M5	18	14	5	8.6	50	G 1/8	19.8	38	32	M8
40	12	M5	18	14	5	9	58	G 1/8	23.3	44	42	M8
50	16 12: S<4 mm 2)	M6	24	18	6	11	68	G 1/8	29.7	54	50	M10
63	16 12: S<4 mm 2)	M6	24	18	6	11	80	G 1/8	35.4	62	62	M10
80	20 15: S<3 mm 2)	M8	28	23	8	14	99	G 1/8	46	80	82	M12
100	26 21: S<5 mm 2)	M10	27.5	28	10	15	120	G 1/8	56.6	100	103	M16

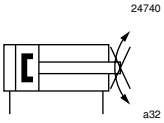
Piston Ø	LA	LB	LJ	LM	MM f8	PL	Ø RR	RT	TG	WH	X1	X2	X3
16	2.5	3.5	2.5	6	8	7.5	3.3	M4	18 ±0,4	4.5	–	–	–
20	2.5	4.5	4.5	8	10	7.5	4.2	M5	22 ±0,4	5	4.2	–	–
25	2.5	4.4	5	8	10	7.5	4.2	M5	26 ±0,4	5.5	4.5	–	–
32	2.5	5.5	5.1	10	12	8.5	5.1	M6	32 ±0,5	7	6.5	–	–
40	2.5	5.5	9.6	10	12	8.5	5.1	M6	42 ±0,5	7	11	–	–
50	2.5	2	8.5	12	16	8.5	6.7	M8	50 ±0,6	7.5	13	4	13
63	2.5	2	17.8	12	16	8.5	6.7	M8	62 ±0,7	8	18	12	21
80	3	1	22.9	14	20	8.3	8.5	M10	82 ±0,7	9.5	18	16.5	25.5
100	3	3.5	26.5	14	25	9.7	8.5	M10	103 ±0,7	10.5	20	20	29

Piston Ø	ZA +S	ZB +S											
16	38	42,5 0/+1,4											
20	38	43 0/+1,4											
25	39	44,5 0/+1,4											
32	44	51 0/+1,6											
40	45	52 0/+1,6											
50	45.5	53 0/+1,6											
63	49	57 0/+2											
80	54.5	64 0/+2											
100	66.5	77 0/+2											

1) Min.
2) Option: through piston rod
S = stroke

Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, non-rotating, Optionally through (hollow) ► ATEX optional



Standards	NFE 49004
Compressed air connection	Internal thread
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-20°C / +80°C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar
Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Aluminum
End cover	Aluminum

Technical Remarks

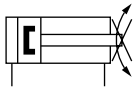
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Use our Internet configurator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

Piston Ø	[mm]	20	25	32	40	50
Retracting piston force	[N]	148	260	435	720	1110
Extracting piston force	[N]	198	309	507	792	1237
Impact energy	[J]	0.2	0.3	0.5	0.7	1
Stroke max.	[mm]	300	300	300	300	300
Working pressure min./max.	[bar]	1 - 10	1 - 10	0.6 - 10	0.6 - 10	0.6 - 10
Scraper material		Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Sealing material		Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane	Polyurethane	Polyurethane

Piston Ø	[mm]	63				
Retracting piston force	[N]	1827				
Extracting piston force	[N]	8736.65				
Impact energy	[J]	1.76				
Stroke max.	[mm]	300				
Working pressure min./max.	[bar]	0.6 - 10				
Scraper material		Polyurethane				
Sealing material		Polyurethane				

Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, non-rotating, Optionally through (hollow) ► ATEX optional

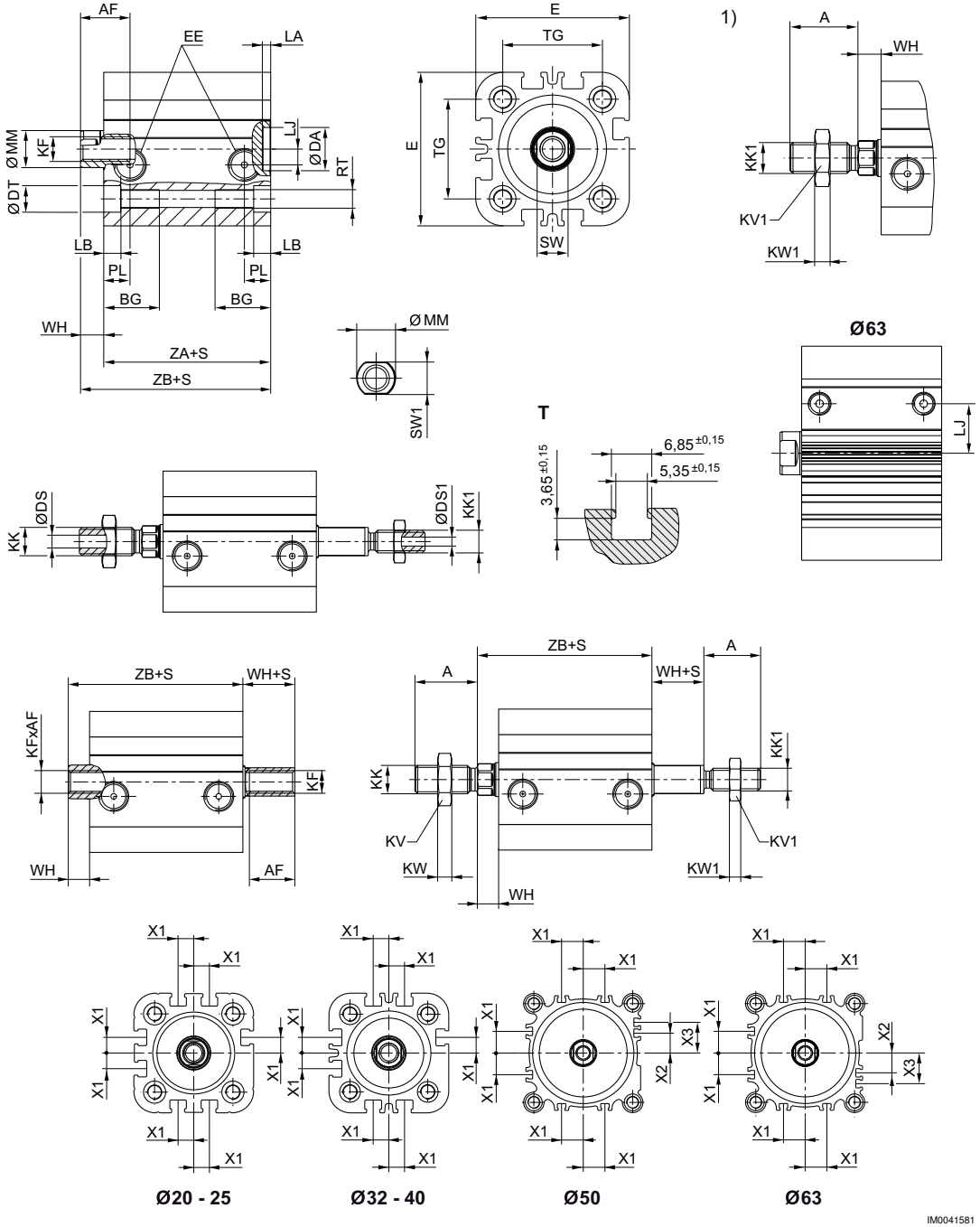
	Piston Ø Piston rod thread Ports	20 M6 M5	25 M6 M5	32 M8 G 1/8	40 M8 G 1/8	50 M10 G 1/8
	Stroke 5	0822391900	0822392900	0822393900	0822394900	0822395900
	10	0822391901	0822392901	0822393901	0822394901	0822395901
	15	0822391902	0822392902	0822393902	0822394902	0822395902
	20	0822391903	0822392903	0822393903	0822394903	0822395903
	25	0822391904	0822392904	0822393904	0822394904	0822395904
	30	0822391905	0822392905	0822393905	0822394905	0822395905
	40	0822391906	0822392906	0822393906	0822394906	0822395906
	50	0822391907	0822392907	0822393907	0822394907	0822395907
	60	0822391908	0822392908	0822393908	0822394908	0822395908
	80	0822391909	0822392909	0822393909	0822394909	0822395909
	100	0822391910	0822392910	0822393910	0822394910	0822395910
	Piston Ø Piston rod thread Ports	**63 M10 G 1/8**				
	Stroke 5	0822396900				
	10	0822396901				
	15	0822396902				
	20	0822396903				
	25	0822396904				
	30	0822396905				
	40	0822396906				
	50	0822396907				
	60	0822396908				
	80	0822396909				
	100	0822396910				

Configurable product	
	This product is configurable. Please use our Internet configurator at http://www.aventics.com or contact the nearest AVENTICS sales office.

Series KPZ

► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, non-rotating, Optionally through (hollow) ► ATEX optional

Dimensions



S = stroke
T = View for sensor groove
1) external thread
Use our Internet configurator to order variants with an external thread.

Series KPZ

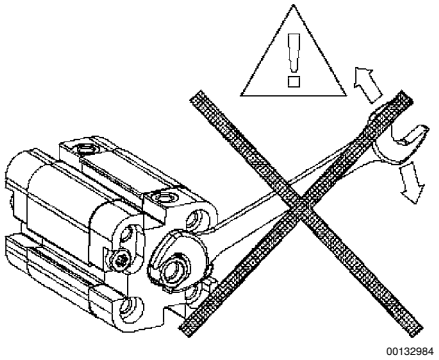
► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, non-rotating, Optionally through (hollow) ► ATEX optional

Piston Ø	A	AF 1)	BG 1)	Ø DA H11	Ø DS	Ø DS1	Ø DT H13	E	EE	KF	KK	KK1
20	22	12 10: S<3 mm 2)	15.5	12	3	-	7.5	36	M5	M6	M10x1,25	M8x1,25
25	22	12 10: S<3 mm 2)	15.5	12	3	-	8	40	M5	M6	M10x1,25	M8x1,25
32	22	12	18	14	4.5	3	8.6	50	G 1/8	M8	M10x1,25	M8x1,25
40	22	12	18	14	4.5	3	9	58	G 1/8	M8	M10x1,25	M8x1,25
50	24	16 12: S<4 mm 2)	24	18	6	6	11	68	G 1/8	M10	M12x1,25	M10x1,25
63	24	16 12: S<4 mm 2)	24	18	6	6	11	80	G 1/8	M10	M12x1,25	M10x1,25

Piston Ø	KV	KV1	KW	KW1	LA	LB	LJ	LW	MM f8	PL	RT	SW	SW1
20	16	13	5	4	2.5	4.5	4.5	3.7	10	7.5	M5	8	8
25	16	13	5	4	2.5	4.4	5	3.7	10	7.5	M5	8	8
32	16	13	5	4	2.5	5.5	5.1	5	12	8.5	M6	10	10
40	16	13	5	4	2.5	5.5	9.6	5	12	8.5	M6	10	10
50	18	16	6	5	2.5	2	8.5	5.7	16	8.5	M8	13	13
63	18	16	6	5	2.5	2	17.8	5.7	16	8.5	M8	13	13

Piston Ø	TG	WH	X1	X2	X3	ZA +S	ZB+S						
20	22 ±0,4	5	4.2	-	-	38	43 0/+1,4						
25	26 ±0,4	5.5	4.5	-	-	39	44,5 0/+1,6						
32	32 ±0,5	7	6.5	-	-	44	51 0/+1,6						
40	42 ±0,5	7	11	-	-	45	52 0/+1,6						
50	50 ±0,6	7.5	13	4	13	45.5	53 0/+1,6						
63	62 ±0,7	8	18	12	21	49	57 ±2						

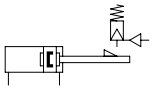
1) Min.
2) Option: through piston rod
S = stroke



Series KPZ with integrated holding unit

► double-acting ► with magnetic piston ► Cushioning: elastic ► with integrated holding unit ► Piston rod: Internal thread

IM0043889



a116

Compressed air connection	Internal thread
Working pressure min./max.	2 bar / 8 bar
Ambient temperature min./max.	-10°C / +60°C
Medium temperature min./max.	-10°C / +60°C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar
Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Aluminum
End cover	Aluminum
Seal	Polyurethane
Scraper	Polyurethane

Technical Remarks

- 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“.
- Warning:The holding unit may not be used for the following applications:- for dynamic holding- as safety equipment
- Holding unit may only be unlocked when turned off.
- Make sure that the load direction does not change during a holding interval. A change in the direction of force, as well as external forces such as impacts, strong vibrations, or torsional forces, will briefly release the piston rod and may destroy the HU1 holding unit.
- When clamped, there must be no residual pressure on the holding unit (0 bar).
- NOTE:The minimum control pressure is >= working pressure!
- Use our Internet configurator to order variants with an external thread.

Piston Ø		[mm]	20	25	32	40	50
Retracting piston force		[N]	148	260	435	665	1039
Extracting piston force		[N]	198	309	507	792	1237
Impact energy		[J]	0.2	0.3	0.5	0.7	1
Weight	0 mm stroke	[kg]	0.27	0.29	0.56	0.88	1.25
	+10 mm stroke	[kg]	0.02	0.03	0.04	0.06	0.08
Stroke max.		[mm]	300	300	300	300	300
Axial play		[mm]	0.3	0.3	0.3	0.3	0.35
Min. holding force at 0 bar		[N]	400	400	650	1100	1600

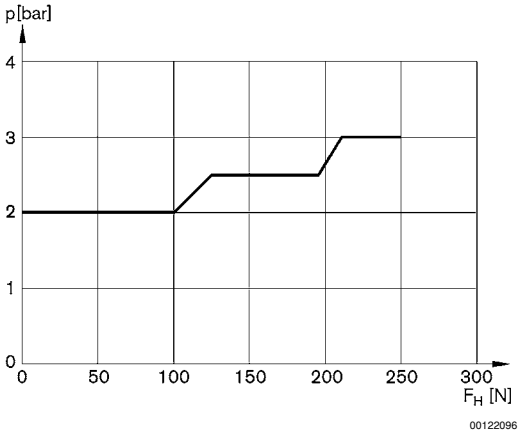
Piston Ø		[mm]	63	80	100		
Retracting piston force		[N]	1766	2857	4639		
Extracting piston force		[N]	1964	3167	4948		
Impact energy		[J]	1.3	1.8	2.5		
Weight	0 mm stroke	[kg]	1.6	3	5		
	+10 mm stroke	[kg]	0.09	0.12	0.15		
Stroke max.		[mm]	300	500	500		
Axial play		[mm]	0.35	0.35	0.35		
Min. holding force at 0 bar		[N]	2500	4000	6300		

Series KPZ with integrated holding unit

► double-acting ► with magnetic piston ► Cushioning: elastic ► with integrated holding unit ► Piston rod: Internal thread

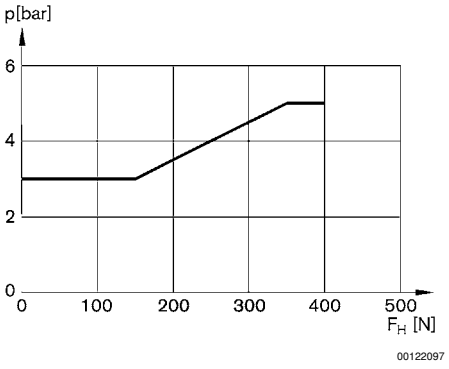
Configurable product	
	This product is configurable. Please use our Internet configurator at http://www.aventics.com or contact the nearest AVENTICS sales office.

Holding force for piston Ø 20



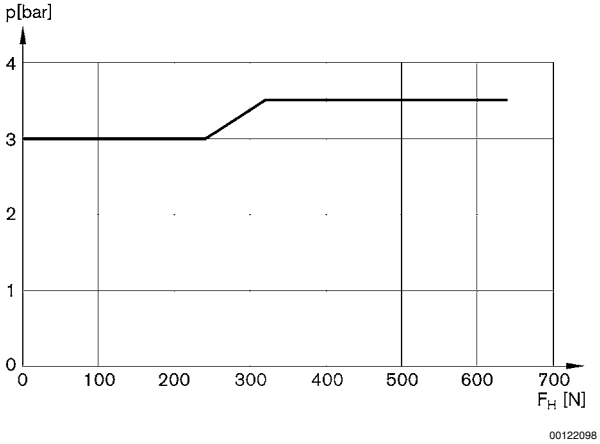
p = release pressure for holding unit
FH = holding force of cylinder

Holding force for piston Ø 25



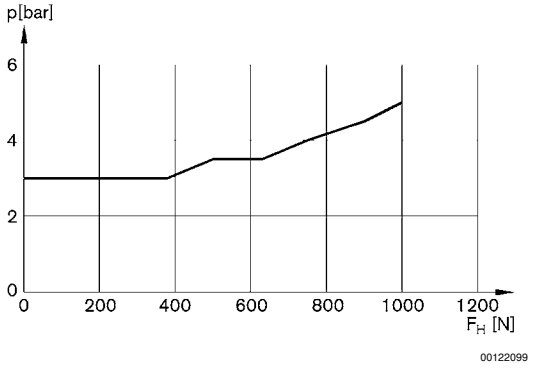
p = release pressure for holding unit
FH = holding force of cylinder

Holding force for piston Ø 32



p = release pressure for holding unit
FH = holding force of cylinder

Holding force for piston Ø 40

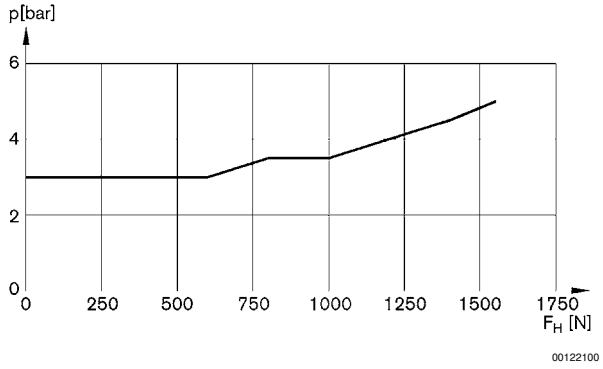


p = release pressure for holding unit
FH = holding force of cylinder

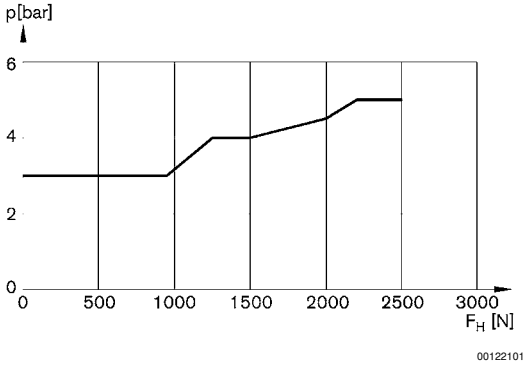
Series KPZ with integrated holding unit

► double-acting ► with magnetic piston ► Cushioning: elastic ► with integrated holding unit ► Piston rod: Internal thread

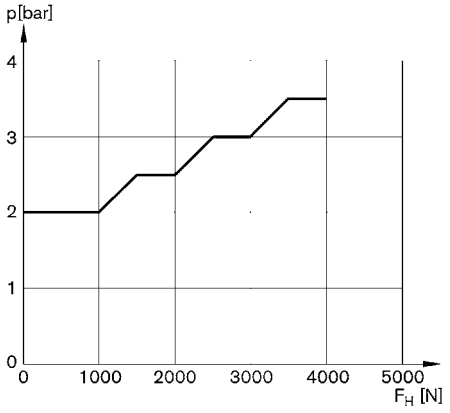
Holding force for piston Ø 50



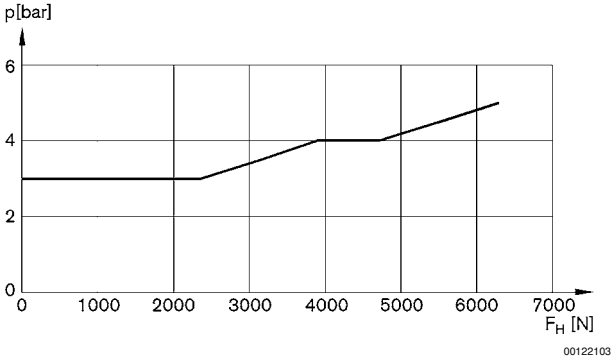
Holding force for piston Ø 63



Holding force for piston Ø 80



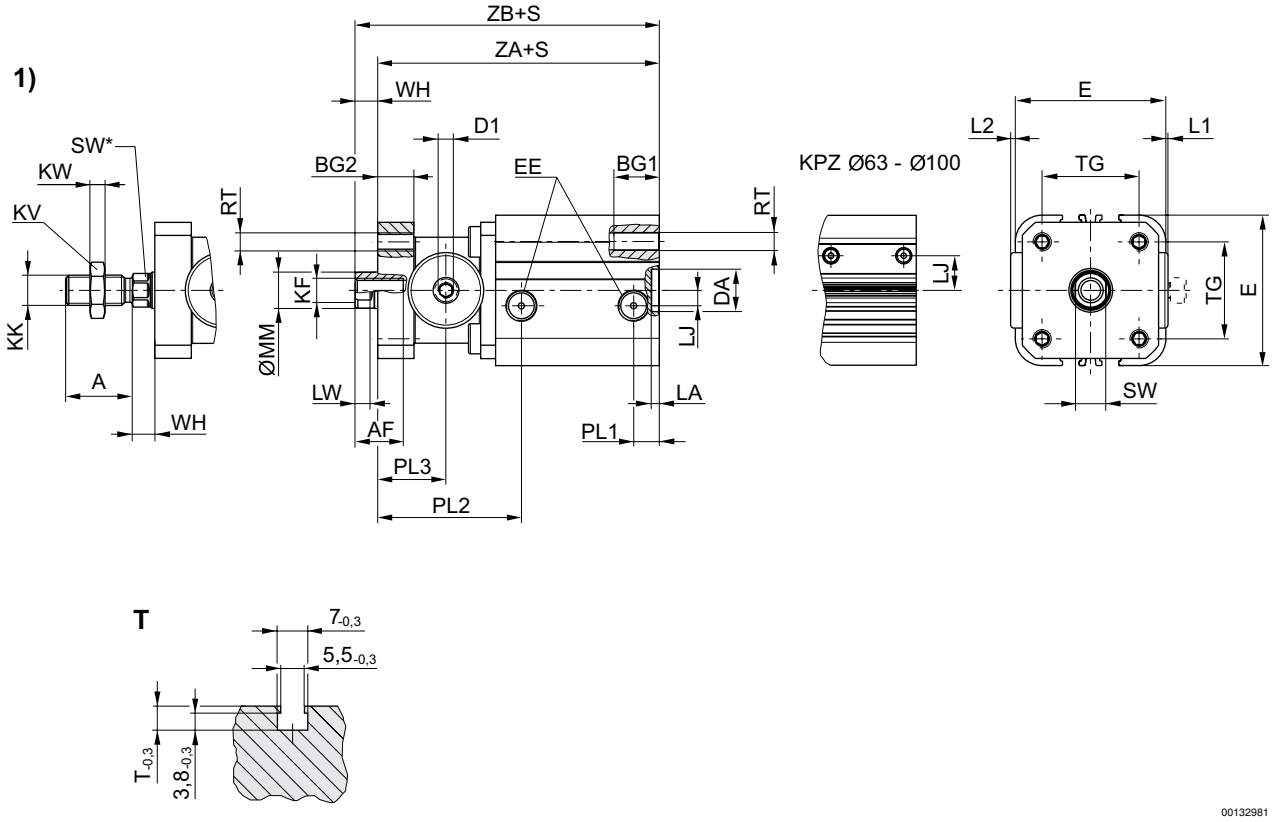
Holding force for piston Ø 100



Series KPZ with integrated holding unit

► double-acting ► with magnetic piston ► Cushioning: elastic ► with integrated holding unit ► Piston rod: Internal thread

Dimensions



S = stroke
T = View for sensor groove
1) external thread
Use our Internet configurator to order variants with an external thread.

Ø	A	AF 1)	BG1 1)	BG2	Ø D1	DA H11	E	EE	KF	KK	KV	KW
20	22	12	15.5	15	M5	12	36	M5	M6	M10x1,25	16	5
25	22	12	15.5	10	M5	12	40	M5	M6	M10x1,25	16	5
32	22	12	18	12	M5	14	50	G 1/8	M8	M10x1,25	16	5
40	24	16	18	20	G 1/8	14	58	G 1/8	M10	M12x1,25	18	6
50	32	20	24	25	G 1/8	18	68	G 1/8	M12	M16x1,5	24	8
63	32	20	24	18	G 1/8	18	80	G 1/8	M12	M16x1,5	24	8
80	40	26	28	20	G 1/8	23	100	G 1/8	M16	M20x1,5	30	10
100	40	26	27.5	20	G 1/8	28	120	G 1/8	M16	M20x1,5	30	10

Ø	L1	L2	LA	LJ	LW	MM	PL1	PL2	PL3	RT	SW	SW*
20	3	1	2.5	4.5	3.5	10	5.5	43	21	M5	8	–
25	1	–	2.5	5	3.5	10	5.5	39	20.5	M5	8	–
32	0.5	–	2.5	5	5	12	8.5	47.5	22.5	M6	10	10
40	1	–	2.5	9.5	6	16	8.5	63.5	34.5	M6	13	13
50	2	–	2.5	8.5	7	20	8.5	72	38.5	M8	16	16
63	–	–	2.5	18	7	20	8.5	62.5	33	M8	16	16
80	–	–	3	23	7.5	25	8.3	77	40	M10	20	20
100	–	–	3	26.5	7.5	25	9.7	91	45.5	M10	20	20

Series KPZ with integrated holding unit

► double-acting ► with magnetic piston ► Cushioning: elastic ► with integrated holding unit ► Piston rod: Internal thread

Ø	TG	WH	ZA+S	ZB+S								
20	22 ±0,4	5.5	65 ±0,5	70,5 ±1,4								
25	26 ±0,4	5.5	66,5 ±0,5	72 ±1,4								
32	32 ±0,5	7	83 ±0,5	90 ±1,6								
40	42 ±0,5	9.5	95 ±0,5	104,5 ±1,6								
50	50 ±0,6	10	104,5 ±0,5	114,5 ±1,6								
63	62 ±0,7	10	97,5 ±0,5	107,5 ±2								
80	82 ±0,7	12	122,5 ±0,5	134,5 ±2								
100	103 ±0,7	12	143,5 ±0,5	155,5 ±2								

1) Min.
* Hexagonal wrench flats

Series KPZ-Multiple position

► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Reinforced ► multi-position cylinder: 3 positions

IM0043903

Compressed air connection	Internal thread
Working pressure min./max.	1 bar / 10 bar
Ambient temperature min./max.	-20 °C / +80 °C
Medium temperature min./max.	-20 °C / +80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Aluminum
End cover	Aluminum
Seal	Polyurethane
Scraper	Polyurethane

Technical Remarks

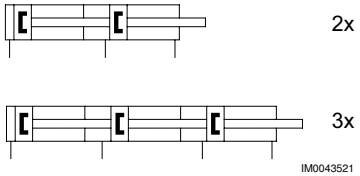
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- In case of tensile load, positioning for intermediate strokes is only possible with counter pressure in the front chamber.
- Use our Internet configurator to order variants with an external thread.

Piston Ø	[mm]	25	40	63	100	
Retracting piston force	[N]	260	665	1766	4639	
Extracting piston force	[N]	309	792	1964	4948	
Impact energy	[J]	0.3	0.7	1.3	2.5	
Max. single stroke	[mm]	400	850	850	850	
Stroke max.	[mm]	400	2000	2000	2000	

Configurable product

This product is configurable. Please use our Internet configurator at http://www.aventics.com or contact the nearest AVENTICS sales office.

Circuit symbol

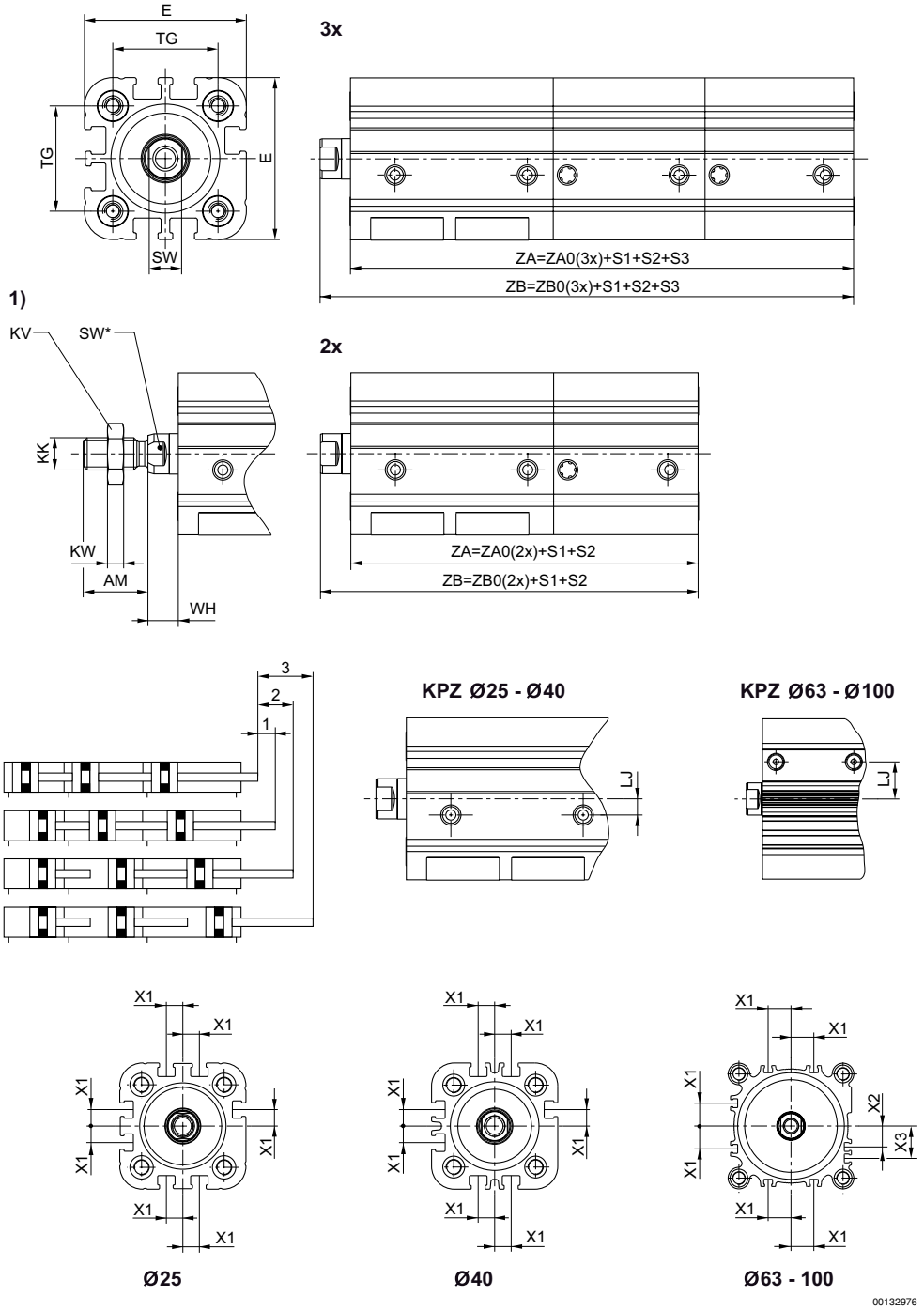


IM0043521

Series KPZ-Multiple position

► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Reinforced ► multi-position cylinder: 3 positions

Dimensions



S = stroke
T = View for sensor groove
1) external thread
Use our Internet configurator to order variants with an external thread.

Series KPZ-Multiple position

► double-acting ► with magnetic piston ► Cushioning: elastic ► Piston rod: Internal thread, Reinforced ► multi-position cylinder: 3 positions

Ø	AF 1)	AM (2)	BG 1)	DA H11	E	EE	KF 6H	KK	KV	KW	LA	LB 2)
25	14	22 (44)	15.5	12	40	M5	M6	M10x1,25	16	5	2.5	3.5
40	20	24 (48)	17	14	58	M5	M10	M12x1,25	18	6	2.5	4
63	20	32 (64)	18	18	80	G 1/8	M12	M16x1,5	24	8	2.5	5.5
100	26	40 (80)	20	28	120	G 1/8	M16	M20x1,5	30	10	3	6.5

Ø	LJ	MM f8	PL 1	PL 2	PL 3	PL4	RT	SW h13	SW*	TG	WH	X1
25	4	10	7.5	7.5	42.6	75.1	M5	8	–	26 ±0,4	7,5 ±1,4	4.5
40	9.5	16	12.5	14.5	61.6	99.6	M6	13	13	42 ±0,5	9,5 ±1,6	11
63	17.8	20	11.5	19	66.4	108.9	M8	16	16	62 ±0,7	10 ±1,6	18
100	26.5	25	13.8	24.8	87.1	145.1	M10	21	21	103 ±0,7	12 ±2,0	20

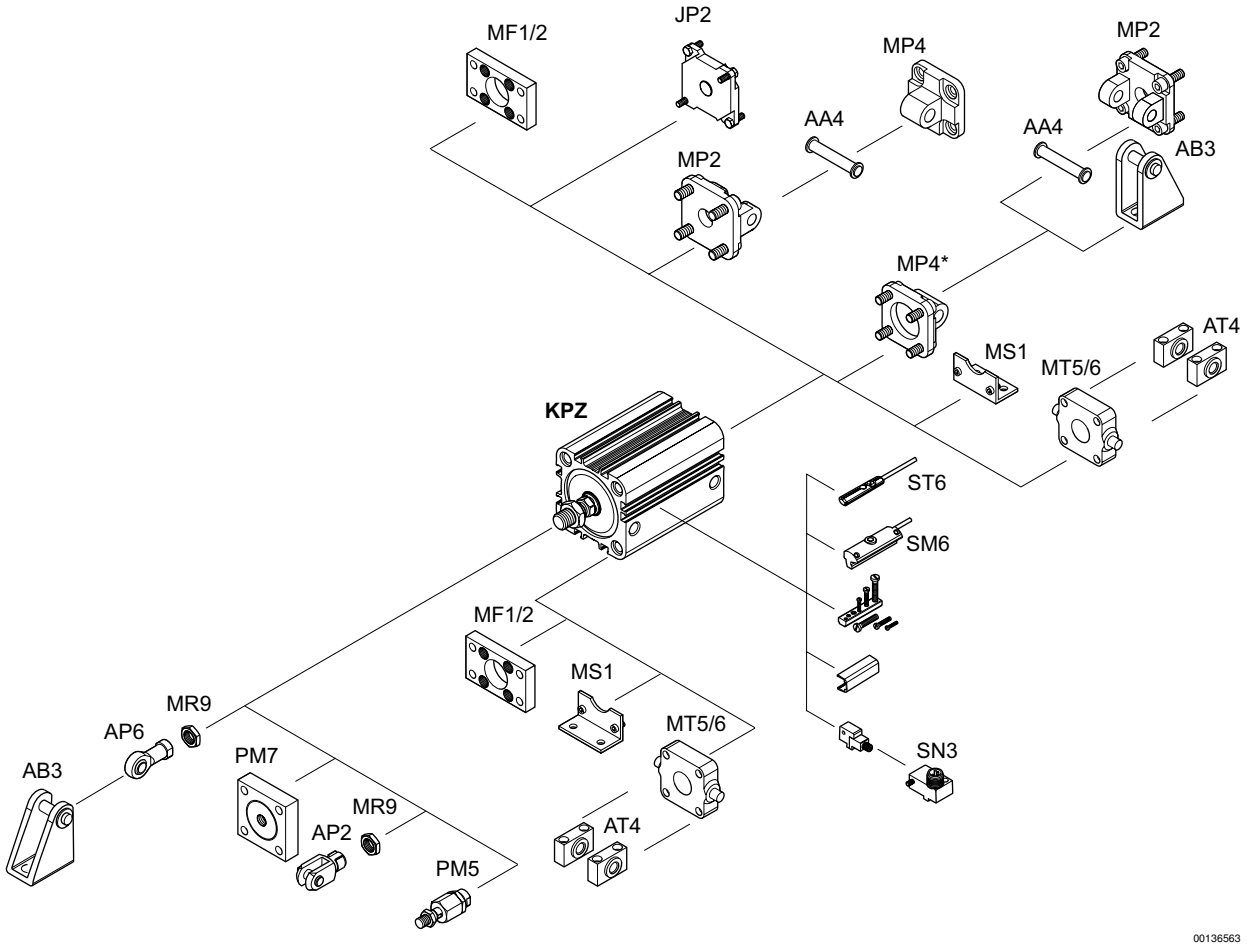
Ø	X2	X3	ZA0 (2x) ±0,5	ZA0 (3x) ±0,8	ZB0 (2x)	ZB0 (3x)					
25	–	–	78	110,5	85,5 ±1,4	118 ±1,4					
40	–	–	102,5	140,5	112 ±1,6	150 ±1,6					
63	12	21	116	158,5	126 ±1,6	168,5 ±1,6					
100	20	29	154,5	212,5	166,5 ±2,0	224,5 ±2,0					

1) Min.
2) Max.
* Hexagonal wrench flats

Series KPZ
Accessories

Accessories overview

Overview drawing

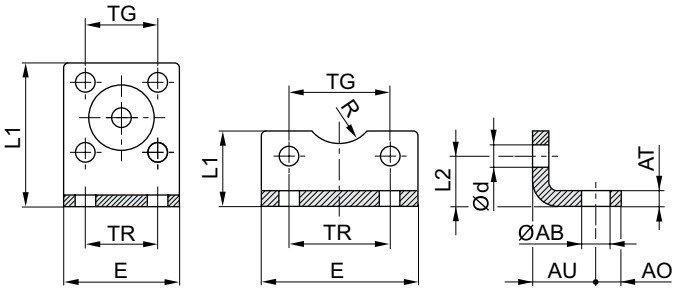


* Available for installation on KPZ for cylinder diameters 16 - 25 mm
NOTE:
This overview drawing is only for orientation to see where the various accessory parts can be fastened to the cylinder. The illustration has been simplified for this purpose. It is thus not possible to derive the dimensions from this overview.

Series KPZ
Accessories

Foot mounting, Series MS1

00105808



Ø16 **Ø20 - 320**

00126387

Scope of delivery: 2 foot mountings incl. mounting screws

Part No.	Piston Ø	For series	ØAB	AO	AT	AU ±0,2	Ød	E	L1	L2
1821332053	16	KPZ CCI CCL-IC	5.5	5	3	13	4.5	29	35.5	13
1827002284	20	KPZ CCI CCL-IC	6.6	6	4	16	5.4	36	22	16
1827002285	25	KPZ CCI CCL-IC	6.6	6	4	16	5.4	40	23	17
1827002286	32	KPZ	6.6	8	5	18	6.6	50	24	16
1827002287	40	KPZ	9	8	5	20	6.6	60	29.5	21.5
1827002288	50	KPZ	9	8	6	24	9	68	30	22
1827002289	63	KPZ	11	12	6	27	9	84	39	28.5
1827002290	80	KPZ	11	12	8	30	11	102	36.5	24.5
1827002291	100	KPZ	13.5	12	8	33	11	123	38.5	26.5

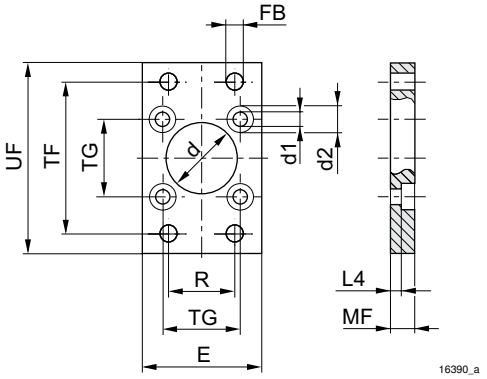
Part No.	Piston Ø	R	TG	TR
1821332053	16	8	18 ±0,2	18
1827002284	20	10	22 ±0,2	22
1827002285	25	11	26 ±0,2	26
1827002286	32	–	32	32
1827002287	40	–	42	42
1827002288	50	–	50	50
1827002289	63	–	62	62
1827002290	80	–	82	82
1827002291	100	–	103	103

Material: Steel
Surface: galvanized

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

Series KPZ
Accessories

Flange mounting, Series MF1, MF2



Scope of delivery: flange mounting incl. mounting screws

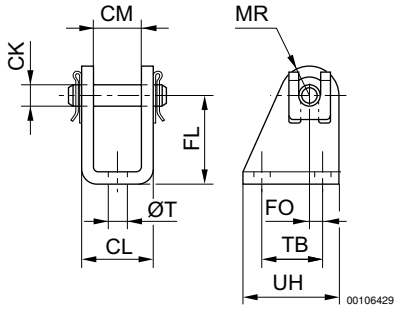
Part No.	Piston Ø	d	Ø d1	Ø d2	E	Ø FB	L4	MF	R	TF	TG
1821038241	16	10	4.5	10	29	5.5	5.6	10	–	43	18
1827002292	20	12	5.5	10	36	6.6	4.6	10	–	55	22
1827002293	25	12	5.5	10	40	6.6	4.6	10	–	60	26
1827002294	32	14	6.6	11	50	7	3.6	10	32	65	32
1827002295	40	14	6.6	11	60	9	3.6	10	36	82	42
1827002296	50	18	9	15	68	9	3.4	12	45	90	50
1827002297	63	18	9	15	87	9	6.4	15	50	110	62
1827002298	80	23	11	18	107	12	4.4	15	63	135	82
1827002299	100	28	11	18	128	14	4.4	15	75	163	103

Part No.	UF	Weight [kg]
1821038241	55	0.05
1827002292	70	0.18
1827002293	76	0.23
1827002294	80	0.23
1827002295	102	0.45
1827002296	110	0.66
1827002297	130	1.27
1827002298	160	1.9
1827002299	190	2.7

Material: Steel
Surface: galvanized

Series KPZ
Accessories

Clevis mounting, Series AB3

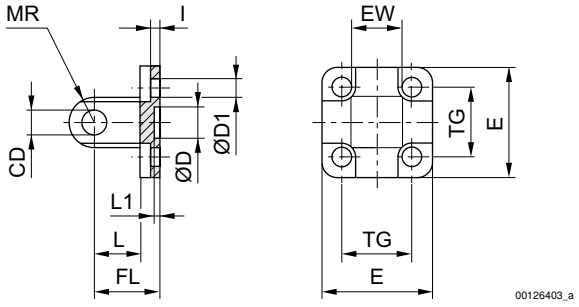


Scope of delivery: clevis mounting incl. pivot pins

Part No.	Piston Ø	CM	Ø CK	CL	FL	FO	MR	Ø T	TB	UH		
1827001446	12, 16	12,1	6	18,1	27	2,0	7	5,5	15	25		
1827001445	20, 25	16,1	8	24,1	30	4,0	10	6,6	20	32		

Material: Steel
Surface: galvanized

Rear eye, Series MP4
► for clevis mounting MP2 and AB3



Scope of delivery: clevis incl. mounting screws

Part No.	Piston Ø	CD H9	Ø D	Ø D1	E	EW	FL ±0,2	I ±0,5	L 1)	L1 1)	MR 2)
1825805368	16	6	10 H13	4.5	27	12 –0,2/–0,6	16	2.6	10	3	6
1827002300	20	8	12 H13	5.5	34	16 –0,2/–0,6	20	2.6	14	3	8
1827002301	25	8	12 H13	5.5	40	16 –0,2/–0,6	20	2.6	14	3	8
1827001283	32	10	30 H11	6.6	48	26 –0,2/–0,6	22	5.5	12	4.5	10
1827001284	40	12	35 H11	6.6	53	28 –0,2/–0,6	25	5.5	15	4.5	12
1827001285	50	12	40 H11	9	63	32 –0,2/–0,6	27	6.5	15	4.5	12
1827020086	63	16	45 H11	9	73	40 –0,2/–0,6	32	6.5	20	4.5	16
1827001287	80	16	45 H11	11	98	50 –0,2/–0,6	36	10	20	4.5	16
1827001288	100	20	55 H11	11	115	60 –0,2/–0,6	41	10	25	4.5	20

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

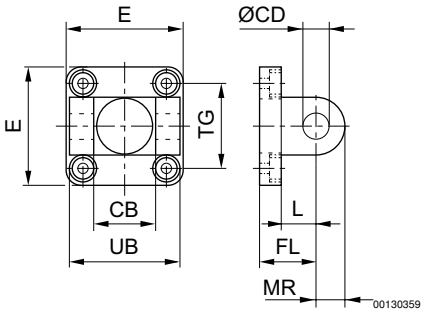
Series KPZ
Accessories

Part No.	TG	Standardization	Note								
1825805368	18 ±0,2	-	3)								
1827002300	22 ±0,4	ISO 21287	4) 6)								
1827002301	26 ±0,4	ISO 21287	4) 6)								
1827001283	32,5 ±0,2	ISO 15552	5)								
1827001284	38 ±0,2	ISO 15552	5)								
1827001285	46,5 ±0,2	ISO 15552	5)								
1827020086	56,5 ±0,2	ISO 15552	5)								
1827001287	72 ±0,2	ISO 15552	5)								
1827001288	89 ±0,2	ISO 15552	5)								

1) Min.
2) Max.
3) Material: Die-cast aluminum
4) Material: Steel
5) Material: Aluminum (forged)
6) Surface: galvanized

Clevis mounting, Series MP2
► for Series KPZ

P523_025



Scope of delivery: clevis mounting incl. mounting screws

Part No.	Piston Ø	For series	CB H14	Ø CD H9	E	FL ±0,2	L 1)	MR 2)	UB h13	TG	
1827002302	32	KPZ	26	10	48	22	13	10	45	32 ±0,5	
1827002303	40	KPZ	28	12	58	25	16	12.5	52	42 ±0,5	
1827002304	50	KPZ	32	12	66	27	16	12.5	60	50 ±0,6	
1827002305	63	KPZ	40	16	83	32	21	15	70	62 ±0,6	
1827002306	80	KPZ	50	16	102	36	23	15	90	82 ±0,7	
1827002307	100	KPZ	60	20	123	41	26	20	110	103 ±0,7	

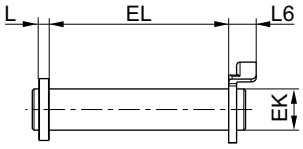
1) Min.
2) Max.
Material: Steel
Surface: galvanized

Series KPZ
Accessories

Bolts, AA4

00105158

Fig. 1



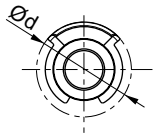
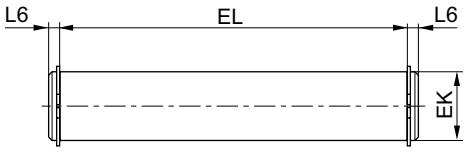
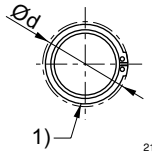


Fig. 2





21294

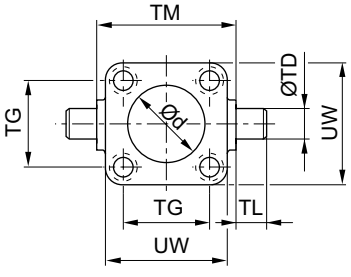
Scope of delivery: pivot pins incl. circlips
1) circlip DIN 471

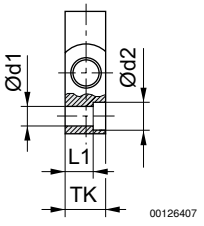
Part No.	Piston Ø	Ø d 2)	EK e8	EL	L 2)	L6 2)	Weight [kg]	Fig.			
1823120020	32	20	10	45,2 +0,3	3.5	9	0.03	Fig. 1			
1823120021	40	22	12	52,2 +0,3	4	9	0.05	Fig. 1			
1823120022	50	22	12	60,2 +0,3	4	9	0.06	Fig. 1			
1823120023	63	28	16	70,2 +0,3	4.5	11	0.12	Fig. 1			
1823120024	80	28	16	90,2 +0,3	4.5	11	0.15	Fig. 1			
1823120025	100	38	20	110,2 +0,3	5	11	0.29	Fig. 1			

2) Max.
Material: Steel
Surface: galvanized

Trunnion mounting, front or rear, Series MT5, MT6

00128925





00126407

The delivered product may vary from that in the illustration.
Scope of delivery: trunnion mounting incl. mounting screws

Series KPZ
Accessories

Part No.	Piston Ø	For series	Ø d H11	Ø d1	Ø d2	L1	TD e9	TG ±0,2	TK	TL h14	TM h14
1825805360	20	CCI KPZ CCL-IC/-IS	18	5.5	10	8	12	22	14	12	38
1825805361	25	CCI KPZ CCL-IC/-IS	22	5.5	10	8	12	26	14	12	42
1827001609	32	CCI CVI CCL-IC/-IS ICL PRA/TRB	30	6.6	11	7.5	12	32.5	16	12	50
1827001610	40	CCI CVI CCL-IC/-IS ICL PRA/TRB	35	6.6	11	7.5	16	38	20	16	63
1827001611	50	CCI CVI CCL-IC/-IS ICL PRA/TRB	40	9	15	10	16	46.5	24	16	75
1827002046	63	CCI CVI CCL-IC/-IS ICL PRA/TRB	45	9	15	10	20	56.5	24	20	90
1827001613	80	CCI CVI CCL-IC/-IS ICL PRA/TRB	45	11	18	16	20	72	28	20	110
1827001614	100	CCI CVI CCL-IC/-IS ICL PRA/TRB	55	11	18	25.5	25	89	38	25	132

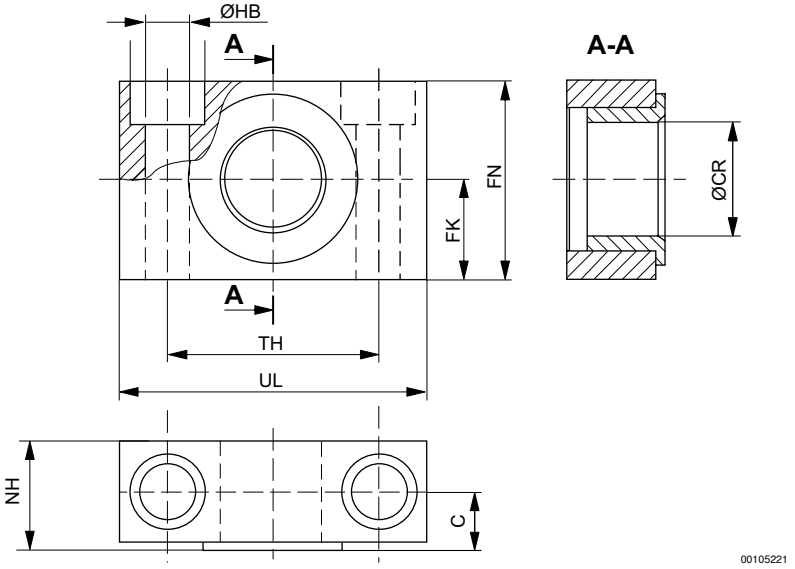
Part No.	Piston Ø	UW
1825805360	20	35
1825805361	25	39
1827001609	32	48
1827001610	40	56
1827001611	50	65
1827002046	63	75
1827001613	80	100
1827001614	100	120

Material: Nodular graphite iron
Surface: galvanized

Series KPZ
Accessories

Bearing brackets MT4, MT5, MT6, Series AT4
► Cylinder mounting in accordance with ISO 15552 ► for Series CCI, CCL-IC, ICL, KPZ, PRA/TRB

00105163



00105221

Part No.	Piston Ø	For series	UL	NH	TH	C	CR H9	HB H13	FN	FK
1827001603	20, 25, 32	CCI CCL-IC ICL KPZ PRA/TRB	46	18	32 ±0,2	10.5	12	6.6	30	15 ±0,1
1827001604	40, 50	CCI CCL-IC ICL KPZ PRA/TRB	55	21	36 ±0,2	12	16	9	36	18 ±0,1
1827001605	63, 80	CCI CCL-IC ICL KPZ PRA/TRB	65	23	42 ±0,2	13	20	11	40	20 ±0,1
1827001606	100, 125	CCI CCL-IC ICL KPZ PRA/TRB	75	28.5	50 ±0,2	16	25	14	50	25 ±0,1

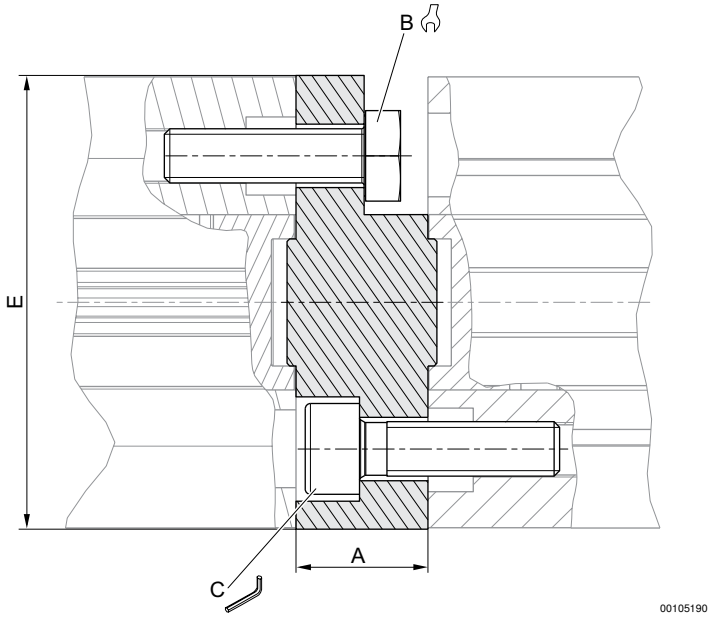
Part No.	Piston Ø	Plain bearing	Delivery quantity [Piece]
1827001603	20, 25, 32	Sintered bronze	2
1827001604	40, 50	Sintered bronze	2
1827001605	63, 80	Sintered bronze	2
1827001606	100, 125	Sintered bronze	2

Material: Steel
Surface: galvanized

Series KPZ
Accessories

Intermediate flange, Series JP2
► for multi-position cylinders ► for Series CCI, KPZ, KPZ

IM0043337



00105190

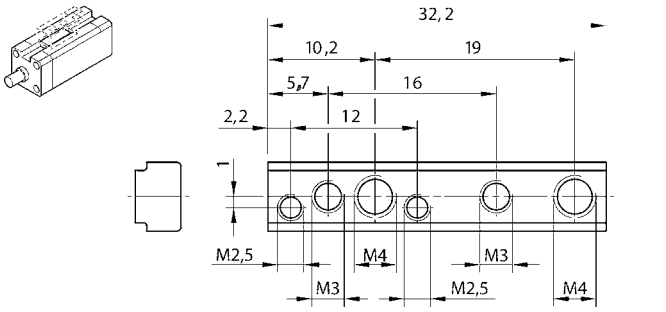
Part No.	Piston Ø	For series	A	B	C	Md [Nm] 1)	E					
1827020290	16	CCI KPZ	12.5	7	–	2.5	28.4					
1827020267	20	CCI KPZ	12.5	8	–	4	35					
1827020268	25	CCI KPZ	13	8	4	4	40					
1827020269	32	CCI KPZ	14.5	10	5	4	50					
1827020270	40	CCI KPZ	14.5	10	5	4	57.1					
1827020271	50	CCI KPZ	14.5	13	6	8	67.4					
1827020272	63	CCI KPZ	14.5	13	6	8	80					
1827020273	80	KPZ	16.5	16	–	16	98.4					
1827020274	100	KPZ	19.5	16	–	16	120					

1) torque
Material: Aluminum

Series KPZ
Accessories

Mounting kit

00103610



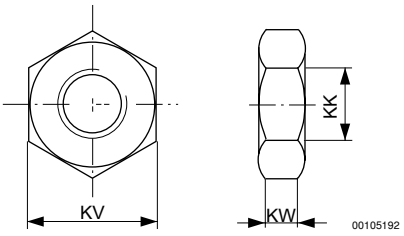
00111998

Part No.	Ø mm	Material	Material Screws	Surface Screws	Weight [kg]				
1827020275	16–100	Brass	Steel	galvanized	0.02				

Series KPZ
Accessories

Nut for piston rod, Series MR9

00105168



00105192

Part No.	KK	KV	KW	Material	Surface	Weight				
						[kg]				
1823300034	M8	13	4	Steel	galvanized	0.005				
1823300020	M10x1,25	17	6	Steel	galvanized	0.01				
8103190344	M12x1,25	19	6	Steel	galvanized	0.012				

Rod clevis, Series AP2
► galvanized steel

00105171

Fig. 1

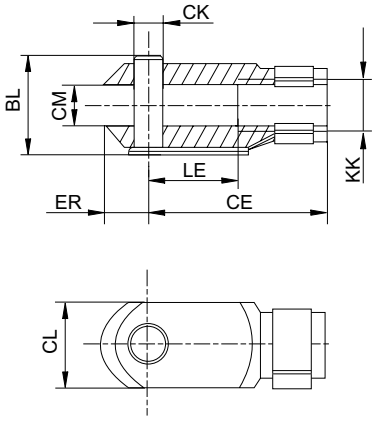
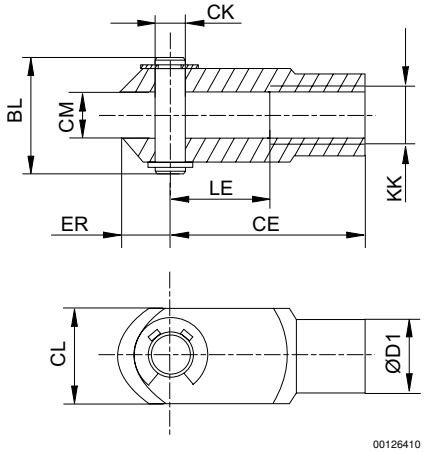


Fig. 2



00126410

Part No.	KK	BL	CE	ØCK e11	CL	CM	ØD1	ER	LE	Material
1822122010	M8	21,5	32	8	16	8	14	10	16	Steel
1822122024	M10x1,25	26	40	10	20	10	18	12	20	Steel
1822122025	M12x1,25	31	48	12	24	12	20	14	24	Steel
1822122005	M16x1,5	39	64	16	32	16	26	19	32	Steel
1822122004	M20x1,5	50	80	20	40	20	34	20	40	Steel

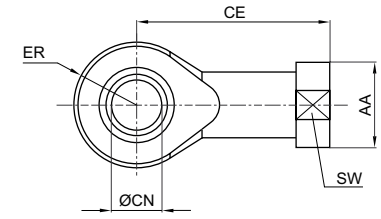
Part No.	Surface	Weight	Fig.								
		[kg]									
1822122010	galvanized	0.05	Fig. 1								
1822122024	galvanized	0.1	Fig. 1								
1822122025	galvanized	0.16	Fig. 1								
1822122005	galvanized	0.4	Fig. 1								

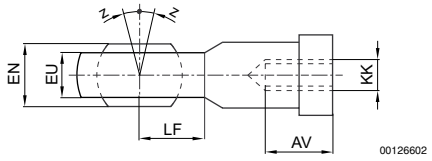
Series KPZ
Accessories

Part No.	Surface	Weight	Fig.								
		[kg]									
1822122004	galvanized	0.7	Fig. 1								

Ball eye rod end with flange, Series AP6
► **galvanized steel**

00105172





00126602

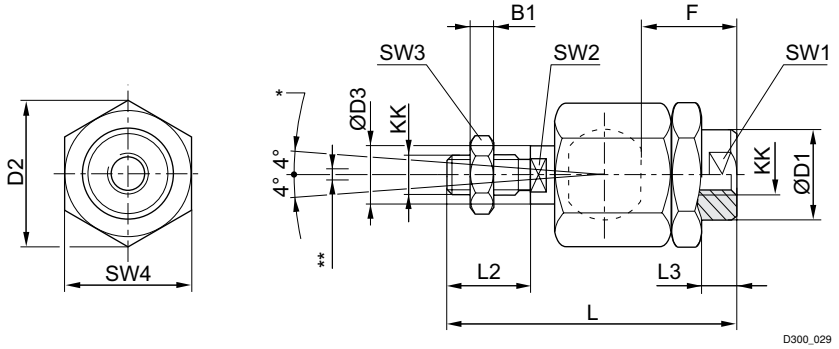
Part No.	KK	AA	AV min.	CE	Ø CN H7	EN –0,1	ER	EU max.	LF	SW	Z [°] max.
1822124002	M8	16	12	36	8	12	12	9.5	12	14	4
1822124003	M10x1,25	19	15	43	10	14	14	11.5	14	17	4
1822124004	M12x1,25	22	18	50	12	16	16	12.5	16	19	4
1822124005	M16x1,5	27	24	64	16	21	21	15.5	21	22	4
1822124006	M20x1,5	34	30	77	20	25	25	18.5	25	30	4

Part No.	Material	Surface	Weight								
			[kg]								
1822124002	Steel	galvanized	0.05								
1822124003	Steel	galvanized	0.07								
1822124004	Steel	galvanized	0.12								
1822124005	Steel	galvanized	0.21								
1822124006	Steel	galvanized	0.38								

Series KPZ
Accessories

Flexible spherical coupling, Series PM5

00105169



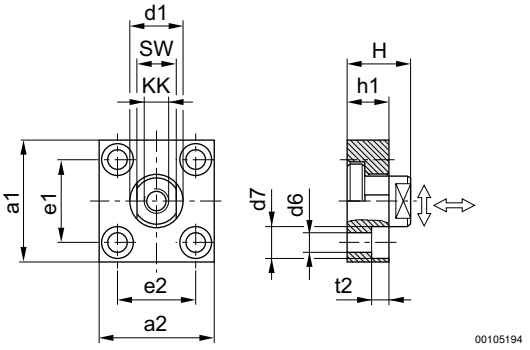
* Angle joint
** Radial joint from 0,5 - 2 mm
Axial play set to 0.05 to 0.2 mm

Part No.	KK	B1	Ø D1	D2	Ø D3	F	L ±2	L2	L3 ±1	SW1	SW2	SW3
1826409001	M8	4	12.5	20	8	14.5	55	15	5	10	6	13
1826409002	M10x1,25	6	21.5	34	14	23	73	20	7.5	19	12	17
1826409003	M12x1,25	7	21.5	34	14	28	77	24	13	19	12	19
1826409004	M16x1,5	8	33.5	47	22	32	108	32	9	30	19	24
1826409005	M20x1,5	10	33.5	47	22	42	122	40	19	30	19	30

Part No.	SW4	Material	Surface	Weight [kg]
1826409001	17	Steel	galvanized	0.05
1826409002	30	Steel	galvanized	0.21
1826409003	30	Steel	galvanized	0.21
1826409004	41	Steel	galvanized	0.65
1826409005	41	Steel	galvanized	0.68

Flexible plate coupling, Series PM7

00105170



Part No.	KK	a1	a2	d1 h11	d6 H13	d7 H13	e1 H13	e2	h1	t2	H
1827001629	M10x1,25	60	37	20	6.6	11	36 ±0,15	23 ±0,15	15	7	24
1827001630	M12x1,25	60	56	25	9	15	42 ±0,2	38 ±0,2	20	9	30

Series KPZ
Accessories

Part No.	KK	a1	a2	d1 h11	d6 H13	d7 H13	e1 H13	e2	h1	t2	H
1827001631	M16x1,5	80	80	30	11	18	58 ±0,2	58 ±0,2	20	11	32
1827001632	M20x1,5	90	90	40	14	20	65 ±0,3	65 ±0,3	20	13	35

Part No.	SW	Tightening torque for the coupling pin Ma ± 5%	Axial play	Radial play	Material	Surface	Weight		
		[Nm]	[min./max.]	[min./max.]			[kg]		
1827001629	17	17	0.4 - 0.8	1.9 - 2.3	Steel	galvanized	0.3		
1827001630	19	29	0.4 - 0.8	1.9 - 2.3	Steel	galvanized	0.4		
1827001631	24	71	0.4 - 0.8	1.9 - 2.3	Steel	galvanized	0.9		
1827001632	36	138	0.4 - 0.8	1.9 - 2.3	Steel	galvanized	1.15		

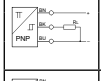
Series KPZ
Accessories

Sensor, Series ST6
► 6 mm T-slot ► with cable ► open cable ends, 2-pin, open cable ends, 3-pin

24712

Certificates	CE declaration of conformity cULus RoHS
Ambient temperature min./max.	-30 °C / +80 °C
Protection class	IP65, IP67, IP69K
Switching point precision [mm]	±0,1
Switching logic	NO (make contact)
Switching capacity	Reed, 2-pin: max. 10 W Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Technical Remarks
■ No cULus certification for 230 V variant.

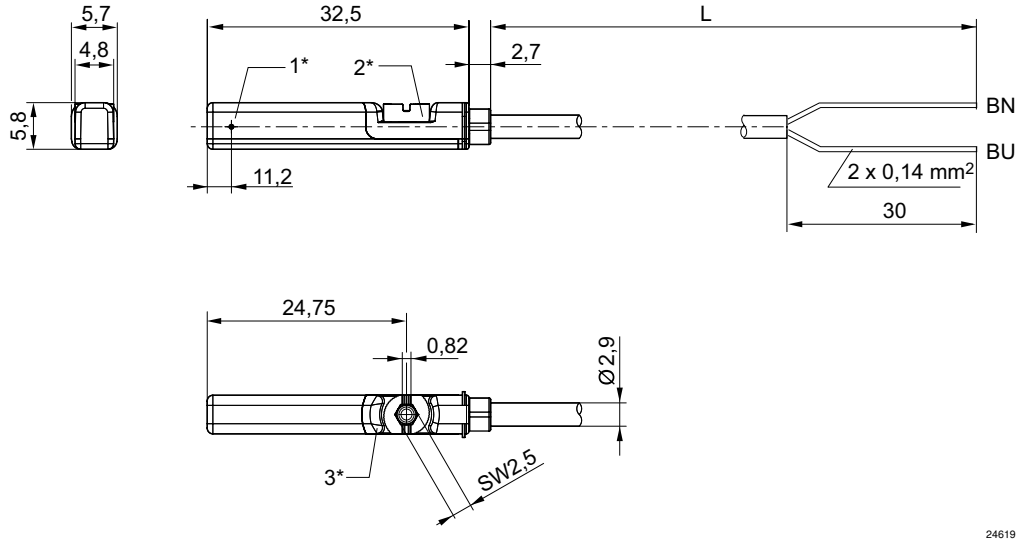
	Type of contact	Cable length	DC operating voltage min./max.	Operational voltage AC min./max.	Voltage drop U at Imax	DC switching current, max.	AC switching current, max.	Part No.
		[m]	[V DC]	[V AC]		[A]	[A]	
	Reed	3	10 / 230	10 / 230	I*Rs	0.13	0.13	**R412022866**
	Reed	3 5 10	10 / 30	10 / 30	I*Rs	0.3	0.5	**R412022869** **R412022870** **R412022871**
	electronic PNP	3 5 10	10 / 30	-	≤ 2,5 V	0.13	-	**R412022853** **R412022855** **R412022857**
	electronic NPN	3 5	10 / 30	-	≤ 2,5 V	0.13	-	**R412022849** **R412022850**

Part No.	Max. switching frequency kHz	Operating current, not switched	Operating current, switched	Fig.	Note
R412022866	< 0,4	-	-	Fig. 1	1); 3)
R412022869 **R412022870** **R412022871**	< 0,4	-	-	Fig. 2	2); 3)
R412022853 **R412022855** **R412022857**	< 1,0	< 8 mA	< 30 mA	Fig. 2	2); 4)
R412022849 **R412022850**	< 1,0	< 8 mA	< 30 mA	Fig. 2	2); 4)

1) interfaces: open cable ends; 2-pin
2) interfaces: open cable ends; 3-pin
3) Protected against polarity reversal
4) short circuit resistant / Protected against polarity reversal

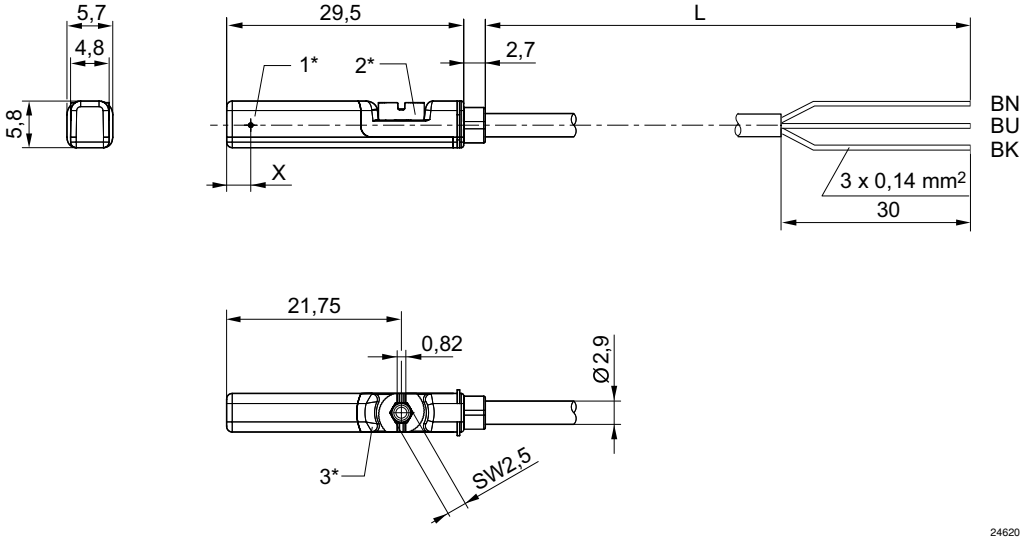
Series KPZ
Accessories

Fig. 1



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

Fig. 2



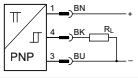
1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
BN = brown, BK = black, BU = blue
X = electronic: 11,6 mm, Reed: 8,3 mm

Series KPZ
Accessories

Sensor, Series ST6
► 6 mm T-slot ► with cable ► open cable ends, 3-pin ► ATEX certified

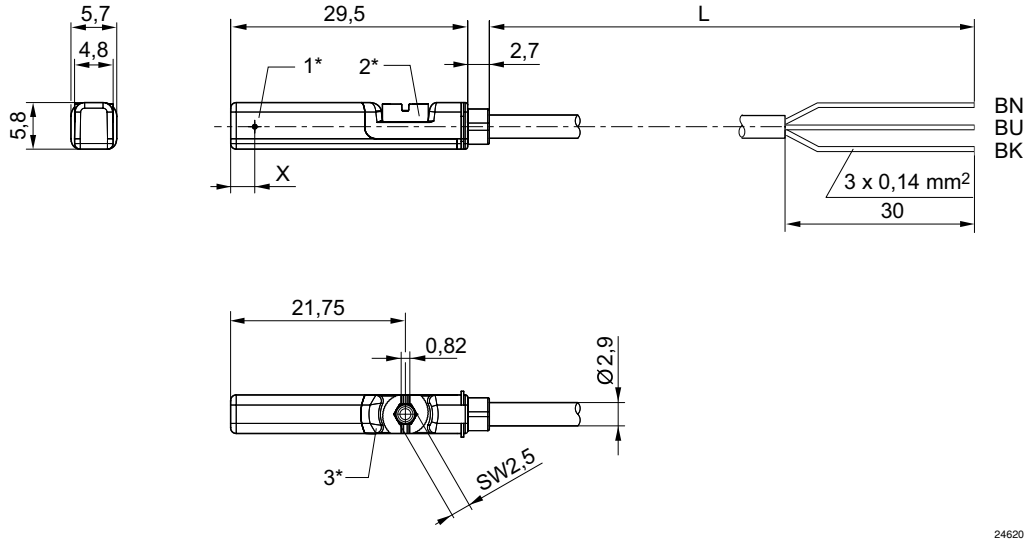
24712

Certificates	CE declaration of conformity cULus RoHS
ATEX	II 3G Ex nA op is IIC T4 Gc X II 3D Ex tc IIIC T135°C Dc X
Ambient temperature min./max.	-20°C / +50°C
Protection class	IP67
Switching point precision [mm]	±0,1
Quiescent current (without load)	< 10 mA
DC operating voltage min./max.	10 V DC - 30 V DC
Switching logic	NO (make contact)
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

	Type of contact	Cable length	Voltage drop U at Imax	DC switching current, max.	Max. switching frequency kHz	Part No.
		[m]		[A]		
	electronic PNP	3 5	≤ 2,5 V	0.1	< 1,0	**R412022854** **R412022856**
interfaces: open cable ends; 3-pin short circuit resistant / Protected against polarity reversal						

Series KPZ
Accessories

Dimensions



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, with knurled screw


24713

Certificates	CE declaration of conformity cULus RoHS
Ambient temperature min./max.	-30 °C / +80 °C
Protection class	IP65, IP67
Switching point precision [mm]	±0,1
DC operating voltage min./max.	10 V DC - 30 V DC
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
Materials:	
Housing	Polyamide
Locking screw	Stainless steel

	Type of contact	Cable sheath	Cable length	Operational voltage AC min./max.	Voltage drop U at Imax	DC switching current, max.	AC switching current, max.	Part No.
			[m]	[V AC]		[A]	[A]	
	Reed	Polyurethane	0.3	10 / 30	I*Rs	0.3	0.5	**R412022873**
		Polyvinyl chloride	0.3					**R412022875**
		Polyurethane	0.5					**R412022874**

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

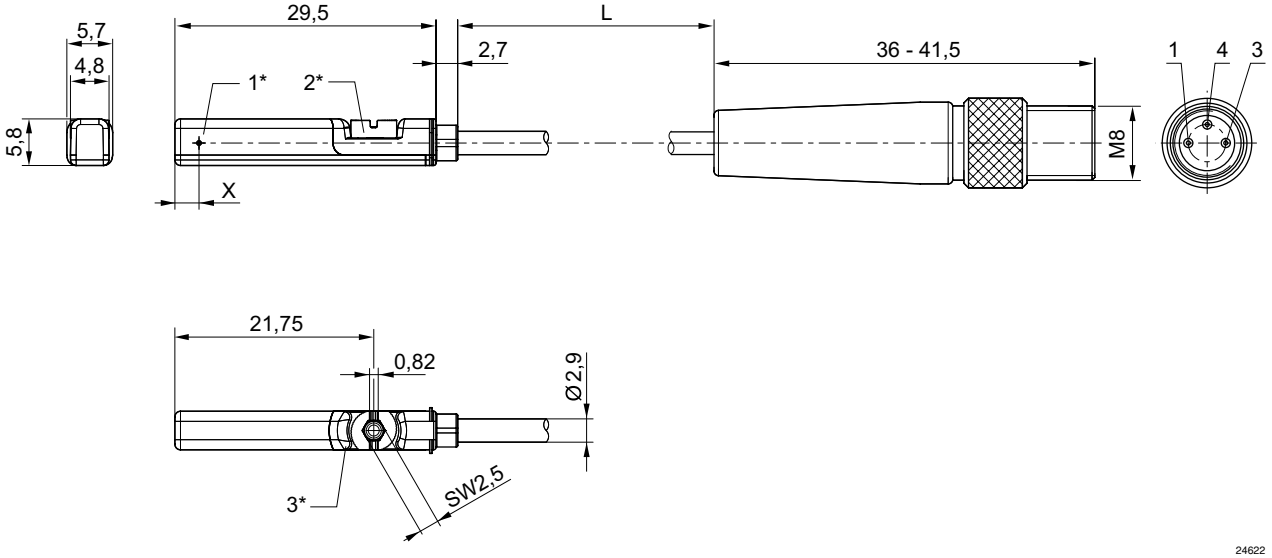
Series KPZ
Accessories

	Type of contact	Cable sheath	Cable length	Operational voltage AC min./max.	Voltage drop U at Imax	DC switching current, max.	AC switching current, max.	Part No.
			[m]	[V AC]		[A]	[A]	
	electronic PNP	Polyurethane	0.3	-	≤ 2,5 V	0.13	-	**R412022859**
		Polyvinyl chloride	0.3					**R412022862**
		Polyurethane	0.5					**R412022861**
	electronic NPN	Polyurethane	0.3	-	≤ 2,5 V	0.13	-	**R412022852**

Part No.	Max. switching frequency kHz	Operating current, not switched	Operating current, switched	Note
R412022873 **R412022875** **R412022874**	< 0,4	-	-	1)
R412022859 **R412022862** **R412022861**	< 1,0	< 8 mA	< 30 mA	2)
R412022852	< 1,0	< 8 mA	< 30 mA	2)

1) Protected against polarity reversal
2) short circuit resistant / Protected against polarity reversal
interfaces: Plug; M8; 3-pin; with knurled screw

Dimensions



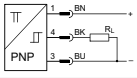
1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = electronic: 11,6 mm, Reed: 8,3 mm
Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

Series KPZ
Accessories

Sensor, Series ST6
► 6 mm T-slot ► with cable ► Plug, M8, 3-pin, with knurled screw ► ATEX certified

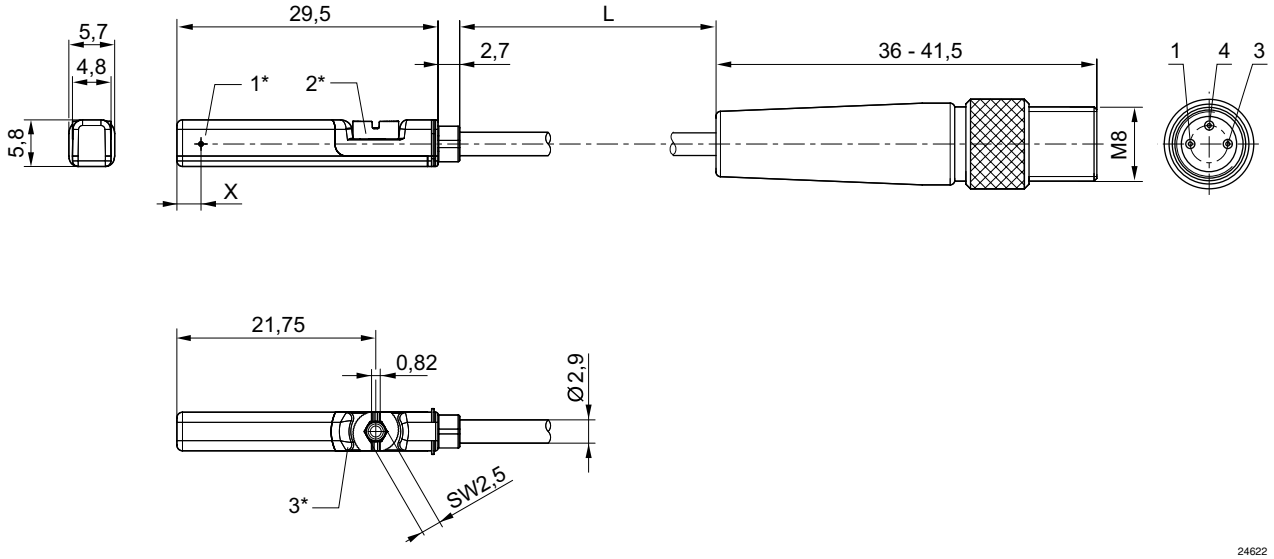
24713

Certificates	CE declaration of conformity cULus RoHS
ATEX	II 3G Ex nA op is IIC T4 Gc X II 3D Ex tc IIIC T135°C Dc X
Ambient temperature min./max.	-20°C / +50°C
Protection class	IP67
Switching point precision [mm]	±0,1
Quiescent current (without load)	< 10 mA
DC operating voltage min./max.	10 V DC - 30 V DC
Switching logic	NO (make contact)
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

	Type of contact	Cable length	Voltage drop U at Imax	DC switching current, max.	Max. switching frequency kHz	Part No.
		[m]		[A]		
	electronic PNP	0.3	≤ 2,5 V	0.1	< 1,0	**R412022860**
interfaces: Plug; M8; 3-pin; with knurled screw short circuit resistant / Protected against polarity reversal						

Series KPZ
Accessories

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)

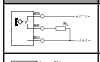
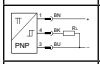
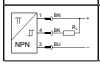
Sensor, Series ST6
► 6 mm T-slot ► with cable ► Plug, M8, 3-pin


24742

Certificates	CE declaration of conformity cULus RoHS
Ambient temperature min./max.	-30°C / +80°C
Protection class	IP65, IP67
Switching point precision [mm]	±0,1
DC operating voltage min./max.	10 V DC - 30 V DC
Switching logic	NO (make contact)
Switching capacity	Reed, 2-pin: max. 10 W Reed, 3-pin: max. 6 W
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

	Type of contact	Cable length	Operational voltage AC min./max.	Voltage drop U at Imax	DC switching current, max.	AC switching current, max.	Max. switching frequency kHz	Part No.
		[m]	[V AC]		[A]	[A]		
	Reed	0.3	10 / 30	I*Rs	0.13	0.13	< 0,4	**R412022868**

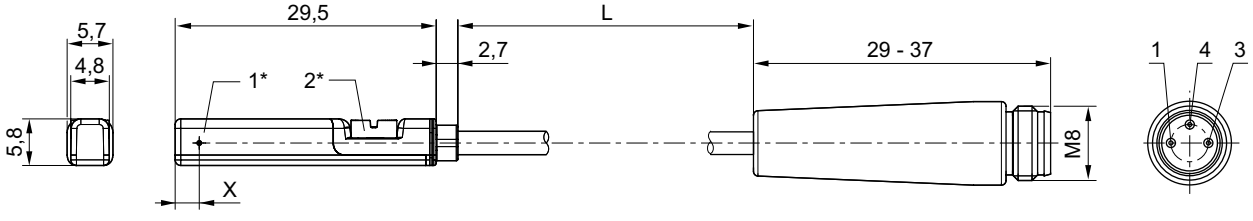
Series KPZ
Accessories

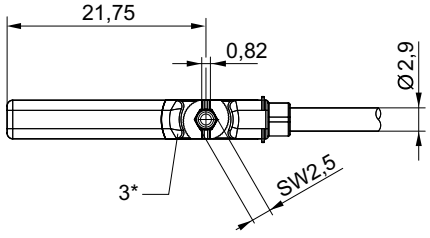
	Type of contact	Cable length	Operational voltage AC min./max.	Voltage drop U at Imax	DC switching current, max.	AC switching current, max.	Max. switching frequency kHz	Part No.
		[m]	[V AC]		[A]	[A]		
	Reed	0.3	10 / 30	I*Rs	0.3	0.5	< 0,4	**R412022872**
	electronic PNP	0.3	-	≤ 2,5 V	0.13	-	< 1,0	**R412022858**
	electronic NPN	0.3	-	≤ 2,5 V	0.13	-	< 1,0	**R412022851**

Part No.	Operating current, not switched	Operating current, switched	Note
R412022868	-	-	1)
R412022872	-	-	1)
R412022858	< 8 mA	< 30 mA	2)
R412022851	< 8 mA	< 30 mA	2)

1) Protected against polarity reversal
2) short circuit resistant / Protected against polarity reversal
interfaces: Plug; M8; 3-pin

Dimensions





24621

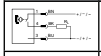
1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = electronic: 11,6 mm, Reed: 8,3 mm
Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

Series KPZ
Accessories

Sensor, Series ST6
► 6 mm T-slot ► with cable ► Plug, M12, 3-pin, with knurled screw

24714

Certificates	CE declaration of conformity cULus RoHS
Ambient temperature min./max.	-30 °C / +80 °C
Protection class	IP65, IP67
Switching point precision [mm]	±0,1
DC operating voltage min./max.	10 V DC - 30 V DC
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
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

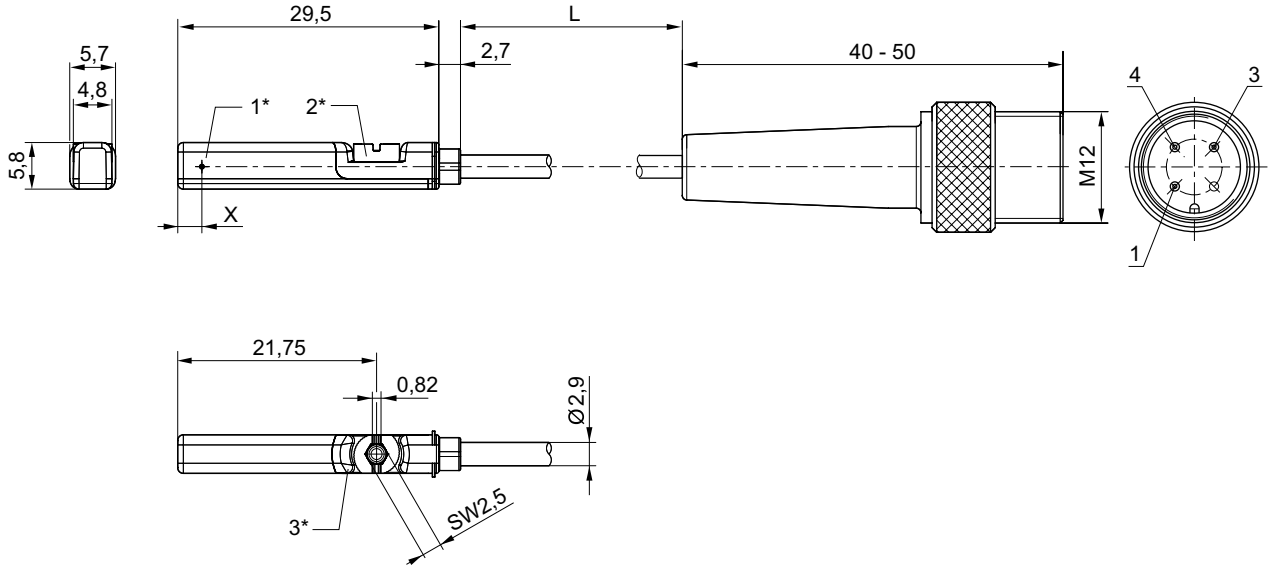
	Type of contact	Cable length	Operational voltage AC min./max.	Voltage drop U at Imax	DC switching current, max.	AC switching current, max.	Max. switching frequency kHz	Part No.
		[m]	[V AC]		[A]	[A]		
	Reed	0.3	10 / 30	I*Rs	0.3	0.5	< 0,4	**R412022876**
	electronic PNP	0.1 0.3 3 5	-	≤ 2,5 V	0.13	-	< 1,0	**R412022879** **R412022863** **R412022877** **R412022878**

Part No.	Operating current, not switched	Operating current, switched	Note
R412022876	-	-	1)
R412022879 **R412022863** **R412022877** **R412022878**	< 8 mA	< 30 mA	2)

1) Protected against polarity reversal
2) short circuit resistant / Protected against polarity reversal
interfaces: Plug; M12; 3-pin; with knurled screw

Series KPZ
Accessories

Dimensions



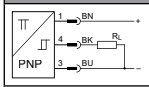
1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = PNP: 11,6 mm, reed: 8,3 mm
Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

Sensor, Series ST6
► 6 mm T-slot ► with cable ► Plug, M12, 3-pin, with knurled screw ► ATEX certified

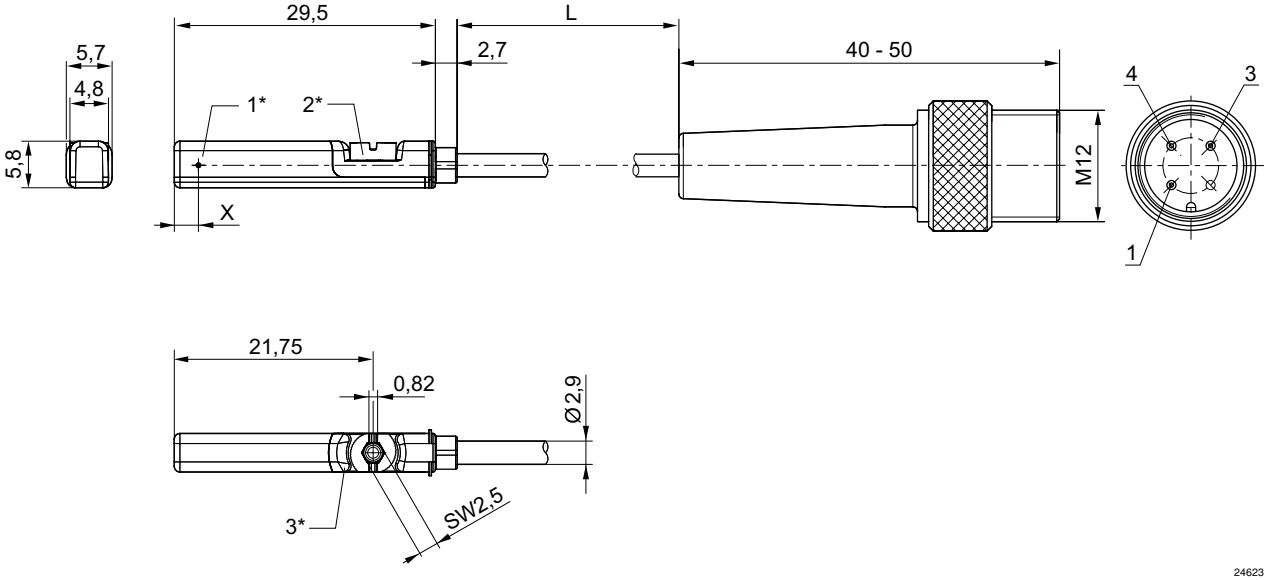

24714

Certificates	CE declaration of conformity cULus RoHS
ATEX	II 3G Ex nA op is IIC T4 Gc X II 3D Ex tc IIIC T135°C Dc X
Ambient temperature min./max.	-20°C / +50°C
Protection class	IP67
Switching point precision [mm]	±0,1
Quiescent current (without load)	< 10 mA
DC operating voltage min./max.	10 V DC - 30 V DC
Switching logic	NO (make contact)
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide
Cable sheath	Polyurethane
Locking screw	Stainless steel

Series KPZ
Accessories

	Type of contact	Cable length	Voltage drop U at Imax	DC switching current, max.	Max. switching frequency kHz	Part No.
		[m]		[A]		
	electronic PNP	0.3	≤ 2,5 V	0.1	< 1,0	**R412022864**
interfaces: Plug; M12; 3-pin; with knurled screw short circuit resistant / Protected against polarity reversal						

Dimensions



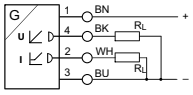
1* = switching point 2* = locking screw 3* = LED window, transparent
L = cable length
X = PNP: 11,6 mm
Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

Series KPZ
Accessories

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

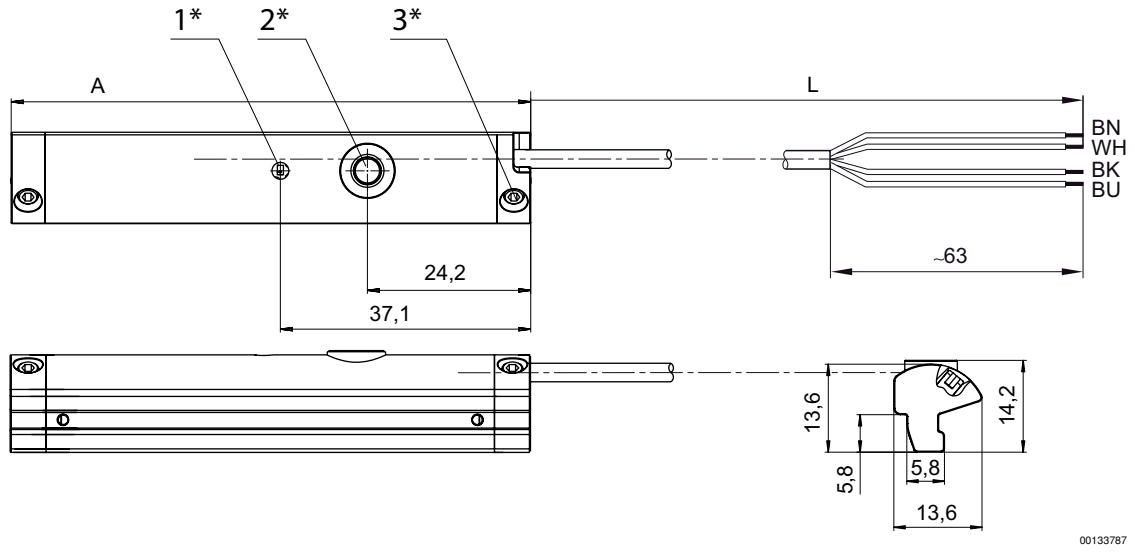
00133722

Certificates	cULus
Ambient temperature min./max.	-20 °C / +70 °C
Protection class	IP67
Output signal	0 - 10 V DC, 4 - 20 mA
Quiescent current (without load)	< 25 mA
Current signal	4 - 20 mA
Maximum load (analog current output)	500 Ω
DC operating voltage min./max.	15 V DC - 30 V DC
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
Materials:	
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane

	Type of contact	Cable length	Measurement range Max.	Overall length Sensor A	Part No.
		[m]	[mm]	[mm]	
	Analog	2	32	45	**R412010141**
			64	77	**R412010143**
			96	109	**R412010262**
			128	141	**R412010264**
			160	173	**R412010411**
			192	205	**R412010413**
			224	237	**R412010415**
			256	269	**R412010417**
interfaces: without wire end ferrule, tin-plated; 4-pin short circuit resistant / Protected against polarity reversal / Overload protection					

Series KPZ
Accessories

Dimensions

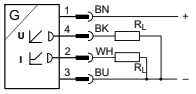


1* = LED 2* = teach button 3* = threaded pin M3x11
L = cable length
(1) BN=brown
(2) WH=white
(3) BU=blue
(4) BK=black
A = sensor length

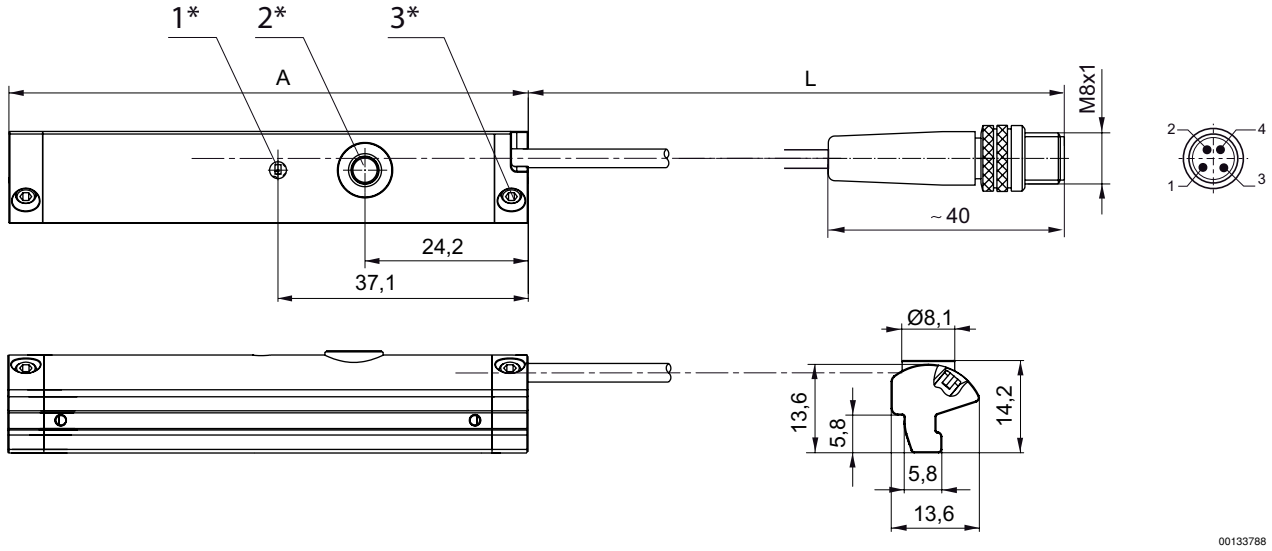
Sensors, Series SM6
► 6 mm groove ► with cable ► Plug, M8x1, 4-pin, with knurled screw ► with distance measuring sensor, measurement range 32 - 256 mm

Certificates	cULus
Ambient temperature min./max.	-20°C / +70°C
Protection class	IP67
Output signal	0 - 10 V DC, 4 - 20 mA
Quiescent current (without load)	< 25 mA
Current signal	4 - 20 mA
DC operating voltage min./max.	15 V DC - 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
Materials:	
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane

Series KPZ
Accessories

	Type of contact	Cable length	Measurement range Max.	Overall length Sensor A	Part No.
		[m]	[mm]	[mm]	
	Analog	0.3	32	45	**R412010142**
			64	77	**R412010144**
			96	109	**R412010263**
			128	141	**R412010265**
			160	173	**R412010410**
			192	205	**R412010412**
			224	237	**R412010414**
			256	269	**R412010416**
interfaces: Plug; M8x1; 4-pin; with knurled screw short circuit resistant / Protected against polarity reversal / Overload protection					

Dimensions

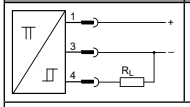


1* = LED 2* = teach button 3* = threaded pin M3x11
L = cable length
Pin assignment: 1 = (+), 2 = (OUT 1) 3 = (GND), 4 = (OUT 2), EN 60947-5-7
A = sensor length

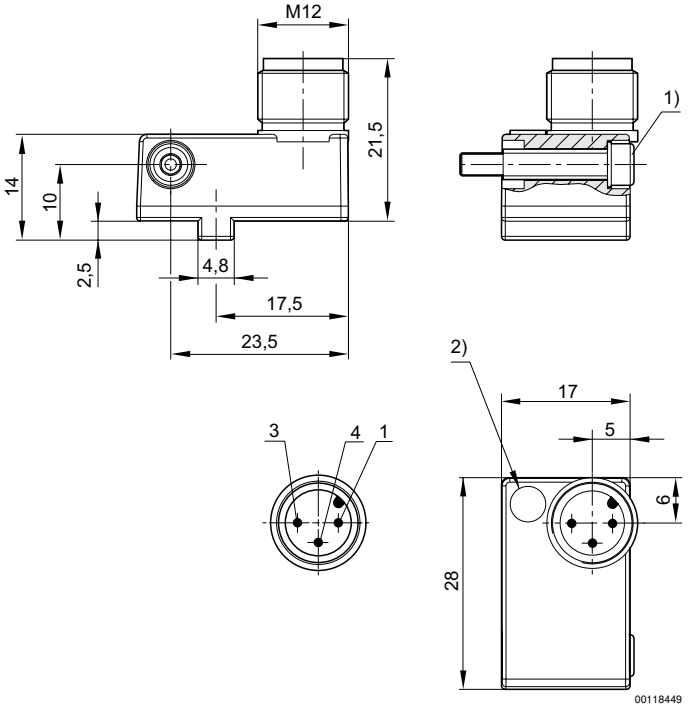
Series KPZ
Accessories

Sensor, Series SN3
► Plug, M12, 3-pin ► welding-proof

Ambient temperature min./max.	-25°C / +70°C
Protection class	IP67, IP65
Switching point precision [mm]	±0,1
Nominal current, actuated state	≤ 10 mA
Quiescent current (without load)	≤ 5 mA
LED status display	Yellow
Vibration resistance	55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Materials:	
Housing	Polyamide

	Type of contact	Voltage drop U at Imax	DC switching current, max.	Max. switching frequency kHz	Part No.
			[A]		
	electronic PNP	≤ 1,8 V	0.2	0,02	**0830100438**
interfaces: Plug; M12; 3-pin short circuit resistant / Protected against polarity reversal					

Dimensions

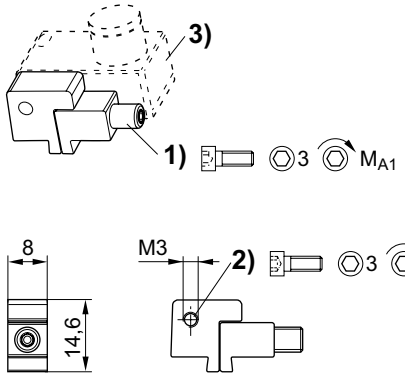


1) Clamping screw
2) LED
Pin assignments: 1 = (+), 3 = (-), 4 = (OUT), EN 60947-5-2:1998

Series KPZ
Accessories

Sensor mounting, Series CB1
► for Series SN3 ► to mount on cylinder PRA, KPZ, GPC, CCI, KHZ

00112453



00122794

1) Clamping screw 2) Mounting screw for sensor 3) Sensor

Part No.	For series	1)	MA1 [Nm]	Material	Weight [kg]			
1827020386	SN3	M3x25	1,8 +0,4	Aluminum	0.007			

Connecting cable, Series CN2
► Socket, M8, 3-pin, straight ► open cable ends, 3-pin

00107009_b

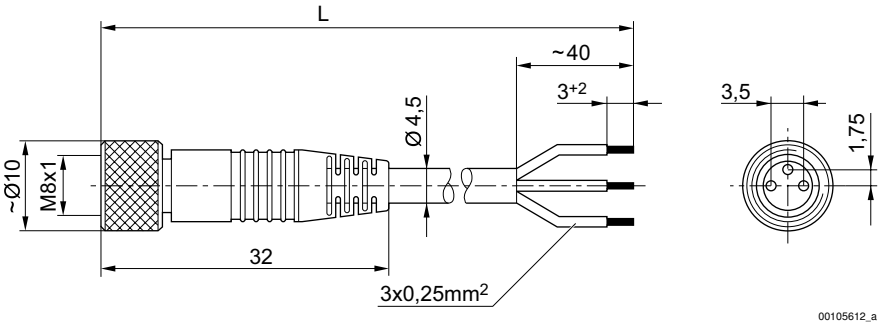
Ambient temperature min./max.	-40 °C / +85 °C
Protection class	IP65
Materials:	
Cable sheath	Polyurethane

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

Max. current	Number of wires	Wire cross-section	Cable-Ø	Cable length L	Weight	Part No.
[A]		[mm²]	[mm]	[m]	[kg]	
4	3	0.24	4.5	3	0.091	**1834484166**
				5	0.145	**1834484168**
				10	0.33	**1834484247**

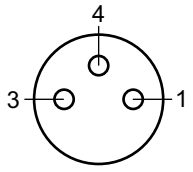
Series KPZ
Accessories

Dimensions



L = length

Pin assignment



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

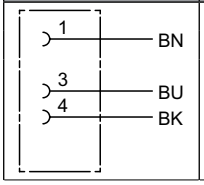
Connecting cable, Series CN2
► Socket, M8x1, 3-pin, angled ► open cable ends, 3-pin

Ambient temperature min./max.	-40°C / +85°C
Protection class	IP65
Materials:	
Cable sheath	Polyurethane

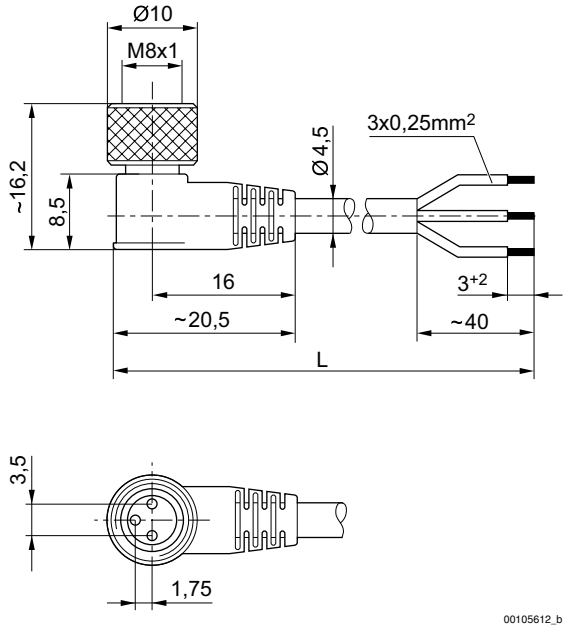
Technical Remarks

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

Series KPZ
Accessories

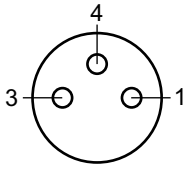
	Max. current	Number of wires	Wire cross-section	Cable-Ø	Cable length L	Weight	Part No.
	[A]		[mm²]	[mm]	[m]	[kg]	
	4	3	0.24	4.5	3	0.092	**1834484167**
					5	0.141	**1834484169**
					10	0.276	**1834484248**

Dimensions



L = length

Pin assignment



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

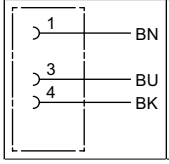
Series KPZ
Accessories

Socket, M8x1, Series CN2
► Socket, M8x1, 3-pin

00138877

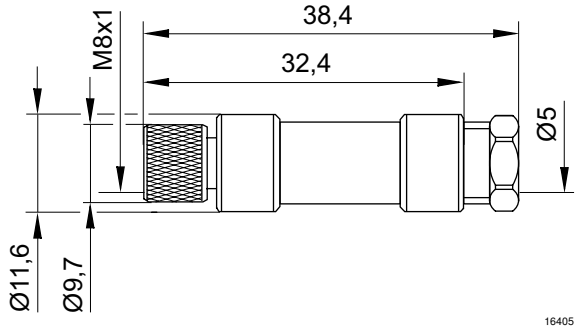
Ambient temperature min./max.	-25°C / +80°C
Protection class	IP67
Materials:	
Housing	Polyamide

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

	Operational voltage	Max. current	Cable exit	suitable cable-Ø min./max	number of plug options 1	Housing color	Part No.
	AC						
	[V]	[A]		[mm]			
	48	4	straight	3.5 / 5	1 position	Black	**1834484173**

Part No.	Weight
	[kg]
1834484173	0.008

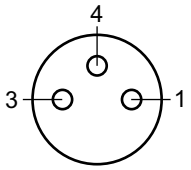
Dimensions



16405

Series KPZ
Accessories

Pin assignment



Buchse_3-polig

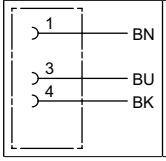
Socket, M8x1, Series CN2
► Socket, M8x1, 3-pin, angled

16406

Ambient temperature min./max.	-25 °C / +85 °C
Protection class	IP65
Materials:	
Housing	Polyamide

Technical Remarks

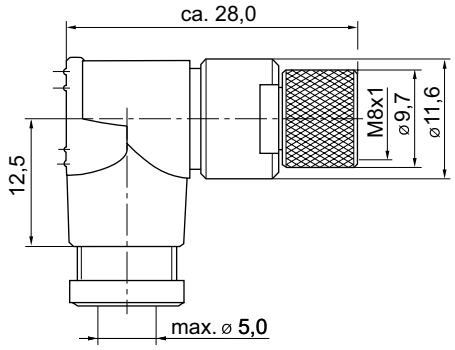
- The specified protection class is only valid in assembled and tested state.

	Operational voltage	Max. current	Contact assignment	Cable exit	suitable cable-Ø min./max	number of plug options 1	Part No.
	AC						
	[V]	[A]			[mm]		
 1 BN, 3 BU, 4 BK	48	4	3	angled 90°	3.5 / 5	1 position	**1834484174**

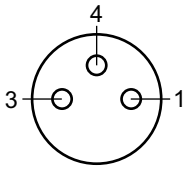
Part No.	Housing color	Weight
		[kg]
1834484174	Black	0.008

Series KPZ
Accessories

Dimensions



Pin assignment



Series KPZ
Accessories

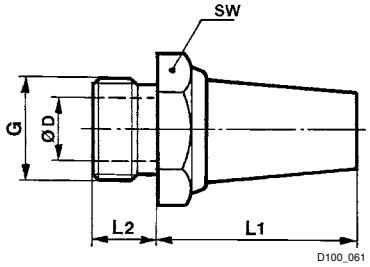
Silencers, Series SI1
► Sintered bronze

P100_060

Working pressure min./max.	0 bar / 10 bar
Ambient temperature min./max.	-25 °C / +80 °C
Medium	Compressed air
Materials:	
Silencers	Sintered bronze
Thread	Brass

Compressed air connection	Sound pressure level	Qn	Order quantity	Weight	Part No.
	[dB]	[l/min]	[piece]	[kg]	
M5	72	460	10	0.004	**1827000006**
G 1/8	75	1500	10	0.01	**1827000000**

Dimensions



D100_061

Part No.	Port G	SW	Ø D	L1	L2							
1827000006	M5	7	2.5	15	5							
1827000000	G 1/8	13	6	18	6							
Sound pressure level measured at 6 bar at 1 m distance												

Silencers, Series SI1
► Sintered bronze

P100_037

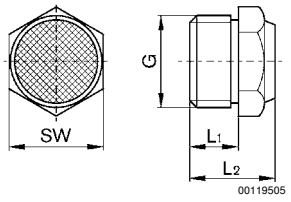
Working pressure min./max.	0 bar / 10 bar
Ambient temperature min./max.	-25 °C / +80 °C
Medium	Compressed air
Materials:	
Silencers	Sintered bronze
Thread	Brass

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

Series KPZ
Accessories

Compressed air connection	Sound pressure level	Qn	Order quantity	Weight	Part No.
	[dB]	[l/min]	[piece]	[kg]	
M5	79	280	10	0.005	**1827000032**
G 1/8	85	640	10	0.001	**1827000031**

Dimensions



Part No.	Port G	L1	L2	SW								
1827000032	M5	5	10.3	7								
1827000031	G 1/8	6	11.5	13								
Sound pressure level measured at 6 bar at 1 m distance												

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04-05-2017