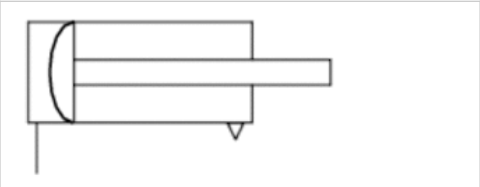
Diaphragm and piston actuators, Series RDC

- Ø 52.5-115 mm
- Ports G 1/8, G 3/8, G 1/4
- Single-acting, retracted without pressure
- Piston rod External thread



Compressed air connection	Internal thread
Ambient temperature min./max.	-25 ... 80 °C
Medium temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 1 mg/m³
Pressure for determining piston forces	6.3 bar
Weight	See table below

Technical data

Piston Ø Piston rod thread Ports Piston rod Ø	115 mm M16x1,5 G 3/8 20 mm	52,5 mm M10x1,25 G 1/8 12 mm	75 mm M10x1,25 G 3/8 16 mm	85 mm M16x1,5 G 1/4 20 mm	95 mm M16x1,5 G 3/8 20 mm
Stroke 40	-	5218535110	-	-	-
60	-	-	5218555110	-	-
70	-	-	-	5218565110	-
75	-	-	-	-	5218575120
95	5218585120	-	-	-	-

Technical data

Piston Ø	115 mm	52,5 mm	75 mm	85 mm	95 mm
Extracting piston force	6543 N	1363 N	2783 N	3575 N	4465 N
Weight 0 mm stroke	5,8 kg	1,6 kg	3 kg	3,6 kg	4,1 kg
Working pressure min./max.	0,035 ... 8 bar	0,03 ... 8 bar	0,03 ... 8 bar	0,035 ... 8 bar	0,035 ... 8 bar
Stroke max.	95 mm	40 mm	60 mm	70 mm	75 mm

Technical information

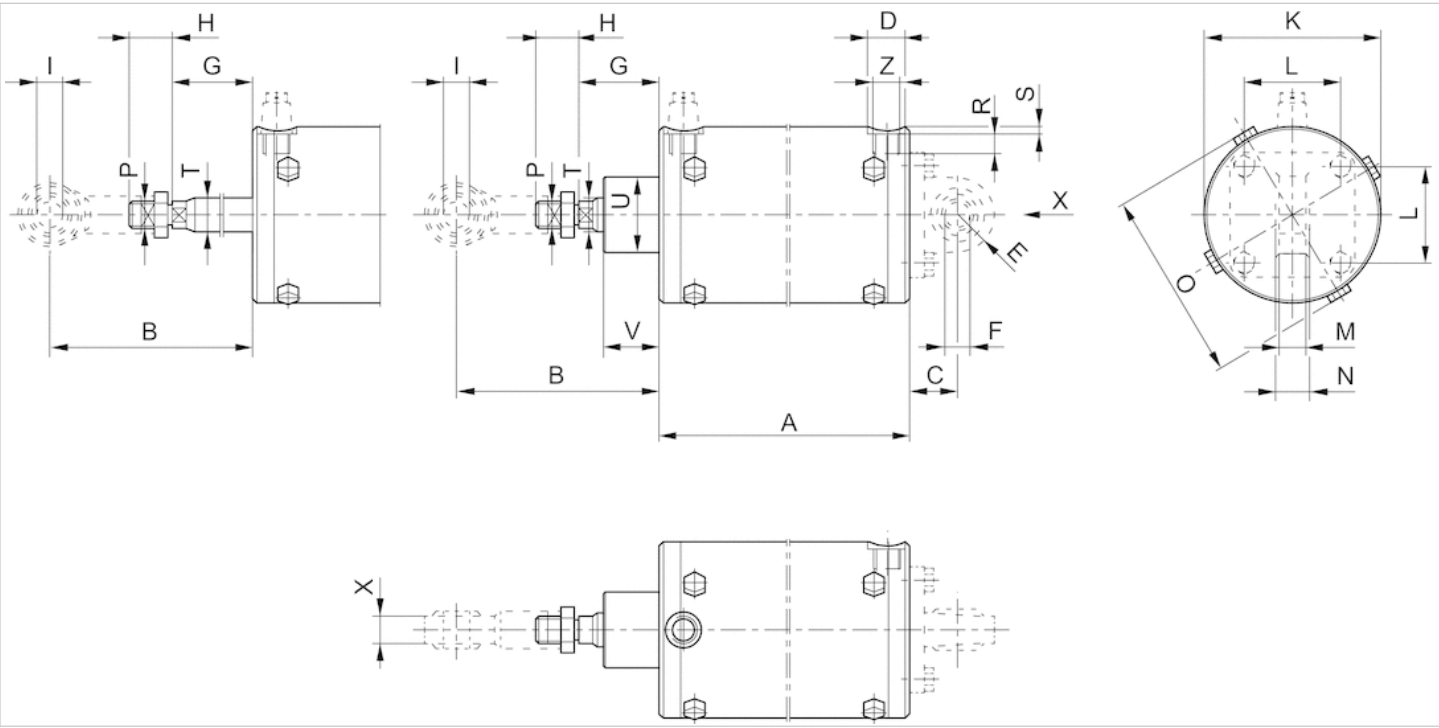
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).

Technical information

Material	
Cylinder tube	Steel
Piston rod	Stainless steel
Piston	Aluminum
Front cover	Aluminum, chrome-plated
End cover	Aluminum, chrome-plated
Seal	Acrylonitrile butadiene rubber
Nut for piston rod	Steel, galvanized

Dimensions

Dimensions



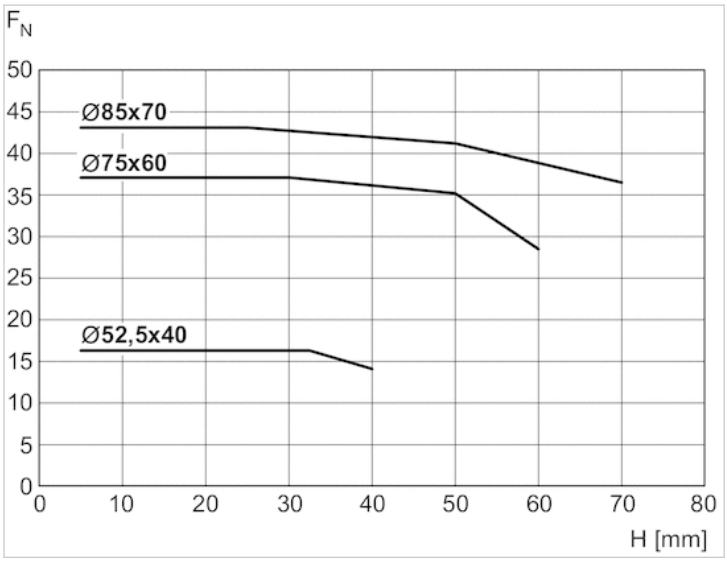
Dimensions

Piston Ø	A	B	C	D	E	F H7	G	H	I H7	K	L	M	N	O	P	R	S	U	V	T h7	X	Z
52,5 mm	140	67	29	17	15	10	19	26	10	60	33	7-9	14	68	M10x1,25	8	3.1	–	–	12	14	G 1/8
75 mm	166	84	26	23	18	12	32	31	10	86	49	9-11	16	92	M10x1,25	12	3.5	–	–	16	14	G 3/8
85 mm	202	118	30	22	22	16	43	26	16	97	59	14,5-17,5	21	108	M16x1,5	12	4.5	–	–	20	21	G 1/4

Piston Ø	A	B	C	D	E	F H7	G	H	I H7	K	L	M	N	O	P	R	S	U	V	T h7	X	Z
95 mm	208	124	30	23	22	16	49	26	16	106	59	14,5-17,5	21	117	M16x1,5	12	3.5	45	34	20	21	G 3/8
115 mm	247	120	38	23	25	16	45	26	16	127	75	14-17,5	21	138	M16x1,5	12	3.6	45	33	20	21	G 3/8

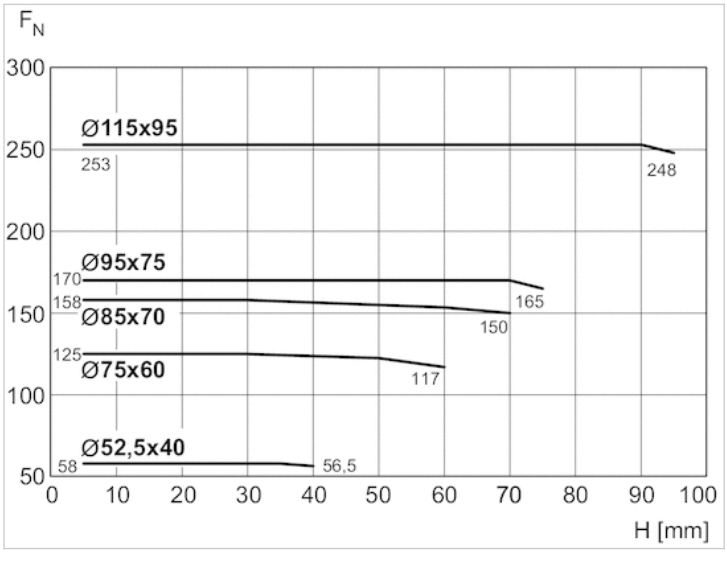
Diagrams

Force-stroke characteristic curve 0.1 bar



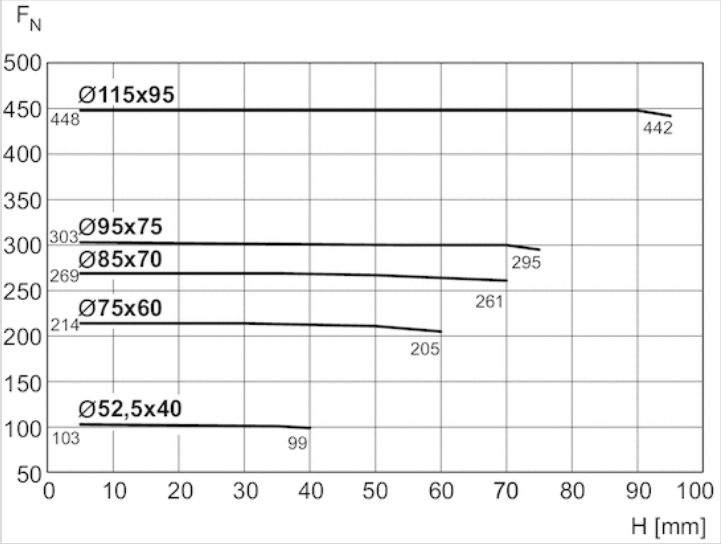
F= extending piston force
H = stroke

Force-stroke characteristic curve 0.3 bar



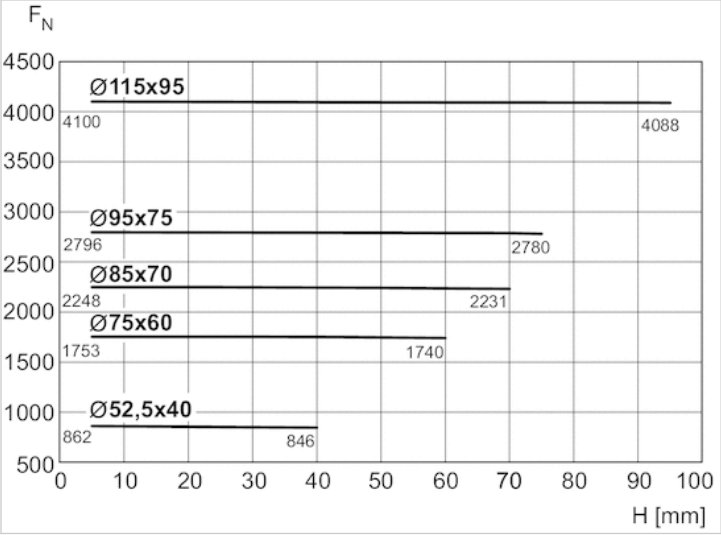
F= extending piston force
H = stroke

Force-stroke characteristic curve 0.5 bar



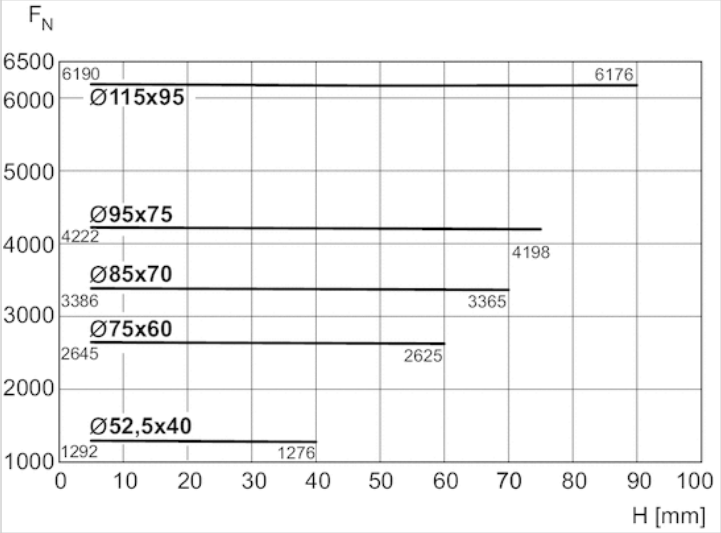
F= extending piston force
H = stroke

Force-stroke characteristic curve 4 bar



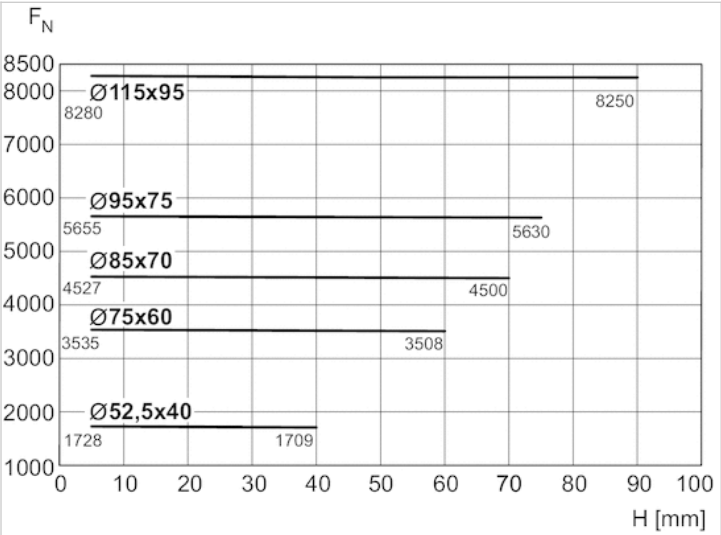
F= extending piston force
H = stroke

Force-stroke characteristic curve 6 bar



F= extending piston force
H = stroke

Force-stroke characteristic curve 8 bar



F= extending piston force
H = stroke

Rear eye, Series MP6

- Suitable piston Ø 52,5, 75, 85, 95, 115 mm
- With ball joint and foot

Weight See table below

Technical data

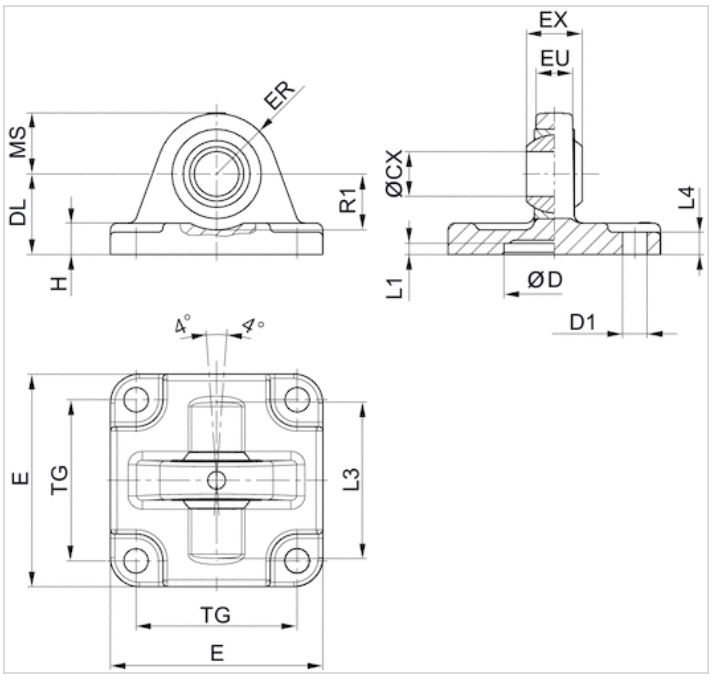
Part No.	Piston Ø	Hole Ø	Weight
5220163442	52,5 mm	10 mm	0,2 kg
5220363442	75 mm	12 mm	0,4 kg
5220463442	85, 95 mm	16 mm	0,6 kg
5220563442	115 mm	16 mm	1,1 kg

Scope of delivery: rear eye incl. mounting screws made from stainless steel

Technical information

Material	
Material	Aluminum
Screws	Steel
	galvanized

Dimensions



Dimensions

Part No.	Piston Ø	ØCX H7	ØD H11	ØD1 H13	DL ±0,2	E	EX –0,1	ER	EU	H	L1 1)	L3	L4	MS -0,5	R1 1)	TG
5220163442	52,5 mm	10	–	7.5	29	45	14	15	10.5	8	–	–	–	–	–	33
5220363442	75 mm	12	–	10	26	65	16	18	12	10	–	–	–	–	–	49
5220463442	85, 95 mm	16	–	10	30	75	21	22	15	10	–	–	–	–	–	59
5220563442	115 mm	16	–	12	37.5	95	21	25	15	12	–	–	–	–	–	75

1) Min.

Nut for piston rod, Series MR9

Weight See table below

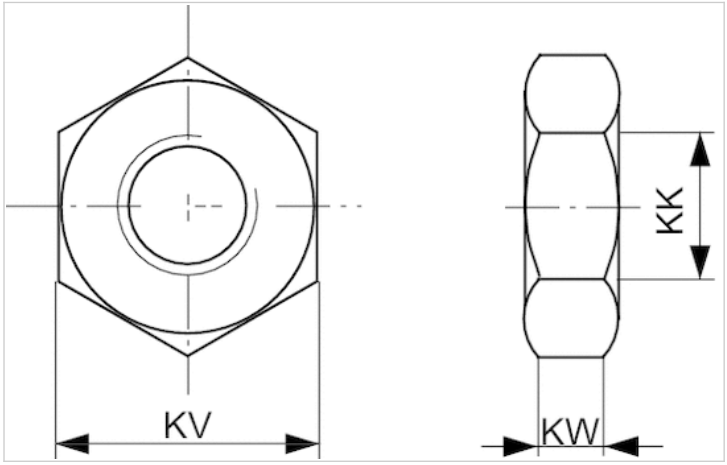
Technical data

Part No.	Suitable piston rod thread	Weight
1823A00020	M10x1,25	0,01 kg
1823300030	M16x1,5	0,017 kg

Technical information

Material	
	Steel
	galvanized

Dimensions



Dimensions

Part No.	KK	KV	KW
1823300030	M16x1,5	24	8

Rod clevis, Series AP2

- galvanized steel

Weight See table below

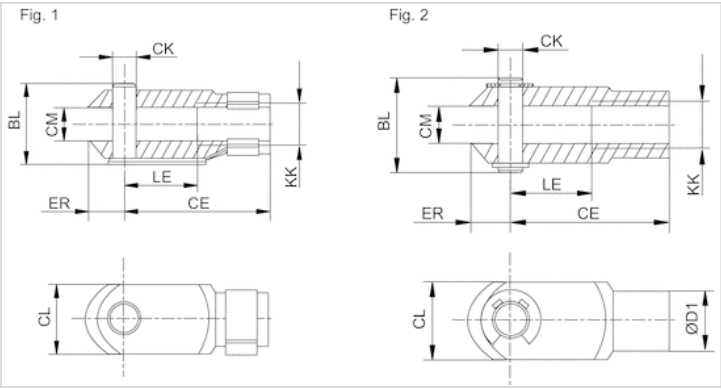
Technical data

Part No.	Suitable piston rod thread	Weight	Fig.
1822122024	M10x1,25	0,1 kg	Fig. 1
1822122005	M16x1,5	0,4 kg	Fig. 1

Technical information

Material	
	Steel
	galvanized

Dimensions



Dimensions

Part No.	KK	BL	CE	ØCKe11	CL	CM	ØD1	ER	LE	Fig.
1822122024	M10x1,25	26	40	10	20	10	18	12	20	Fig. 1
1822122005	M16x1,5	39	64	16	32	16	26	19	32	Fig. 1

Rod clevis, Series PM6

- galvanized steel

Technical data

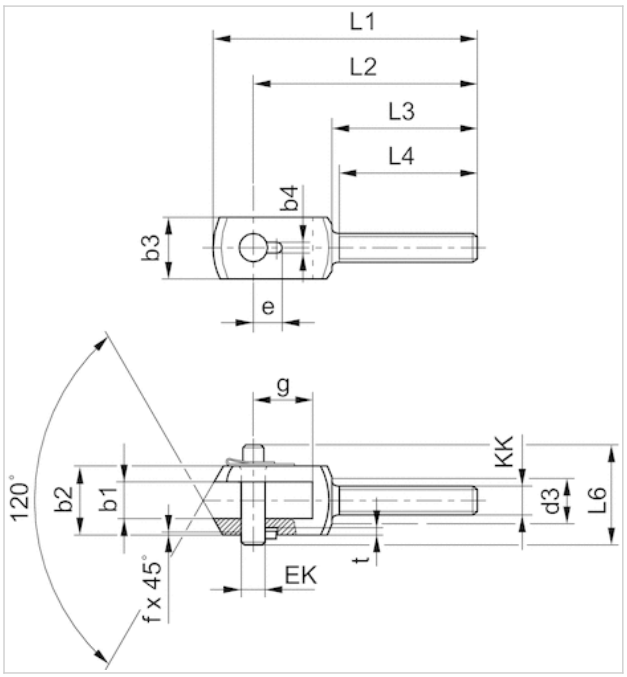
Part No.	Suitable piston rod thread
1822122032	M10x1,25
1822122033	M12x1,25
1822122034	M16x1,5

Scope of delivery incl. bolt

Technical information

Material	
	Steel
	galvanized

Dimensions



Dimensions

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

Ball eye rod end with flange, Series AP6

- galvanized steel

Weight See table below

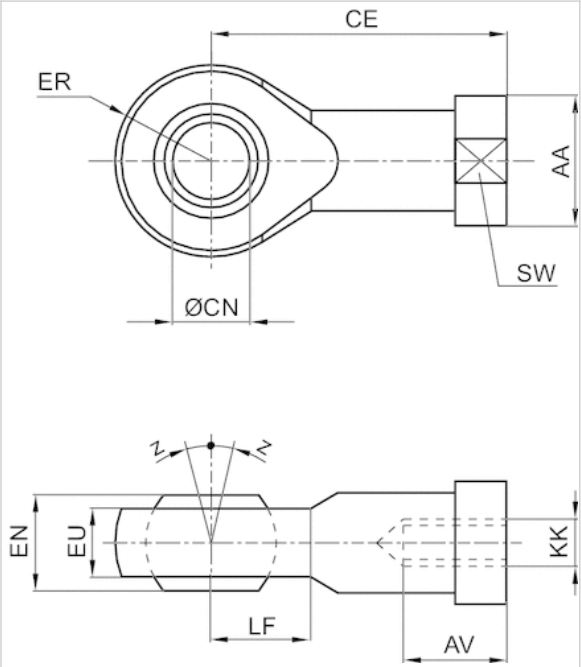
Technical data

Part No.	Suitable piston rod thread	Swivel bearing Ø	Weight
		CN	
1822124003	M10x1,25	10 mm	0,07 kg
1822124005	M16x1,5	16 mm	0,21 kg

Technical information

Material	
	Steel
	galvanized

Dimensions



Dimensions

Part No.	KK	AA	AVmin.	CE	Ø CNH7	EN –0,1	ER	EU max.	LF	SW	Z [°]max.
1822124003	M10x1,25	19	15	43	10	14	14	11.5	14	17	4
1822124005	M16x1,5	27	24	64	16	21	21	15.5	21	22	4

Flexible spherical coupling, Series PM5

Weight See table below

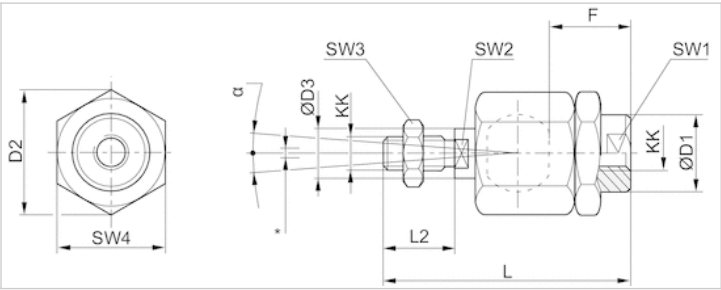
Technical data

Part No.	Suitable piston rod thread	Weight
R412026142	M10x1,25	0,21 kg
R412026144	M16x1,5	0,65 kg

Technical information

Material	
	Steel
	galvanized

Dimensions



* Angle joint
** Radial joint

Dimensions

Part No.	KK	Ø D1	D2	Ø D3	F	L ±2	L2	SW1	SW2	SW3	SW4	α [°]	1)	2)
R412026142	M10x1,25	22	32	14	23	74.5	23	19	12	17	30	8	0.05-0.5	0-2
R412026144	M16x1,5	32	45	22	30	103	30	30	20	24	41	6	0.05-0.5	0-2

1) Axial play

2) Radial play

Flexible plate coupling, Series PM7

Weight See table below

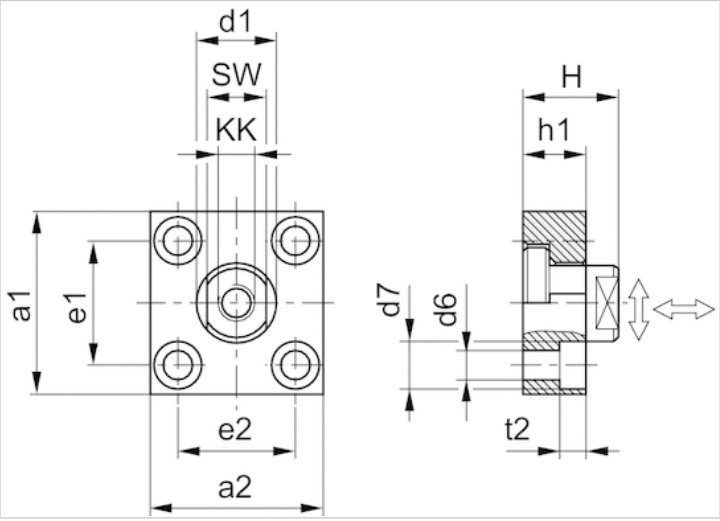
Technical data

Part No.	Suitable piston rod thread	Weight
1827001629	M10x1,25	0,3 kg
1827001631	M16x1,5	0,9 kg

Technical information

Material	
	Steel
	galvanized

Dimensions



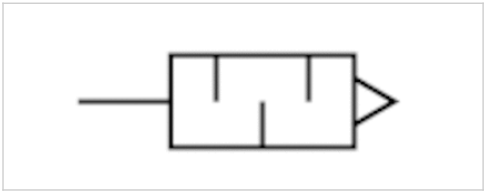
Dimensions

Part No.	a1	a2	d1 h11	d6 H13	d7 H13	e1 H13	e2	h1	t2	H	SW	Tightening torque for the coupling pin Ma ± 5%
1827001629	60	37	20	6.6	11	36 ±0,15	23 ±0,15	15	7	24	17	17 Nm
1827001631	80	80	30	11	18	58 ±0,2	58 ±0,2	20	11	32	24	71 Nm

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

Silencers, series SI1

- Sintered bronze



Working pressure min./max.	0 ... 10 bar
Ambient temperature min./max.	-25 ... 80 °C
Medium	Compressed air
Sound pressure level	See table below
Weight	See table below
Comment	Flow characteristic curves can be found under “Diagrams”.

Technical data

Part No.	Compressed air connection	Sound pressure level	Flow	Delivery unit	Weight
			Qn		
1827000000	G 1/8	75 dB	1623 l/min	10 piece	0,01 kg
1827000001	G 1/4	79 dB	3390 l/min	10 piece	0,02 kg
1827000002	G 3/8	84 dB	6554 l/min	5 piece	0,05 kg

Weight per piece

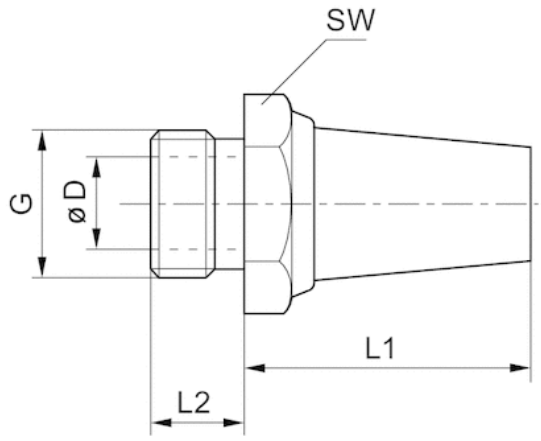
Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.

Technical information

Material	
Silencers	Sintered bronze
Thread	Brass

Dimensions

Dimensions

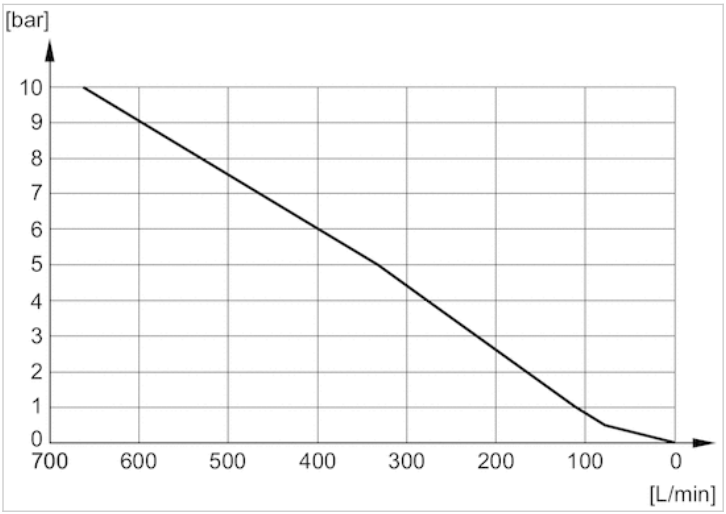


Dimensions

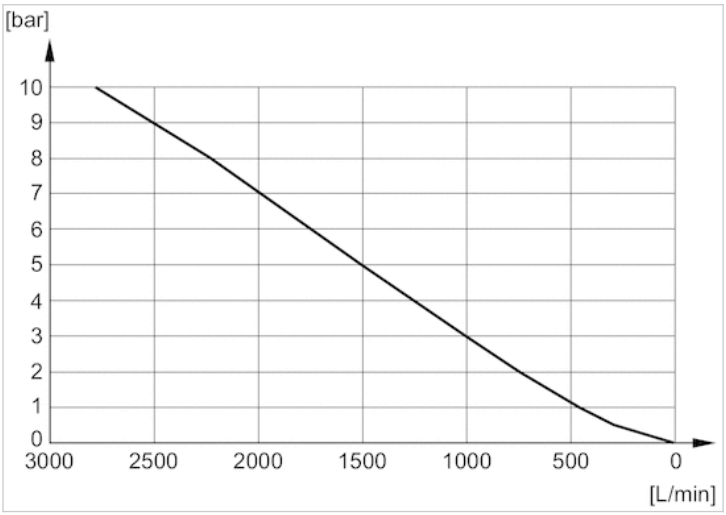
Part No.	Port G	SW	Ø D	L1	L2
1827000000	G 1/8	13	6	18	6
1827000001	G 1/4	17	8.5	25	8
1827000002	G 3/8	22	12	34	10

Diagrams

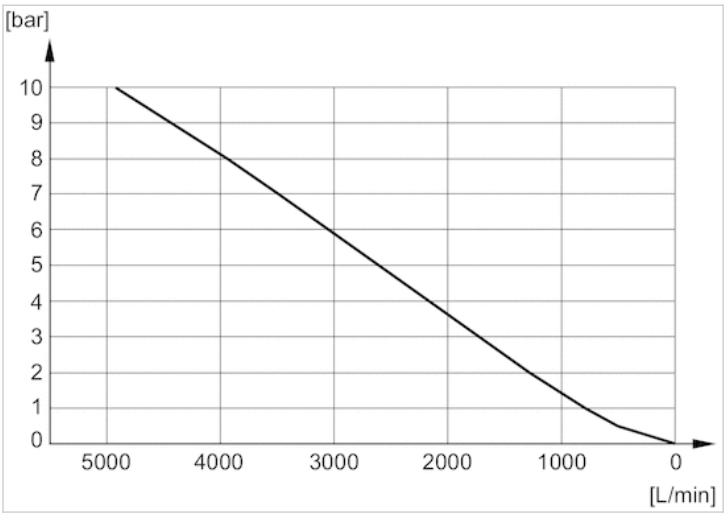
Flow diagram 1827000006



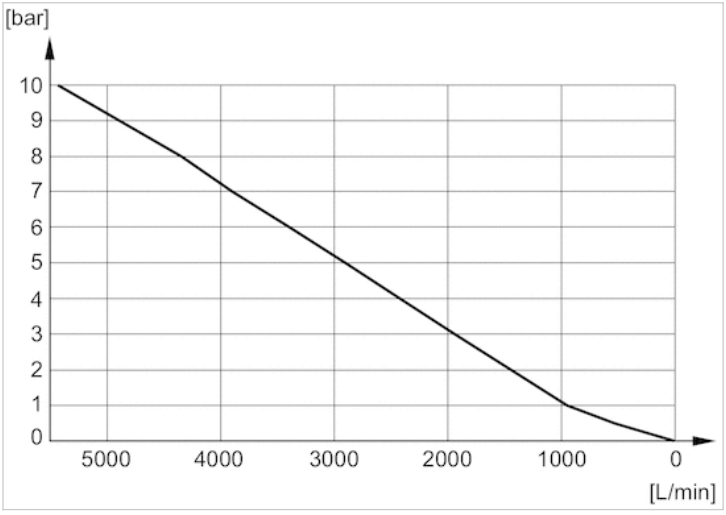
Flow diagram 5324001110



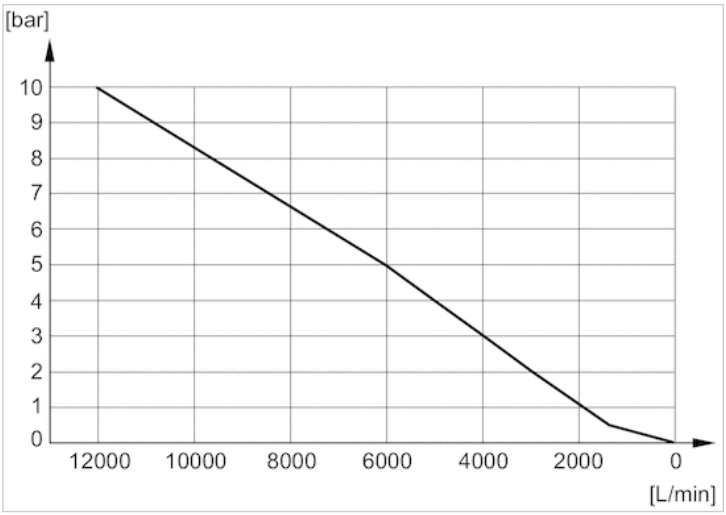
Flow diagram 5324001170



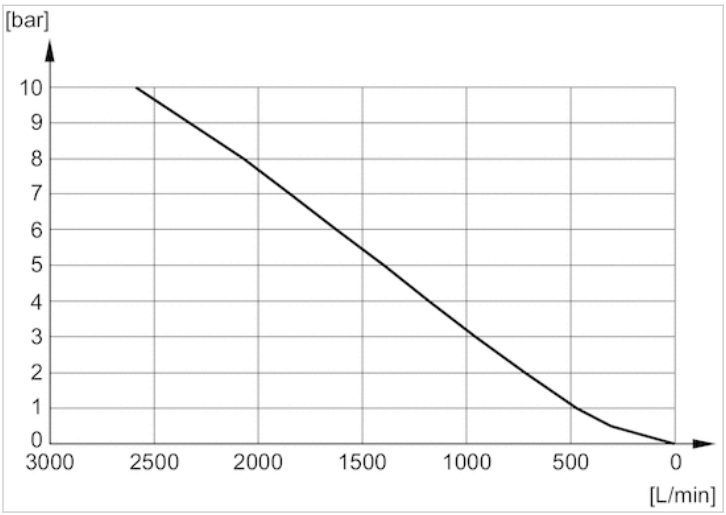
Flow diagram 5324001120



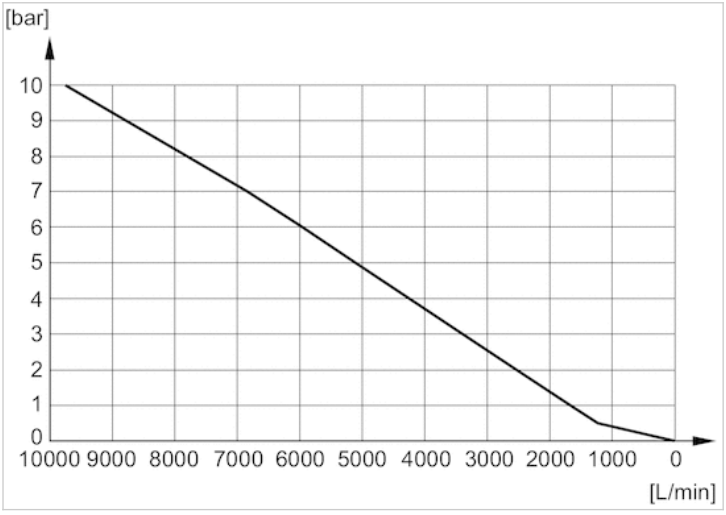
Flow diagram 5324001140



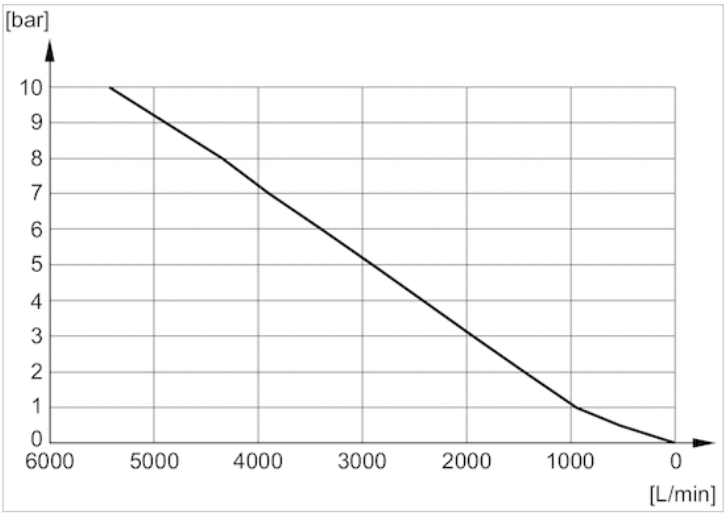
Flow diagram 1827000000



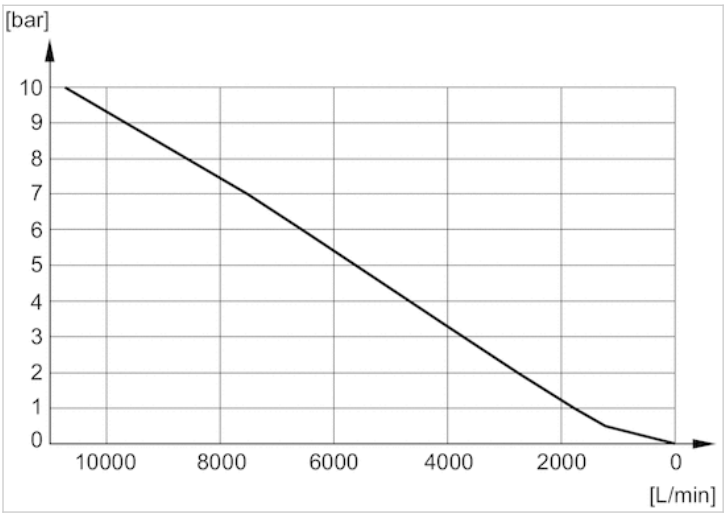
Flow diagram R412004817



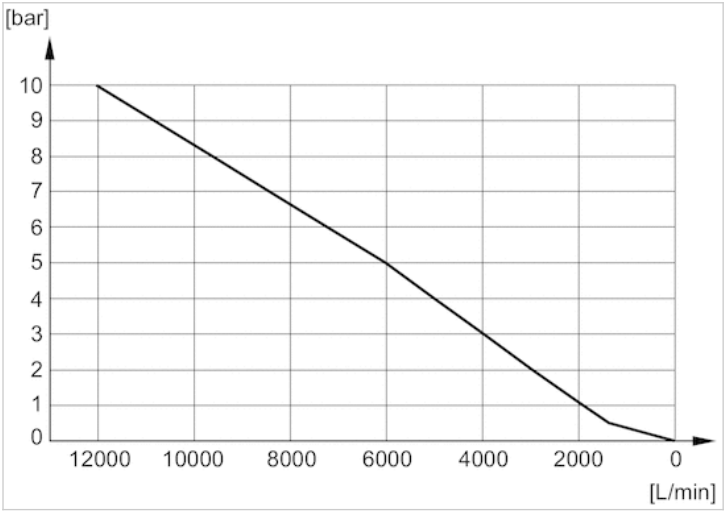
Flow diagram 1827000001



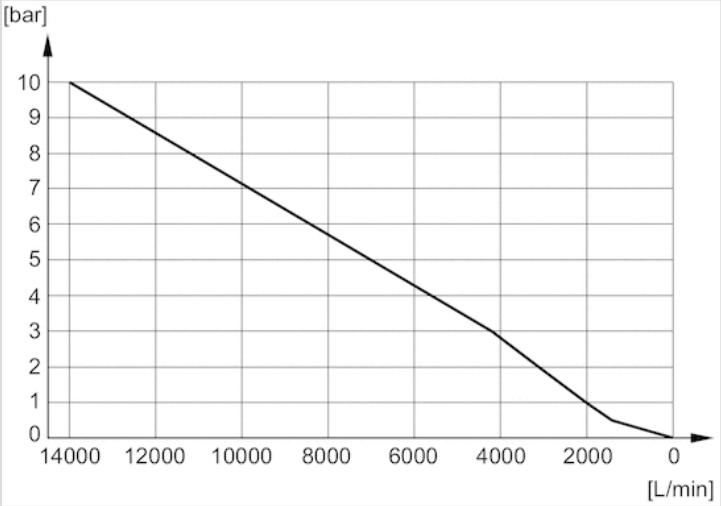
Flow diagram 1827000002



Flow diagram 1827000003



Flow diagram 1827000004



Flow diagram 1827000005