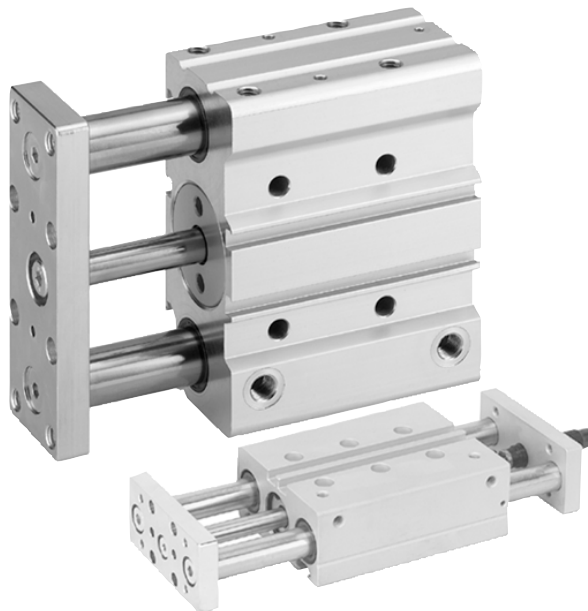


Piston rod cylinder ▶ Guide cylinders















## Series GPC

Brochure



Piston rod cylinder ▶ Guide cylinders

## Series GPC

		<p>Guide cylinders, Series GPC-BV</p> <ul style="list-style-type: none"> <li>▶ Ø 10 - 100 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston</li> </ul>	5
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		<p>Guide cylinders, Series GPC-E</p> <ul style="list-style-type: none"> <li>▶ Ø 12 - 20 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: hydraulic, non-adjustable</li> <li>▶ with magnetic piston ▶ Easy-2-Combine-capable with connection kit</li> </ul>	27
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		<p>Guide cylinders, Series GPC-TL</p> <ul style="list-style-type: none"> <li>▶ Ø 12 - 20 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston</li> </ul>	42
		<p>Guide cylinders, Series GPC-TL</p> <ul style="list-style-type: none"> <li>▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston</li> </ul>	48



## Accessories

### Accessories overview


Accessories overview

54














### Easy-2-Combine connection kits

	<p>Easy-2-Combine, Connection kit</p> <ul style="list-style-type: none"> <li>▶ For combination: GPC-E / GPC-E</li> </ul>	55
	Centering rings	56

### Sensors and sensor mountings, accessories





	<p>Sensor, Series ST4</p> <ul style="list-style-type: none"> <li>▶ 4 mm groove ▶ with cable ▶ open cable ends, 3-pin</li> </ul>	57
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Piston rod cylinder ▶ Guide cylinders  
**Series GPC**

	Sensor, Series ST4 ▶ 4 mm groove ▶ with cable ▶ Plug, M8, 3-pin	58
	Sensor, Series ST4 ▶ 4 mm groove ▶ with cable ▶ Plug, M8, 3-pin, with knurled screw	60
	Sensor, Series ST4 ▶ 4 mm groove ▶ with cable ▶ Plug, M12, 3-pin, with knurled screw	61
	Sensor, Series ST6 ▶ 6 mm T-slot ▶ with cable ▶ open cable ends, 2-pin, open cable ends, 3-pin	63
	Sensor, Series ST6 ▶ 6 mm T-slot ▶ with cable ▶ Plug, M8, 3-pin, with knurled screw	65
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	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	69
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Piston rod cylinder ▶ Guide cylinders

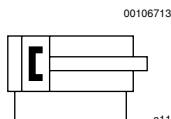
**Series GPC**

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<b>Stroke setting accessories</b>		
	Kit for stroke length adjustment	<b>79</b>

## Piston rod cylinder ▶ Guide cylinders

### Guide cylinders, Series GPC-BV

▶ Ø 10 - 100 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston



Ambient temperature min./max. +14 °F / +158 °F  
Medium Compressed air

Oil content of compressed air 0 mg/m<sup>3</sup> - 5 mg/m<sup>3</sup>  
Pressure for determining piston forces 91.35 psi

Materials:  
Housing Aluminum, anodized  
Seal Polyurethane  
Front plate Steel galvanized  
Guide rod Stainless steel  
Bearing Sintered bronze  
Piston rod Stainless steel

#### Technical Remarks

- The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 37 °F.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Note: Only the Ø10 variants fits to sensor series ST4. The sensor series ST6 and SN3 can be used for all other Ø variants.

Piston Ø	[mm]	10	12	16	20	25
Port		M5	M5	M5	M5	G 1/8
Working pressure min./max.	[psi]	29 / 116	29 / 116	29 / 116	29 / 116	22 / 116
Retracting piston force	[lbf]	9.44	11.91	21.36	33.27	58.45
Extracting piston force	[lbf]	11.02	15.96	28.55	44.51	69.46
Speed max.	[ft./s]	1.64	1.64	1.64	1.64	2.62
Impact energy	[in.lbs.]	0.0295	0.0737	0.0811	0.1106	0.2581

Piston Ø	[mm]	32	40	50	63	80
Port		G 1/8	G 1/8	G 1/4	G 1/4	G 1/4
Working pressure min./max.	[psi]	19 / 116	15 / 116	15 / 116	15 / 116	15 / 116
Retracting piston force	[lbf]	97.79	161.86	249.53	412.96	667.43
Extracting piston force	[lbf]	113.97	178.04	278.08	441.51	711.94
Speed max.	[ft./s]	1.96	1.96	1.96	1.96	1.31
Impact energy	[in.lbs.]	0.295	0.3835	0.472	0.5531	0.5531

Piston Ø	[mm]	100				
Port		G 3/8				
Working pressure min./max.	[psi]	15 / 116				
Retracting piston force	[lbf]	1042.85				
Extracting piston force	[lbf]	1112.31				
Speed max.	[ft./s]	1.31				
Impact energy	[in.lbs.]	0.7375				




All dimensions in mm, unless specified otherwise.

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**Guide cylinders, Series GPC-BV**

▶ Ø 10 - 100 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston

	Piston Ø Piston rod Ø	10 4	12 6	16 8	20 10	25 10	
	Stroke 0.39	<b>R402000294</b>	<b>0822060000</b>	<b>0822061000</b>	<b>0822062000</b>	<b>0822063000</b>	
	0.79	R402000296	<b>0822060001</b>	<b>0822061001</b>	<b>0822062001</b>	<b>0822063001</b>	
	0.98	R402000297	<b>0822060007</b>	<b>0822061007</b>	<b>0822062007</b>	<b>0822063007</b>	
	1.18	<b>R402000298</b>	<b>0822060002</b>	<b>0822061002</b>	<b>0822062002</b>	<b>0822063002</b>	
	1.57	R402000300	<b>0822060003</b>	<b>0822061003</b>	<b>0822062003</b>	<b>0822063003</b>	
	1.97	<b>R402000302</b>	<b>0822060004</b>	<b>0822061004</b>	<b>0822062004</b>	<b>0822063004</b>	
	2.95	<b>R402000307</b>	<b>0822060005</b>	<b>0822061005</b>	<b>0822062005</b>	<b>0822063005</b>	
	3.94	R402000312	<b>0822060006</b>	<b>0822061006</b>	<b>0822062006</b>	<b>0822063006</b>	
	4.92	-	<b>0822060024</b>	<b>0822061024</b>	<b>0822062024</b>	<b>0822063024</b>	
	5.91	-	<b>0822060029</b>	<b>0822061029</b>	<b>0822062029</b>	<b>0822063029</b>	
	6.3	-	-	-	-	<b>0822063031</b>	
	7.87	-	-	-	-	<b>0822063039</b>	
		<b>Piston Ø Piston rod Ø</b>	<b>32 12</b>	<b>40 12</b>	<b>50 16</b>	<b>63 16</b>	<b>80 20</b>
		Stroke 0.39	-	-	-	-	-
0.79		-	-	-	-	-	
0.98		<b>0822064000</b>	<b>0822065000</b>	<b>0822066000</b>	<b>0822067000</b>	R402000914	
1.18		-	-	-	-	-	
1.57		-	-	-	-	-	
1.97		<b>0822064001</b>	<b>0822065001</b>	<b>0822066001</b>	<b>0822067001</b>	R402000915	
2.95		<b>0822064002</b>	<b>0822065002</b>	<b>0822066002</b>	<b>0822067002</b>	R402000916	
3.94		<b>0822064003</b>	<b>0822065003</b>	<b>0822066003</b>	<b>0822067003</b>	R402000917	
4.92		<b>0822064004</b>	<b>0822065004</b>	<b>0822066004</b>	<b>0822067004</b>	R402000918	
5.91		-	-	-	-	-	
6.3	<b>0822064005</b>	<b>0822065005</b>	<b>0822066005</b>	<b>0822067005</b>	<b>R402000919</b>		
7.87	<b>0822064006</b>	<b>0822065006</b>	<b>0822066006</b>	<b>0822067006</b>	R402000920		
	<b>Piston Ø Piston rod Ø</b>	<b>100 25</b>					
	Stroke 0.39	-					
	0.79	-					
	0.98	<b>R402000928</b>					
	1.18	-					
	1.57	-					
	1.97	R402000929					
	2.95	R402000930					
	3.94	R402000931					
	4.92	R402000932					
	5.91	-					
6.3	R402000933						
7.87	R402000934						

All dimensions in mm, unless specified otherwise.


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Piston rod cylinder ▶ Guide cylinders

**Guide cylinders, Series GPC-BV**

▶ Ø 10 - 100 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston

Weight [lbs]	Piston Ø	10	12	16	20	25	
	Stroke 0.39	0.4188	0.6613	0.8377	1.1	1.81	
	0.79	0.485	0.7495	0.97	1.26	2.03	
	0.98	0.507	0.8157	1.01	1.32	-	
	1.18	0.5291	0.8597	1.08	1.41	2.31	
	1.57	0.5952	0.992	1.26	1.61	2.51	
	1.97	0.6393	1.08	1.39	1.76	2.76	
	2.95	0.7936	1.34	1.7	2.16	3.44	
	3.94	0.9259	1.61	2.01	2.56	4.03	
	4.92	-	1.87	2.34	2.98	4.74	
	5.91	-	2.14	2.65	3.35	-	
	6.3	-	-	-	-	5.58	
	7.87	-	-	-	-	6.55	
		<b>Piston Ø</b>	<b>32</b>	<b>40</b>	<b>50</b>	<b>63</b>	<b>80</b>
	Stroke 0.39	-	-	-	-	-	-
	0.79	-	-	-	-	-	-
	0.98	3.44	3.97	6.61	8.38	16.09	
	1.18	-	-	-	-	-	
	1.57	-	-	-	-	-	
	1.97	4.25	4.85	7.94	9.92	18.3	
	2.95	4.98	5.73	9.26	11.46	20.5	
	3.94	5.78	6.79	10.58	13.01	22.71	
	4.92	6.75	7.94	12.35	15.12	25.57	
	5.91	-	-	-	-	-	
	6.3	7.87	9.04	14.11	17.15	28.44	
	7.87	9.19	10.58	16.09	19.62	31.97	
		<b>Piston Ø</b>	<b>100</b>				
	Stroke 0.39	-					
	0.79	-					
	0.98	19.4					
	1.18	-					
	1.57	-					
	1.97	22.05					
	2.95	24.47					
3.94	26.9						
4.92	30.2						
5.91	-						
6.3	33.51						
7.87	37.48						

All dimensions in mm, unless specified otherwise.

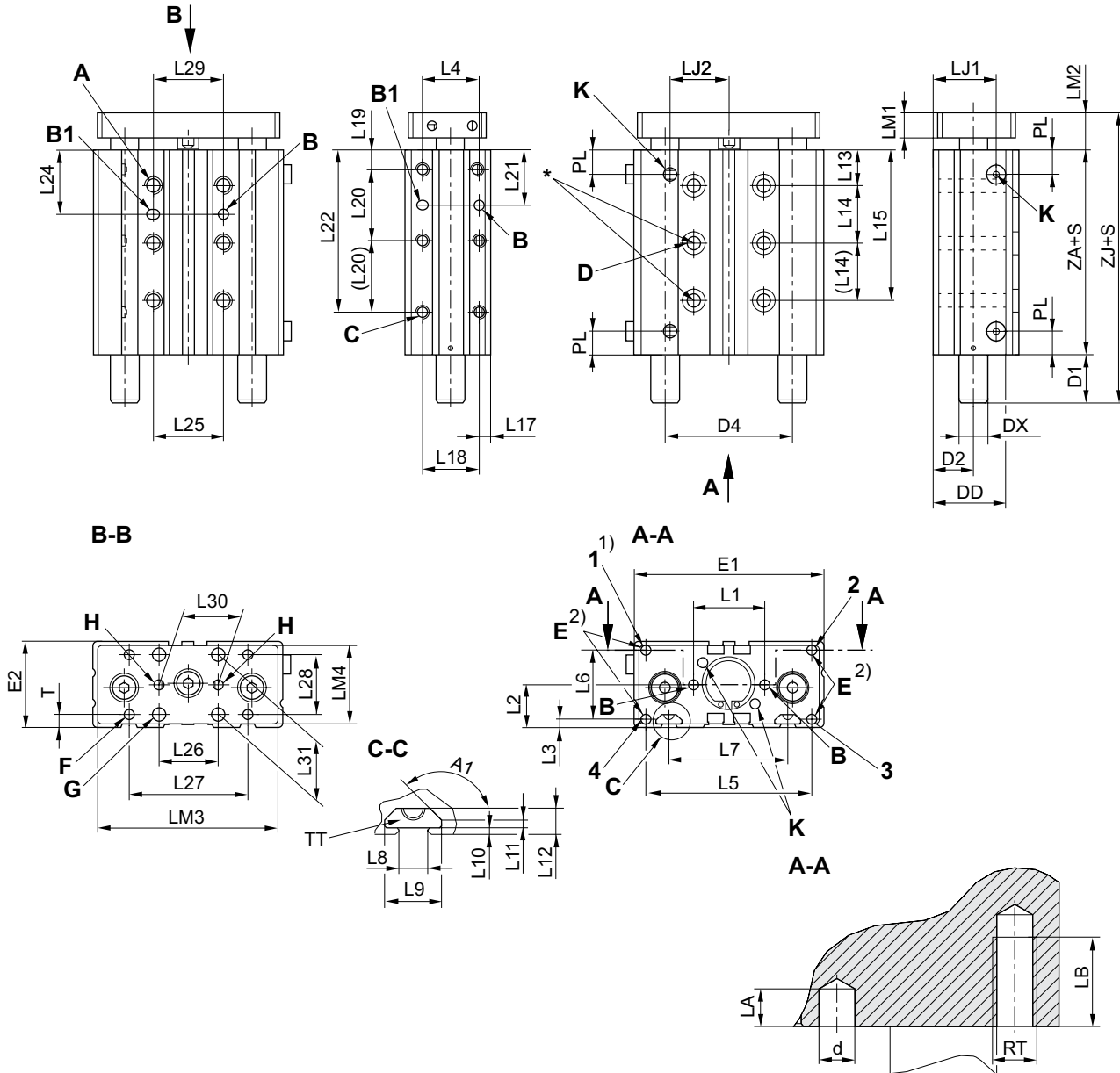
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### Guide cylinders, Series GPC-BV

▶ Ø 10 - 100 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston

#### Dimensions, Ø 10 - 20



\* Suitable for screws according to ISO 4762

1) Only Ø 20 threaded hole  
2) M4 mounting hole for GPC-E accessories

1, 2, 3, 4: threaded holes

S = stroke

Note: Only the Ø10 variants fits to sensor series ST4. The sensor series ST6 and SN3 can be used for all other Ø variants.

Piston Ø	A RTxLB	A1	B ØdxLA	B1 ØdxDxLA	C RTxLB	D Ø	D1 S=10-30	D1 S=40-100	D1 S>100	D2	D4	DD	DX
10	M4x6	-	4H7x4	4H7x5x4	M4x6	3.2	13.5	13.5	13.5	7	-	17.4	8
12	M5x8	-	4H7x4	4H7x5x4	M5x8	4.2	0	17.6	32.6	14.5	40	20	10
16	M5x8	135°	4H7x4	4H7x5x4	M5x8	4.2	0	20	35	15.8	47	28.5	12

All dimensions in mm, unless specified otherwise.

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Piston rod cylinder ▶ Guide cylinders

**Guide cylinders, Series GPC-BV**

▶ Ø 10 - 100 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston

Piston Ø	A RTxLB	A1	B ØdxLA	B1 ØdxDxLA	C RTxLB	D Ø	D1 S=10-30	D1 S=40-100	D1 S>100	D2	D4	DD	DX
20	M6x10	135°	4H7x4	4H7x5x4	M6x10	5.2	0	20	35	16.5	54	30.5	12

Piston Ø	E RTxLB	E1	E2	F Ø 1)	G Ø 2)	H Ø 2)	K	L1	L2	L3	L4	L5
10	M4x8	50	21	M4	-	-	M5	20 ±0,04	10.5	3	-	20
12	M5x8	58	30.5	M4	4.5	4H9	M5	23 ±0,04	15	4	22	50
16	M5x8	68	33	M4	5.5	4H9	M5	28 ±0,04	16.5	4	25	61
20	M5x10	80	36	M5	5.5	4H9	M5	30 ±0,04	18	3.5	24	70

Piston Ø	L6	L7	L8	L9	L10	L11	L12	L13	L14 S=10	L14 S=20	L14 S>20	L15 S=40	L15 S>40
10	15	-	-	-	-	-	-	15	-	20	20	55	55
12	22	-	-	-	-	-	-	14.5	-	18	22	-	58.5
16	25	43	6.15	12	1.5	1.5	5.5	14	18	25	25	-	64
20	29	50	6.15	12	1.5	1.5	5.5	15	16	24	24	-	63

Piston Ø	L17	L18	L19	L20 S=10	L20 S>10	L21 S=10	L21 S>10	L22 S≤40	L22 S>40	L24 S=10	L24 S>10	L25	L26
10	15	-	8	20	20	13	13	48	48	25	25	20	-
12	4	22	8	20	20	18	18	-	48	25.5	25.5	20	-
16	4	25	8	18	25	20.5	20.5	-	58	26.5	26.5	25	20
20	4.5	24	8	20	30	18	23	-	68	23	27	30	25

Piston Ø	L27	L28	L29	L30	L31	LJ1	LJ2	LM1	LM2	LM3	LM4	PL	T
10	20	10	20	-	-	15.5	15	5	13.5	48	19	8	5.5
12	40	20	20	-	-	24.8	17.5	8	12.7	55	27	8.5	5
16	40	20	25	20 ±0,04	22	27	21	8	13.5	65	30	8.8	6.5
20	50	25	30	25 ±0,04	25	26.5	25	10	15.5	77	33	10	5.5

Piston Ø	TT	ZA	ZJ S=10-30	ZJ S=40-100	ZJ S>100								
10	-	36	63	63	63								
12	-	34.4	47.1	64.7	79.7								
16	N6	36	49.5	69.5	84.5								
20	N6	36	51.5	71.5	86.5								

S = stroke

To determine the cylinder length (ZA) for intermediate strokes (i.e. stroke 10 with dia. 40), the next available standard stroke size must be used

1) Through hole with thread

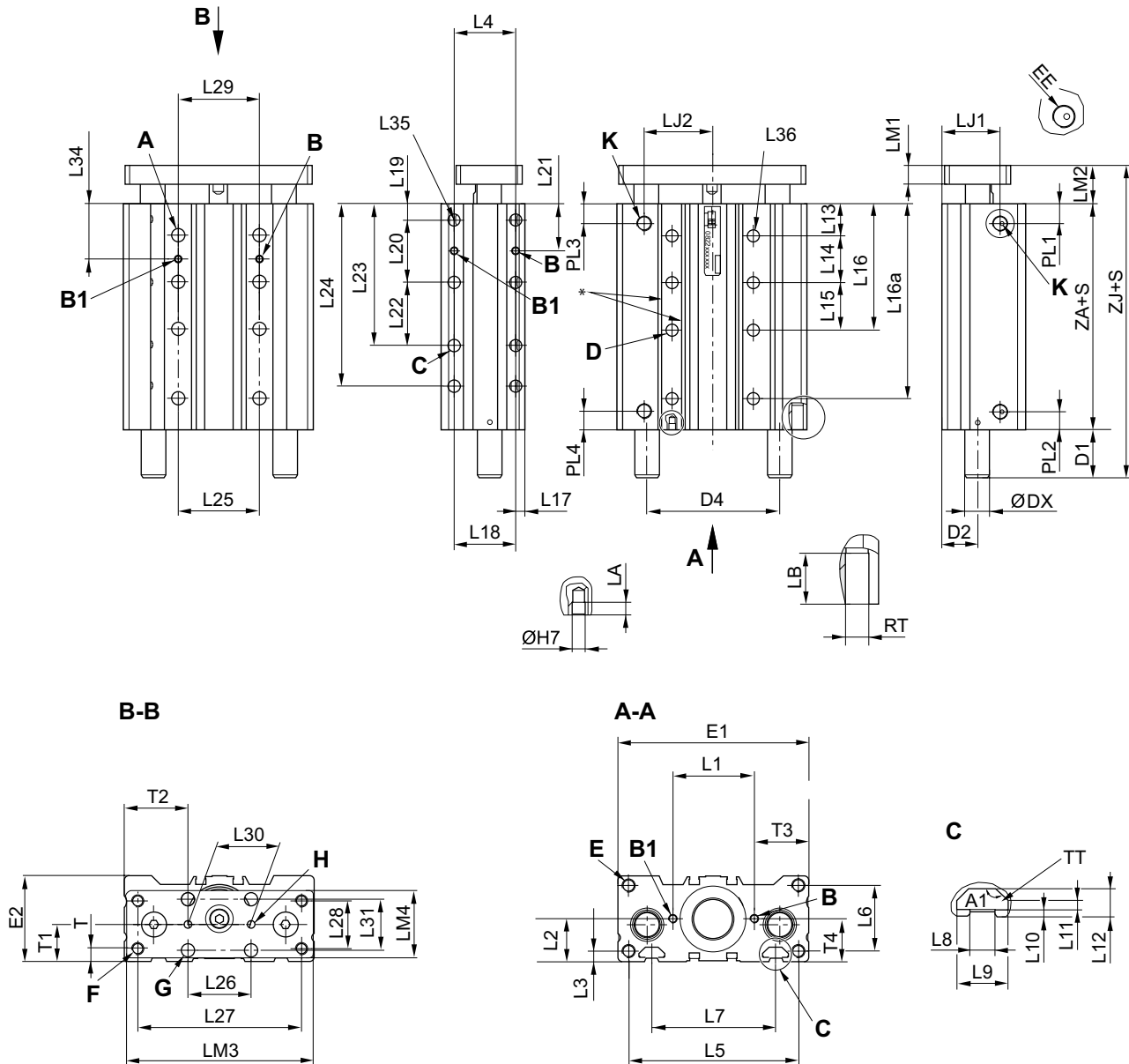
2) through-hole

Two holes C-C 10 mm.

## Guide cylinders, Series GPC-BV

▶ Ø 10 - 100 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston

### Dimensions, Ø 25 - 100



\* Suitable for screws according to ISO 4762

S = stroke

Note: Only the Ø10 variants fits to sensor series ST4. The sensor series ST6 and SN3 can be used for all other Ø variants.

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Piston Ø	A RTxLB	A1	B ØdxLA	B1 ØdxD	C RTxLB	D Ø 1)	D2	D4	DX	E RTxLB	E1	E2	F Ø 1)
25	M6x10	135°	4x4	4x5	M6x10	5.5	18	59	16	M6x12	95	43	M6
32	M8x14	135°	4x4	4x5	M8x14	7.4	23	75.6	20	M6x12	114	48.5	M8
40	M8x14	135°	4x4	4x5	M8x14	7.4	23	86	20	M8x16	124	54.5	M8
50	M10x20	135°	5x5	5x6	M10x20	9.3	27.5	104	25	M8x16	148	64	M8
63	M10x20	135°	5x5	5x6	M10x20	9.3	35	124	25	M10x20	162	78.5	M10
80	M12x24	135°	6x6	6x7	M12x25	11.2	39.5	152	32	M12x25	202	91.5	M12

All dimensions in mm, unless specified otherwise.

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**Piston rod cylinder ▶ Guide cylinders**
**Guide cylinders, Series GPC-BV**

▶ Ø 10 - 100 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston

Piston Ø	A RTxLB	A1	B ØdxLA	B1 ØdxD	C RTxLB	D Ø 1)	D2	D4	DX	E RTxLB	E1	E2	F Ø 1)
100	M12x24	135°	6x6	6x7	M12x25	11.2	39.5	174	32	M12x25	226	111	M12

Piston Ø	G Ø 2)	H Ø 2)	K EE	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10
25	6.5	4H8	G 1/8	35 ±0,1	20.5	4.5	25 ±0,1	85	34	52	6.15	12	1.5
32	6.5	4H8	G 1/8	44 ±0,1	24	5	33 ±0,1	105	26	70	8.2	16.7	2.2
40	8.5	4H8	G 1/8	53 ±0,15	27	6	40 ±0,15	110	42	80	8.2	16.7	2.2
50	8.5	4H8	G 1/4	66 ±0,15	32	8	48 ±0,15	133	34.5	93	8.2	16.7	2.2
63	10.5	5H8	G 1/4	84 ±0,15	39	8	60 ±0,15	147	62	112	10.2	20.3	6
80	10.5	5H8	G 1/4	100 ±0,15	46	9	60 ±0,15	182	54.5	132	10.2	20.3	6
100	12.5	6H8	G 3/8	120 ±0,15	55.5	9	60 ±0,15	206	76	155	10.2	20.3	6

Piston Ø	L11	L12	L13	L15	L17	L18	L19	L22	L25	L26	L27	L28	L29
25	1.5	5.5	16.5	25	5.5	25	8	32	32	30	81	23	32 ±0,1
32	2.8	9	20.5	33	6.5	33	10	42	42	32	97	30	42 ±0,1
40	2.8	9	20	40	6	40	10	53	53	42	107	30	53 ±0,15
50	2.8	9	23	48	7.5	48	12	63	63	53	134	40	63 ±0,15
63	6	16	24	60	11	60	12	80	80	63	140	48	80 ±0,15
80	6	16	33.5	60	12	60	13	96	96	80	176	52	96 ±0,15
100	6	16	32.5	60	12	60	13	119	119	96	204	64	119 ±0,15

Piston Ø	L30	L31	LJ1	LJ2	LM1	LM2	LM3	LM4	PL1	PL2	PL3	PL4	T
25	30 ±0,2	24	29.6	32	10	15.5	93	33	11	11	11	11	6.5
32	32 ±0,2	25	40	40.5	12	18.5	112	43	13.5	13.5	13.5	13.5	8
40	42 ±0,2	32.5	37.8	44	12	19.5	122	43	12	12	12	12	8
50	53 ±0,2	40	54.5	50.5	15	23.5	146	52	13	13	13	13	7.5
63	63 ±0,2	48	57	59	15	24	160	67	13.7	13.7	13.7	13.7	11
80	80 ±0,2	60	77.5	74.5	20	30	200	76	23	23	23	23	13.5
100	96 ±0,2	60	68.5	86.5	20	31	224	84	21.5	21.5	21.5	21.5	18.5

Piston Ø	T1	T2	T3	T4	TT	ZA						
25	18 ±0,4	32,5 ±0,4	30 ±0,05	20,5 ±0,05	N6	42 3)						
32	23 ±0,4	41 ±0,4	35 ±0,05	24 ±0,05	N8	46.5						
40	23 ±0,4	41 ±0,4	35,5 ±0,1	27 ±0,1	N8	44						
50	27,5 ±0,4	47,5 ±0,4	41 ±0,1	32 ±0,1	N8	46						
63	35 ±0,4	49,5 ±0,5	39 ±0,1	39 ±0,1	N10	51						
80	39,5 ±0,45	61 ±0,5	51 ±0,2	46 ±0,2	N10	77						
100	50,5 ±0,45	65 ±0,5	53 ±0,2	55,5 ±0,2	N10	77						

S = stroke

To determine the cylinder length (ZA) for intermediate strokes (i.e. stroke 10 with dia. 40), the next available standard stroke size must be used

1) Through hole with thread

2) through-hole

3) For stroke 150, ZA = 52, for stroke 25, ZA = 47

Two holes C-C 10 mm.

Piston Ø	S=10 D1	S=20 D1	S=25 D1	S=30 D1	S=40 D1	S=50 D1	S=75 D1	S=100 D1	S=125 D1	S=150 D1	S=160 D1	S=200 D1	S=10 L14
25	0	0	0	0	0	0	11	11	27	27	27	27	19
32			17	17	17	17	17	17	35	35	35	35	30
40			19	19	19	19	19	19	37	37	37	37	30
50			25	25	25	25	25	25	55	55	55	55	25
63			19	19	19	19	19	19	49	49	49	49	28
80			10.5	10.5	10.5	10.5	10.5	10.5	38.5	38.5	38.5	38.5	35
100			9.5	9.5	9.5	9.5	9.5	9.5	37.5	37.5	37.5	37.5	37

All dimensions in mm, unless specified otherwise.

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## Piston rod cylinder ▶ Guide cylinders

## Guide cylinders, Series GPC-BV

▶ Ø 10 - 100 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston

Piston Ø	S=20 L14	S=25 L14	S=30 L14	S=40 L14	S=50 L14	S=75 L14	S=100 L14	S=125 L14	S=160 L14	S=200 L14	S=10 L16	S=20 L16	S=25 L16
25	25	25	25	25	25	25	25	25	25	25	35.5	41.5	41.5
32	30	30	33	33	33	33	33	33	33	33	50.5	50.5	50.5
40	30	30	40	40	40	40	40	40	40	40	50	50	50
50	25	25	48	48	48	48	48	48	48	48	48	48	48
63	28	28	28	28	28	60	60	60	60	60	52	52	52
80	35	35	60	60	60	60	60	60	60	60	68.5	68.5	68.5
100	37	37	60	60	60	60	60	60	60	60	69.5	69.5	69.5

Piston Ø	S=30 L16	S=40 L16	S=50 L16	S=75 L16	S=100 L16	S=125 L16	S=160 L16	S=200 L16	S=40 L16a	S=50 L16a	S=100 L16a	S=125 L16a	S=160 L16a
25	41.5	41.5	66.5	91.5	91.5	91.5	91.5	91.5	65.5		125.5	150.5	185.5
32	53.5	53.5	53.5	86.5	119.5	119.5	119.5	119.5		76		151	186
40	60	60	60	100	100	140	140	140					184
50	71	71	71	71	119	119	167	167				148	
63	52	52	52	84	84	144	144	204			127		187
80	93.5	93.5	93.5	93.5	93.5	153.5	153.5	213.5			143.5		203.5
100	92.5	92.5	92.5	92.5	92.5	152.5	152.5	212.5			144.5		204.5

Piston Ø	S=200 L16a	S=20 L20	S=25 L20	S=30 L20	S=40 L20	S=50 L20	S=75 L20	S=100 L20	S=125 L20	S=160 L20	S=200 L20	S=10 L23	S=20 L23
25	225.5	22	32	32	32	32	32	32	32	32	32	32	30
32	226	35	35	42	42	42	42	42	42	42	42	42	45
40	224	30	30	53	53	53	53	53	53	53	53	53	40
50	223	30	30	30	30	30	63	63	63	63	63	63	42
63		30	30	30	30	30	80	80	80	80	80	80	42
80		47	47	47	47	47	96	96	96	96	96	96	60
100		49	49	49	49	49	96	119	119	119	119	119	62

Piston Ø	S=25 L23	S=30 L23	S=40 L23	S=50 L23	S=75 L23	S=100 L23	S=125 L23	S=160 L23	S=200 L23	S=40 L24	S=50 L24	S=75 L24	S=100 L24
25	40	40	40	40	74	104	104	104	104	60	70	95	
32	45	52	52	52	94	94	136	136	136				122.5
40	40	63	63	63	63	116	116	169	169			91	
50	42	42	42	42	75	75	138	138	201				116
63	42	42	42	42	92	92	92	172	172				
80	60	60	60	60	109	109	109	109	109				
100	62	62	62	62	62	132	132	132	132				

Piston Ø	S=125 L24	S=160 L24	S=200 L24	S=10 L34	S=20 L34	S=25 L34	S=30 L34	S=40 L34	S=50 L34	S=75 L34	S=100 L34	S=125 L34	S=160 L34
25	145	180	220	26	29	29	29	29	29	29	29	29	29
32		182.5	222.5	35.5	35.5	35.5	37	37	37	37	37	37	37
40			216	35	35	35	40	40	40	40	40	40	40
50		176		35.5	35.5	35.5	47	47	47	47	47	47	47
63	140		215	38	38	38	38	38	38	54	54	54	54
80	160	195		51	51	51	51	51	51	63.5	63.5	63.5	63.5
100		195	235	51	51	51	51	51	51	62.5	62.5	62.5	62.5

Piston Ø	S=200 L34	S=10 L35	S=20 L35	S=25 L35	S=30 L35	S=40 L35	S=50 L35	S=75 L35	S=100 L35	S=125 L35	S=160 L35	S=200 L35	S=10 L36
25	29	4	4	4	4	6	6	8	8	10	10	10	4
32	37	4	4	4	4	4	4	6	8	8	10	10	4
40	40	4	4	4	4	4	4	6	6	6	8	10	4
50	47	4	4	4	4	4	4	4	6	6	8	8	4
63	54	4	4	4	4	4	4	4	4	6	6	8	4
80	63.5	4	4	4	4	4	4	4	4	6	6	6	4
100	62.5	4	4	4	4	4	4	4	4	4	6	6	4

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Piston rod cylinder ▶ Guide cylinders

**Guide cylinders, Series GPC-BV**

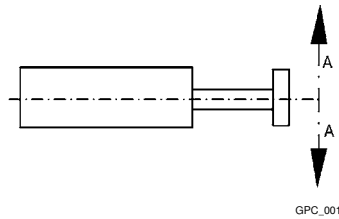
▶ Ø 10 - 100 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston

Piston Ø	S=20 L36	S=25 L36	S=30 L36	S=40 L36	S=50 L36	S=75 L36	S=100 L36	S=125 L36	S=160 L36	S=200 L36	S=10 ZJ	S=20 ZJ	S=25 ZJ
25	4	4	4	6	6	8	10	10	10	10	57.5	57.5	57.5
32	4	4	4	4	6	6	8	10	10	10			82
40	4	4	4	4	4	6	6	8	10	10			82.6
50	4	4	4	4	4	4	6	8	8	10			94.5
63	4	4	4	4	4	4	6	6	8	10			94.6
80	4	4	4	4	4	4	6	6	8	8			117.5
100	4	4	4	4	4	4	6	6	8	8			117.5

Piston Ø	S=30 ZJ	S=40 ZJ	S=50 ZJ	S=75 ZJ	S=100 ZJ	S=125 ZJ	S=160 ZJ	S=200 ZJ					
25	57.5	57.5	57.5	68.5	68.5	84.5	84.5	84.5					
32			82	82	82	100	100	100					
40			82.6	82.6	82.6	100.6	100.6	100.6					
50			94.5	94.5	94.5	124.5	124.5	124.5					
63			94.6	94.6	94.6	124.6	124.6	124.6					
80			117.5	117.5	117.5	145.5	145.5	145.5					
100			117.5	117.5	117.5	145.5	145.5	145.5					

S = stroke

Play



Piston Ø	A 1)												
10	0.16												
12	0.13												
16	0.13												
20	0.13												
25	0.15												
32	0.15												
40	0.15												
50	0.16												
63	0.16												
80	0.17												
100	0.17												

1) Piston rod deflection at a stroke of 50 mm and a load of 10 N (mm)

All dimensions in mm, unless specified otherwise.

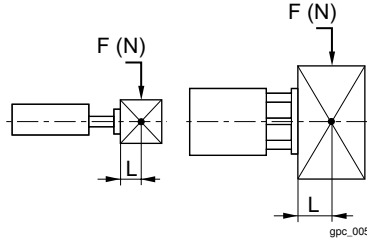
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## Guide cylinders, Series GPC-BV

▶ Ø 10 - 100 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston

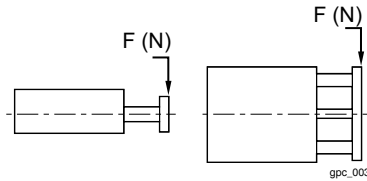
### Permissible static side load F [N] at distance L



Piston Ø	L	S=10	S=20	S=25	S=30	S=40	S=50	S=75	S=100	S=125	S=150	S=160	S=200
10	25	12	11	11	10	10	9	8	7	-	-	-	-
12	25	28	24	23	21	31	28	22	19	16	13	-	-
16	50	63	56	53	51	73	67	55	49	42	35	-	-
20	50	63	56	53	51	73	67	55	49	42	35	-	-
25	50	53.2	48.4	-	44.4	41	38.1	59	51.9	65.4	-	57.3	50.1
32	50	-	-	139	-	-	118	103	90.8	116	-	102	90.2
40	50	-	-	138	-	-	118	102	90.4	116	-	102	89.9
50	50	-	-	218	-	-	187	164	146	215	-	191	169
63	50	-	-	217	-	-	186	163	145	214	-	190	169
80	50	-	-	392	-	-	342	304	273	356	-	318	284
100	50	-	-	390	-	-	341	302	272	354	-	318	284

S = stroke

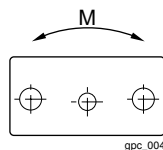
### Permissible static side force F [N]



Piston Ø	S=10	S=20	S=25	S=30	S=40	S=50	S=75	S=100	S=125	S=150	S=160	S=200
25	106	88	-	76	66	59	82	69	82	-	70	59
32	-	-	216	-	-	169	139	118	144	-	124	106
40	-	-	214	-	-	168	138	118	144	-	123	106
50	-	-	327	-	-	262	218	187	261	-	227	197
63	-	-	324	-	-	260	217	186	260	-	226	196
80	-	-	554	-	-	459	392	342	427	-	374	328
100	-	-	549	-	-	456	390	341	425	-	373	327

S = stroke

### Permissible static moment M [Nm]



All dimensions in mm, unless specified otherwise.

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Piston rod cylinder ▶ Guide cylinders

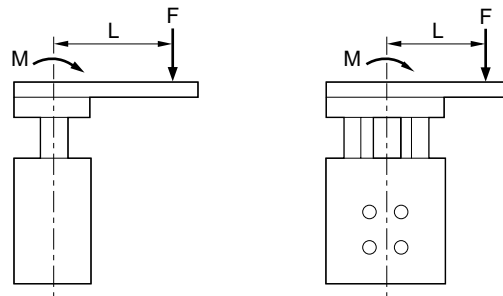
**Guide cylinders, Series GPC-BV**

▶ Ø 10 - 100 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston

Piston Ø	S=10	S=20	S=25	S=30	S=40	S=50	S=75	S=100	S=125	S=160	S=200		
10	1.75	1.5	1.4	1.3	1.2	1.1	0.85	0.75	-	-	-		
12	0.56	0.48	0.46	0.42	0.62	0.56	0.44	0.38	0.32	0.26	-		
16	1.48	1.32	1.25	1.2	1.72	1.57	1.29	1.15	0.99	0.82	-		
20	1.7	1.51	1.43	1.38	1.97	1.81	1.49	1.32	1.13	0.95	-		
25	3.11	2.6	-	2.23	1.96	1.74	2.41	2.02	2.42	2.05	1.75		
32	-	-	8.17	-	-	6.4	5.26	4.47	5.45	4.67	4.01		
40	-	-	9.19	-	-	7.22	5.95	5.05	6.17	5.29	4.55		
50	-	-	17	-	-	13.6	11.4	9.73	13.6	11.8	10.3		
63	-	-	20.1	-	-	16.1	13.4	11.5	16.1	14	12.2		
80	-	-	42.1	-	-	34.9	29.8	26	32.4	28.5	24.9		
100	-	-	47.8	-	-	39.7	33.9	29.6	37	32.5	28.5		

S = stroke

Permissible static moment M [Nm]



$M = FxL$

GPC\_006

Piston Ø	S 5-30	S>30	S 35-50	S 55-100	S>100								
10	1,5	1,5	-	-	-								
12	2	3.5	-	-	-								
16	4.5	14	-	-	-								
20	4.5	14	-	-	-								
25	4.6	-	4.9	9.4	14.5								
32	15.2	-	16.5	17.2	26.4								
40	15.3	-	15.3	17.2	26.4								
50	26	-	26	28.9	51.6								
63	26	-	26	28.9	51.6								
80	52.1	-	52.1	57.9	90.3								
100	52.3	-	52.3	57.9	90.4								

S = stroke

All dimensions in mm, unless specified otherwise.

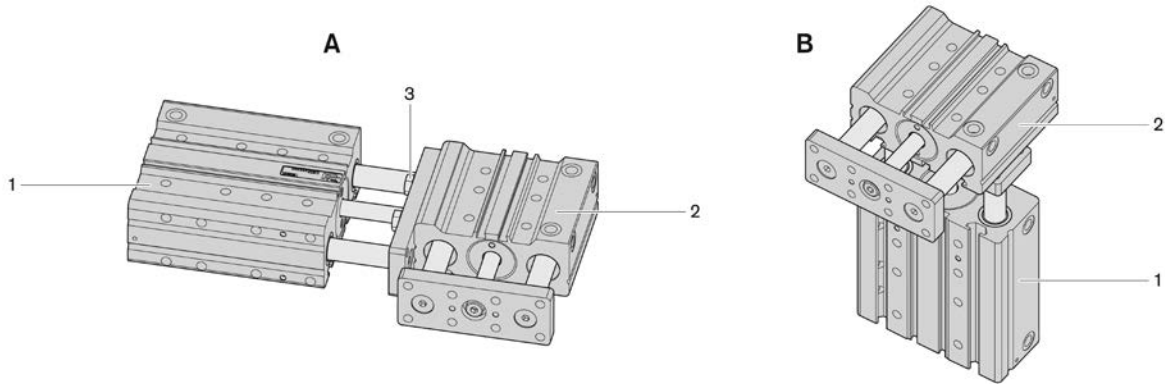
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### Guide cylinders, Series GPC-BV

▶ Ø 10 - 100 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston

#### GPC combinations



gpc\_007

- 1) Cylinder 1
- 2) Cylinder 2
- 3) Screw

#### Minimum strokes for cylinder 1 when using 2 assembled guide cylinders

Piston Ø	S												
32	25												
40	25												
50	30												
63	30												
80	35												
100	40												

S = stroke

#### Minimum strokes for cylinder 2 when using 2 assembled guide cylinders

Piston Ø	Ø 2	A	B	3				
10	12	–	–	M4x12				
12	16	–	–	M5x15				
16	20	–	–	M5x18				
20	25	–	–	M6x20				
25	32	25	15	M6x20				
32	40	30	30	M8x25				
40	50	30	30	M8x30				
50	63	55	30	M10x30				
63	80	55	55	M10x35				
80	100	55	30	M12x40				

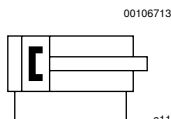
A = min.stroke: assembly A  
 B = min.stroke: assembly B  
 3 = screw



## Piston rod cylinder ▶ Guide cylinders

### Guide cylinders, Series GPC-BV

▶ Ø 10 - 63 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston



Ambient temperature min./max.  
Medium

+14 °F / +158 °F  
Compressed air

Oil content of compressed air  
Pressure for determining piston forces

0 mg/m<sup>3</sup> - 5 mg/m<sup>3</sup>  
91.35 psi

Materials:

Housing  
Seal  
Front plate  
Guide rod  
Bearing  
Piston rod

Aluminum, anodized  
Polyurethane  
Steel galvanized  
Steel, hardened  
Steel, hardened  
Stainless steel

#### Technical Remarks

- The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 37 °F.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Note: Only the Ø10 variants fits to sensor series ST4. The sensor series ST6 and SN3 can be used for all other Ø variants.

Piston Ø	[mm]	10	12	16	20	25
Port		M5	M5	M5	M5	G 1/8
Working pressure min./max.	[psi]	29 / 116	29 / 116	29 / 145	29 / 145	22 / 145
Retracting piston force	[lbf]	9.44	11.91	21.36	33.27	58.45
Extracting piston force	[lbf]	11.02	15.96	28.55	44.51	69.46
Speed max.	[ft./s]	1.64	1.64	1.64	1.64	2.62
Impact energy	[in.lbs.]	0.0295	0.0737	0.0811	0.1106	0.2581

Piston Ø	[mm]	32	40	50	63
Port		G 1/8	G 1/8	G 1/4	G 1/4
Working pressure min./max.	[psi]	19 / 145	15 / 145	15 / 145	15 / 145
Retracting piston force	[lbf]	97.79	161.86	249.53	412.96
Extracting piston force	[lbf]	113.97	178.04	278.08	441.51
Speed max.	[ft./s]	1.96	1.96	1.96	1.96
Impact energy	[in.lbs.]	0.295	0.3835	0.472	0.5531


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## Guide cylinders, Series GPC-BV

▶ Ø 10 - 63 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston

	Piston Ø Piston rod Ø	10 4	12 6	16 8	20 10	25 10	
	Stroke 0.39	R402000314	<b>0822060100</b>	<b>0822061100</b>	<b>0822062100</b>	<b>0822063100</b>	
	0.79	R402000316	<b>0822060101</b>	<b>0822061101</b>	<b>0822062101</b>	<b>0822063101</b>	
	0.98	R402000317	<b>0822060107</b>	<b>0822061107</b>	<b>0822062107</b>	<b>0822063107</b>	
	1.18	R402000318	<b>0822060102</b>	<b>0822061102</b>	<b>0822062102</b>	<b>0822063102</b>	
	1.57	<b>R402000320</b>	<b>0822060103</b>	<b>0822061103</b>	<b>0822062103</b>	<b>0822063103</b>	
	1.97	R402000322	<b>0822060104</b>	<b>0822061104</b>	<b>0822062104</b>	<b>0822063104</b>	
	2.95	<b>R402000327</b>	<b>0822060105</b>	<b>0822061105</b>	<b>0822062105</b>	<b>0822063105</b>	
	3.94	R402000332	<b>0822060106</b>	<b>0822061106</b>	<b>0822062106</b>	<b>0822063106</b>	
	4.92	-	<b>0822060124</b>	<b>0822061124</b>	<b>0822062124</b>	<b>0822063124</b>	
	5.91	-	<b>0822060129</b>	<b>0822061129</b>	<b>0822062129</b>	<b>0822063129</b>	
	6.3	-	-	-	-	<b>0822063131</b>	
	7.87	-	-	-	-	<b>0822063139</b>	
		Piston Ø Piston rod Ø	32 12	40 12	50 16	63 16	
	Stroke 0.39	-	-	-	-	-	-
	0.79	-	-	-	-	-	-
	0.98	<b>0822064100</b>	<b>0822065100</b>	<b>0822066100</b>	<b>0822067100</b>		
	1.18	-	-	-	-	-	-
	1.57	-	-	-	-	-	-
	1.97	<b>0822064101</b>	<b>0822065101</b>	<b>0822066101</b>	<b>0822067101</b>		
2.95	<b>0822064102</b>	<b>0822065102</b>	<b>0822066102</b>	<b>0822067102</b>			
3.94	<b>0822064103</b>	<b>0822065103</b>	<b>0822066103</b>	<b>0822067103</b>			
4.92	<b>0822064104</b>	<b>0822065104</b>	<b>0822066104</b>	<b>0822067104</b>			
5.91	-	-	-	-	-	-	
6.3	<b>0822064105</b>	<b>0822065105</b>	<b>0822066105</b>	<b>0822067105</b>			
7.87	<b>0822064106</b>	<b>0822065106</b>	<b>0822066106</b>	<b>0822067106</b>			

Weight [lbs]	Piston Ø	10	12	16	20	25	
	Stroke 0.39	0.4188	0.6172	0.7936	1.06	1.98	
	0.79	0.485	0.7054	0.9038	1.19	2.05	
	0.98	0.507	0.7716	0.97	1.28	-	
	1.18	0.5291	0.7716	1.04	1.34	2.27	
	1.57	0.5952	0.8157	1.23	1.59	2.49	
	1.97	0.6393	0.9479	1.34	1.74	2.69	
	2.95	0.7936	1.06	1.63	2.09	3.2	
	3.94	0.9259	1.54	1.94	2.47	3.73	
	4.92	-	1.81	2.27	2.98	4.3	
	5.91	-	2.07	2.56	3.24	-	
	6.3	-	-	-	-	5.03	
	7.87	-	-	-	-	5.89	
		Piston Ø	32	40	50	63	
	Stroke 0.39	-	-	-	-	-	-
	0.79	-	-	-	-	-	-
	0.98	3.17	3.79	5.95	7.83		
	1.18	-	-	-	-	-	-
	1.57	-	-	-	-	-	-
	1.97	3.9	4.63	7.05	9.26		
2.95	4.63	5.51	8.6	10.93			
3.94	5.31	6.39	9.7	12.26			
4.92	6.11	7.28	11.02	13.82			
5.91	-	-	-	-	-	-	
6.3	7.1	8.29	12.79	15.65			
7.87	8.25	9.7	14.55	17.64			

All dimensions in mm, unless specified otherwise.

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

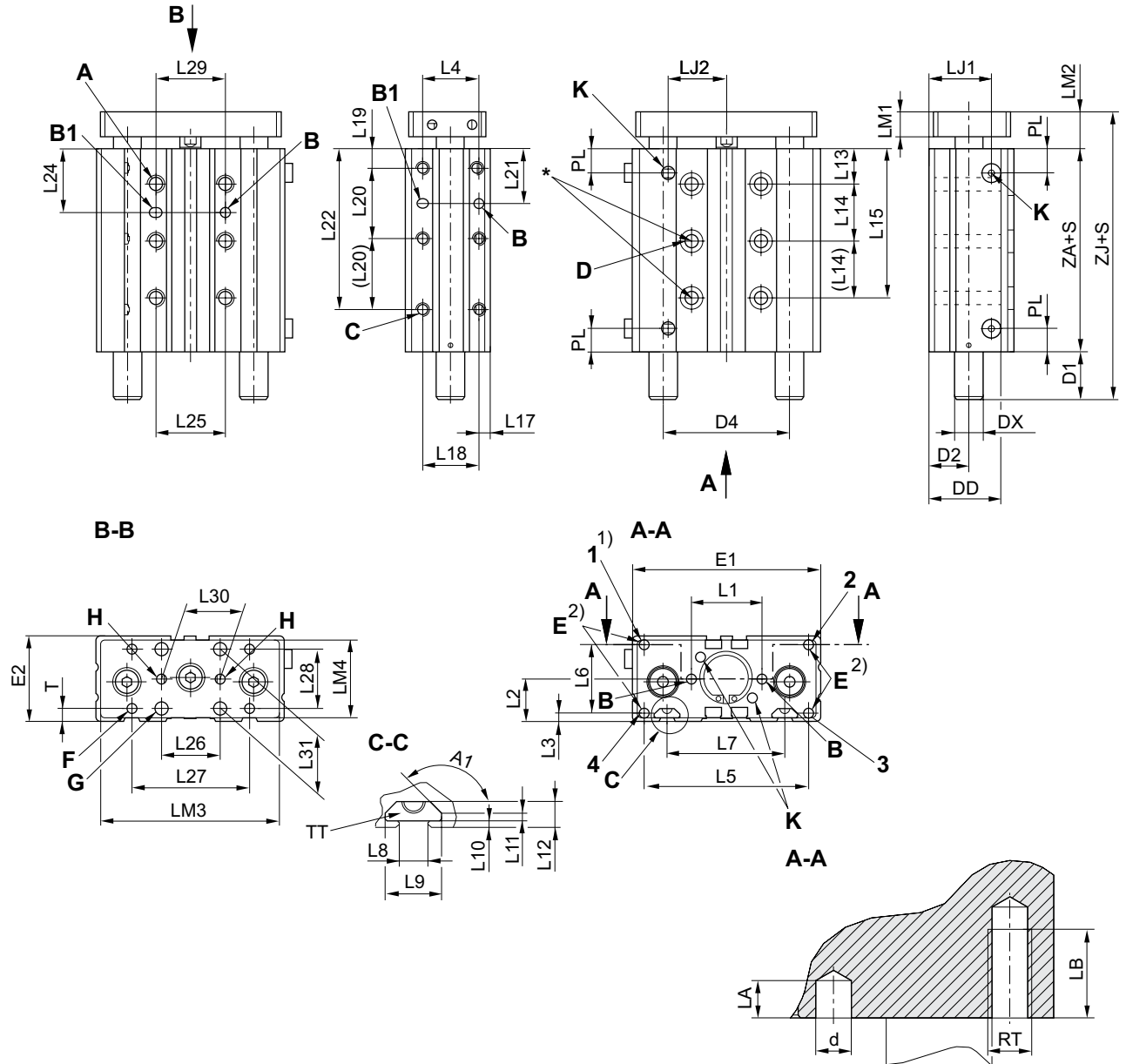
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## Piston rod cylinder ▶ Guide cylinders

### Guide cylinders, Series GPC-BV

▶ Ø 10 - 63 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston

#### Dimensions, Ø 10 - 20



\* Suitable for screws according to ISO 4762

1) Only Ø 20 threaded hole

2) M4 mounting hole for GPC-E accessories

1, 2, 3, 4: threaded holes

S = stroke

Note: Only the Ø10 variants fits to sensor series ST4. The sensor series ST6 and SN3 can be used for all other Ø variants.

Piston Ø	A RTxLB	A1	B ØdxLA	B1 ØdxDx- LA	C RTxLB	D Ø	D1 S=10- 30	D1 S=40- 100	D1 S>100	D2	D4	DD	DX
10	M4x6	-	4H7x4	4H7x5x4	M4x6	3.2	13.5	13.5	13.5	7	-	17.4	6
12	M5x8	-	4H7x4	4H7x5x4	M5x8	4.2	0	18.4	33.4	14.5	40	20	8
16	M5x8	135°	4H7x4	4H7x5x4	M5x8	4.2	0	20.8	35.8	15.8	47	28.5	10

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## Guide cylinders, Series GPC-BV

▶ Ø 10 - 63 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston

Piston Ø	A RTxLB	A1	B ØdxLA	B1 ØdxDx- LA	C RTxLB	D Ø	D1 S=10- 30	D1 S=40- 100	D1 S>100	D2	D4	DD	DX
20	M6x10	135°	4H7x4	4H7x5x4	M6x10	5.2	0	20.8	35.8	16.5	54	30.5	10

Piston Ø	E RTxLB	E1	E2	F Ø 1)	G Ø 2)	H Ø 2)	K	L1	L2	L3	L4	L5
10	M4x8	50	21	M4	-	-	M5	20 ±0,04	10.5	3	-	20
12	M5x8	58	30.5	M4	4.5	4H9	M5	23 ±0,04	15	4	22	50
16	M5x8	68	33	M4	5.5	4H9	M5	28 ±0,04	16.5	4	25	61
20	M5x10	80	36	M5	5.5	4H9	M5	30 ±0,04	18	3.5	24	70

Piston Ø	L6	L7	L8	L9	L10	L11	L12	L13	L14 S=10	L14 S=20	L14 S>20	L15 S=40	L15 S>40
10	15	-	-	-	-	-	-	15	-	20	20	55	55
12	22	-	-	-	-	-	-	14.5	-	18	22	-	58.5
16	25	43	6.15	12	1.5	1.5	5.5	14	18	25	25	-	64
20	29	50	6.15	12	1.5	1.5	5.5	15	16	24	24	-	63

Piston Ø	L17	L18	L19	L20 S=10	L20 S>10	L21 S=10	L21 S>10	L22 S≤40	L22 S>40	L24 S=10	L24 S>10	L25	L26
10	15	-	8	20	20	13 1)	13	48	48	25	25	20	-
12	4	22	8	20	20	18	18	-	48	25.5	25.5	20	-
16	4	25	8	18	25	20.5	20.5	-	58	26.5	26.5	25	20
20	4.5	24	8	20	30	18	23	-	68	23	27	30	25

Piston Ø	L27	L28	L29	L30	L31	LJ1	LJ2	LM1	LM2	LM3	LM4	PL	T
10	20	10	20	-	-	15.5	15	5	13.5	48	19	8	5.5
12	40	20	20	-	-	24.8	17.5	8	12.7	55	27	8.5	5
16	40	20	25	20 ±0,04	22	27	21	8	13.5	65	30	8.8	6.5
20	50	25	30	25 ±0,04	25	26.5	25	10	15.5	77	33	10	5.5

Piston Ø	TT	ZA	ZJ S=10- 30	ZJ S=40- 100	ZJ S>100							
10	-	36	63	63	63							
12	-	34.4	47.1	65.5	80.5							
16	N6	36	49.5	70.3	85.3							
20	N6	36	51.5	72.3	87.3							

S = stroke

To determine the cylinder length (ZA) for intermediate strokes (i.e. stroke 10 with dia. 40), the next available standard stroke size must be used

1) Through hole with thread

2) through-hole

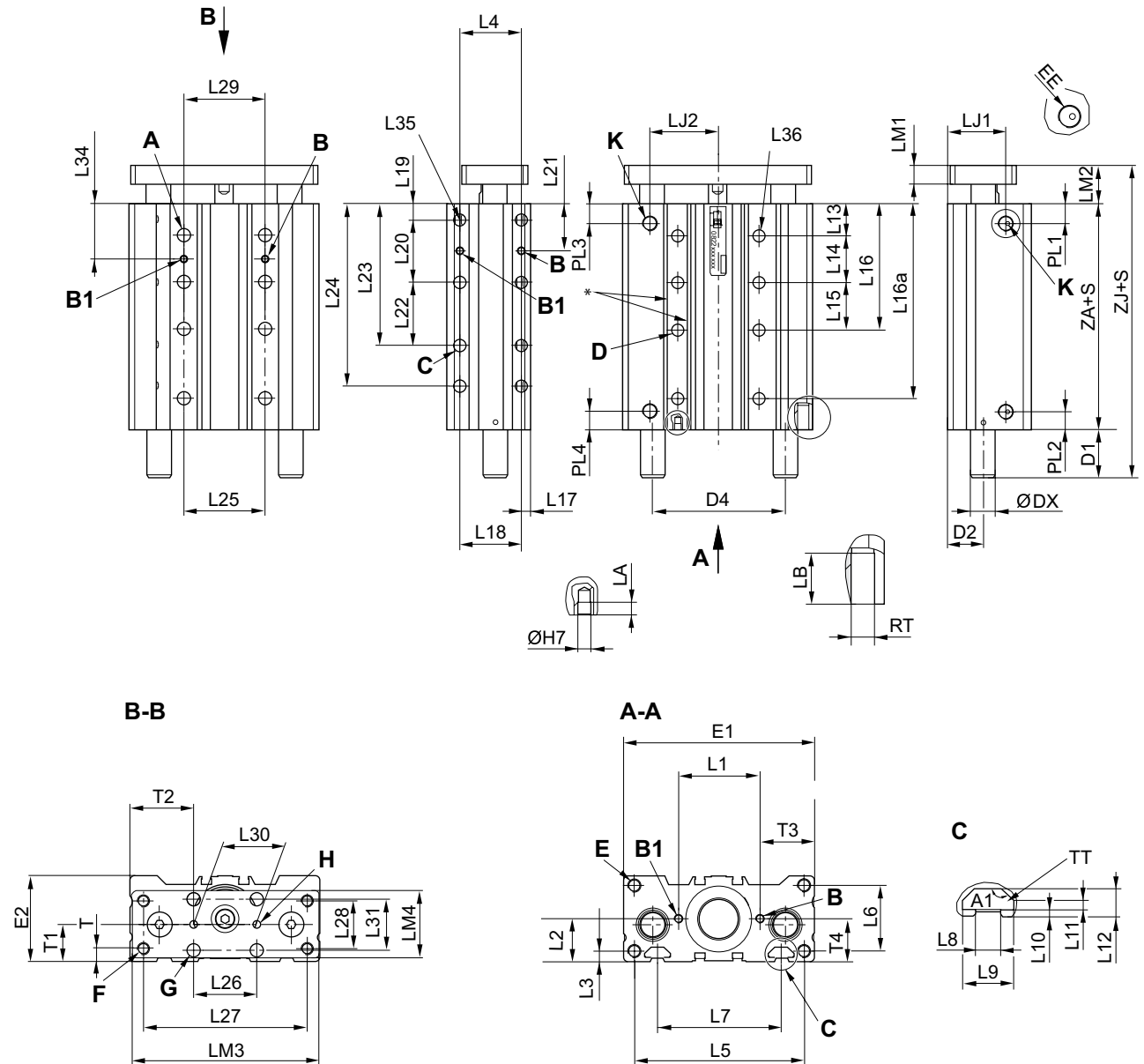
Two holes C-C 10 mm.

## Piston rod cylinder ▶ Guide cylinders

### Guide cylinders, Series GPC-BV

▶ Ø 10 - 63 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston

#### Dimensions, Ø 25 - 100



\* Suitable for screws according to ISO 4762

S = stroke

Note: Only the Ø10 variants fits to sensor series ST4. The sensor series ST6 and SN3 can be used for all other Ø variants.

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Piston Ø	A RTxLB	A1	B ØdxLA	B1 ØdxD	C RTxLB	D Ø 1)	D2	D4	DX	E RTxLB	E1	E2	F Ø 1)
25	M6x10	135°	4x4	4x5	M6x10	5.5	18	59	12	M6x12	95	43	M6
32	M8x14	135°	4x4	4x5	M8x14	7.4	23	75.6	16	M6x12	114	48.5	M8
40	M8x14	135°	4x4	4x5	M8x14	7.4	23	86	16	M8x16	124	54.5	M8
50	M10x20	135°	5x5	5x6	M10x20	9.3	27.5	104	20	M8x16	148	64	M8
63	M10x20	135°	5x5	5x6	M10x20	9.3	35	124	20	M10x20	162	78.5	M10

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## Piston rod cylinder ▶ Guide cylinders

## Guide cylinders, Series GPC-BV

▶ Ø 10 - 63 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston

Piston Ø	G Ø 2)	H Ø 2)	K EE	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10
25	6.5	4H8	G 1/8	35 ±0,1	20.5	4.5	25 ±0,1	85	34	52	6.15	12	1.5
32	6.5	4H8	G 1/8	44 ±0,1	24	5	33 ±0,1	105	26	70	8.2	16.7	2.2
40	8.5	4H8	G 1/8	53 ±0,15	27	6	40 ±0,15	110	42	80	8.2	16.7	2.2
50	8.5	4H8	G 1/4	66 ±0,15	32	8	48 ±0,15	133	34.5	93	8.2	16.7	2.2
63	10.5	5H8	G 1/4	84 ±0,15	39	8	60 ±0,15	147	62	112	10.2	20.3	6

Piston Ø	L11	L12	L13	L15	L17	L18	L19	L22	L25	L26	L27	L28	L29
25	1.5	5.5	16.5	25	5.5	25	8	32	32	30	81	23	32 ±0,1
32	2.8	9	20.5	33	6.5	33	10	42	42	32	97	30	42 ±0,1
40	2.8	9	20	40	6	40	10	53	53	42	107	30	53 ±0,15
50	2.8	9	23	48	7.5	48	12	63	63	53	134	40	63 ±0,15
63	6	16	24	60	11	60	12	80	80	63	140	48	80 ±0,15

Piston Ø	L30	L31	LJ1	LJ2	LM1	LM2	LM3	LM4	PL1	PL2	PL3	PL4	T
25	30 ±0,2	24	29.6	32	10	15.5	93	33	11	11	11	11	6.5
32	32 ±0,2	25	40	40.5	12	18.5	112	43	13.5	13.5	13.5	13.5	8
40	42 ±0,2	32.5	37.8	44	12	19.5	122	43	12	12	12	12	8
50	53 ±0,2	40	54.5	50.5	15	23.5	146	52	13	13	13	13	7.5
63	63 ±0,2	48	57	59	15	24	160	67	13.7	13.7	13.7	13.7	11

Piston Ø	T1	T2	T3	T4	TT	ZA							
25	18 ±0,4	32,5 ±0,4	30 ±0,05	20,5 ±0,05	N6	42 3)							
32	23 ±0,4	41 ±0,4	35 ±0,05	24 ±0,05	N8	46.5							
40	23 ±0,4	41 ±0,4	35,5 ±0,1	27 ±0,1	N8	44							
50	27,5 ±0,4	47,5 ±0,4	41 ±0,1	32 ±0,1	N8	46							
63	35 ±0,4	49,5 ±0,5	39 ±0,1	39 ±0,1	N10	51							

S = stroke

To determine the cylinder length (ZA) for intermediate strokes (i.e. stroke 10 with dia. 40), the next available standard stroke size must be used

1) Through hole with thread

2) through-hole

3) For stroke 150, ZA = 52, for stroke 25, ZA = 47

Two holes C-C 10 mm.

Piston Ø	S=10 D1	S=20 D1	S=25 D1	S=30 D1	S=40 D1	S=50 D1	S=75 D1	S=100 D1	S=125 D1	S=150 D1	S=160 D1	S=200 D1	S=10 L14
25	9	19	19	19	29	29	29	29	47	47	47	47	25
32			20	20	20	20	35	35	51	51	51	51	30
40			21.5	21.5	21.5	21.5	37	37	53	53	53	53	30
50			20	20	20	20	46	46	64	64	64	64	25
63			14	14	14	14	40	40	58	58	58	58	28

Piston Ø	S=20 L14	S=25 L14	S=30 L14	S=40 L14	S=50 L14	S=75 L14	S=100 L14	S=125 L14	S=160 L14	S=200 L14	S=10 L16	S=20 L16	S=25 L16
25	25	25	25	25	25	25	25	25	25	25	41.5	41.5	41.5
32	30	30	33	33	33	33	33	33	33	33	50.5	50.5	50.5
40	30	30	40	40	40	40	40	40	40	40	50	50	50
50	25	25	48	48	48	48	48	48	48	48	48	48	48
63	28	28	28	28	28	60	60	60	60	60	52	52	52

Piston Ø	S=30 L16	S=40 L16	S=50 L16	S=75 L16	S=100 L16	S=125 L16	S=160 L16	S=200 L16	S=40 L16a	S=50 L16a	S=100 L16a	S=125 L16a	S=160 L16a
25	41.5	41.5	66.5	91.5	91.5	91.5	91.5	91.5	65.5		125.5	150.5	185.5
32	53.5	53.5	53.5	86.5	119.5	119.5	119.5	119.5		76		151	186
40	60	60	60	100	100	140	140	140				148	184
50	71	71	71	71	119	119	167	167					
63	52	52	52	84	84	144	144	204			127		187

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## Piston rod cylinder ▶ Guide cylinders

### Guide cylinders, Series GPC-BV

▶ Ø 10 - 63 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston

Piston Ø	S=200 L16a	S=20 L20	S=25 L20	S=30 L20	S=40 L20	S=50 L20	S=75 L20	S=100 L20	S=125 L20	S=160 L20	S=200 L20	S=10 L23	S=20 L23
25	225.5	22	32	32	32	32	32	32	32	32	32	30	30
32	226	35	35	42	42	42	42	42	42	42	42	45	45
40	224	30	30	53	53	53	53	53	53	53	53	40	40
50	223	30	30	30	30	30	63	63	63	63	63	42	42
63		30	30	30	30	30	80	80	80	80	80	42	42

Piston Ø	S=25 L23	S=30 L23	S=40 L23	S=50 L23	S=75 L23	S=100 L23	S=125 L23	S=160 L23	S=200 L23	S=40 L24	S=50 L24	S=75 L24	S=100 L24
25	40	40	40	40	74	104	104	104	104	60	70	95	
32	45	52	52	52	94	94	136	136	136				122.5
40	40	63	63	63	63	116	116	169	169			91	
50	42	42	42	42	75	75	138	138	201				116
63	42	42	42	42	92	92	92	172	172				

Piston Ø	S=125 L24	S=160 L24	S=200 L24	S=10 L34	S=20 L34	S=25 L34	S=30 L34	S=40 L34	S=50 L34	S=75 L34	S=100 L34	S=125 L34	S=160 L34
25	145	180	220	26	29	29	29	29	29	29	29	29	29
32		182.5	222.5	35.5	35.5	35.5	37	37	37	37	37	37	37
40			216	35	35	35	40	40	40	40	40	40	40
50		176		35.5	35.5	35.5	47	47	47	47	47	47	47
63	140		215	38	38	38	38	38	38	54	54	54	54

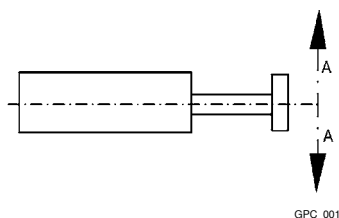
Piston Ø	S=200 L34	S=10 L35	S=20 L35	S=25 L35	S=30 L35	S=40 L35	S=50 L35	S=75 L35	S=100 L35	S=125 L35	S=160 L35	S=200 L35	S=10 L36
25	29	4	4	4	4	4	6	6	8	8	10	10	4
32	37	4	4	4	4	4	4	4	6	8	8	10	4
40	40	4	4	4	4	4	4	4	6	6	6	8	4
50	47	4	4	4	4	4	4	4	4	6	6	8	4
63	54	4	4	4	4	4	4	4	4	4	6	8	4

Piston Ø	S=20 L36	S=25 L36	S=30 L36	S=40 L36	S=50 L36	S=75 L36	S=100 L36	S=125 L36	S=160 L36	S=200 L36	S=10 ZJ	S=20 ZJ	S=25 ZJ
25	4	4	4	6	6	8	10	10	10	10	76.5	76.5	76.5
32	4	4	4	4	6	6	8	10	10	10			85
40	4	4	4	4	4	6	6	8	10	10			85
50	4	4	4	4	4	4	4	6	8	8	10		89.5
63	4	4	4	4	4	4	4	6	6	8	10		89.5

Piston Ø	S=30 ZJ	S=40 ZJ	S=50 ZJ	S=75 ZJ	S=100 ZJ	S=125 ZJ	S=160 ZJ	S=200 ZJ					
25	76.5	86.5	86.5	86.5	86.5	104.5	104.5	104.5					
32			85	100	100	116	116	116					
40			85	100.5	100.5	116.5	116.5	116.5					
50			89.5	115.5	115.5	133.5	133.5	133.5					
63			89.5	115.5	115.5	133.5	133.5	133.5					

S = stroke

Play



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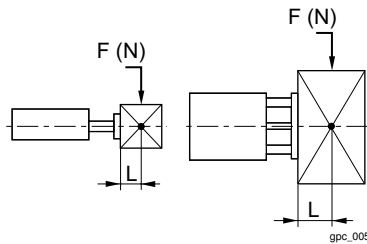
## Guide cylinders, Series GPC-BV

▶ Ø 10 - 63 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston

Piston Ø	1)												
10	0,21												
12	0,09												
16	0,09												
20	0,09												
25	0,08												
32	0,08												
40	0,09												
50	0,09												
63	0,09												

1) Piston rod deflection at a stroke of 50 mm and a load of 10 N (mm)

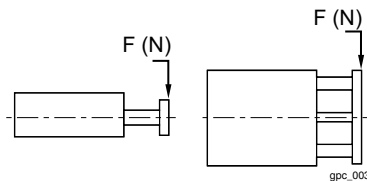
### Permissible static side load F [N] at distance L



Piston Ø	L	S=10	S=20	S=25	S=30	S=40	S=50	S=75	S=100	S=125	S=150	S=160	S=200
10	25	10	9	8	8	7	6	5	5	-	-	-	-
12	25	19	17	16	15	23	22	20	19	19	17	-	-
16	50	27	24	23	22	58	56	51	48	44	40	-	-
20	50	27	24	23	22	58	56	51	48	44	40	-	-
25	50	81.4	75	-	69.5	82.3	77.4	67.3	59.5	73.2	-	64.5	56.8
32	50	-	-	89.9	-	-	76.1	93.2	83	94.9	-	84	74.3
40	50	-	-	89.2	-	-	75.6	92.7	82.7	94.5	-	83.7	74.1
50	50	-	-	110	-	-	94	135	121	136	-	121	108
63	50	-	-	110	-	-	93.5	134	120	135	-	121	107

S = stroke

### Permissible static side force F [N]



S = stroke

Piston Ø	S=10	S=20	S=25	S=30	S=40	S=50	S=75	S=100	S=125	S=150	S=160	S=200
25	142	124	-	109	121	110	91	77	90	-	77	66
32	-	-	141	-	-	110	123	106	116	-	100	86
40	-	-	139	-	-	109	123	106	116	-	100	86
50	-	-	170	-	-	134	175	152	164	-	143	125
63	-	-	168	-	-	133	173	151	164	-	143	125

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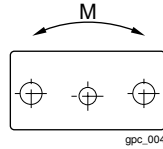


## Piston rod cylinder ▶ Guide cylinders

### Guide cylinders, Series GPC-BV

▶ Ø 10 - 63 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston

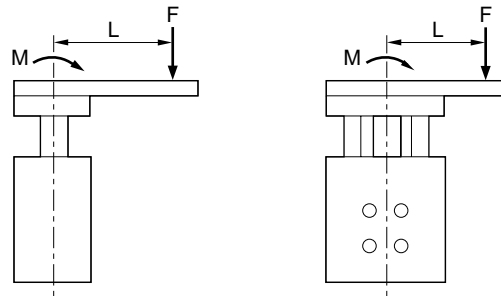
#### Permissible static moment M [Nm]



Piston Ø	S=10	S=20	S=25	S=30	S=40	S=50	S=75	S=100	S=125	S=160	S=200		
10	0.35	0.31	0.29	0.27	0.25	0.23	0.17	0.14	–	–	–		
12	0.38	0.34	0.32	0.3	0.46	0.44	0.4	0.38	0.36	0.34	–		
16	0.63	0.56	0.54	0.52	1.36	1.32	1.2	1.13	1.03	0.94	–		
20	0.73	0.65	0.62	0.59	1.57	1.51	1.38	1.3	1.19	1.08	–		
25	4.19	3.65	3.23	3.23	3.56	3.26	2.68	2.28	2.67	2.29	1.97		
32	–	–	5.33	–	–	4.15	4.67	4.02	4.4	3.8	3.28		
40	–	–	5.99	–	–	4.68	5.27	4.54	4.99	4.3	3.72		
50	–	–	8.83	–	–	6.96	9.07	7.91	8.55	7.45	6.5		
63	–	–	10.4	–	–	8.23	10.8	9.38	10.2	8.85	7.72		

S = stroke

#### Permissible static moment M [Nm]



Piston Ø	S=5–30	S>30	S=35–50	S=55–100	S>100								
10	0.8	0.8	–	–	–								
12	1.5	2	–	–	–								
16	2	5	–	–	–								
20	2	5	–	–	–								
25	7.5	–	10.6	10.8	16.5								
32	9.9	–	10.6	16.2	22								
40	9.9	9.9	9.9	16.2	22								
50	12.8	12.8	12.8	24.6	32.9								
63	12.8	12.8	12.8	24.6	32.9								

S = stroke

All dimensions in mm, unless specified otherwise.

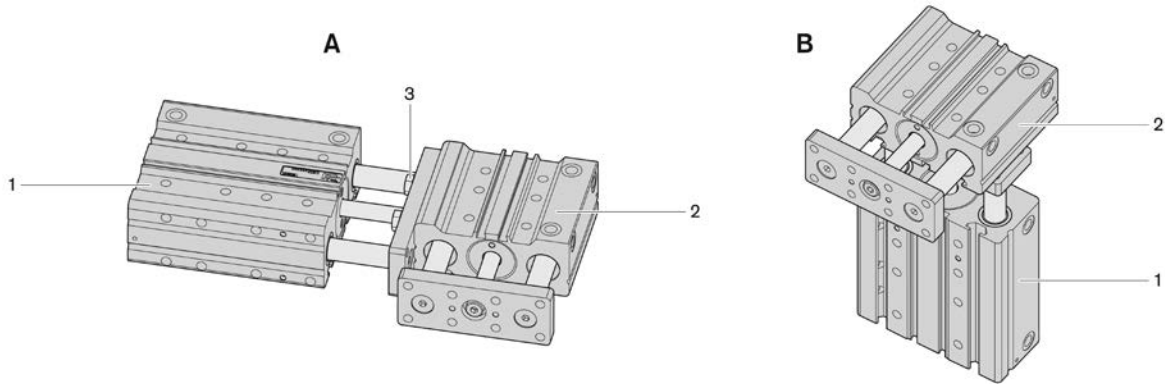
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### Guide cylinders, Series GPC-BV

▶ Ø 10 - 63 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston

#### GPC combinations



gpc\_007

- 1) Cylinder 1
- 2) Cylinder 2
- 3) Screw

#### Minimum strokes for cylinder 1 when using 2 assembled guide cylinders

Piston Ø	S												
32	25												
40	25												
50	30												
63	30												

S = stroke

#### Minimum strokes for cylinder 2 when using 2 assembled guide cylinders

Piston Ø	Ø 2	A	B	3				
10	12	–	–	M4x12				
12	16	–	–	M5x15				
16	20	–	–	M5x18				
20	25	–	–	M6x20				
25	32	25	15	M6x20				
32	40	30	30	M8x25				
40	50	30	30	M8x30				
50	63	55	30	M10x30				

A = min.stroke: assembly A  
 B = min.stroke: assembly B  
 3 = screw

All dimensions in mm, unless specified otherwise.

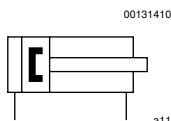
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## Piston rod cylinder ▶ Guide cylinders

### Guide cylinders, Series GPC-E

- ▶ Ø 12 - 20 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston  
 ▶ Easy-2-Combine-capable with connection kit



Ambient temperature min./max. Medium	+32 °F / +149 °F Compressed air
Oil content of compressed air Pressure for determining piston forces	0 mg/m <sup>3</sup> - 5 mg/m <sup>3</sup> 91.35 psi
Materials:	
Housing	Aluminum, anodized
Seal	Polyurethane
Front plate	Steel galvanized
Guide rod	Stainless steel
Bearing	Sintered bronze
Piston rod	Stainless steel

#### Technical Remarks

- The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 37 °F.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Note: Hydraulic shock absorber on rear side are included in scope of delivery

Piston Ø	[mm]	12	16	20		
Port		M5	M5	M5		
Working pressure min./max.	[psi]	29 / 116	29 / 145	29 / 145		
Retracting piston force	[lbf]	11.91	21.36	33.27		
Extracting piston force	[lbf]	15.96	28.55	44.51		
Speed max.	[ft./s.]	1.64	1.64	1.64		
Impact energy	[in.lbs.]	0.0737	0.0811	0.1106		

	Piston Ø Piston rod Ø	12 6	16 8	20 10		
	Stroke 0.98	0822060407	0822061407	<b>0822062407</b>		
	1.97	0822060404	0822061404	<b>0822062404</b>		
	2.95	0822060405	0822061405	0822062405		
	3.94	0822060406	0822061406	0822062406		
	4.92	0822060424	0822061424	0822062424		
	5.91	<b>0822060429</b>	0822061429	0822062429		

Weight [lbs]	Piston Ø	12	16	20		
	Stroke 0.98	1.08	1.41	1.74		
	1.97	1.41	1.85	2.25		
	2.95	1.72	2.25	2.71		
	3.94	2.05	2.62	3.17		
	4.92	2.36	3.04	3.66		
	5.91	2.69	3.42	4.1		

All dimensions in mm, unless specified otherwise.

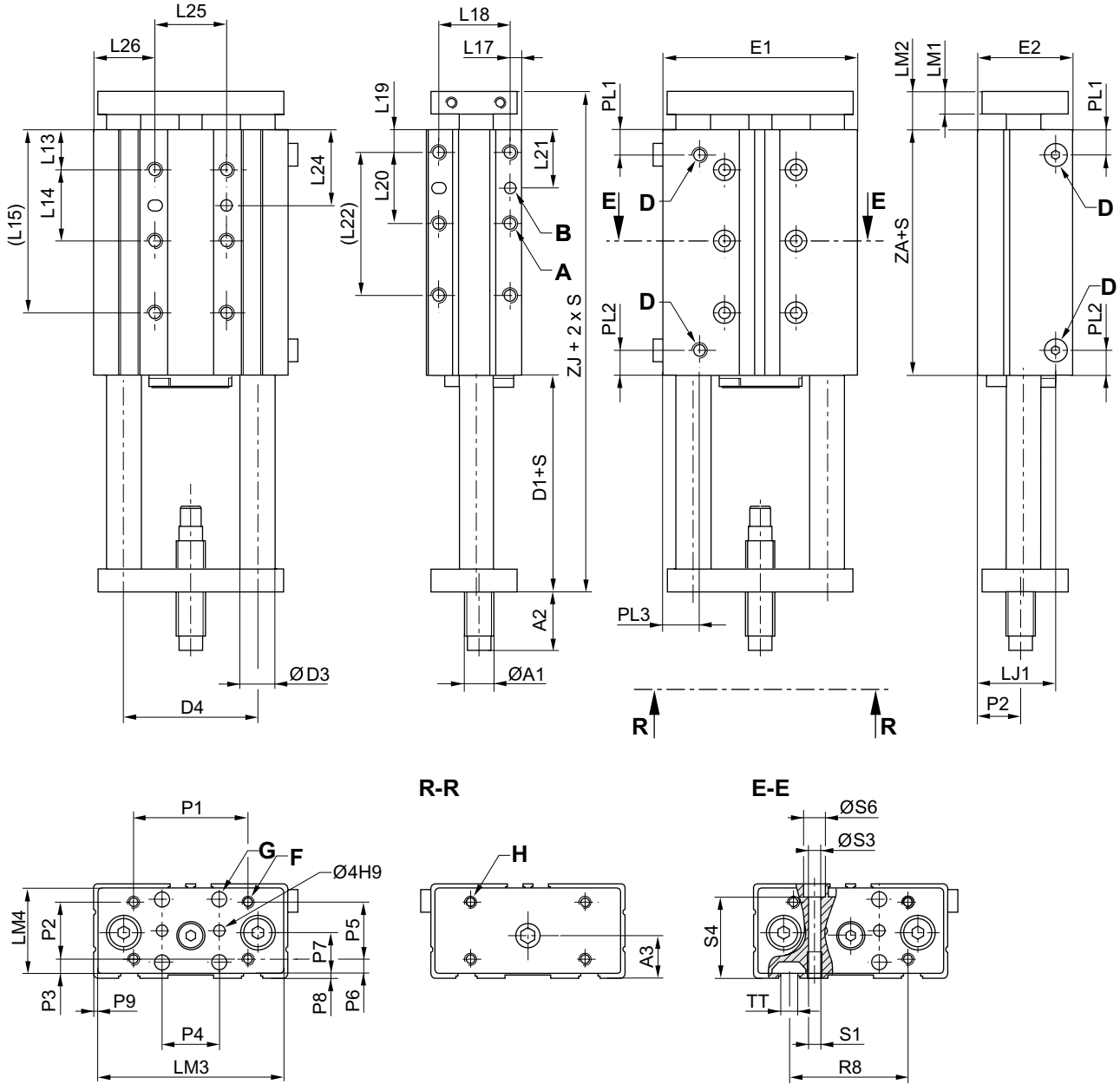
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**Guide cylinders, Series GPC-E**

- ▶ Ø 12 - 20 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston
- ▶ Easy-2-Combine-capable with connection kit

**Dimensions**



S = stroke

dgpc\_500

Piston Ø	A 1)	Ø A1	A2 2)	A2 3)	A3	B 1)	D	D1	D3	D4	E1	E2	F
12	M5x8	M8	5	19	13.5	4 H7x4	M5	19.2	10	40	58	30.5	M4
16	M5x8	M10	5	29	14.8	4 H7x4	M5	25.8	12	47	68	33	M4
20	M6x10	M10	5	28	18.5	4 H7x4	M5	26.8	12	54	80	36	M5

Piston Ø	G	H	L 4)	L13	L14	L15 S=50-150	L17	L18	L19	L20	L21	L22 S=50-150	L24
12	4.5	M4	14	14.5	22	58.5	4	22	8	20	18	48	25.5
16	5.5	M4	24	14	25	64	4	25	8	25	20.5	58	26.5

All dimensions in mm, unless specified otherwise.  
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## Piston rod cylinder ▶ Guide cylinders

### Guide cylinders, Series GPC-E

- ▶ Ø 12 - 20 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston
- ▶ Easy-2-Combine-capable with connection kit

Piston Ø	G	H	L 4)	L13	L14	L15 S=50-150	L17	L18	L19	L20	L21	L22 S=50-150	L24
20	5.5	M5	23	15	24	63	4.5	24	8	30	23	68	27

Piston Ø	L25	L26	LJ1	LM1	LM2	LM3	LM4	P1	P2	P3	P4	P5	P6
12	20	19	24.8	8	12.7	55	27	40	20	3.5	-	-	-
16	25	21.5	27	8	13.5	65	30	40	20	5	20	22	4
20	30	25	26.5	10	15.5	77	33	50	25	4	25	25	4

Piston Ø	P7	P8	P9	PL1	PL2	PL3	R8	S1 1)	S3	S4	S6	TT	ZJ
12	-	1.5	1.5	8.5	8.5	11.5	-	M5x8	4.2	20.3	7.6	-	66.3
16	15	1.5	1.5	8.8	8.8	13	43	M5x8	4.2	28.5	7.6	N6	75.3
20	16.5	1.5	1.5	10	10	15	50	M6x10	5.2	30.5	9.5	N6	78.3

Piston Ø	ZA												
12	34.4												
16	36												
20	36												

S = stroke

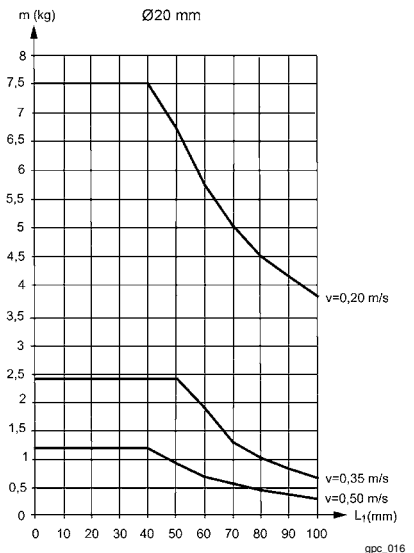
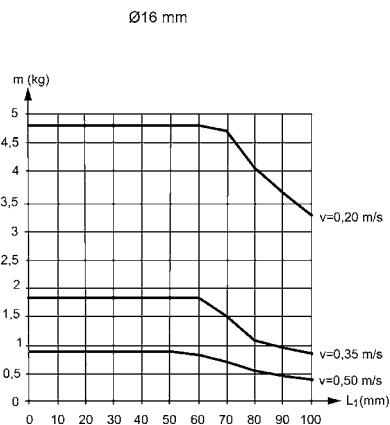
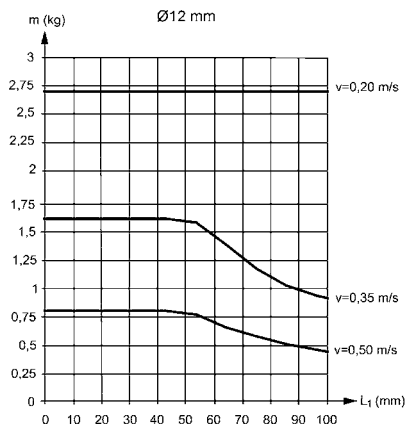
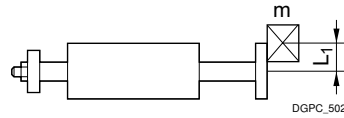
1) Dimension x depth

2) Min.

3) Max.

4) Adjustment length L = A2 max. - A2 min.

### Permissible dynamic load m [kg]



### Play



All dimensions in mm, unless specified otherwise.

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

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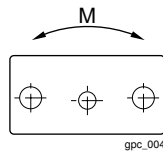
### Guide cylinders, Series GPC-E

▶ Ø 12 - 20 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston  
▶ Easy-2-Combine-capable with connection kit

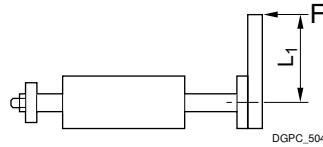
Piston Ø	A 1)											
12	0.11											
16	0.11											
20	0.11											

1) Piston rod deflection at a stroke of 50 mm and a load of 10 N (mm)

#### Permissible static moment M [Nm]

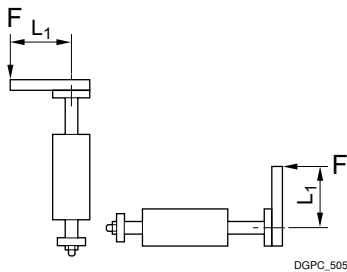


#### Permissible lever arm length L1 at 6 bar with static load



Piston Ø	F [N]	L1	L2									
12	67	290	22									
16	120	215	23.7									
20	180	140	27									

#### Permissible lever arm length L1 at 6 bar with dynamic load



Piston Ø	F [N]	F [N] 1)	L1	L2								
12	67	23	250	22								
16	120	40	200	23,7								
20	180	65	125	27								

1) Horizontal situation max. force [N]

All dimensions in mm, unless specified otherwise.

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

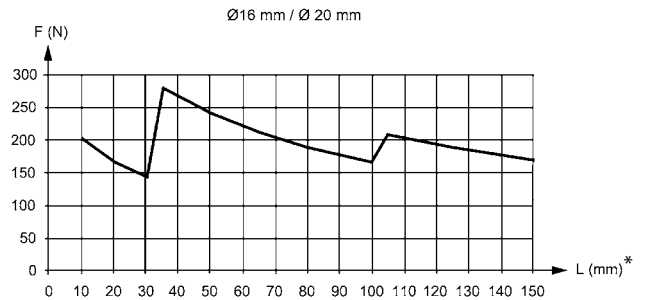
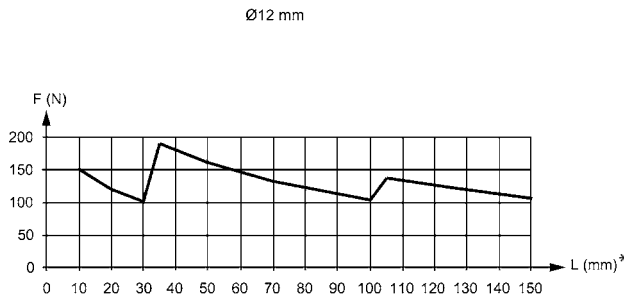
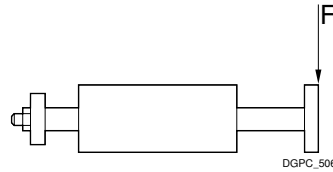
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## Piston rod cylinder ▶ Guide cylinders

### Guide cylinders, Series GPC-E

- ▶ Ø 12 - 20 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston
- ▶ Easy-2-Combine-capable with connection kit

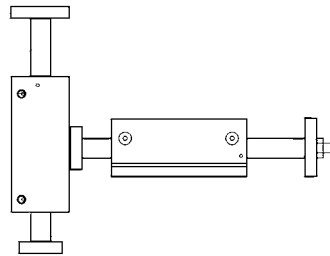
#### Permissible static side force F [N]



\* Cylinder stroke, piston rod in extended position

00132215

#### GPC combinations



DGPC\_507

The GPC-E can be directly mounted on the front plate of next bigger standard GPC or GPC-E in radial direction.

Piston Ø		GPC 16, GPC-E 16	GPC 20, GPC-E 20	GPC 25		
12	GPC-E 12	M5x15 1)	-	-		
16	GPC-E 16	-	M5x15 1)	-		
20	GPC-E 20	-	-	M6x15 1)		

1) Screw according to ISO 4762 - M4x25

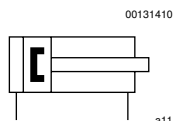
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### Guide cylinders, Series GPC-E

▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston  
▶ Easy-2-Combine-capable with connection kit



Ambient temperature min./max. +32° F / +149° F  
Medium Compressed air

Oil content of compressed air 0 mg/m<sup>3</sup> - 5 mg/m<sup>3</sup>  
Pressure for determining piston forces 91.35 psi

Materials:  
Housing Aluminum, anodized  
Seal Polyurethane  
Front plate Steel galvanized  
Guide rod Steel, hardened  
Bearing Steel, hardened  
Piston rod Stainless steel

#### Technical Remarks

- The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 37 °F.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Note: Hydraulic shock absorber on rear side are included in scope of delivery

Piston Ø	[mm]	12	16	20		
Port		M5	M5	M5		
Working pressure min./max.	[psi]	29 / 116	29 / 145	29 / 145		
Retracting piston force	[lbf]	11.91	21.36	33.27		
Extracting piston force	[lbf]	15.96	28.55	44.51		
Speed max.	[ft./s]	1.64	1.64	1.64		
Impact energy	[in.lbs.]	0.0737	0.0811	0.1106		

	Piston Ø Piston rod Ø	12 6	16 8	20 10		
	Stroke 0.98	0822060507	0822061507	0822062507		
	1.97	0822060504	0822061504	0822062504		
	2.95	0822060505	0822061505	0822062505		
	3.94	0822060506	0822061506	<b>0822062506</b>		
	4.92	0822060524	0822061524	0822062524		
	5.91	0822060529	0822061529	0822062529		

Weight [lbs]	Piston Ø	12	16	20		
	Stroke 0.98	0.9479	1.26	1.59		
	1.97	1.28	1.68	2.09		
	2.95	1.54	2.01	2.47		
	3.94	1.81	2.36	2.89		
	4.92	2.09	2.71	3.31		
	5.91	2.36	3.04	3.73		

All dimensions in mm, unless specified otherwise.

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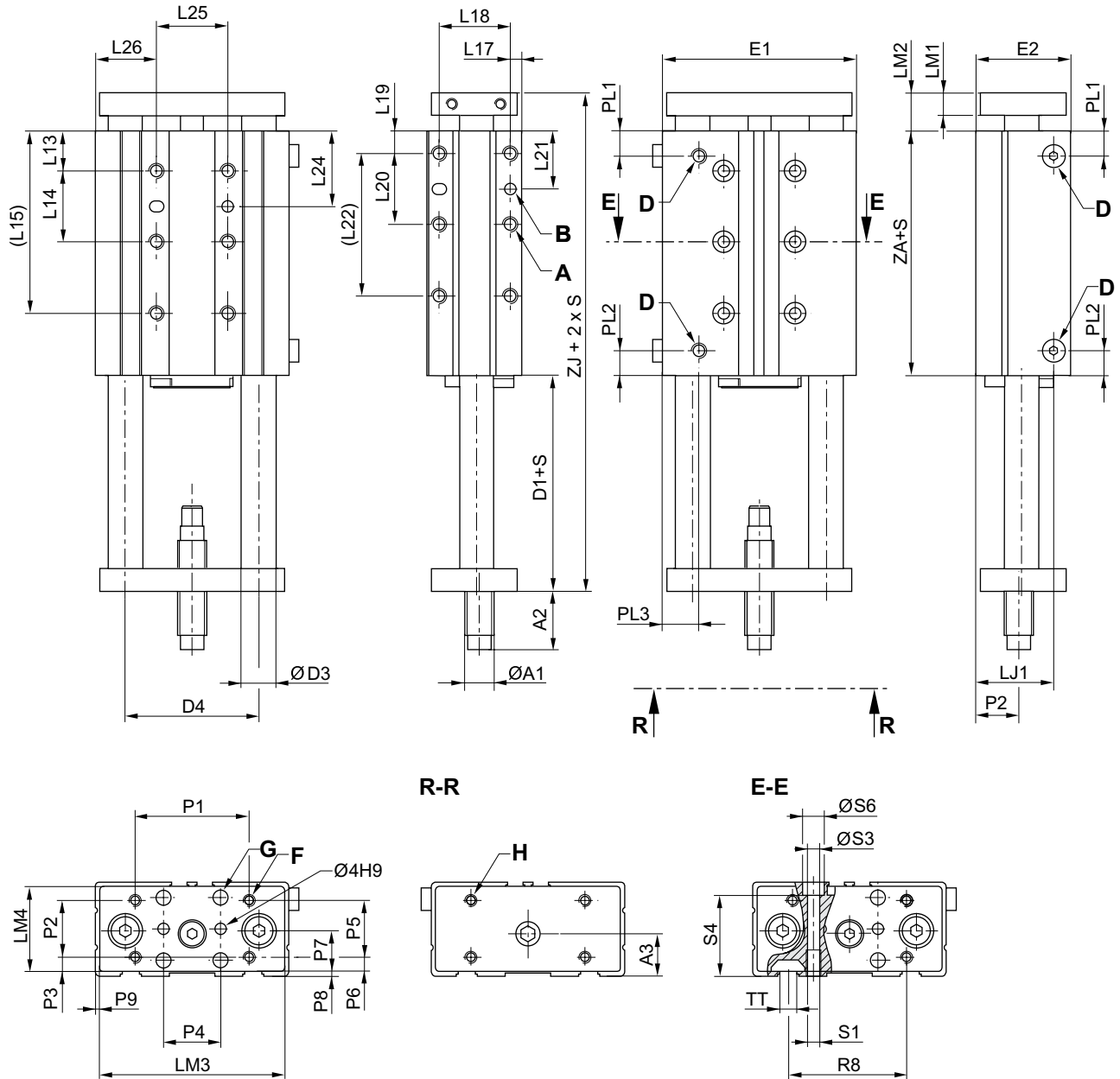


Piston rod cylinder ▶ Guide cylinders

## Guide cylinders, Series GPC-E

- ▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston
- ▶ Easy-2-Combine-capable with connection kit

### Dimensions



dgpc\_500

S = stroke

Piston Ø	A 1)	Ø A1	A2 2)	A2 3)	A3	B 1)	D	D1	D3	D4	E1	E2	F
12	M5x8	M8	5	19	13.5	4 H7x4	M5	19.2	8	40	58	30.5	M4
16	M5x8	M10	5	29	14.8	4 H7x4	M5	25.8	10	47	68	33	M4
20	M6x10	M10	5	28	18.5	4 H7x4	M5	26.8	10	54	80	36	M5

Piston Ø	G	H	L 4)	L13	L14	L15 S=50-150	L17	L18	L19	L20	L21	L22 S=50-150	L24
12	4.5	M4	14	14.5	22	58.5	4	22	8	20	18	48	25.5
16	5.5	M4	24	14	25	64	4	25	8	25	20.5	58	26.5

All dimensions in mm, unless specified otherwise.

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

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**Piston rod cylinder ▶ Guide cylinders**
**Guide cylinders, Series GPC-E**

▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston  
 ▶ Easy-2-Combine-capable with connection kit

Piston Ø	G	H	L 4)	L13	L14	L15 S=50-150	L17	L18	L19	L20	L21	L22 S=50-150	L24
20	5.5	M5	23	15	24	63	4.5	24	8	30	23	68	27

Piston Ø	L25	L26	LJ1	LM1	LM2	LM3	LM4	P1	P2	P3	P4	P5	P6
12	20	19	24.8	8	12.7	55	27	40	20	3.5	-	-	-
16	25	21.5	27	8	13.5	65	30	40	20	5	20	22	4
20	30	25	26.5	10	15.5	77	33	50	25	4	25	25	4

Piston Ø	P7	P8	P9	PL1	PL2	PL3	R8	S1 1)	S3	S4	S6	TT	ZA
12	-	1.5	1.5	8.5	8.5	11.5	-	M5x8	4.2	20.3	7.6	-	34.4
16	15	1.5	1.5	8.8	8.8	13	43	M5x8	4.2	28.5	7.6	N6	36
20	16.5	1.5	1.5	10	10	15	50	M6x10	5.2	30.5	9.5	N6	36

Piston Ø	ZJ
12	66.3
16	75.3
20	78.3

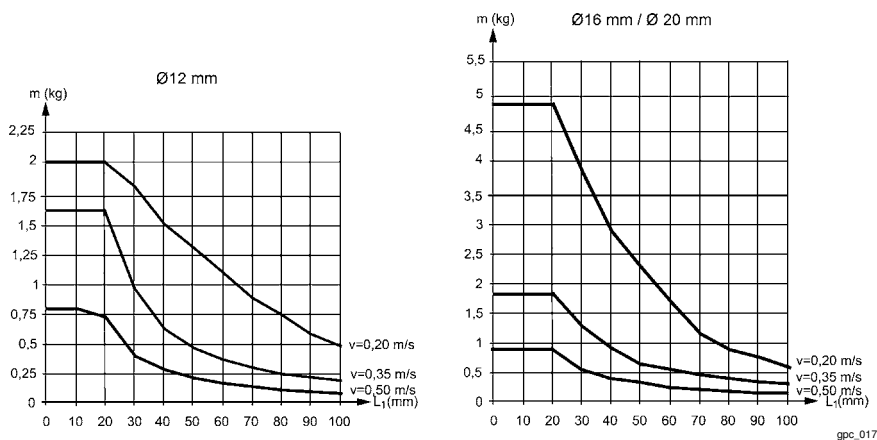
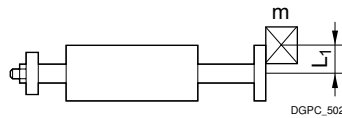
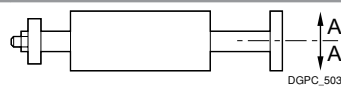
S = stroke

1) Dimension x depth

2) Min.

3) Max.

4) Adjustment length L = A2 max. - A2 min.

**Permissible dynamic load m [kg]**

**Play**


All dimensions in mm, unless specified otherwise.

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

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## Piston rod cylinder ▶ Guide cylinders

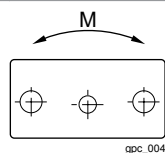
### Guide cylinders, Series GPC-E

- ▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston
- ▶ Easy-2-Combine-capable with connection kit

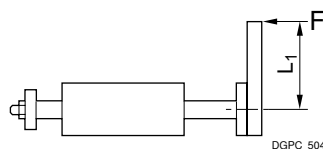
Piston Ø	A 1)											
12	0.1											
16	0.08											
20	0.08											

1) Piston rod deflection at a stroke of 50 mm and a load of 10 N (mm)

### Permissible static moment M [Nm]

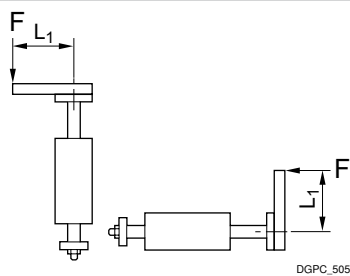


### Permissible lever arm length L1 at 6 bar with static load



Piston Ø	F [N]	L1										
12	67	115										
16	120	80										
20	180	55										

### Permissible lever arm length L1 at 6 bar with dynamic load



Piston Ø	F [N]	F [N] 1)	L1									
12	67	23	100									
16	120	40	75									
20	180	65	50									

1) Horizontal situation max. force [N]

All dimensions in mm, unless specified otherwise.

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

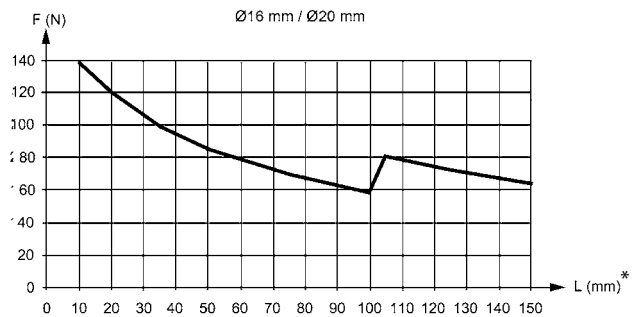
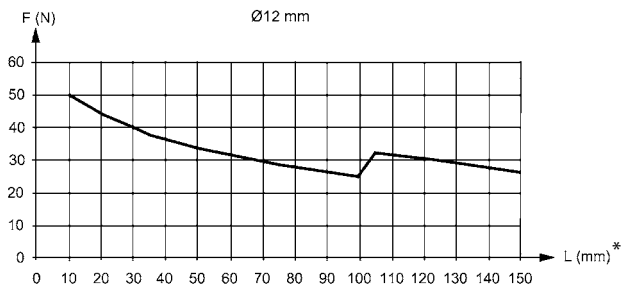
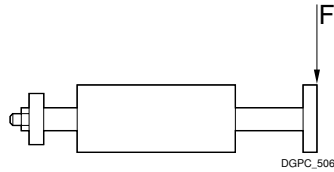
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## Piston rod cylinder ▶ Guide cylinders

### Guide cylinders, Series GPC-E

- ▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston
- ▶ Easy-2-Combine-capable with connection kit

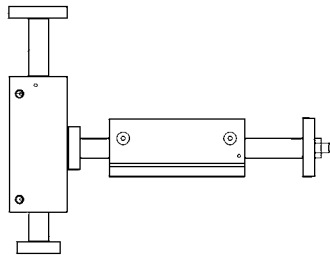
#### Permissible static side force F [N]



00132214

\* Cylinder stroke, piston rod in extended position

#### GPC combinations



DGPC\_507\_a

The GPC-E can be directly mounted on the front plate of next bigger standard GPC or GPC-E in radial direction.

Piston Ø		GPC 16, GPC-E 16	GPC 20, GPC-E 20	GPC 25		
12	GPC-E 12	M5x15 1)	-	-		
16	GPC-E 16	-	M5x15 1)	-		
20	GPC-E 20	-	-	M6x15 1)		

1) Screw according to ISO 4762 - M4x25

All dimensions in mm, unless specified otherwise.

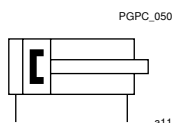
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## Piston rod cylinder ▶ Guide cylinders

### Guide cylinders, Series GPC-ST

▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston  
 ▶ Easy-2-Combine-capable with connection kit



Ambient temperature min./max. +32°F / +149°F  
 Medium Compressed air

Oil content of compressed air 0 mg/m<sup>3</sup> - 5 mg/m<sup>3</sup>  
 Pressure for determining piston forces 91.35 psi

#### Materials:

Housing	Aluminum, anodized
Seal	Polyurethane
Front plate	Steel galvanized
Guide rod	Steel, hardened
Bearing	Steel, hardened
Piston rod	Stainless steel

#### Technical Remarks

- The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 37 °F.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Piston Ø	[mm]	12	20			
Port		M5	M5			
Working pressure min./max.	[psi]	29 / 116	29 / 145			
Retracting piston force	[lbf]	11.91	33.27			
Extracting piston force	[lbf]	15.96	44.51			
Speed max.	[ft./s]	1.64	1.64			
Impact energy	[in.lbs.]	0.0737	0.1106			
Max. play with locked end position	[inch]	0	0			

	Piston Ø Piston rod Ø	12 6	20 10			
	Stroke 1.38	R402000243	R402000249			
	1.97	R402000244	R402000250			
	2.95	R402000245	R402000251			
	3.94	R402000246	<b>R402000252</b>			
	4.92	R402000247	R402000253			
	5.91	R402000248	R402000254			

Weight [lbs]	Piston Ø	12	20			
	Stroke 1.38	0.9479	1.59			
	1.97	1.28	2.09			
	2.95	1.54	2.47			
	3.94	1.81	2.89			
	4.92	2.09	3.31			
	5.91	2.36	3.73			

All dimensions in mm, unless specified otherwise.

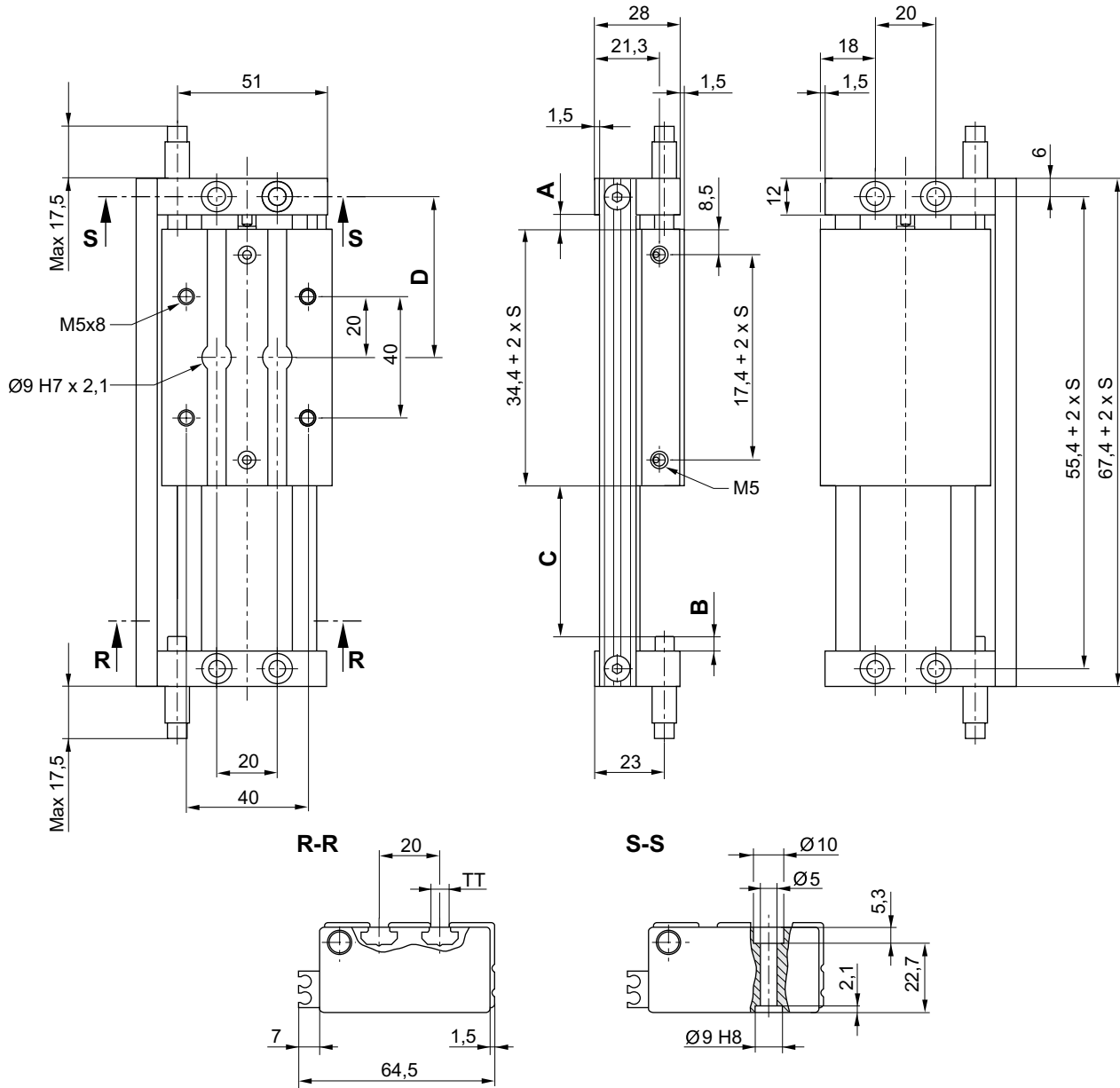
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**Guide cylinders, Series GPC-ST**

- ▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston
- ▶ Easy-2-Combine-capable with connection kit

Ø 12



S = stroke

gpc\_st\_12

Piston Ø	A 1)	A 2)	B 1)	B 2)	C 1)	C 2)	D 1)	D 2)				
12	4.7	24.7	4.2	24.2	S-40	S	25+0,5xS	48+0,5xS				

1) Min.  
2) Max.  
S = stroke

All dimensions in mm, unless specified otherwise.

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

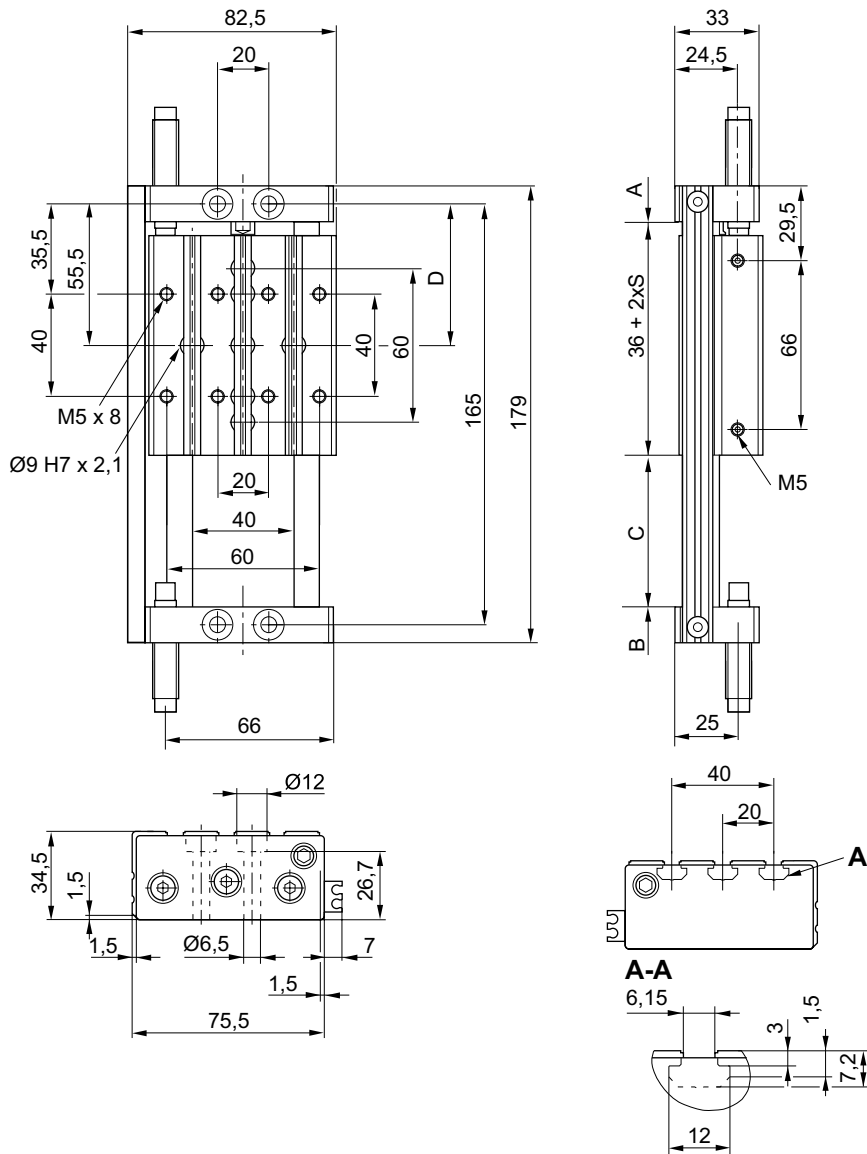
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Piston rod cylinder ▶ Guide cylinders

**Guide cylinders, Series GPC-ST**

- ▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston
- ▶ Easy-2-Combine-capable with connection kit

Ø 20



17233

S = stroke

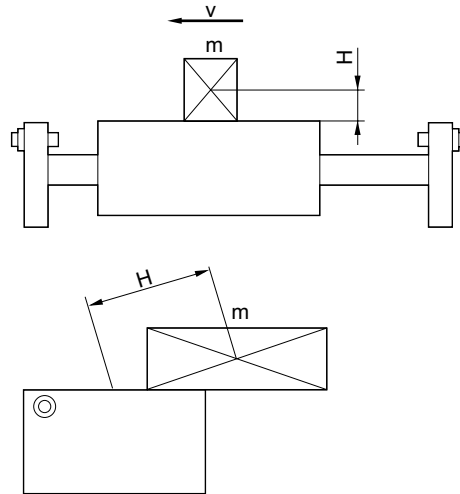
Piston Ø	A 1)	A 2)	B 1)	B 2)	C 1)	C 2)	D 1)	D 2)				
20	5.5	35.5	9.5	35.5	S-56	S	30,5+0,5xS	60,5+0,5xS				

1) Min.  
2) Max.  
S = stroke

### Guide cylinders, Series GPC-ST

- ▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston
- ▶ Easy-2-Combine-capable with connection kit

#### Permissible dynamic load m [kg]



GPC\_021

The load creates a high moment on the unit when reaching the end positions. It is therefore necessary not to exceed the limitations showed below.

Following parameters must be considered: velocity, distance to center of mass and size of GPC-ST. When multiplying the mass m [kg] with the distance H [mm] the result must not exceed the values below.

Example: A load of 2,3 kg shall be mounted with L 52 mm on a GPC-ST dia. 20 stroke 50.  
 $m \times H$ ;  $2,3 \times 52 = 120$ . From the table below we can see that this is allowed for a velocity of 0,3 m/s.

Piston Ø	S	0,2 [m/s]	0,3 [m/s]	0,4 [m/s]	0,5 [m/s]								
12	35	155	75	60	50								
12	50	225	100	90	60								
12	75	310	160	110	85								
12	100	350	170	130	105								
12	125	450	250	180	140								
12	150	600	300	200	160								

S = stroke

Piston Ø	S	0,2 [m/s]	0,3 [m/s]	0,4 [m/s]	0,5 [m/s]								
20	35	195	95	75	95								
20	50	28	125	110	75								
20	75	390	200	140	110								
20	100	440	210	160	130								
20	125	560	310	225	175								
20	150	750	375	250	200								

S = stroke

All dimensions in mm, unless specified otherwise.

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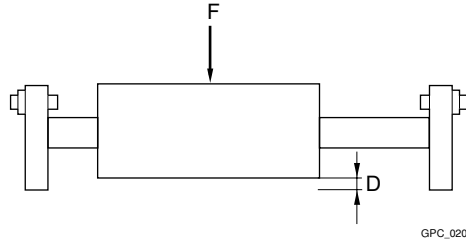


Piston rod cylinder ▶ Guide cylinders

**Guide cylinders, Series GPC-ST**

- ▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: hydraulic, non-adjustable ▶ with magnetic piston
- ▶ Easy-2-Combine-capable with connection kit

Maximum permissible force F and deflection D with static load



Piston Ø	F [N]	S=35 D	S=50 D	S=75 D	S=100 D	S=125 D	S=150 D						
12	170	0.02	0.02	0.05	0.09	0.15	0.23						
20	260	0.01	0.02	0.04	0.07	0.12	0.19						

S = stroke

All dimensions in mm, unless specified otherwise.

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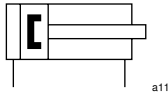
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### Guide cylinders, Series GPC-TL

▶ Ø 12 - 20 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston



PGPC\_001



a11

Ambient temperature min./max. Medium	+14°F / +158°F Compressed air
Oil content of compressed air Pressure for determining piston forces	0 mg/m <sup>3</sup> - 5 mg/m <sup>3</sup> 91.35 psi
Materials:	
Housing	Aluminum, anodized
Seal	Polyurethane
Front plate	Steel galvanized
Guide rod	Stainless steel
Bearing	Sintered bronze
Piston rod	Stainless steel

#### Technical Remarks

- The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 37 °F.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Piston Ø	[mm]	12	16	20		
Port		M5	M5	M5		
Working pressure min./max.	[psi]	29 / 116	29 / 145	29 / 145		
Retracting piston force	[lbf]	11.91	21.36	33.27		
Extracting piston force	[lbf]	15.96	28.55	44.51		
Speed max.	[ft./s]	1.64	1.64	1.64		
Impact energy	[in.lbs.]	0.0737	0.0811	0.1106		

	Piston Ø Piston rod Ø	12 6	16 8	20 10		
	Stroke 0.39	0822060600	0822061600	0822062600		
	0.79	0822060601	0822061601	0822062601		
	0.98	0822060607	0822061607	0822062607		
	1.18	0822060602	0822061602	0822062602		
	1.57	0822060603	0822061603	0822062603		
	1.97	0822060604	0822061604	0822062604		
	2.95	0822060605	0822061605	0822062605		
	3.94	0822060606	0822061606	0822062606		

Weight [lbs]	Piston Ø	12	16	20		
	Stroke 0.39	1.06	1.08	1.32		
	0.79	1.06	1.08	1.32		
	0.98	1.06	1.08	1.32		
	1.18	1.06	1.08	1.41		
	1.57	0.992	1.26	1.61		
	1.97	1.08	1.39	1.76		
	2.95	1.34	1.7	2.16		
	3.94	1.61	2.01	2.56		

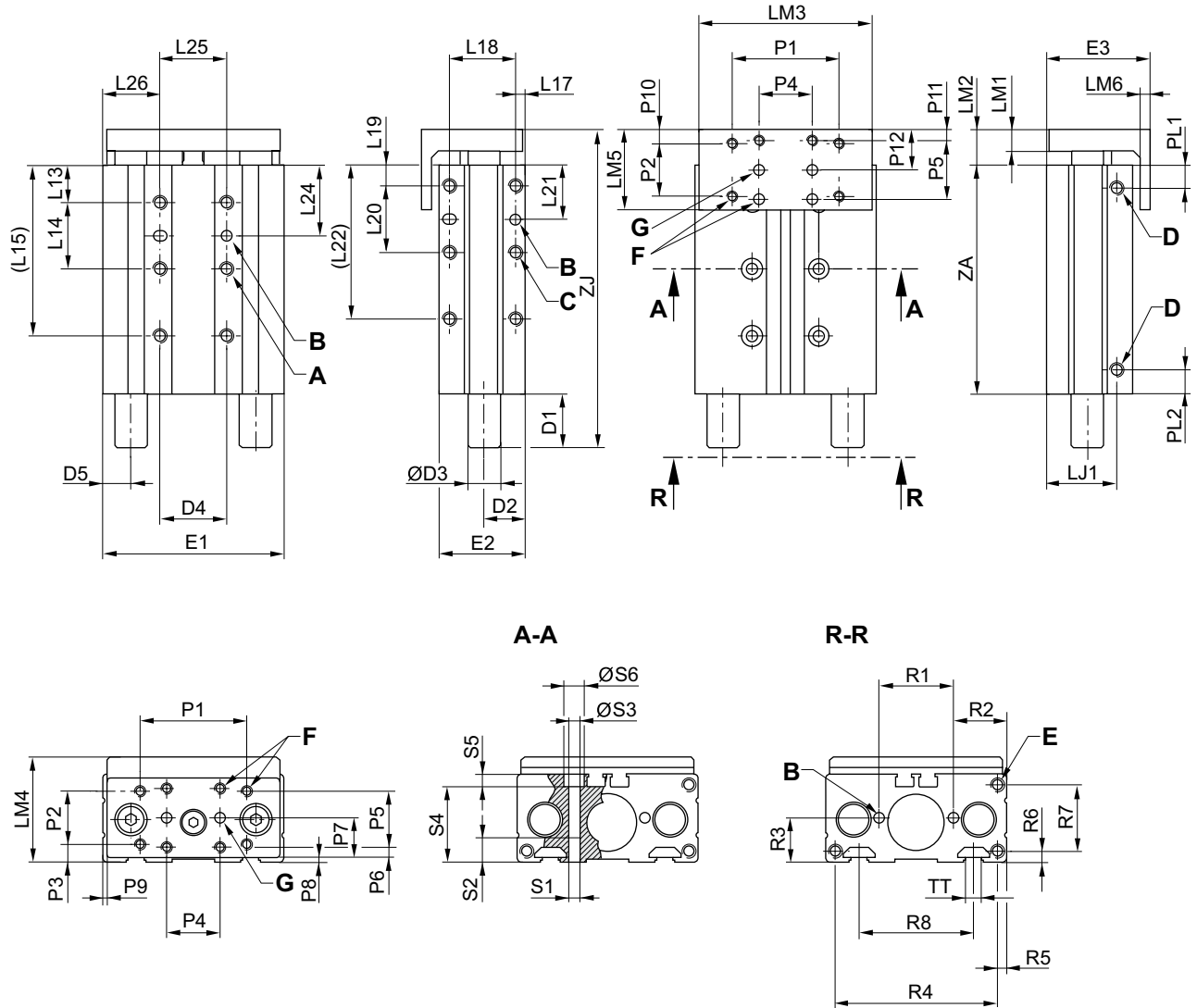
All dimensions in mm, unless specified otherwise.

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**Piston rod cylinder ▶ Guide cylinders**
**Guide cylinders, Series GPC-TL**

▶ Ø 12 - 20 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston

**Dimensions**


00112448

Piston Ø	A 1)	B 1)	C 1)	D	D1 S>30	D2	D3	D4	D5	E 1)	E1	E2	E3
12	M5x8	4 H7x4	M5x8	M5	17.6	14.5	10	40	9	M5x8	58	30.5	36.5
16	M5x8	4 H7x4	M5x8	M5	20	15.8	12	47	10.5	M5x8	68	33	39.5
20	M6x10	4 H7x4	M5x10	M5	20	16.5	12	54	13	M5x10	80	36	43.5

Piston Ø	F	G	L13	L14 S=10	L14 S=20	L14 S>20	L15 S=50-150	L17	L18	L19	L20 S=10
12	M4	4 H9	14.5	-	18	22	58.5	4	22	8	20
16	M4	4 H9	14	18	25	25	64	4	25	8	18
20	M5	4 H9	15	16	24	24	63	4.5	24	8	20

Piston Ø	L20 S=20-150	L21 S=10	L21 S>10	L22 S=50-150	L24 S=10	L24 S>10	L25	L26	LJ1	LM1	LM2	LM3
12	20	18	18	48	25.5	25.5	20	19	24.8	8	12.7	55
16	25	20.5	20.5	58	26.5	26.5	25	21.5	27	8	13.5	65

All dimensions in mm, unless specified otherwise.

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## Guide cylinders, Series GPC-TL

▶ Ø 12 - 20 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston

Piston Ø	L20 S=20-150	L21 S=10	L21 S>10	L22 S=50-150	L24 S=10	L24 S>10	L25	L26	LJ1	LM1	LM2	LM3
20	30	18	23	68	23	27	30	25	26.5	10	15.5	77

Piston Ø	LM4	LM5	LM6	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
12	35	28	4	40	20	3.5	20	20	3.5	13.5	1.5	1.5	4
16	38	30	4	40	20	5	20	22	4	15	1.5	1.5	5
20	42	35	5	50	25	4	25	25	4	16.5	1.5	1.5	5

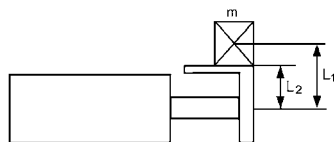
Piston Ø	P11	P12	PL1	PL2	R1±0,04	R2	R3	R4	R5	R6	R7	R8	S1
12	4	14	8.5	8.5	23	17.5	15	50	4	4	22	-	M5
16	4	15	8.8	8.8	28	20	16.5	61	3.5	4	25	43	M5
20	5	17.5	10	10	30	25	18	70	5	3.5	29	50	M6

Piston Ø	S2	S3	S4	S5	S6	TT	ZA	ZJ S=10-30	ZJ S>30				
12	8	4.2	20	10.2	7.6	-	34.4	47.1	64.7				
16	8	4.2	28.5	4.6	7.6	N6	36	49.5	69.5				
20	10	5.2	30.5	5.5	9.5	N6	36	51.5	71.5				

S = stroke  
1) Dimension x depth

## Permissible dynamic load m [kg]



GPC\_010

Piston Ø	L2												
12	22												
16	23.7												
20	27												

All dimensions in mm, unless specified otherwise.

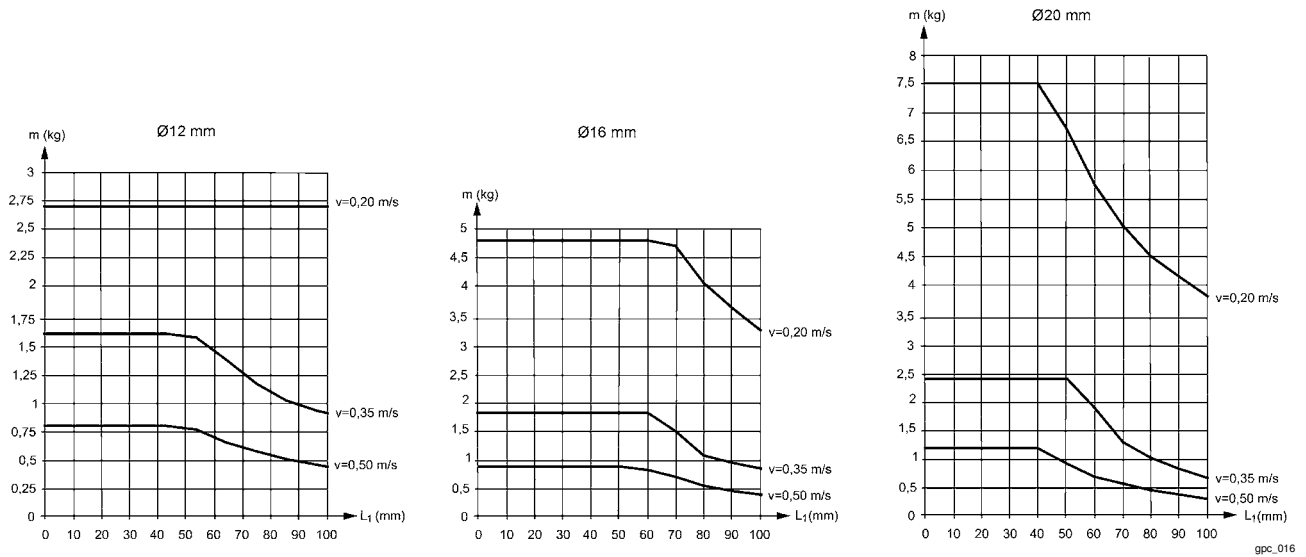
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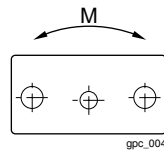
Piston rod cylinder ▶ Guide cylinders

Guide cylinders, Series GPC-TL

▶ Ø 12 - 20 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston



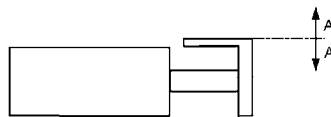
Permissible static moment M [Nm]



Piston Ø	S=10	S=20	S=25	S=30	S=40	S=50	S=75	S=100					
12	0.56	0.48	0.46	0.42	0.62	0.56	0.44	0.38					
16	1.48	1.32	1.25	1.2	1.72	1.57	1.29	1.15					
20	1.7	1.51	1.43	1.38	1.97	1.81	1.49	1.32					

S = stroke

Play



Piston Ø	A 1)												
12	0.11												
16	0.11												
20	0.11												

1) Piston rod deflection at a stroke of 50 mm and a load of 10 N (mm)

All dimensions in mm, unless specified otherwise.

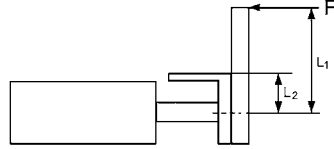
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**Guide cylinders, Series GPC-TL**

▶ Ø 12 - 20 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston

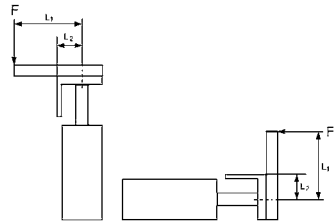
**Permissible lever arm length L1 at 6 bar with static load**



gpc\_012

Piston Ø	F [N]	L1	L2									
12	67	290	22									
16	120	215	23.7									
20	180	140	27									

**Permissible lever arm length L1 at 6 bar with dynamic load**

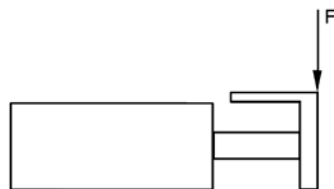


gpc\_014

Piston Ø	F [N]	F [N] 1)	L1	L2								
12	67	23	250	22								
16	120	40	200	23,7								
20	180	65	125	27								

1) Horizontal situation max. force [N]

**Permissible static side force F [N]**



GPC\_009

All dimensions in mm, unless specified otherwise.

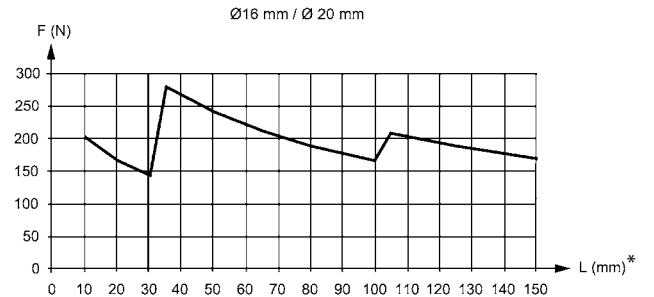
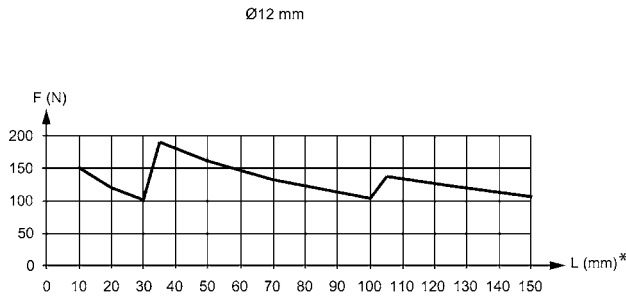
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## Piston rod cylinder ▶ Guide cylinders

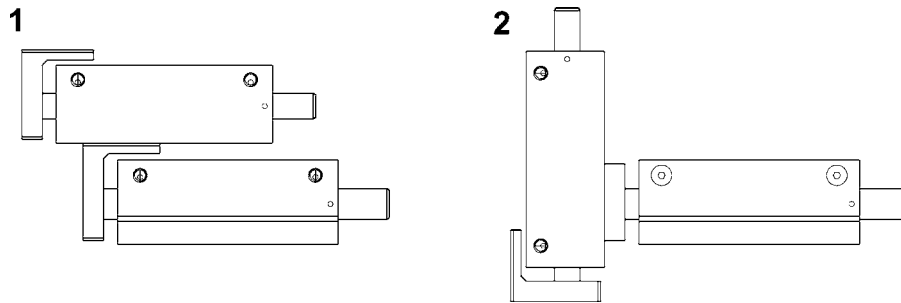
### Guide cylinders, Series GPC-TL

▶ Ø 12 - 20 mm ▶ double-acting ▶ Plain bearing ▶ cushioning: elastic ▶ with magnetic piston



00132215

### GPC combinations



gpc\_015

The GPC-TL can be directly mounted on the front plate of next bigger standard GPC in radial direction, and on next bigger GPC-TL in axial direction.

### Combination in axial direction (1)

Piston Ø		GPC-TL 16	GPC-TL 20							
16	GPC-TL 12	M4x25 1)	-							
20	GPC-TL 16	-	M5x35 1)							

1) Screw according to ISO 4762 - M4x25

### Combination radial direction (2)

Piston Ø		GPC 16	GPC 20	GPC 25			
12	GPC-TL 12	M5x15 1)	-	-			
16	GPC-TL 16	-	M5x15 1)	-			
20	GPC-TL 20	-	-	M6x15 1)			

1) Screw according to ISO 4762 - M4x25

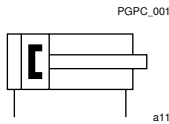
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### Guide cylinders, Series GPC-TL

▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston



Ambient temperature min./max. Medium	+14 °F / +158 °F Compressed air
Oil content of compressed air Pressure for determining piston forces	0 mg/m <sup>3</sup> - 5 mg/m <sup>3</sup> 91.35 psi
Materials:	
Housing	Aluminum, anodized
Seal	Polyurethane
Front plate	Steel galvanized
Guide rod	Steel, hardened
Bearing	Steel, hardened
Piston rod	Stainless steel

#### Technical Remarks

- The pressure dew point must be at least 27 °F under ambient and medium temperature and may not exceed 37 °F.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Piston Ø	[mm]	12	16	20		
Port		M5	M5	M5		
Working pressure min./max.	[psi]	29 / 116	29 / 145	29 / 145		
Retracting piston force	[lbf]	11.91	21.36	33.27		
Extracting piston force	[lbf]	15.96	28.55	44.51		
Speed max.	[ft./s]	1.64	1.64	1.64		
Impact energy	[in.lbs.]	0.0737	0.0811	0.1106		

	Piston Ø Piston rod Ø	12 6	16 8	20 10		
	Stroke 0.39	0822060700	0822061700	0822062700		
	0.79	0822060701	0822061701	0822062701		
	0.98	0822060707	0822061707	0822062707		
	1.18	0822060702	0822061702	0822062702		
	1.57	0822060703	0822061703	0822062703		
	1.97	0822060704	0822061704	0822062704		
	2.95	0822060705	0822061705	0822062705		
	3.94	0822060706	0822061706	0822062706		

Weight [lbs]	Piston Ø	12	16	20		
	Stroke 0.39	0.992	1.04	1.34		
	0.79	0.992	1.04	1.34		
	0.98	0.7716	0.97	1.28		
	1.18	0.992	1.04	1.34		
	1.57	0.9479	1.23	1.59		
	1.97	1.06	1.34	1.74		
	2.95	1.3	1.63	2.09		
	3.94	1.54	1.94	2.47		

All dimensions in mm, unless specified otherwise.

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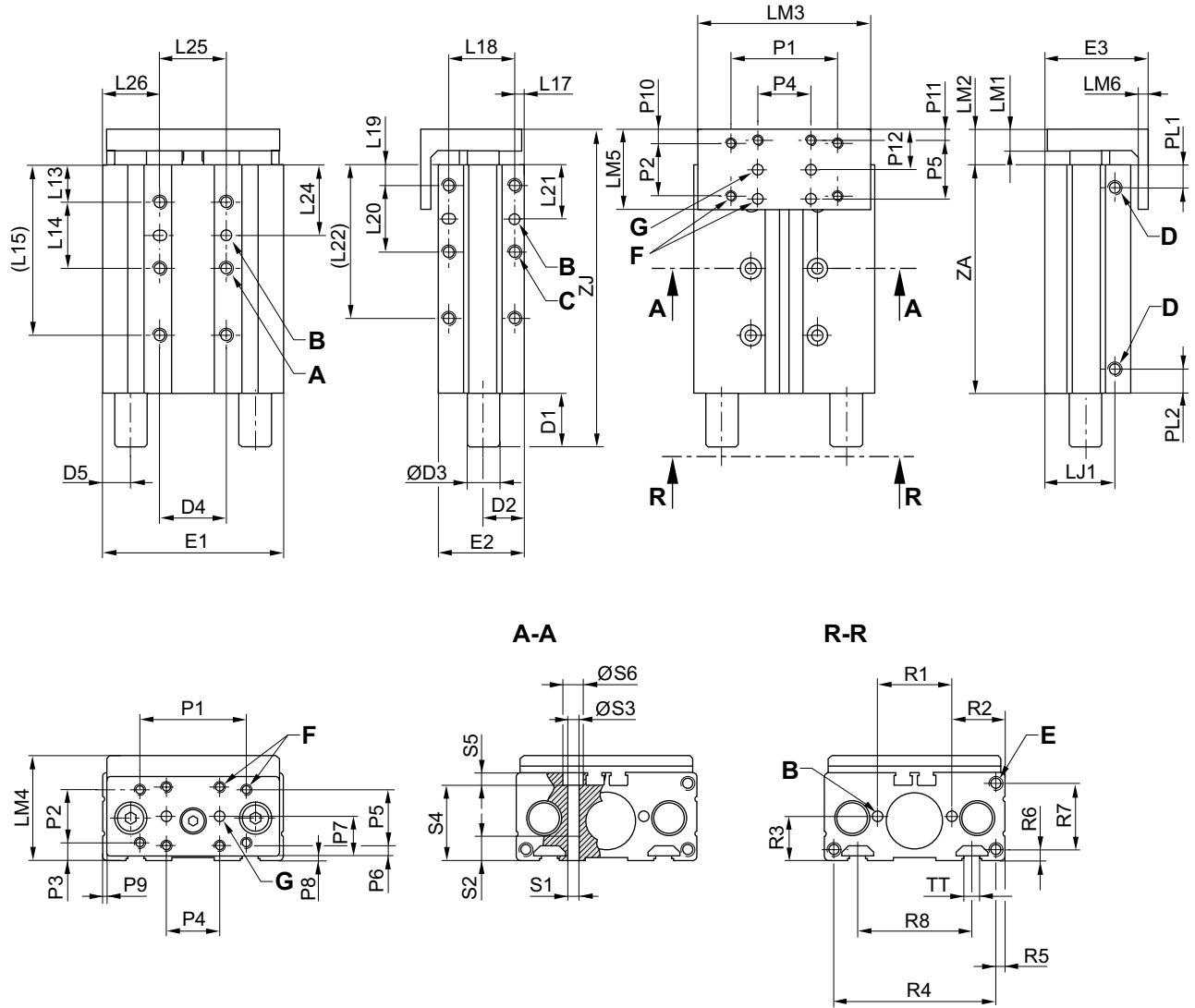


## Piston rod cylinder ▶ Guide cylinders

### Guide cylinders, Series GPC-TL

▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston

#### Dimensions



00112448

Piston Ø	A 1)	B 1)	C 1)	D	D1	D2	D3	D4	D5	E 1)	E1	E2	E3
12	M5x8	4 H7x4	M5x8	M5	19	14.5	8	40	9	M5x8	58	30.5	36.5
16	M5x8	4 H7x4	M5x8	M5	21	15.8	10	47	10.5	M5x8	68	33	39.5
20	M6x10	4 H7x4	M6x10	M5	21	16.5	10	54	13	M5x10	80	36	43.5

Piston Ø	F	G	L13	L14 S=10	L14 S=20	L14 S>20	L15 S=50-150	L17	L18	L19	L20 S=10
12	M4	4 H9	14.5	-	18	22	58.5	4	22	8	20
16	M4	4 H9	14	18	25	25	64	4	25	8	18
20	M5	4 H9	15	16	24	24	63	4.5	24	8	20

Piston Ø	L20 S=20-150	L21 S=10	L21 S>10	L22 S=50-150	L24 S=10	L24 S>10	L25	L26	LJ1	LM1	LM2	LM3
12	20	18	18	48	25.5	25.5	20	19	24.8	8	12.7	55
16	25	20.5	20.5	58	26.5	26.5	25	21.5	27	8	13.5	65
20	30	18	23	68	23	27	30	25	26.5	10	15.5	77

All dimensions in mm, unless specified otherwise.

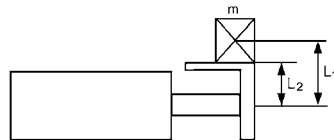
Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

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**Guide cylinders, Series GPC-TL**
**▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston**

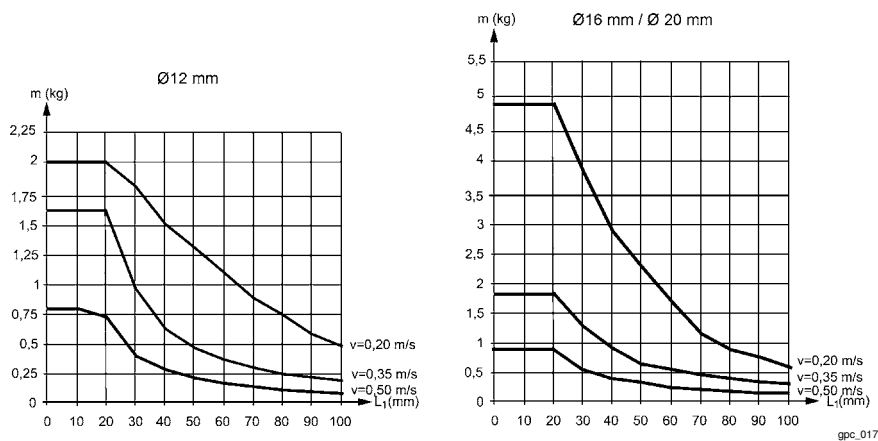
Piston Ø	LM4	LM5	LM6	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
12	35	28	4	40	20	3.5	20	20	3.5	13.5	1.5	1.5	4
16	38	30	4	40	20	5	20	22	4	15	1.5	1.5	5
20	42	35	5	50	25	4	25	25	4	16.5	1.5	1.5	5
Piston Ø	P11	P12	PL1	PL2	R1±0,04	R2	R3	R4	R5	R6	R7	R8	S1
12	4	14	8.5	8.5	23	17.5	15	50	4	4	22	-	M5
16	4	15	8.8	8.8	28	20	16.5	61	3.5	4	25	43	M5
20	5	17.5	10	10	30	25	18	70	5	3.5	29	50	M6
Piston Ø	S2	S3	S4	S5	S6	TT	ZA	ZJ S=10-30	ZJ S>30				
12	8	4.2	20	10.2	7.6	-	34.4	47.1	65.5				
16	8	4.2	28.5	4.6	7.6	N6	36	49.5	70.3				
20	10	5.2	30.5	5.5	9.5	N6	36	51.5	72.3				

S = stroke  
1) Dimension x depth

**Permissible dynamic load m [kg]**


GPC\_010

Piston Ø	L2												
12	22												
16	23.7												
20	27												



All dimensions in mm, unless specified otherwise.

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

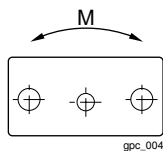
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## Piston rod cylinder ▶ Guide cylinders

### Guide cylinders, Series GPC-TL

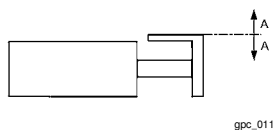
▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston

#### Permissible static moment M [Nm]



Piston Ø	S=10	S=20	S=25	S=30	S=40	S=50	S=75	S=100					
12	0.38	0.34	0.32	0.3	0.46	0.44	0.4	0.38					
16	0.63	0.56	0.54	0.52	1.36	1.32	1.2	1.13					
20	0.73	0.65	0.62	0.59	1.57	1.51	1.38	1.3					

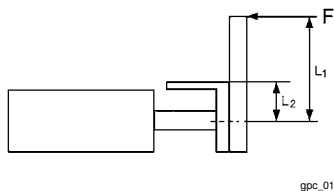
#### Play



Piston Ø	A 1)												
12	0.1												
16	0.08												
20	0.08												

1) Piston rod deflection at a stroke of 50 mm and a load of 10 N (mm)

#### Permissible lever arm length L1 at 6 bar with static load



Piston Ø	F [N]	L1	L2										
12	67	115	22										
16	120	80	23.7										
20	180	55	27										

All dimensions in mm, unless specified otherwise.

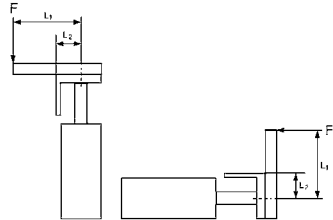
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**Guide cylinders, Series GPC-TL**

▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston

**Permissible lever arm length L1 at 6 bar with dynamic load**

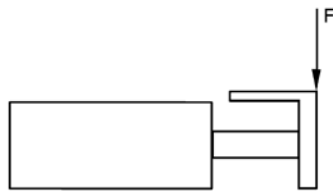


gpc\_014

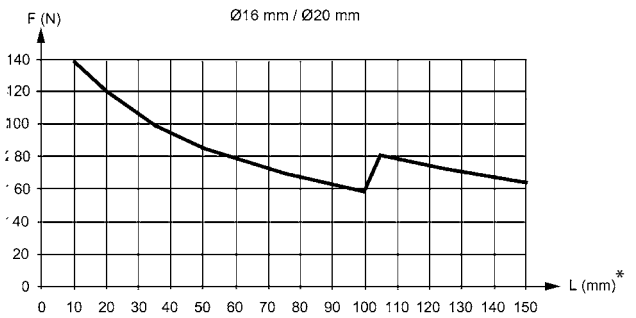
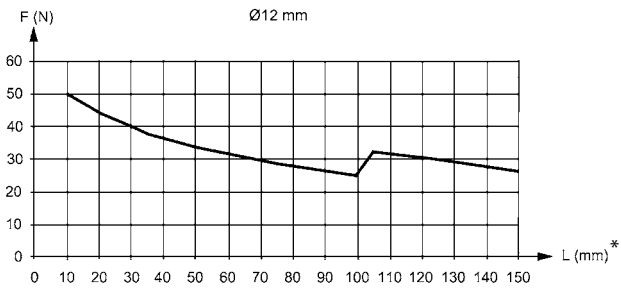
Piston Ø	F [N]	F [N] 1)	L1	L2									
12	67	23	100	22									
16	120	40	75	23.7									
20	180	65	50	27									

1) Horizontal situation max. force [N]

**Permissible static side force F [N]**



GPC\_009



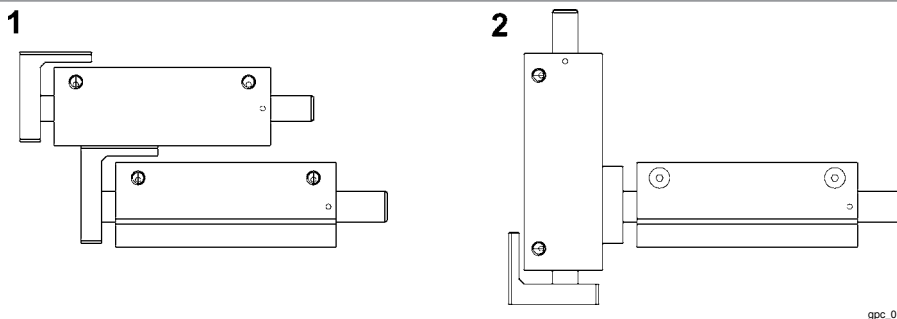
00132214

## Piston rod cylinder ▶ Guide cylinders

### Guide cylinders, Series GPC-TL

▶ Ø 12 - 20 mm ▶ double-acting ▶ ball bearing ▶ cushioning: elastic ▶ with magnetic piston

#### GPC combinations



The GPC-TL can be directly mounted on the front plate of next bigger standard GPC in radial direction, and on next bigger GPC-TL in axial direction.

#### Combination in axial direction (1)

Piston Ø		GPC-TL 16	GPC-TL 20								
12	GPC-TL 12	M4x25 1)	-								
16	GPC-TL 16	-	M5x35 1)								

1) Screw according to ISO 4762 - M4x25

#### Combination radial direction (2)

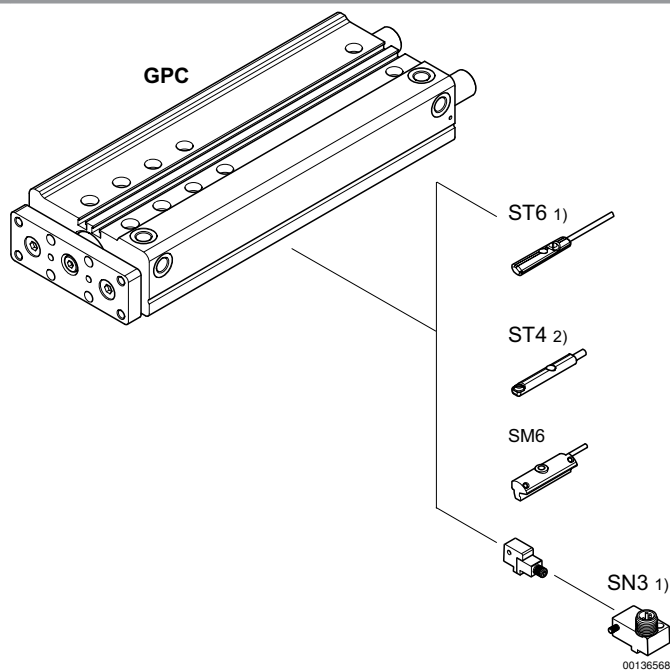
Piston Ø		GPC 16	GPC 20	GPC 25			
12	GPC-TL 12	M5x15 1)	-	-			
16	GPC-TL 16	-	M5x15 1)	-			
20	GPC-TL 20	-	-	M6x15 1)			

1) Screw according to ISO 4762 - M4x25

**Series GPC**  
 Accessories

**Accessories overview**

## Overview drawing



1)  $\leq \varnothing 12$  mm (GPC-BV, GPC-E, GPC-TL)

2) Only for  $\varnothing 10$  mm (GPC-BV) and all  $\varnothing$  (GPC-ST)

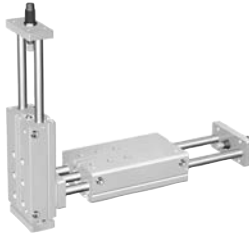
**NOTE:**

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.

Piston rod cylinder ▶ Guide cylinders

**Series GPC**  
Accessories

**Easy–2–Combine, Connection kit**  
▶ For combination: GPC-E / GPC-E



00120640

Materials:  
centering pins 1)

Steel, hardened

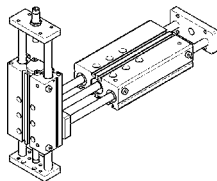
1) ISO 2338:1997

A) product 1, B) product 2, C) screws, D) centering pins

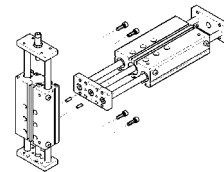
A	B	C 1) 2)	D
GPC-E-12	GPC-E-16	4 x M5x16	2 x 4 m6x12
GPC-E-16	GPC-E-20	4 x M5x16	2 x 4 m6x12

1) tightening torque M5 = 6,0 Nm ± 10%  
2) ISO 4762:2004

front mounting: longitudinal



00120585



00120586

## Series GPC Accessories

### Centering rings



Fig. 1

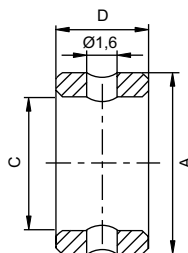
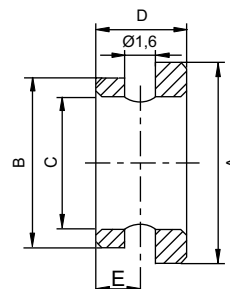


Fig. 2



00119489\_a

00112657

The delivered product may vary from that in the illustration.

Part No.	Ø	A k6	B k6	C ±0,1	D -0,2	E +0,2	Material	Delivery quantity [Piece]	Fig.
<b>R412000669</b>	5	5	-	3,4	3	-	Stainless steel	6	Fig. 1
<b>R412000668</b>	7	7	-	5,5	3	-	Stainless steel	6	Fig. 1
<b>R412000670</b>	9	9	-	6,6	4	-	Stainless steel	6	Fig. 1
<b>R412000671</b>	12	12	-	9,0	4	-	Stainless steel	6	Fig. 1
<b>R402003731</b>	16	16	-	11	6	-	Stainless steel	6	Fig. 1
<b>R412004030</b>	5-7	7	5	3,4	3	1,5	Stainless steel	6	Fig. 2
<b>R412004032</b>	5-9	9	5	3,4	3,5	1,5	Stainless steel	6	Fig. 2
<b>R412004033</b>	7-9	9	7	5,5	3,5	1,5	Stainless steel	6	Fig. 2
<b>R412004034</b>	9-12	12	9	6,6	4,0	2	Stainless steel	6	Fig. 2
<b>R402003736</b>	12-16	16	12	9	5	2	Stainless steel	6	Fig. 2

All dimensions in mm, unless specified otherwise.

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

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## Piston rod cylinder ▶ Guide cylinders

### Series GPC Accessories

#### Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ open cable ends, 3-pin



21304

Certificates	UL (Underwriters Laboratories)
Ambient temperature min./max.	-22°F / +176°F
Protection class	IP65, IP67
Switching point precision [mm]	±0,1
Switching logic	NO (make contact)
Display	LED
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Mounting screw	Combination: slotted and hexagon socket
<b>Materials:</b>	
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane

#### Technical Remarks

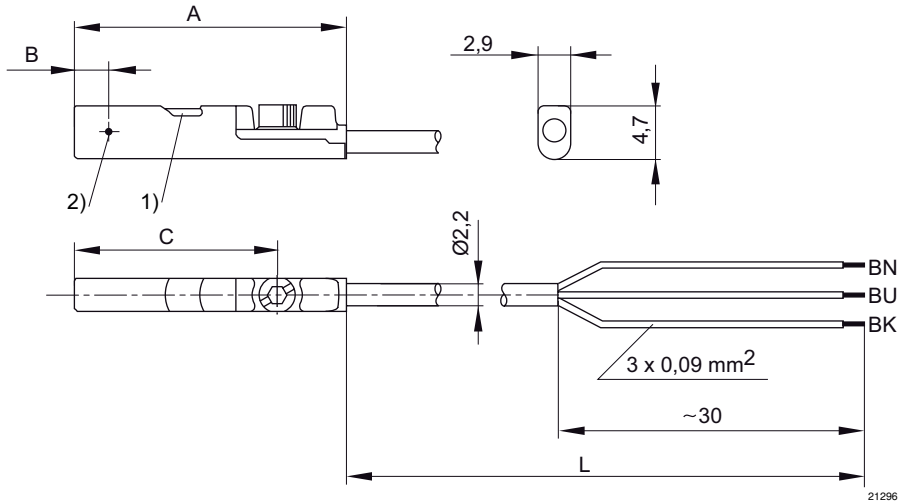
- The max. switching capacity must not be exceeded.

	Type of contact	Cable length	DC operating voltage min./max.	Voltage drop U at I <sub>max</sub>	DC switching current, max.	AC switching current, max.	Switching capacity	Part No.
		[ft.]	[V]	[V]	[A]	[A]		
	Reed	9.84 16.4	5 / 30	I*Rs	0,13	0,13	3 W / 3 VA	<b>R412019488</b> <b>R412019489</b>
	electronic PNP	9.84 16.4	10 / 30	≤ 2,5	0.1	-	-	<b>R412019680</b> <b>R412019681</b>
	electronic NPN	9.84 16.4	10 / 30	≤ 2,5	0.1	-	-	<b>R412019684</b> <b>R412019685</b>

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

## Series GPC Accessories

### Dimensions



1) LED 2) Switching point

L = cable length

BN = brown, BK = black, BU = blue

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

## Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ Plug, M8, 3-pin



21305

Certificates	UL (Underwriters Laboratories)
Ambient temperature min./max.	-22° F / +176° F
Protection class	IP65, IP67
Switching point precision [mm]	±0,1
Switching logic	NO (make contact)
Display	LED
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Mounting screw	Combination: slotted and hexagon socket
Materials:	
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane

### Technical Remarks

- The max. switching capacity must not be exceeded.




All dimensions in mm, unless specified otherwise.

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

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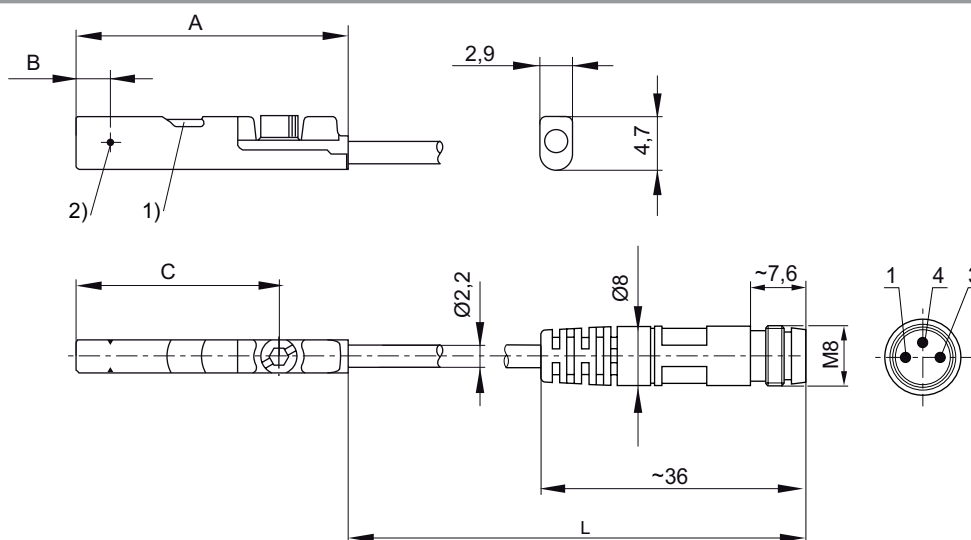
## Piston rod cylinder ▶ Guide cylinders

### Series GPC Accessories

	Type of contact	Cable length	DC operating voltage min./max.	Voltage drop U at I <sub>max</sub>	DC switching current, max.	AC switching current, max.	Switching capacity	Part No.
		[ft.]	[V]	[V]	[A]	[A]		
	Reed	0.98	5 / 30	I*Rs	0,13	0,13	3 W / 3 VA	<b>R412019682</b>
	electronic PNP	0.98	10 / 30	≤ 2,5	0.1	-	-	<b>R412019683</b>
	electronic NPN	0.98	10 / 30	≤ 2,5	0.1	-	-	<b>R412019694</b>

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

### Dimensions



21297

1) LED 2) Switching point

L = cable length

Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

Part No.	A	B	C									
R412019682	26.3	6.3	20.3									
R412019683	23.7	2.8	17.7									
R412019694	23.7	2.8	17.7									

## Series GPC

### Accessories

## Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ Plug, M8, 3-pin, with knurled screw







21306

Certificates	UL (Underwriters Laboratories)
Ambient temperature min./max.	-22° F / +176° F
Protection class	IP65, IP67
Switching point precision [mm]	±0,1
Switching logic	NO (make contact)
Display	LED
LED status display	Yellow
Vibration resistance	10 - 55 Hz, 1 mm
Shock resistance	30 g / 11 ms
Mounting screw	Combination: slotted and hexagon socket
Materials:	
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane

### Technical Remarks

- The max. switching capacity must not be exceeded.

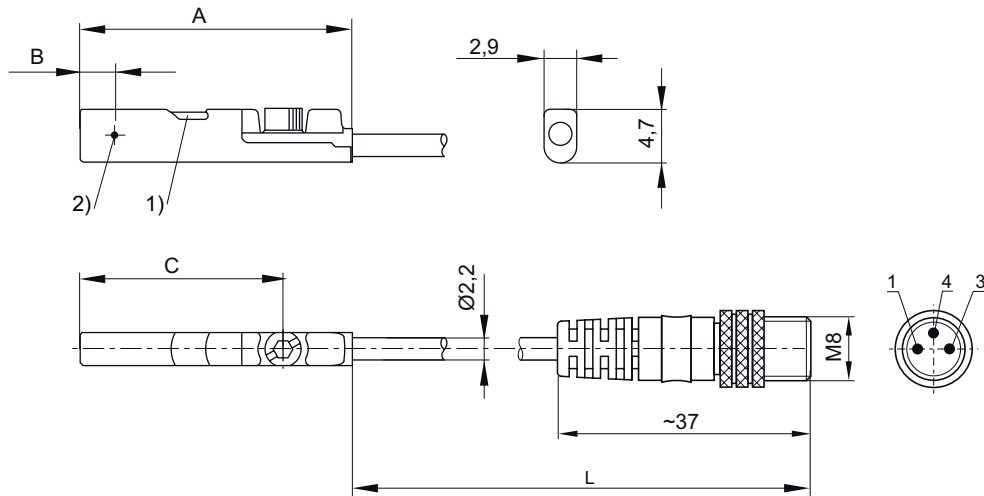
	Type of contact	Cable length	DC operating voltage min./max.	Voltage drop U at I <sub>max</sub>	DC switching current, max.	AC switching current, max.	Switching capacity	Part No.
		[ft.]	[V]	[V]	[A]	[A]		
	Reed	0.98	5 / 30	I*Rs	0,13	0,13	3 W / 3 VA	<b>R412019490</b>
	electronic PNP	0.98	10 / 30	≤ 2,5	0.1	-	-	<b>R412019493</b>
	Reed	1.64	5 / 30	I*Rs	0,13	0,13	3 W / 3 VA	<b>R412019686</b>
	electronic PNP	1.64	10 / 30	≤ 2,5	0.1	-	-	<b>R412019687</b>

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

## Piston rod cylinder ▶ Guide cylinders

### Series GPC Accessories

#### Dimensions



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

21298

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

## Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ Plug, M12, 3-pin, with knurled screw



21306

#### Certificates

Ambient temperature min./max.

Protection class

Switching point precision [mm]

Switching logic

Display

LED status display

Vibration resistance

Shock resistance

Mounting screw

#### Materials:

Housing

Cable sheath

UL (Underwriters Laboratories)

-22°F / +176°F

IP65, IP67

±0,1

NO (make contact)

LED

Yellow

10 - 55 Hz, 1 mm

30 g / 11 ms

Combination: slotted and hexagon socket

#### Technical Remarks



- The max. switching capacity must not be exceeded.

All dimensions in mm, unless specified otherwise.

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

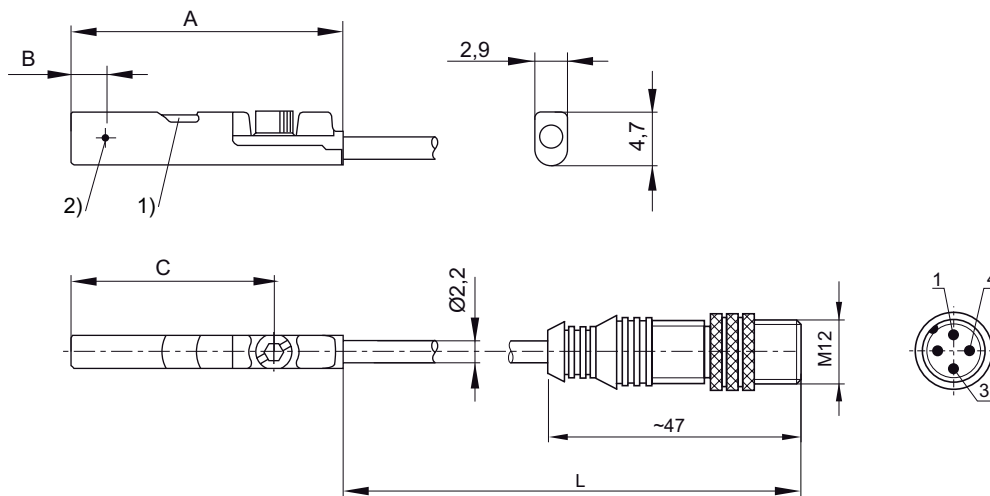
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## Series GPC Accessories

	Type of contact	Cable length	DC operating voltage min./max.	Voltage drop U at I <sub>max</sub>	DC switching current, max.	AC switching current, max.	Switching capacity	Part No.
		[ft.]	[V]	[V]	[A]	[A]		
	Reed	0.98	5 / 30	I*Rs	0,13	0,13	3 W / 3 VA	<b>R412019688</b>
	electronic PNP	0.98	10 / 30	≤ 2,5	0.1	-	-	<b>R412019689</b>

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

### Dimensions



21299

1) LED 2) Switching point

L = cable length

Pin assignment: 1 = (+), 3 = (-), 4 = (OUT)

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

## Piston rod cylinder ▶ Guide cylinders

### Series GPC 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
Ambient temperature min./max.	-22°F / +176°F
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 I <sub>max</sub>	DC switching current, max.	AC switching current, max.	Part No.
		[ft.]	[V]	[V]	[V]	[A]	[A]	
	Reed	9.84	10 / 230	10 / 230	I*Rs	0,13	0,13	<b>R412022866</b>
	Reed	9.84 16.4 32.81	10 / 30	10 / 30	I*Rs	0,3	0,5	<b>R412022869</b> <b>R412022870</b> <b>R412022871</b>
	electronic PNP	9.84 16.4 32.81	10 / 30	-	≤ 2,5	0,13	-	<b>R412022853</b> <b>R412022855</b> <b>R412022857</b>
	electronic NPN	9.84 16.4	10 / 30	-	≤ 2,5	0,13	-	<b>R412022849</b> <b>R412022850</b>

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

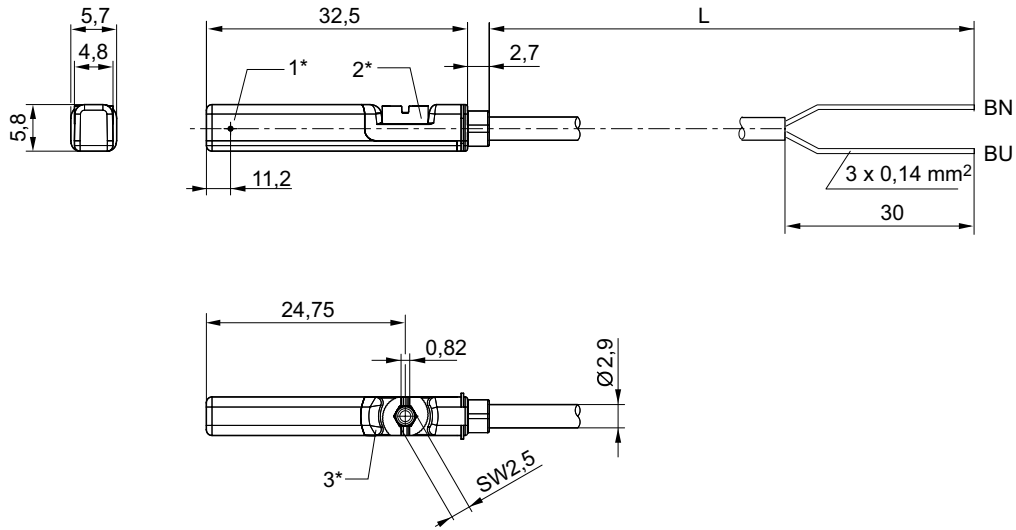
All dimensions in mm, unless specified otherwise.

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

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## Series GPC Accessories

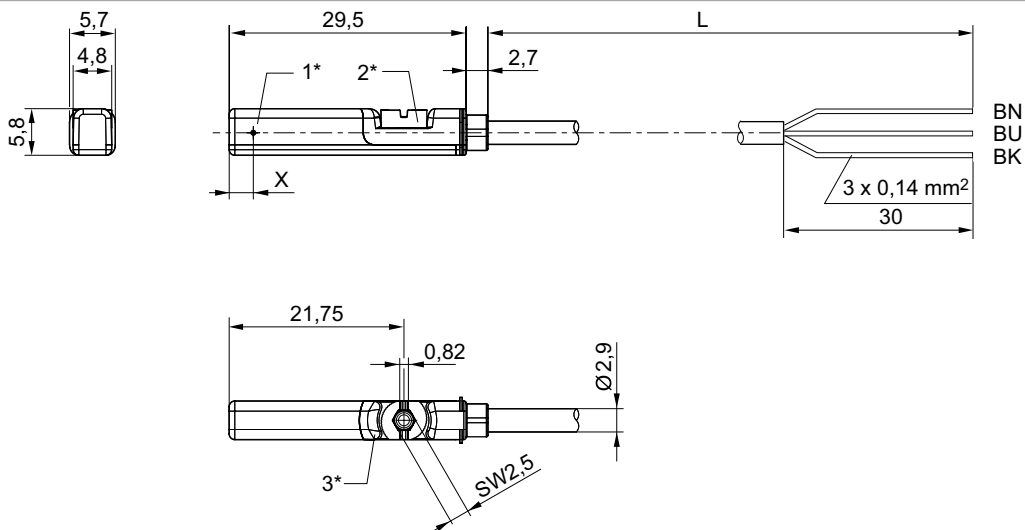
Fig. 1



24619

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

Fig. 2



24620

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



## Piston rod cylinder ▶ Guide cylinders

### Series GPC Accessories

#### Sensor, Series ST6

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



24713

#### Certificates

Ambient temperature min./max.  
Protection class  
Switching point precision [mm]  
DC operating voltage min./max.  
Switching logic  
Switching capacity  
LED status display  
Vibration resistance  
Shock resistance

#### CE declaration of conformity cULus

-22°F / +176°F  
IP65, IP67  
±0,1  
10 V - 30 V  
NO (make contact)  
Reed, 3-pin: max. 6 W  
Yellow  
10 - 55 Hz, 1 mm  
30 g / 11 ms

#### Materials:

Housing  
Locking screw

Polyamide  
Stainless steel

	Type of contact	Cable length	Operational voltage AC min./max.	Voltage drop U at I <sub>max</sub>	DC switching current, max.	AC switching current, max.	Max. switching frequency	Part No.
		[ft.]	[V]	[V]	[A]	[A]	[kHz]	
	Reed	0.9842	10 / 30	I*Rs	0,3	0,5	< 0,4	<b>R412022873</b>
		0.9842						<b>R412022875</b>
		1.64						<b>R412022874</b>
	electronic PNP	0.9842	-	≤ 2,5	0,13	-	< 1,0	<b>R412022859</b>
		0.9842						<b>R412022862</b>
		1.64						<b>R412022861</b>
	electronic NPN	0.9842	-	≤ 2,5	0,13	-	< 1,0	<b>R412022852</b>

Part No.	Operating current, not switched	Operating current, switched	Note
	[mA]	[mA]	
<b>R412022873</b>	-	-	1); 3)
<b>R412022875</b>			2); 3)
<b>R412022874</b>			1); 3)
<b>R412022859</b>	< 8 mA	< 30 mA	1); 4)
<b>R412022862</b>			2); 4)
<b>R412022861</b>			1); 4)
<b>R412022852</b>	< 8 mA	< 30 mA	1); 4)

- 1) Material Cable sheath: Polyurethane
  - 2) Material Cable sheath: Polyvinyl chloride
  - 3) Protected against polarity reversal
  - 4) short circuit resistant / Protected against polarity reversal
- interfaces: Plug; M8; 3-pin; with knurled screw

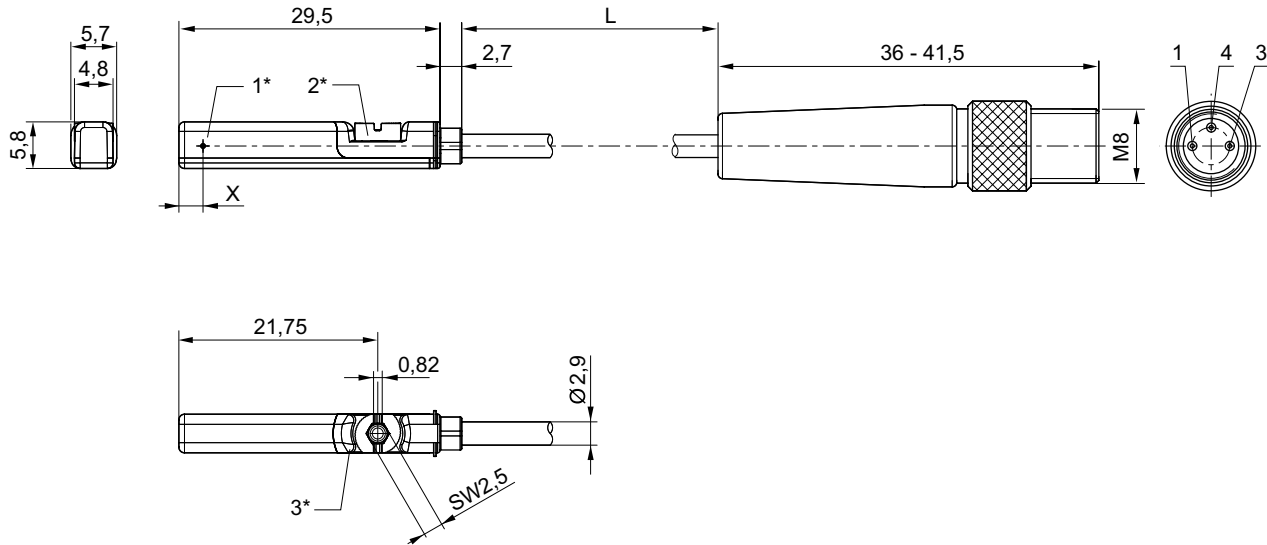
All dimensions in mm, unless specified otherwise.

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

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### Series GPC Accessories

#### 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)

24622

### Sensor, Series ST6

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



24714

#### Certificates

Ambient temperature min./max.  
 Protection class  
 Switching point precision [mm]  
 DC operating voltage min./max.  
 Switching logic  
 Switching capacity  
 LED status display  
 Vibration resistance  
 Shock resistance

CE declaration of conformity  
 cULus  
 -22° F / +176° F  
 IP65, IP67  
 ±0,1  
 10 V - 30 V  
 NO (make contact)  
 Reed, 3-pin: max. 6 W  
 Yellow  
 10 - 55 Hz, 1 mm  
 30 g / 11 ms

#### Materials:

Housing  
 Cable sheath  
 Locking screw

Polyamide  
 Polyurethane  
 Stainless steel

	Type of contact	Cable length	Operational voltage AC min./max.	Voltage drop U at I <sub>max</sub>	DC switching current, max.	AC switching current, max.	Max. switching frequency	Part No.
		[ft.]	[V]	[V]	[A]	[A]	[kHz]	
	Reed	0.9842	10 / 30	I*Rs	0,3	0,5	< 0,4	<b>R412022876</b>


All dimensions in mm, unless specified otherwise.

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## Piston rod cylinder ▶ Guide cylinders

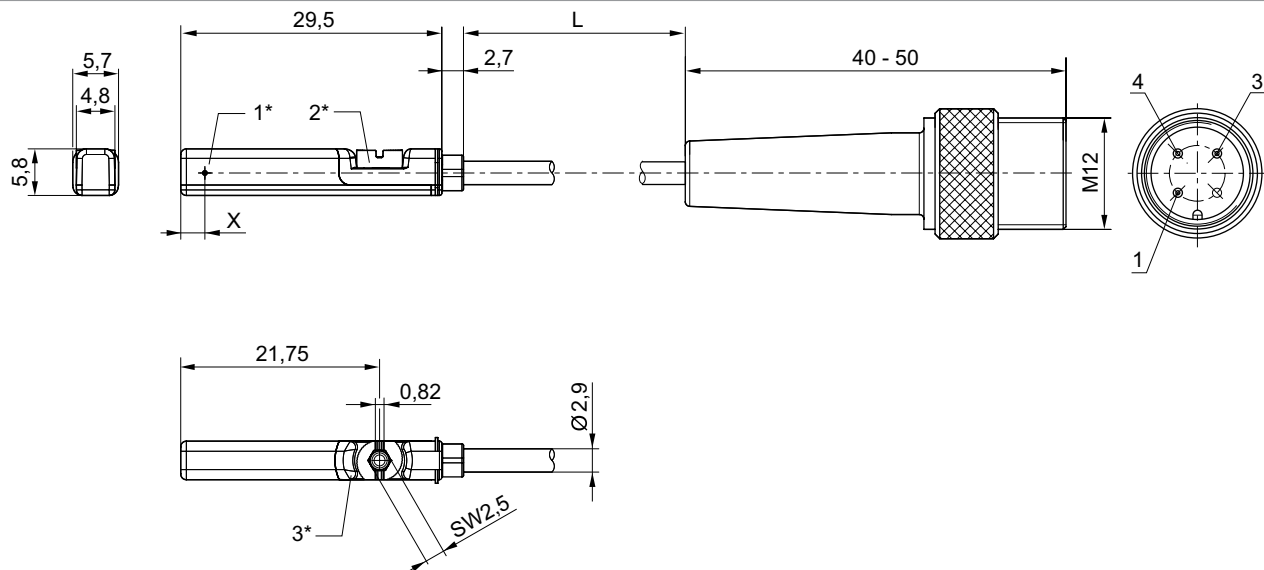
### Series GPC Accessories

	Type of contact	Cable length	Operational voltage AC min./max.	Voltage drop U at I <sub>max</sub>	DC switching current, max.	AC switching current, max.	Max. switching frequency	Part No.
		[ft.]	[V]	[V]	[A]	[A]	[kHz]	
	electronic PNP	0.328	-	≤ 2,5	0,13	-	< 1,0	<b>R412022879</b>
		0.9842						<b>R412022863</b>
		9.84						<b>R412022877</b>
		16.4						<b>R412022878</b>

Part No.	Operating current, not switched	Operating current, switched	Note
	[mA]	[mA]	
<b>R412022876</b>	-	-	1)
<b>R412022879</b> <b>R412022863</b> <b>R412022877</b> <b>R412022878</b>	< 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

### 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)

24623

All dimensions in mm, unless specified otherwise.

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### Series GPC Accessories

#### Sensors, Series SM6

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



00134312

Ambient temperature min./max.	-4 °F / +158 °F
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 - 30 V
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:

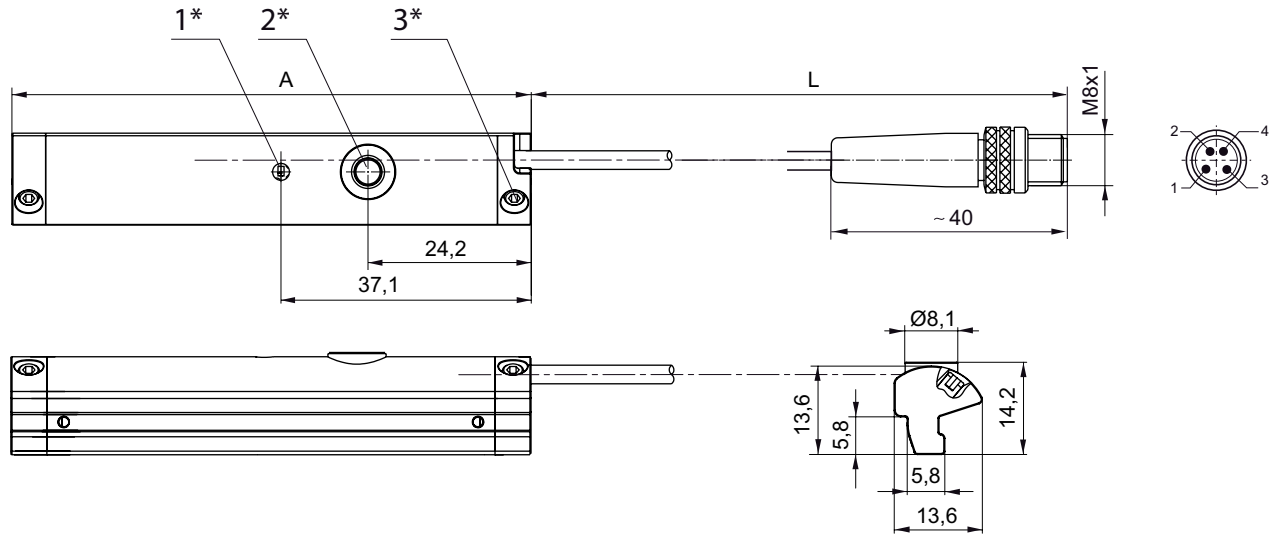
Housing	Polyamide, fiber-glass reinforced
Cable sheath	Polyurethane

	Type of contact	Cable length	Measurement range	Overall length	Part No.
			Max.	Sensor A	
		[ft.]	[inch]	[inch]	
	Analog	0.98	1.25	1.77	<b>R412010142</b>
			2.51	3.03	<b>R412010144</b>
			3.77	4.29	<b>R412010263</b>
			5.03	5.55	<b>R412010265</b>
			6.29	6.81	<b>R412010410</b>
			7.55	8.07	<b>R412010412</b>
			8.81	9.33	<b>R412010414</b>
			10.07	10.59	<b>R412010416</b>
interfaces: Plug; M8x1; 4-pin; with knurled screw short circuit resistant / Protected against polarity reversal / Overload protection					

## Piston rod cylinder ▶ Guide cylinders

### Series GPC Accessories

#### 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

00133788

## 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

Ambient temperature min./max.	-4°F / +158°F
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 - 30 V
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

All dimensions in mm, unless specified otherwise.

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

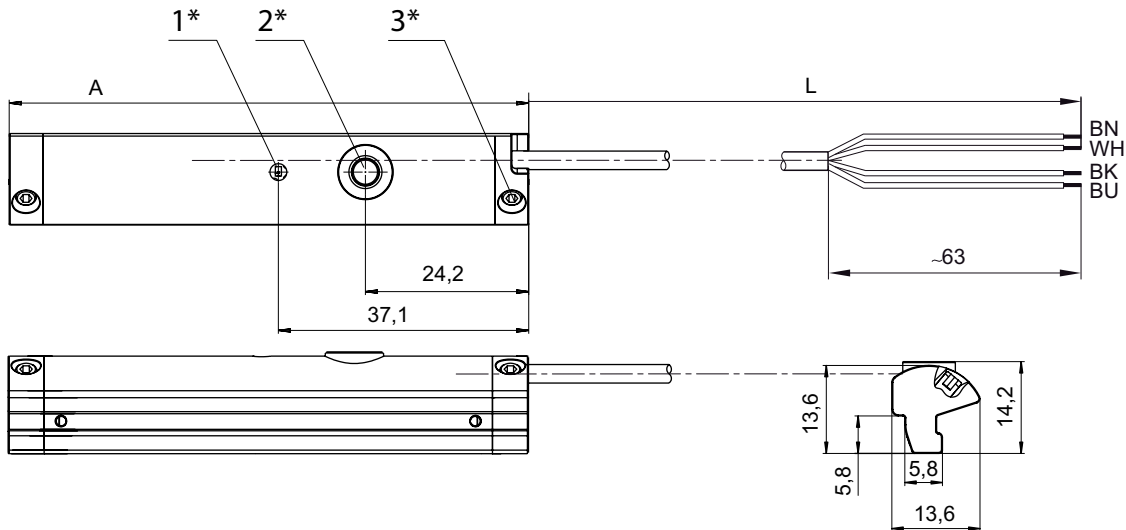
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## Series GPC

### Accessories

	Type of contact	Cable length	Measurement range	Overall length	Part No.	
			Max.	Sensor A		
		[ft.]	[inch]	[inch]		
	Analog	6.56	1.25	1.77	<b>R412010141</b>	
			2.51	3.03	<b>R412010143</b>	
			3.77	4.29	<b>R412010262</b>	
			5.03	5.55	<b>R412010264</b>	
			6.29	6.81	<b>R412010411</b>	
			7.55	8.07	<b>R412010413</b>	
			8.81	9.33	<b>R412010415</b>	
			10.07	10.59	<b>R412010417</b>	
interfaces: without wire end ferrule, tin-plated; 4-pin short circuit resistant / Protected against polarity reversal / Overload protection						

### Dimensions



00133787

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

## Piston rod cylinder ▶ Guide cylinders

### Series GPC Accessories

### Sensor, Series SN3

▶ Plug, M12, 3-pin ▶ welding-proof



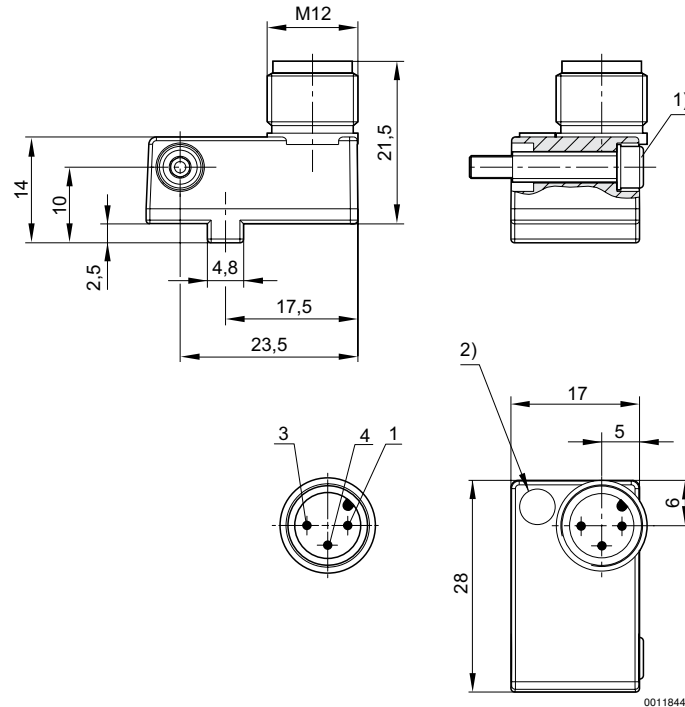
Ambient temperature min./max.	-13°F / +158°F
Protection class	IP67, IP65
Switching point precision [mm]	±0,1
Nominal current, actuated state	≤ 10 mA
Quiescent current (without load)	≤ 5 mA
DC operating voltage min./max.	10 V
LED status display	Yellow
Vibration resistance	55 Hz, 1 mm
Shock resistance	30 g / 11 ms

Materials:

Housing Polyamide

	Type of contact	Voltage drop U at I <sub>max</sub> [V]	DC switching current, max. [A]	Max. switching frequency [kHz]	Part No.
	electronic PNP	≤ 1,8	0,2	0,02	<b>0830100438</b>
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

All dimensions in mm, unless specified otherwise.

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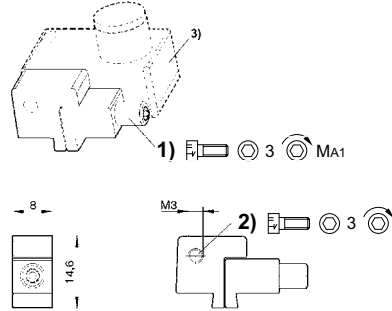
### Series GPC Accessories

#### 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

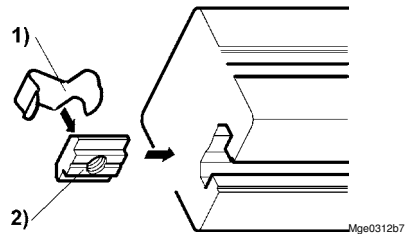
Part No.	For series	1)	MA1 [Nm]	Material	Weight [lbs]			
<b>1827020386</b>	SN3	M3x25	1,8 +0,4	Aluminum	0.0154			

#### T-groove nut

▶ for Series CKP, GPC, RTC



00127083



Mge0312b7

Part No.	Type	For series	2)	Material				
<b>3842523142</b>	N6	CKP, GPC, RTC	M5	Steel galvanized				
<b>3842514931</b>	N8	CKP, GPC, RTC	M8	Steel galvanized				

1) Spring

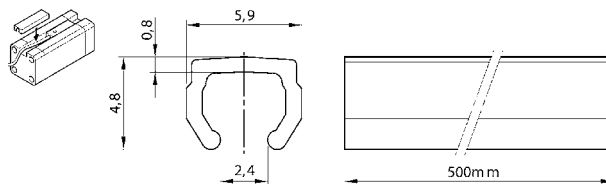
2) Thread connection

For N4 grooves on CKP 16 a square nut according to DIN 557 can be used.

#### Groove lock profile



00105175



00111999

All dimensions in mm, unless specified otherwise.

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

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## Piston rod cylinder ▶ Guide cylinders

### Series GPC Accessories

Part No.	Ø	Material								
1821321009	12-100	Acrylonitrile butadiene styrene								

## Connecting cable, Series CN2

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



00107009\_b

Ambient temperature min./max.

-40°F / +185°F

Protection class

IP65

Materials:

Cable sheath

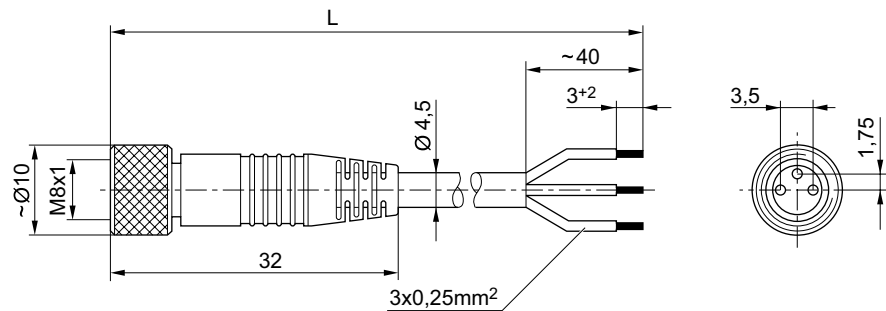
Polyurethane

#### 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]		[in <sup>2</sup> ]	[inch]	[ft.]	[lbs]	
	4	3	0	0.18	9.84	0.2006	<b>1834484166</b>
					16.4	0.3196	<b>1834484168</b>
					32.81	0.7275	<b>1834484247</b>

#### Dimensions



00105612\_a

L = length

All dimensions in mm, unless specified otherwise.

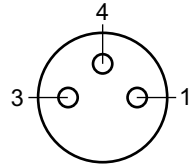
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## Series GPC

### Accessories

#### Pin assignment



Buchse\_3-polig

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

## Connecting cable, Series CN2

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



00107009\_c

Ambient temperature min./max.  
Protection class

-40° F / +185° F  
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]		[in <sup>2</sup> ]	[inch]	[ft.]	[lbs]	
	4	3	0	0.18	9.84	0.2028	<b>1834484167</b>
					16.4	0.3108	<b>1834484169</b>
					32.81	0.6084	<b>1834484248</b>

All dimensions in mm, unless specified otherwise.

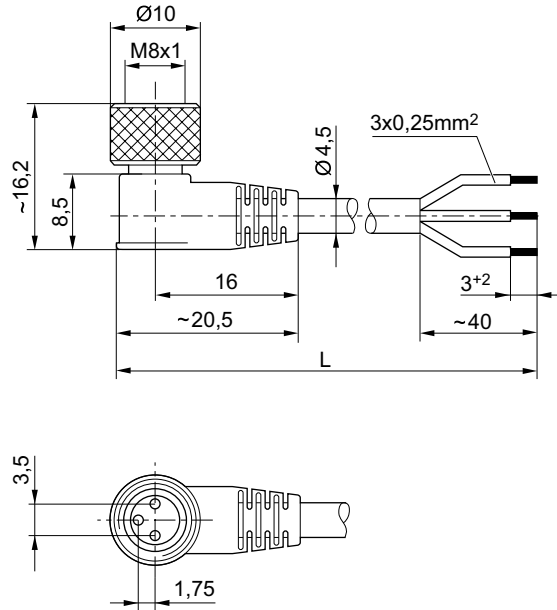
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Piston rod cylinder ▶ Guide cylinders

Series GPC  
Accessories

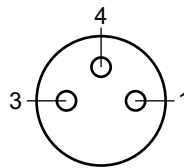
Dimensions



00105612\_b

L = length

Pin assignment



Buchse\_3-polig

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

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

Ambient temperature min./max.  
Protection class

-13°F / +176°F  
IP67

Materials:  
Housing

Polyamide

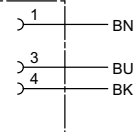


00138877

### Series GPC Accessories

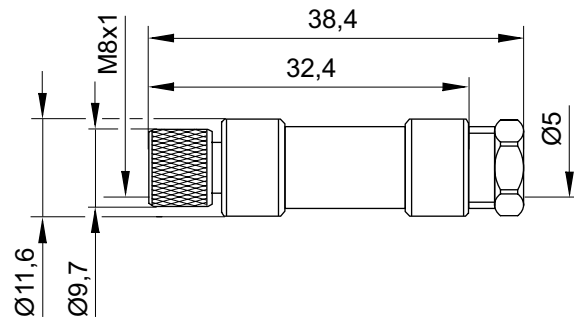
#### Technical Remarks

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

	Operational voltage		Max. current [A]	Cable exit	suitable cable-Ø min./max [inch]	number of plug options 1	Housing color	Part No.
	AC	DC						
	[V]	[V]						
	48	48	4	straight	0.14 / 0.19	1 position	Black	<b>1834484173</b>

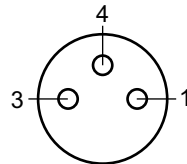
Part No.	Weight
	[lbs]
<b>1834484173</b>	0.0176

#### Dimensions



16405

#### Pin assignment



Buchse\_3-polig

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## Piston rod cylinder ▶ Guide cylinders

### Series GPC Accessories

#### Socket, M8x1, Series CN2

##### ▶ Socket, M8x1, 3-pin, angled



16406

Ambient temperature min./max.

-13°F / +185°F

Protection class

IP65

Materials:

Housing

Polyamide

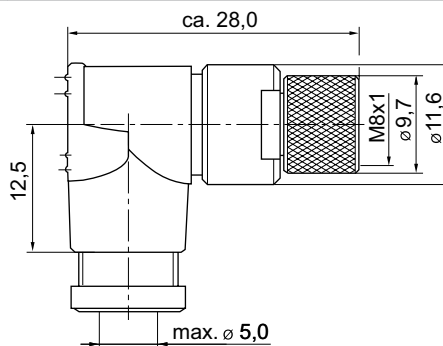
#### Technical Remarks

- 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	Part No.
	AC	DC					
	[V]	[V]	[A]			[inch]	
	48	48	4	3	angled 90°	0.14 / 0.19	<b>1834484174</b>

Part No.	number of plug options 1	Housing color	Weight
			[lbs]
<b>1834484174</b>	1 position	Black	0.0176

#### Dimensions



15832

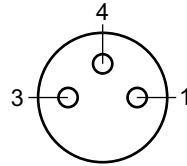
All dimensions in mm, unless specified otherwise.

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**Series GPC**  
Accessories

## Pin assignment



Buchse\_3-polig

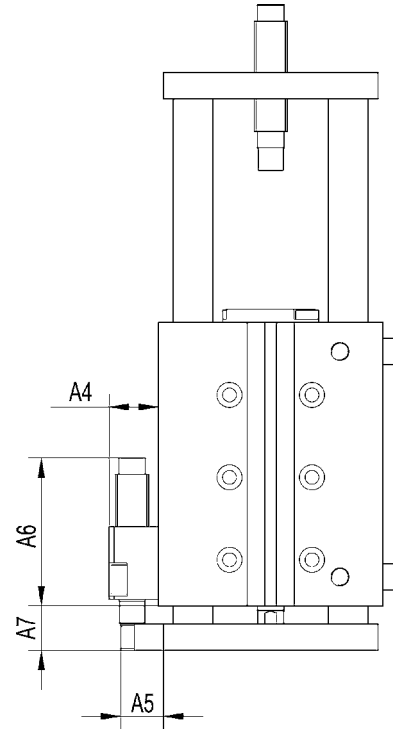
## Piston rod cylinder ▶ Guide cylinders

### Series GPC Accessories

#### Kit for stroke length adjustment



00129055



DGPC\_501

Part No.	Ø	A4	A5	A6 1)	A6 2)	A7 1)	A7 2)	L 3)	Note				
<b>R402000134</b>	12	13	13	21	29	13	25	12	4)				
<b>R402000135</b>	16	15	13	24	45	13.5	43.5	30	5)				
R402000136	20	15	13	26	44	15.5	45.5	30	5)				

1) Min.

2) Max.

 3) Adjustment length  $L = A7 \text{ max.} - A7 \text{ min.}$ 

4) Shock absorber 0821005002 included in scope of delivery

5) Shock absorber 0821005013 included in scope of delivery



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Find more contact information at  
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