

Compact cylinder, Series KPZ

Ø 16–100 mm, single-acting, piston rod with male thread

Rexroth
Bosch Group



Technical Data

Standard	NFE 49004
Working pressure max.	1,5-10 bar (20 to 145 psi)
Ambient temperature range	-20 °C to +80 °C (-4 °F to +176 °F)
Medium	Compressed air ISO 8573-1:2001, class 6-4-3 or lower*

Materials	Piston rod	Stainless steel, smooth-rolled
	Cylinder tube	Anodized aluminum
	End covers	Aluminium
	Seals	Polyurethane (PU)
	Mounting screws	Stainless steel



Application area

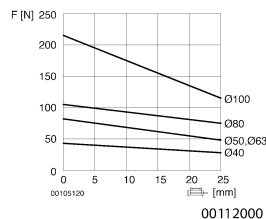
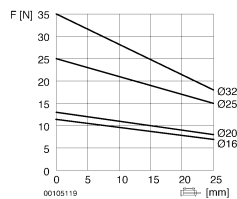
This cylinder series can be used under the following conditions:
 Compact exterior dimensions
 Dimensions according to standard NFE 49 004
 Flush mounted cylinder switches
 Large mounting program

* Particle size ≤ 5 µm, dew point ≤ 3 °C, oil content ≤ 1 mg/m³

Technical information

Piston Ø		[mm]	16	20	25	32	40	50	63	80	100	
Theoretical piston force	push stroke	[N]	94	151	234	387	622	953	1565	2551	3930	
		(lbf)	(19.9)	(32.24)	(53)	(84)	(138)	(218)	(350)	(569)	(902)	
at 6 bar (87 psi) / 25 mm stroke	pull stroke	[N]	12	13	25	35	43	82	82	105	215	
		(lbf)	(3.62)	(5.15)	(6.36)	(9.49)	(10.59)	(14.12)	(19.18)	(25.81)	(28.89)	
Cylinder weight	0 mm stroke	[kg]	0,083	0,112	0,157	0,237	0,347	0,468	0,779	1,368	2,375	
		(lbs)	(0.183)	(0.247)	(0.346)	(0.523)	(0.765)	(1.032)	(1.717)	(3.016)	(5.236)	
		add. per 10 mm	[kg]	0,014	0,020	0,020	0,030	0,040	0,050	0,080	0,110	0,140
		(lbs)	(0.031)	(0.044)	(0.044)	(0.066)	(0.088)	(0.110)	(0.176)	(0.243)	(0.309)	
Max. piston speed	forward	[m/s]	1	1	1	0,7	0,4	0,5	0,3	0,3	0,25	
		(ft/s)	(3.28)	(3.28)	(3.28)	(2.30)	(1.31)	(1.64)	(0.98)	(0.98)	(0.82)	
	backward	[m/s]	1	1	1	0,7	0,5	0,6	0,35	0,3	0,25	
		(ft/s)	(3.28)	(3.28)	(3.28)	(2.30)	(1.64)	(1.97)	(1.15)	(0.98)	(0.82)	
Max cushioning energy	J [Nm]		0,11	0,15	0,35	0,4	0,52	0,64	0,75	0,75	1	
		J (in.lbs)	(0.974)	(1.328)	(3.098)	(3.540)	(4.602)	(5.664)	(6.638)	(6.638)	(8.851)	

Spring return force (theoretical values)



F = Spring return force, Symbol = Stroke

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Part no.						
Piston Ø [mm]	16	20	25	32	40	
Piston rod thread	M8	M10x1,25	M10x1,25	M10x1,25	M10x1,25	
Connection port	M5	M5	M5	G1/8	G1/8	
Stroke						
5	0822490200	0822491200	0822492200	0822493200	0822494200	
10	0822490201	0822491201	0822492201	0822493201	0822494201	
15	0822490202	0822491202	0822492202	0822493202	0822494202	
20	0822490203	0822491203	0822492203	0822493203	0822494203	
25	0822490204	0822491204	0822492204	0822493204	0822494204	
Optional stroke ¹⁾	08224902XX	08224912XX	08224922XX	08224932XX	08224942XX	
Rec. max. stroke	25	25	25	25	25	
Piston Ø [mm]	50	63	80	100		
Piston rod thread	M12x1,25	M12x1,25	M16x1,5	M20x1,5		
Connection port	G1/8	G1/8	G1/8	G1/8		
Stroke						
5	0822495200	0822496200	0822497200	0822498200		
10	0822495201	0822496201	0822497201	0822498201		
15	0822495202	0822496202	0822497202	0822498202		
20	0822495203	0822496203	0822497203	0822498203		
25	0822495204	0822496204	0822497204	0822498204		
Optional stroke ¹⁾	08224952XX	08224962XX	08224972XX	08224982XX		
Rec. max. stroke	25	25	25	25		



¹⁾ See ordering procedure.

Ordering procedure

There are three ways you can configure and order your KPZ with intermediate strokes:

- Configure your KPZ using our Internet Configurator and order it directly online.
- Configure your KPZ using our Internet Configurator and order it at your nearest Rexroth sales office.
- Direct inquiry at your nearest Rexroth sales office.

Link: www.boschrexroth.com/pneumatics , then click on -Configuration-.




Please specify the desired stroke length as follows:

Example: Ø = 32 mm, stroke = 18 mm = 08224932XX/H18


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▲ Accessories (to be ordered separately)					
Symbol	Type	16	20	25	32
	Piston Ø [mm]	16	20	25	32
	Front and rear flange	1821038241	1827002292	1827002293	1827002294
	Angle brackets	1821332053	1827002284	1827002285	1827002286
	Male trunnion mounting	–	1825805360	1825805361	1825805362
	Rear clevis with axle	1825805368	1827002300	1827002301	1827002302
	Rear clevis	1827001446	1827001445	1827001445	1825805223
	Piston Ø [mm]	40	50	63	80
	Front and rear flange	1827002295	1827002296	1827002297	1827002298
	Angle brackets	1827002287	1827002288	1827002289	1827002290
	Male trunnion mounting	1825805363	1825805364	1825805365	1825805366
	Rear clevis with axle	1827002303	1827002304	1827002305	1827002306
	Rear clevis	1825805224	1825805225	1825805226	1825805227
	Piston Ø [mm]	100			
	Front and rear flange	1827002299			
	Angle brackets	1827002291			
Male trunnion mounting	1825805367				
Rear clevis with axle	1827002307				
Rear clevis	1825805228				
	Piston Ø [mm]	16	20	25	32
	Rod clevis	1822122010	1822122024	1822122024	1822122024
	Ball eye rod end thin version	1822124002	1822124003	1822124003	1822124003
	Compensating coupling	1826409001	1826409002	1826409002	1826409002
	Piston Ø [mm]	40	50	63	80
	Rod clevis	1822122024	1822122025	1822122025	1822122005
	Ball eye rod end thin version	1822124003	1822124004	1822124004	1822124005
	Compensating coupling	1826409002	1826409003	1826409003	1826409004
	Piston Ø [mm]	100			
	Rod clevis	1822122004			
	Ball eye rod end thin version	1822124006			
	Compensating coupling	1826409005			
	Piston Ø [mm]	16–100			
	Sensor with 3,0 m cable, Reed	0830100629			
	Sensor with 3,0 m cable, PNP	0830100631			

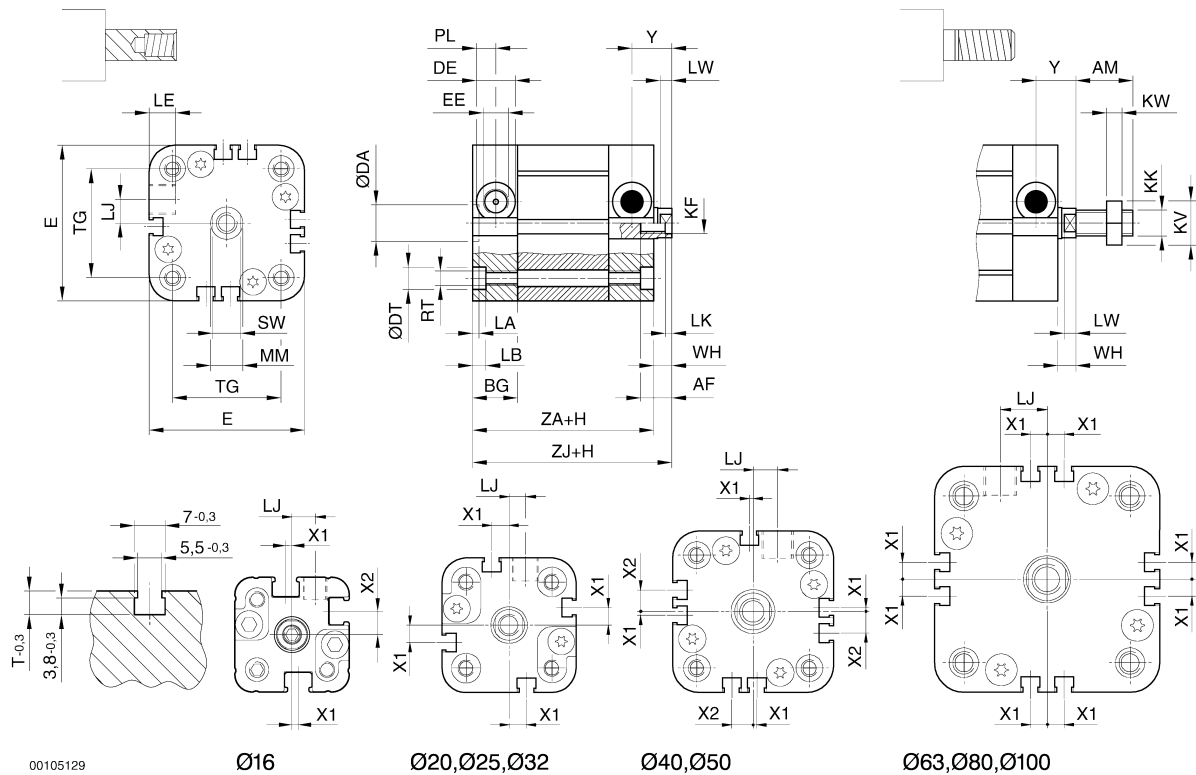
For more sensors and technical information, see end of chapter 2

▲ Seal kit							
Symbol	Piston Ø [mm]	16	20	25	32	40	50
	Part no.	1827003892	1827008917	1827008918	1827008919	1827008920	1827008921
	Piston Ø [mm]	63	80	100			
	Part no.	1827008922	1827008923	1827008924			

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00105129

Ø16

Ø20, Ø25, Ø32

Ø40, Ø50

Ø63, Ø80, Ø100

H = Stroke

Piston Ø [mm]	AF	AM	BG	DA H11	DE	DT H13	E	EE	KF H6	KK	KV	KW	LA	LB	LE	LJ
16	10	20	12,5	10	8	6	29,5	M5	M4	M8	13	4	2,5	4	5	6,1
20	10	22	12,5	12	8	8	36	M5	M6	M10x1,25	17	6	2,5	4,4	5	4,5
25	10	22	13,0	12	8	8	40	M5	M6	M10x1,25	17	6	2,5	4,4	5	5,4
32	12	22	14,5	14	15	11	50	G1/8	M8	M10x1,25	17	6	2,5	5,4	8	5,1
40	12	22	14,5	14	15	10	60	G1/8	M8	M10x1,25	17	6	2,5	5,4	8	9,6
50	16	24	14,5	18	15	11	68	G1/8	M10	M12x1,25	19	7	2,5	1,7	8	8,5
63	16	24	14,5	18	15	11	84	G1/8	M10	M12x1,25	19	7	2,5	1,7	8	17,8
80	20	32	16,5	23	15	15	103	G1/8	M12	M16x1,5	24	8	3	0,5	8	22,9
100	24	40	19,5	28	15	15	124	G1/8	M16	M20x1,5	30	10	3	3,5	8	27,4

Piston Ø [mm]	LK +0,5	LW	MM f8	PL	RT 6H	SW	T	TG	WH	X1	X2	Y	ZA +1	Zj
16	1,6	3,7	8	7,5	M4	7	5,3	18	4,5	1,6	6	12	38	42,5 ±1,2
20	2,5	4	10	7,5	M5	8	5,3	22	5	3,4	-	13,5	38	43 ±1,4
25	2,5	4	10	7,5	M5	8	5,3	26	5,5	3,4	-	13,5	39,5	45 ±1,4
32	2,5	4,5	12	7,5	M6	10	5,3	32	7	6,5	-	14,5	44	51 ±1,6
40	2,5	4,5	12	7,5	M6	10	5,4	42	7	1,4	8	14,5	45	52 ±1,6
50	3,5	6	16	7,5	M8	13	5,5	50	7,5	3,4	7	15,5	45,5	53 ±1,6
63	3,5	6	16	7,5	M8	13	5,7	62	8	6,15	-	15,5	50	58 ±2
80	3,5	7	20	8,3	M10	16	6,1	82	9,5	7,7	-	18	55,5	65 ±2
100	4,5	8	25	9,7	M10	21	6,1	103	10,5	7,7	-	20	66,5	77 ±2