

# Profile cylinders Euromec, Series 168



Double-acting, magnetic piston, adjustable cushioning,  
25–100 mm dia.

**Rexroth**  
Bosch Group

## Technical Data

Standard	(32–100 mm dia.) ISO 6431, VDMA 24562 CNOMO / NFE 49-003-1
Working pressure, max.	10 bar (145 psi)
Ambient temperature range	-25 °C to +70 °C (-13 °F to +158 °F)
Medium	Compressed air, lubricated or non-lubricated

Materials	Piston rod	Stainless steel (BS 303 S 31)
	Piston rod bushing	Steel with a PVDF + PTFE bearing surface
	Cylinder body	Anodized aluminum
	End covers	Aluminium
	End cover screws	Surface treated steel
	Wiper	Polyurethane
	Piston	25–63 mm dia. polyamide, 80–100 mm dia. Aluminum
	Cushioning screws	Brass
	Seals	Nitrile rubber
	Nut	Zinc plated steel



## Application area

This cylinder series is suitable for use where large masses are to be moved or where the impact frequency is high: the automobile industry for welding, painting, handling sheet steel, pressing etc., the food industry where the shape of the cylinder assists in meeting hygiene regulations, the packaging industry where high frequency and long service life are required.

## Technical Information (for further information see chapter 15)

Piston diameter		[mm]	25	32	40	50	63	80	100
Theoretical piston force	push stroke	[N]	295	482	756	1176	1860	3000	4676
		(lbf)	(66.3)	(108)	(170)	(264)	(418)	(674)	(1050)
at 6 bar (87 psi)	pull stroke	[N]	227	415	636	990	1680	2718	4229
		(lbf)	(51)	(93.3)	(143)	(223)	(378)	(611)	(951)
Cushioning length		[mm]	11,0	11,5	15,0	17,0	16,5	19,5	19,5
Cushioning energy <sup>1)</sup>		[Nm]	1,0	4,8	9,0	15,0	27,0	54,0	88,0
		(in.lbs)	(8.85)	(42.48)	(79.66)	(132.76)	(238.97)	(477.94)	(788.86)
Cylinder weight	0 mm stroke	[kg]	0,27	0,45	0,76	1,10	1,70	2,50	3,70
		(lbs)	(0.595)	(0.992)	(1.68)	(2.43)	(3.75)	(5.51)	(8.16)
	add. per 100 mm	[kg]	0,18	0,20	0,29	0,45	0,49	0,78	1,00
		(lbs)	(0.397)	(0.441)	(0.639)	(0.992)	(1.08)	(1.72)	(2.2)

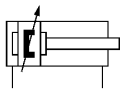
For cushioning diagram, see general technical information of this catalogue

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Part no.						
Piston Ø	25	32	40	50	63	
Piston rod thread	M 10 x 1,25	M 10 x 1,25	M 12 x 1,25	M 16 x 1,5	M 16 x 1,5	
Connection port	G 1/8	G 1/8	G 1/4	G 1/4	G 3/8	
<b>Stroke</b>						
25	1680202000	1680302000	1680402000	1680502000	1680602000	
50	1680205000	1680305000	1680405000	1680505000	1680605000	
80	1680208000	1680308000	1680408000	1680508000	1680608000	
100	1680210000	1680310000	1680410000	1680510000	1680610000	
125	1680212000	1680312000	1680412000	1680512000	1680612000	
160	1680216000	1680316000	1680416000	1680516000	1680616000	
200	1680220000	1680320000	1680420000	1680520000	1680620000	
250	1680225000	1680325000	1680425000	1680525000	1680625000	
320	–	1680332000	1680432000	1680532000	1680632000	
400	–	1680340000	1680440000	1680540000	1680640000	
500	–	1680350000	1680450000	1680550000	1680650000	
Optional Stroke <sup>2)</sup>	1680200000	1680300000	1680400000	1680500000	1680600000	
Rec. max. stroke <sup>3)</sup>	1500	1500	1600	1600	1600	
<b>Piston Ø</b>	<b>80</b>	<b>100</b>				
<b>Piston rod thread</b>	<b>M 20 x 1,5</b>	<b>M 20 x 1,5</b>				
<b>Connection port</b>	<b>G 3/8</b>	<b>G 1/2</b>				
<b>Stroke</b>						
25	1680802010	1681002020				
50	1680805010	1681005020				
80	1680808010	1681008020				
100	1680810010	1681010020				
125	1680812010	1681012020				
160	1680816010	1681016020				
200	1680820010	1681020020				
250	1680825010	1681025020				
320	1680832010	1681032020				
400	1680840010	1681040020				
500	1680850010	1681050020				
Optional Stroke <sup>2)</sup>	1680800010	1681000020				
Rec. max. stroke <sup>3)</sup>	1700	1700				






<sup>2)</sup> When ordering optional stroke the length of the stroke must always be given in mm, for example 1680300000, stroke 185 mm.


<sup>3)</sup> Longer strokes on request.

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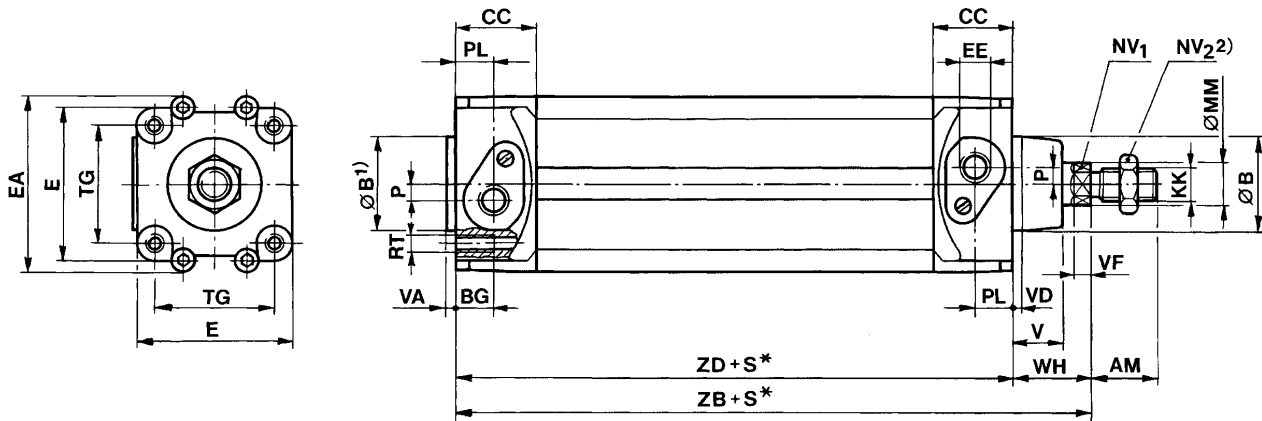
▲ Accessories (to be ordered separately)					
Accessory	Type	25	32	40	50
	Piston dia.	25	32	40	50
	Flange front or rear	3682002000	5230006012	5231006012	5232006012
	Angle brackets	3682202000	5230000502	5231000502	5232000502
	Male trunnion mounting	3682802000	3682803000	3682804000	3682805000
	Pivoted mounting	3683802000	5230816902	5231816902	5232816902
	Rear clevis	3682902590	3682903590	3682904590	3682905590
	Rear eye for "Bearing block with rod end bearing"	–	5230003432	5231003432	5232003432
	Rear eye with PTFE sintered bushings	–	5230003402	5231003402	5232003402
	Rear eye with rubber bushing	3683202000	3683203000	3683204000	3683205000
	Hinge with PTFE sintered bushing and mounting screws	–	5230003412	5231003412	5232003412
	Rear eye with ball joint	3683602000	3683603000	3683604000	3683605000
	Foot mounting	3682302001	3682303001	3682304001	3682305001
	Piston dia.	63	80	100	
	Flange front or rear	5233006012	5234006012	5235006012	
	Angle brackets	5233000502	5234000502	5235000502	
	Male trunnion mounting	3682806000	3682808000	3682810000	
	Pivoted mounting	5233816902	5234816902	5235816902	
	Rear clevis	3682906590	3682908590	3682910590	
	Rear eye for "Bearing block with rod end bearing"	5233003432	5234003432	5235003432	
	Rear eye with PTFE sintered bushings	5233003402	5234003402	5235003402	
Rear eye with rubber bushing	3683206000	3683208000	3683210000		
Hinge with PTFE sintered bushing and mounting screws	5233003412	5234003412	5235003412		
Rear eye with ball joint	3683606000	3683608000	3683610000		
Foot mounting	–	–	–		
	Piston dia.	25	32	40	50
	Rod clevis	1822122024	1822122024	1822122025	1822122005
	Rod clevis corrosion proof	3590502000	3590502000	3590504000	3590505000
	Mounting plate	3670803000	3670803000	3670804000	3670805000
	Ball eye rod end	8958207602	1822124003	1822124004	1822124005
	Compensating coupling	1826409002	1826409002	1826409003	1826409004
	Coupling piece	5230816002	5230816002	5231816002	5232816002
	Piston dia.	63	80	100	
	Rod clevis	1822122005	1822122004	1822122004	
	Rod clevis corrosion proof	3590505000	3590508000	3590508000	
	Mounting plate	3670805000	–	–	
	Ball eye rod end	1822124005	1822124006	1822124006	
Compensating coupling	1826409004	1826409005	1826409005		
Coupling piece	5232816002	5234816002	5234816002		
	Piston dia.	25 - 100			
	Sensor with 2,5 m cable, Reed	2750132310			
	Sensor with 2,5 m cable, PNP	2750131110			
	Sensor mounting for sensors 275	2752111000			

Seal kit								
Piston dia.	25	32	40	50	63	80	100	
	Part no.	0490351302	0490394303	0490394400	0490394508	0490394605	0490394702	0490394818

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S\* = Stroke  
Tolerance 25–50 mm dia. = +2/-0  
63–100 mm dia. = +2,5/-0

Piston Ø	B <sup>1)</sup> e 11	E	P	V	AM	BG min.	CC	EA	EE	KK	MM g 8
25	25 <sup>3)</sup>	37	5	16	22	7,5	20	40	G 1/8	M 10x1,25	12
32	30	45	5	15	22	16	28	49	G 1/8	M 10x1,25	12
40	35	50	7	19	24	16	33	58	G 1/4	M12x1,25	16
50	40	62	7	24	32	16	31	69	G 1/4	M16x1,5	20
63	45	73	8	24	32	16	38	84	G 3/8	M16x1,5	20
80	45	92	12	30	40	16	38	104	G 3/8	M 20x1,5	25
100	55	109	10	35	40	16	42	126	G 1/2	M 20x1,5	25

Piston Ø	NV1	NV2 <sup>2)</sup>	PL	RT	TG	VA	VD	VF	WH	ZB	ZD
25	10	17	9	M 5	27 ±0,2	–	4	6	24	98	74 ±0,4
32	10	17	14	M6	32,5 ±0,2	3,5	4	6	26	120	94 ±0,4
40	13	19	15	M6	38 ±0,2	3,5	4	6,5	30	135	105 ±0,4
50	17	24	14	M8	46,5 ±0,2	4	4	8	37	143	106 ±0,4
63	17	24	18	M8	56,5 ±0,2	4	4	8	37	158	121 ±0,4
80	22	30	17	M 10	72 ±0,2	4	4	10	46	174	128 ±0,8
100	22	30	21	M 10	89 ±0,2	4	4	10	51	189	138 ±0,8

<sup>1)</sup> There is no guide on the rear end cover of the 25 mm diameter cylinder.

<sup>2)</sup> The cylinder is supplied fitted with a nut as per ISO 4035, DIN 439.

<sup>3)</sup> This dimension does not correspond with 25 mm dia. cylinders, series 167. Other external dimensions are the same.