

Precision flow control valves GRPO

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Product range overview and type codes

Product range overview									
Version	Valve function	Version	Type	Connection direction	Pneumatic connection 2	Pneumatic connection 1	q _N ¹⁾ [l/min]	Adjustment component	→ Page/ Internet
Precision flow control valve	Metal Flow control function		GRPO	–	G ¹ / ₈	G ¹ / ₈	40.7 ... 75.8	Rotary knob with scale	3
				–	PK-3, PK-4	PK-3, PK-4	3.8 ... 75.8	Rotary knob with scale	

1) Standard nominal flow rate in direction of flow control.

Type codes	

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Technical data

Function



-  Flow rate
3.8 ... 75.8 l/min
-  Temperature range
-10 ... +50 °C
-  Operating pressure
0 ... 8 bar



GRPO-...-AL

GRPO-...-PK

General technical data

General technical data			
Valve function	Flow control function		
Type	GRPO-...-AL	GRPO-...-PK	
Pneumatic connection 1	G1/8	PK-3	PK-4
Pneumatic connection 2	G1/8	PK-3	PK-4
Adjustment component	Rotary knob with scale		
Actuation type	Manual		
Type of mounting	On sub-base	Front panel mounting	
Mounting position	Any		

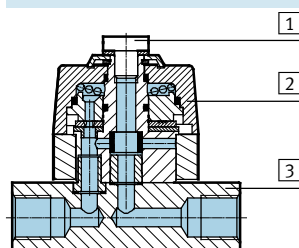
• Note: This product conforms to ISO 1179-1 and to ISO 228-1

Operating and environmental conditions

Operating pressure	[bar]	0 ... 8
Operating pressure 2 → 1	[bar]	0 ... 0.5
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [5:4:3] Inert gases	
Note on operating/pilot medium	Operation with lubricated medium not possible	
Ambient temperature	[°C]	-10 ... +50
Temperature of medium	[°C]	-10 ... +50

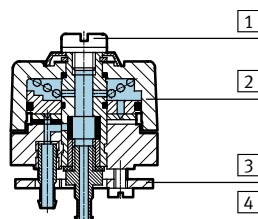
Materials

Sectional view



Precision flow control valve GRPO-...-AL

1	Screws	Steel
2	Housing	PA, reinforced
3	Sub-base	Wrought aluminium alloy
-	Seals	NBR, PVC
Note on materials		Contains PWIS (paint-wetting impairment substances)



Precision flow control valve GRPO-...-PK

1	Screws	Steel
2	Housing	PA, reinforced
3	Retainer	Wrought aluminium alloy
4	PK connections	Brass, wrought aluminium alloy
-	Seals	NBR, PVC
Note on materials		Contains PWIS (paint-wetting impairment substances)

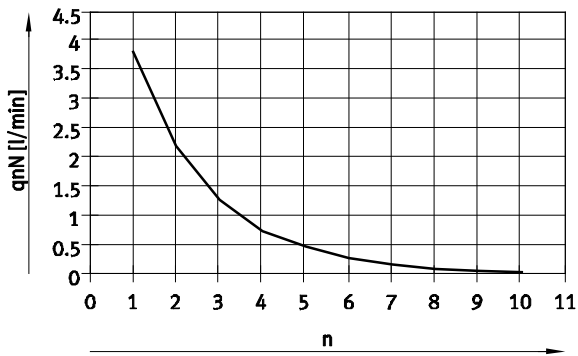
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Technical data

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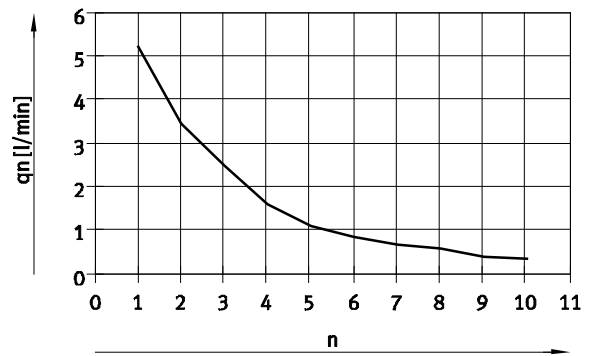
Standard nominal flow rate q_{nN} at 6 bar $\rightarrow$ 5 bar
as a function of spindle rotations n

Size 10

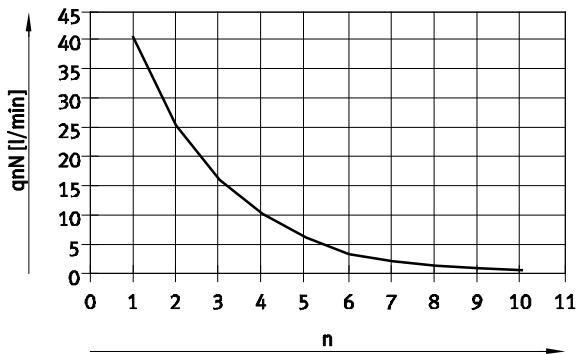


Standard flow rate q_n at 6 bar $\rightarrow$ 0 bar
as a function of spindle rotations n

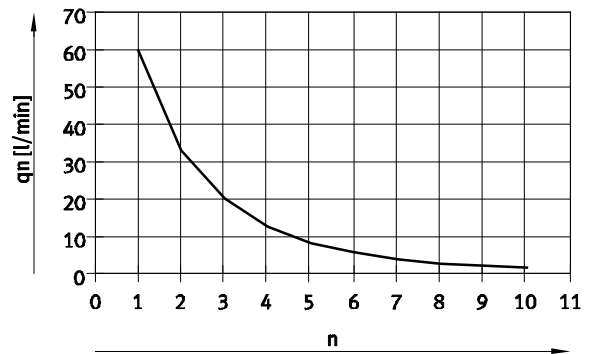
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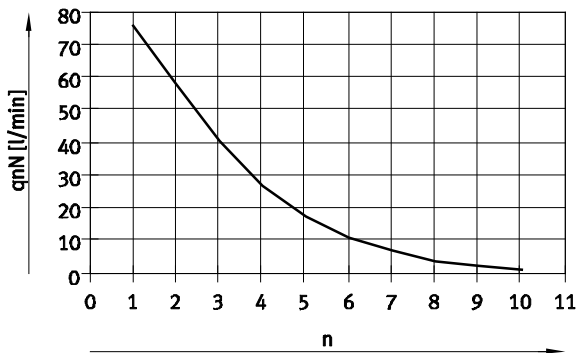
Size 70



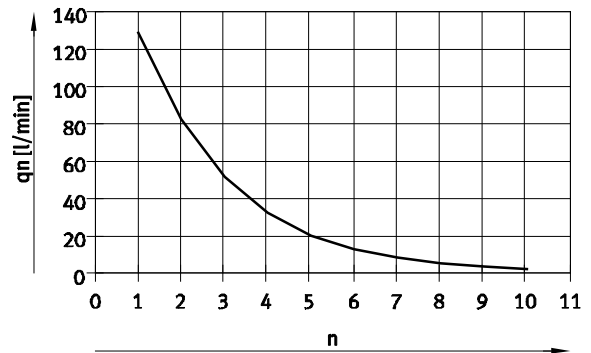
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Size 160



Size 160



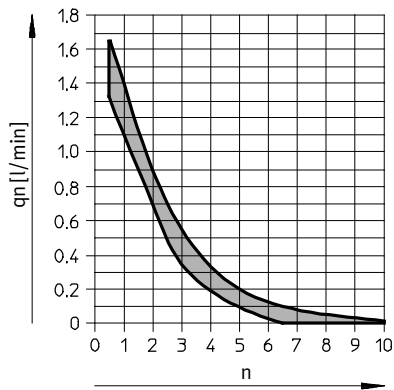
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Technical data

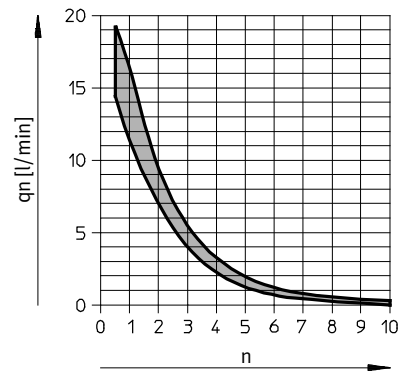
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Standard flow rate q_n at 1 bar $\rightarrow$ 0 bar as a function of spindle rotations n

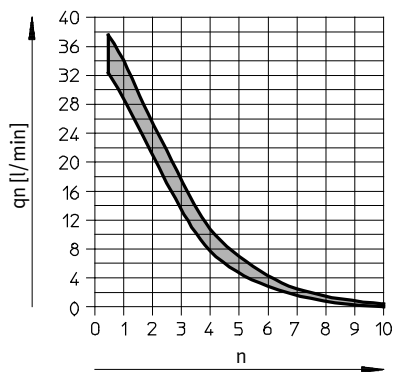
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Size 70



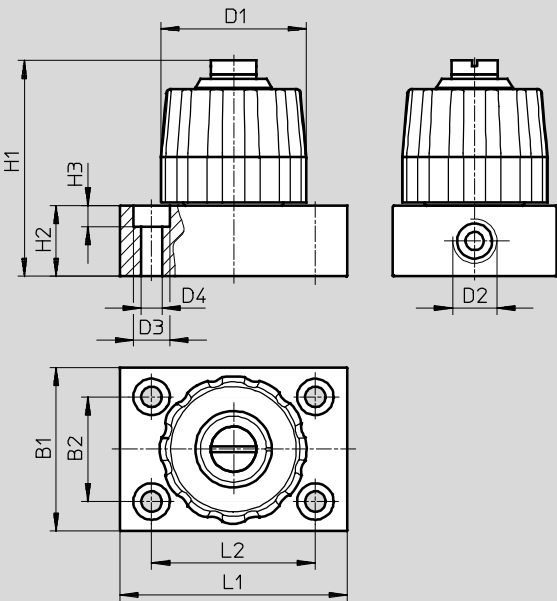
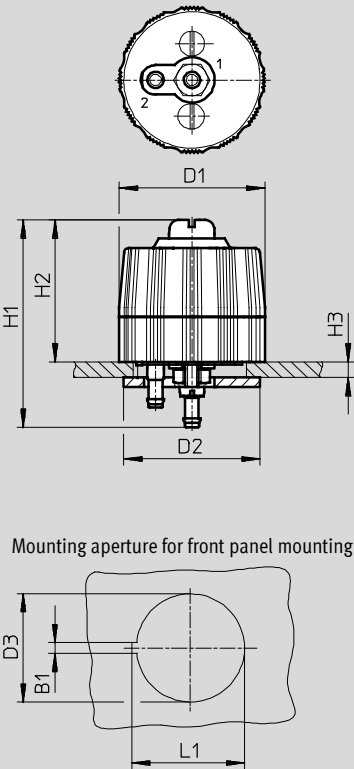
Size 160



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Technical data

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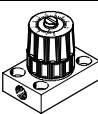
Dimensions		Download CAD data → www.festo.com	
GRPO-...-AL		GRPO-...-PK	
 Note: This product conforms to ISO 1179-1 and to ISO 228-1		 Mounting aperture for front panel mounting	

Type	Connection D2	B1	B2	D1	D3
GRPO-70-1/8-AL	G1/8	36	23	32	8
GRPO-160-1/8-AL					

Type	B1	D1	D2	D3
GRPO-10/70-PK-3	2.6	32	30	22
GRPO-160-PK-4				

Type	D4	H1	H2	H3	L1	L2
GRPO-70-1/8-AL	4.5	47.4	15.5	4.6	50	36
GRPO-160-1/8-AL						

Type	H1	H2	H3	L1
GRPO-10/70-PK-3	45.6	31.2	1.5 ... 10	23.5
GRPO-160-PK-4	44.5			

Ordering data								
	Pneumatic connection		Standard nominal flow rate qnN at 6 bar → 5 bar In direction of flow control	Standard flow rate qn at 6 bar → 0 bar In direction of flow control	Standard flow rate qn at 1 bar → 0 bar In direction of flow control	Weight	Part No.	Type
	1	2	[l/min]	[l/min]	[l/min]	[g]		
Rotary knob with scale								
	G1/8	G1/8	40.7	60	19	110	542024	GRPO-70-1/8-AL
			75.8	129	38	110	542025	GRPO-160-1/8-AL
	PK-3	PK-3	3.8	5.2	1.65	48	13229	GRPO-10-PK-3
			40.7	60	19	48	10803	GRPO-70-PK-3
	PK-4	PK-4	75.8	129	38	48	13230	GRPO-160-PK-4

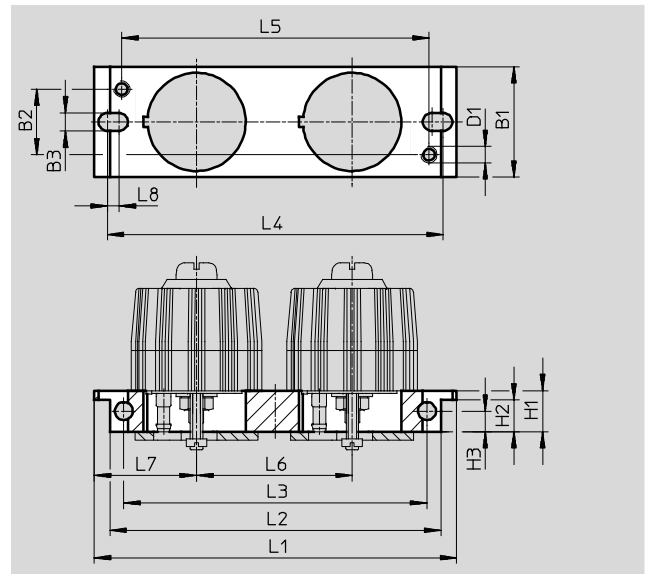
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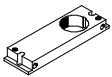
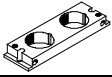
Accessories

Mounting plates APL-2N-GRP
for precision flow control valve
GRPO-...-PK

Material: PA



Dimensions														
B1	B2	B3	D1	H1	H2	H3	L1	L2	L3	L4	L5	L6	L7	L8
26.8	16	4.4	M4	10	7.7	5	88.5	80.8	74	81	75	38	25	2.3

Ordering data				
	Bore $\varnothing$ [mm]	Weight [g]	Part No.	Type
	22	16	10391	APL-2N-GRP
	2 x 22	22	10392	APL-2N-GRPX2