

Precision one-way flow control valves GRP

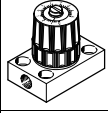
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Product range overview and type codes

Product range overview									
Version	Valve function	Version	Type	Connection direction	Pneumatic connection 1	Pneumatic connection 2	q _N ¹⁾ [l/min]	Adjustment component	→ Page/ Internet
Precision one-way flow control valve	Metal One-way flow control function		GRP	–	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.

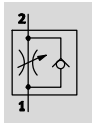
Type codes	

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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



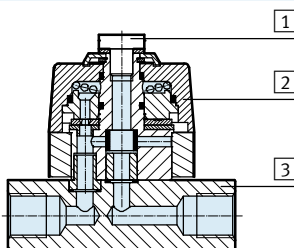
General technical data			
Valve function	One-way flow control function		
Type	GRP-...-AL	GRP-...-PK	
Pneumatic connection 2	G1/8	PK-3	PK-4
Pneumatic connection 1	G1/8	PK-3	PK-4
Adjustment component	Rotary knob with scale		
Actuation type	Manual		
Type of mounting	On sub-base	Front panel mounting	
Mounting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

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

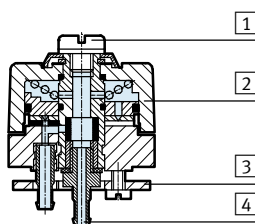
Operating and environmental conditions		
Operating pressure	[bar]	0 ... 8
Operating pressure 2 → 1	[bar]	0 ... 8
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [5:4:3] Inert gases	
Note on operating/pilot medium	Operation with lubricated medium not possible	
Ambient temperature	[°C]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

Materials

Sectional view



Precision one-way flow control valve GRP-...-AL	
1	Screws
2	Housing
3	Sub-base
-	Seals
Note on materials	
RoHS-compliant	
Contains PWIS (paint-wetting impairment substances)	



Precision one-way flow control valve GRP-...-PK	
1	Screws
2	Housing
3	Retainer
4	PK connections
-	Seals
Note on materials	
RoHS-compliant	
Contains PWIS (paint-wetting impairment substances)	

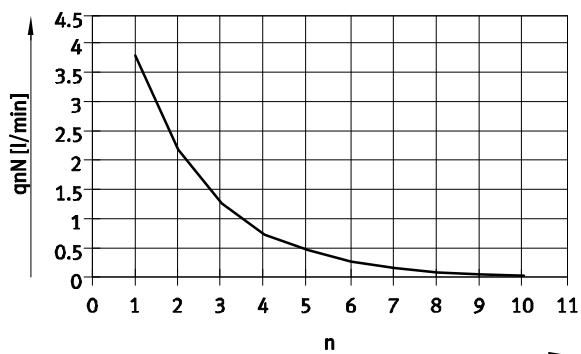
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Technical data

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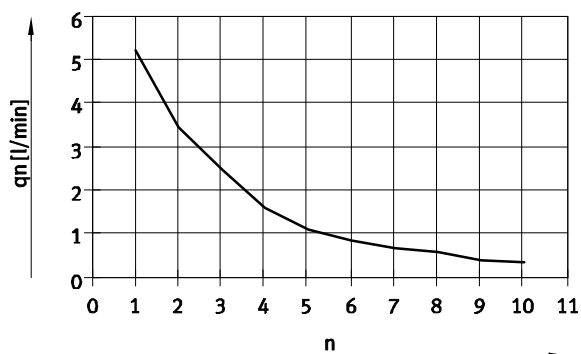
Standard nominal flow rate q_{nN} at 6 bar $\rightarrow$ 5 bar
as a function of spindle rotations n

Size 10

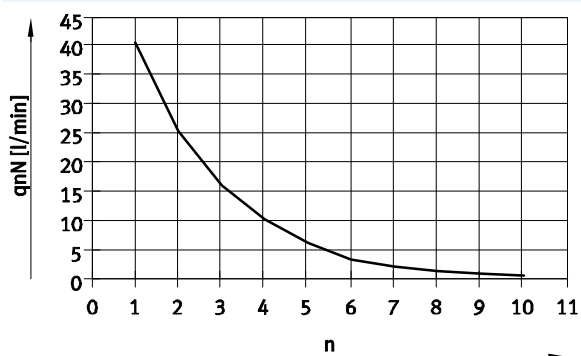


Standard flow rate q_n at 6 bar $\rightarrow$ 0 bar
as a function of spindle rotations n

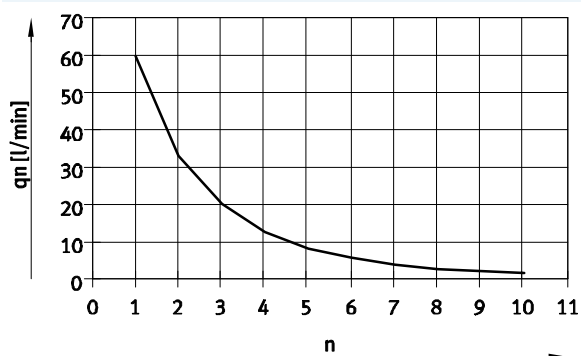
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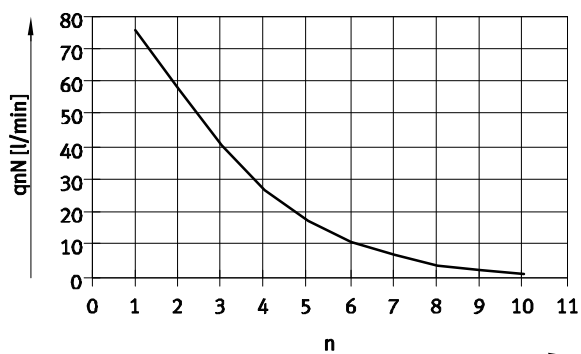
Size 70



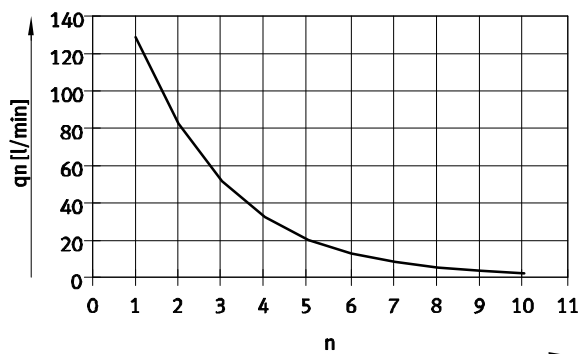
Size 70



Size 160



Size 160



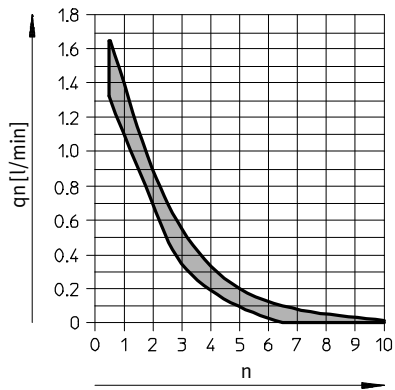
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Technical data

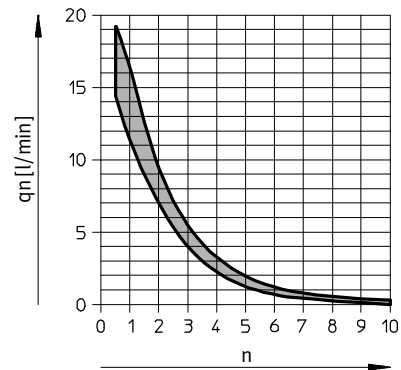
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Standard flow rate q_n at 1 bar $\rightarrow$ 0 bar as a function of spindle rotations n

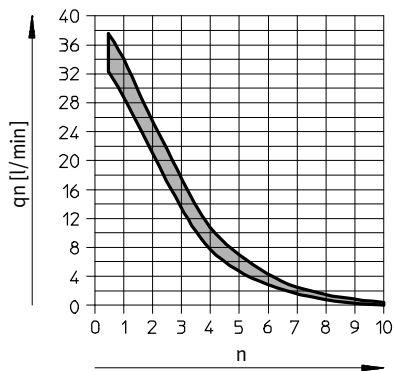
Size 10



Size 70



Size 160



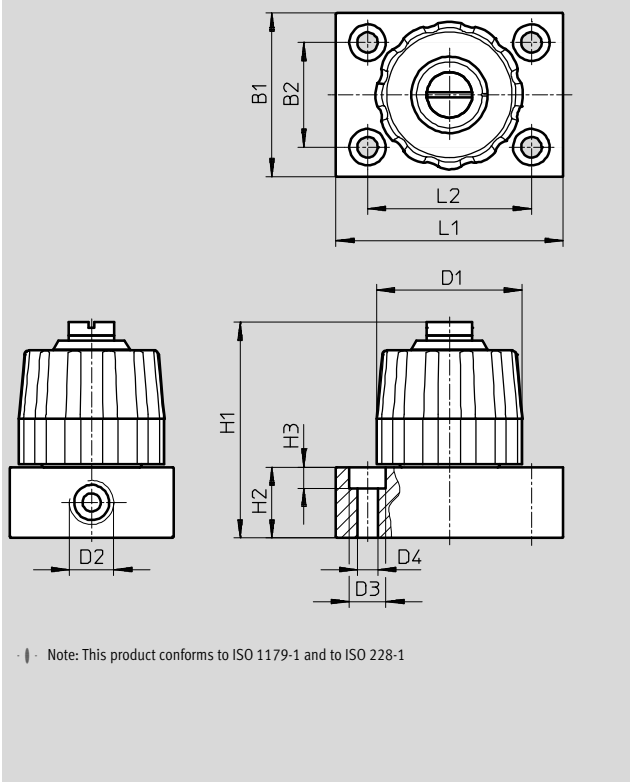
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Technical data

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Dimensions

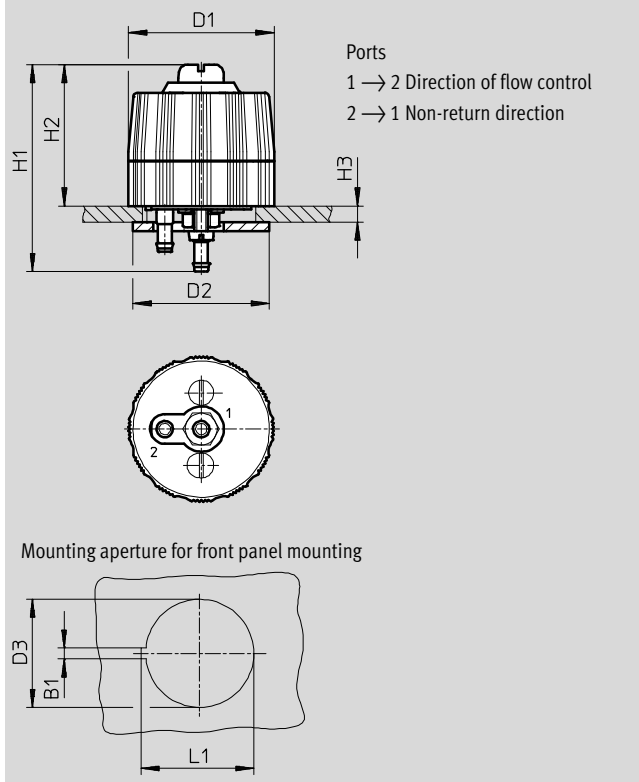
GRP-...-AL



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

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

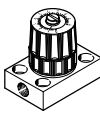
GRP-...-PK



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

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

Ordering data

	Pneumatic connection		Standard nominal flow rate q _N at 6 bar → 5 bar		Standard flow rate q _N at 6 bar → 0 bar		Standard flow rate q _N at 1 bar → 0 bar		Weight	Part No.	Type
			In direction of flow control	In non-return direction	In direction of flow control	In non-return direction	In direction of flow control	In non-return direction			
	1	2	[l/min]	[l/min]	[l/min]	[l/min]	[l/min]	[l/min]			
Rotary knob with scale											
	G1/8	G1/8	40.7	88	60	127	19	20 ... 60	110	542022	GRP-70-1/8-AL
			75.8	245	129	245	38	25 ... 90	110	542023	GRP-160-1/8-AL
	PK-3	PK-3	3.8	95	5.2	131	1.65	15 ... 50	48	12743	GRP-10-PK-3
			40.7	88	60	127	19	20 ... 60	48	10802	GRP-70-PK-3
	PK-4	PK-4	75.8	245	129	245	38	25 ... 90	48	12961	GRP-160-PK-4

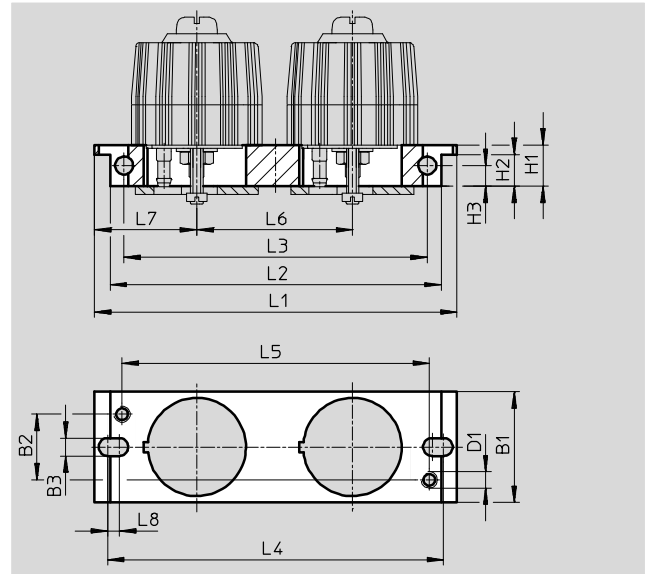
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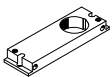
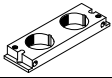
Accessories

Mounting plates APL-2N-GRP
for precision one-way flow control
valve GRP-...-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 Ø [mm]	Weight [g]	Part No.	Type
	22	16	10391	APL-2N-GRP
	2 x 22	22	10392	APL-2N-GRP2

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