

Precision one-way flow control valves GRP

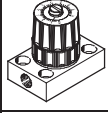

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Precision one-way flow control valves GRP

Product range overview and type codes

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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 $\frac{1}{8}$	G $\frac{1}{8}$	19 ... 38	Rotary knob with scale	3
				–	PK-3, PK-4	PK-3, PK-4	1.65 ... 38	Rotary knob with scale	

1) Standard flow rate in direction of flow control.

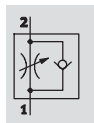
Type codes	

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Technical data

One-way flow control function



Flow rate

1.65 ... 38 l/min

Temperature range

-10 ... +50 °C

Pressure

0 ... 8 bar



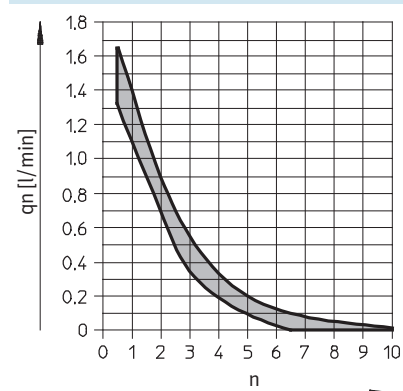
General technical data			
Valve function	One-way flow control function		
Type	GRP-...-AL	GRP-...-PK	
Pneumatic connection 2	G1/8	PK-3	PK-4
Pneumatic connection 1	G1/8	PK-3	PK-4
Adjustment component	Rotary knob with scale		
Actuation type	Manual		
Type of mounting	On sub-base	Front panel mounting	
Mounting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

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

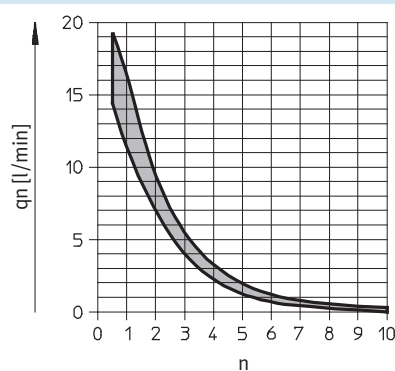
Operating and environmental conditions		
Operating pressure [bar]	0 ... 8	
Operating pressure 2 → 1 [bar]	0 ... 8	
Operating medium	Filtered, unlubricated compressed air, grade of filtration 1 µm	
	Neutral gases	
Ambient temperature [°C]	-10 ... +50	
Temperature of medium [°C]	-10 ... +50	

Standard flow rate q_n at 1 bar → 0 bar as a function of spindle rotations n

Size 10



Size 70



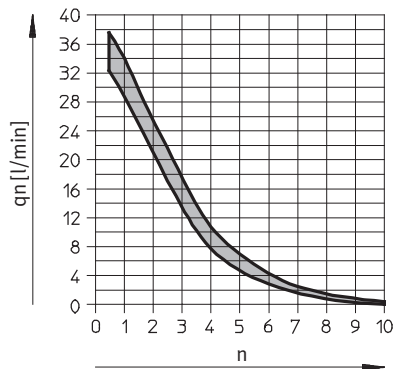
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Technical data



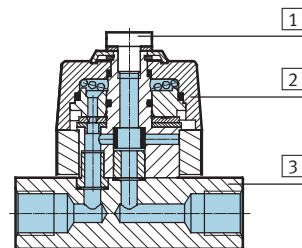
Standard flow rate qn at 1 bar → 0 bar as a function of spindle rotations n

Size 160

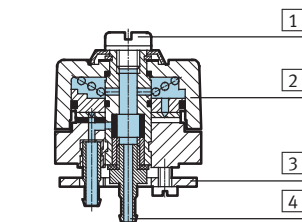


Materials

Sectional view



Precision one-way flow control valve GRP-...-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 one-way flow control valve GRP-...-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)

Precision one-way flow control valves GRP

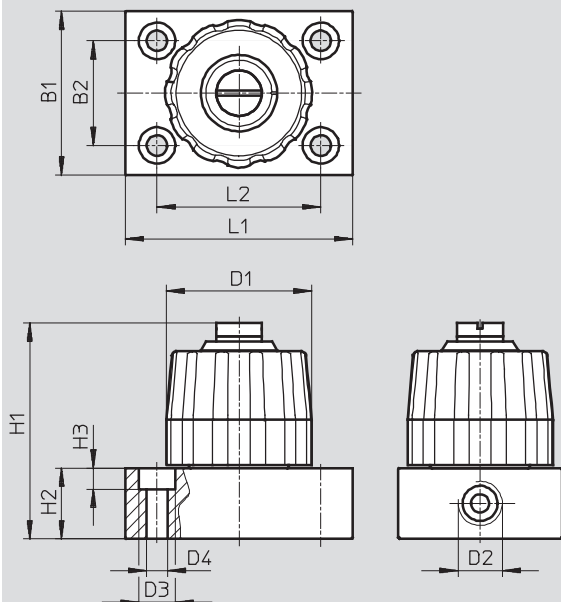
Technical data

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Dimensions

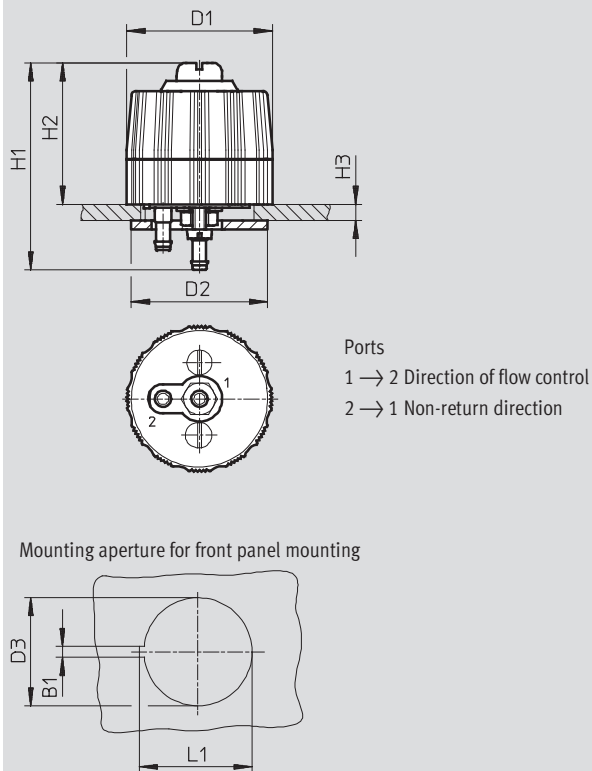
Download CAD Data → www.festo.com/us/cad

GRP-...-AL



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

GRP-...-PK



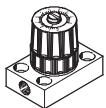

Type	Connection D2	B1	B2	D1	D3
GRP-70-1/8-AL	G1/8	36	23	32	8
GRP-160-1/8-AL					

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

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						

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 flow rate qn from 1 bar → 0 bar		Weight	Part No.	Type		
				In direction of flow control					In non-return direction	
				1					2	
				[l/min]		[l/min]		[g]		
Rotary knob with scale										
	G1/8	G1/8	19	20 ... 60	110	542022	GRP-70-1/8-AL			
			38	25 ... 90	110	542023	GRP-160-1/8-AL			
	PK-3	PK-3	1.65	15 ... 50	48	12743	GRP-10-PK-3			
			19	20 ... 60	48	10802	GRP-70-PK-3			
	PK-4	PK-4	38	25 ... 90	48	12961	GRP-160-PK-4			

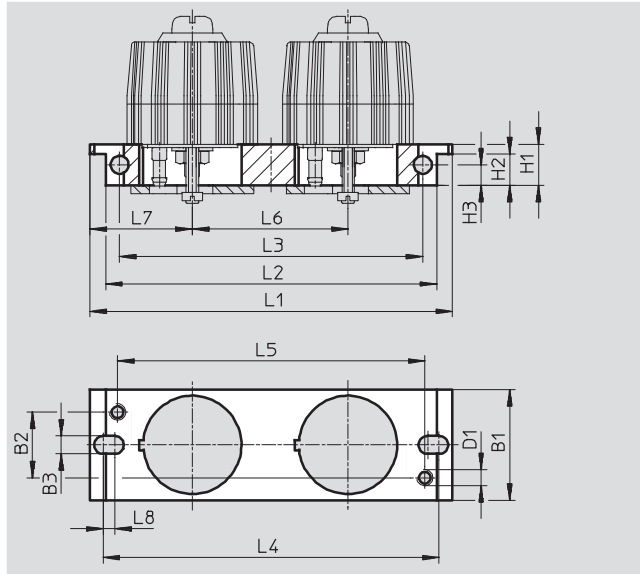
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Accessories

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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 \varnothing [mm]	Weight [g]	Part No.	Type
	22	16	10391	APL-2N-GRP
	2 x 22	22	10392	APL-2N-GRP2

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