

## Precision flow control valves GRPO



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# 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	qn <sup>1)</sup> [l/min]	Adjustment component	→ Page/ Internet
Precision flow control valve	Flow control function		GRPO	–	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	

# Precision flow control valves GRPO

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Technical data

Function



Flow rate

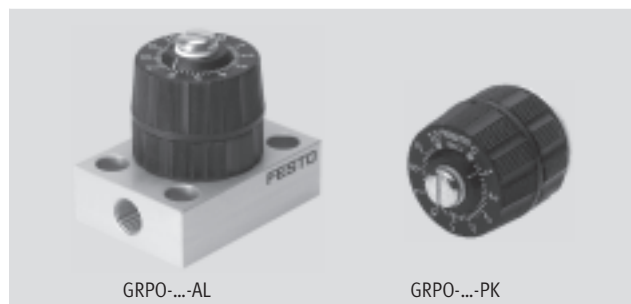
1.65 ... 38 l/min

Temperature range

-10 ... +50 °C

Pressure

0 ... 8 bar



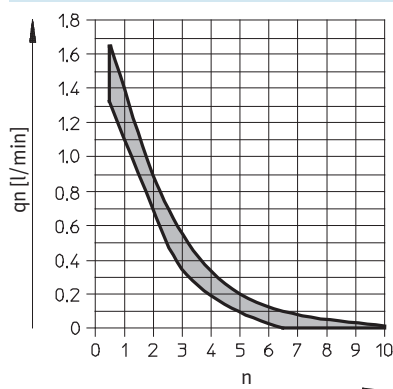
General technical data			
Valve function	Flow control function		
Type	GRPO-...-AL	GRPO-...-PK	
Pneumatic connection 1	G1/8	PK-3	PK-4
Pneumatic connection 2	G1/8	PK-3	PK-4
Adjustment component	Rotary knob with scale		
Actuation type	Manual		
Type of mounting	On sub-base	Front panel mounting	
Mounting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

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

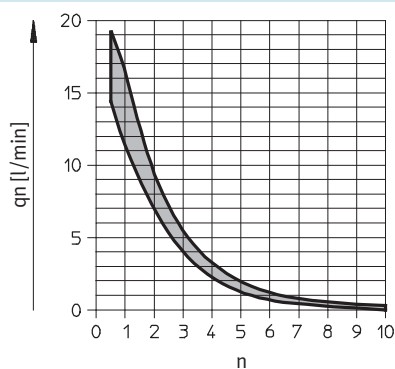
Operating and environmental conditions		
Operating pressure	[bar]	0 ... 8
Operating pressure 2 → 1	[bar]	0 ... 0.5
Operating medium	Filtered, unlubricated compressed air, grade of filtration 1 µm	
	Neutral gases	
Ambient temperature	[°C]	-10 ... +50
Temperature of medium	[°C]	-10 ... +50

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

Size 10



Size 70



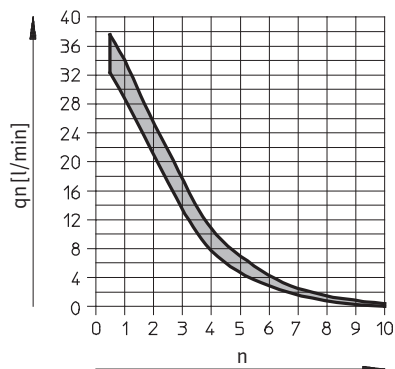
# Precision flow control valves GRPO

Technical data

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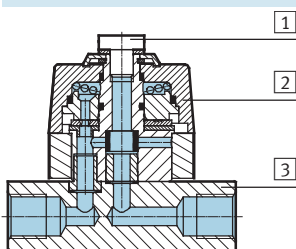
Standard flow rate  $q_n$  at 1 bar  $\rightarrow$  0 bar as a function of spindle rotations  $n$

Size 160



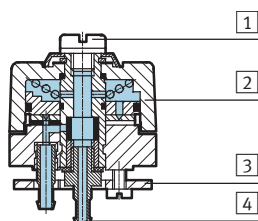
## Materials

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)

# Precision flow control valves GRPO

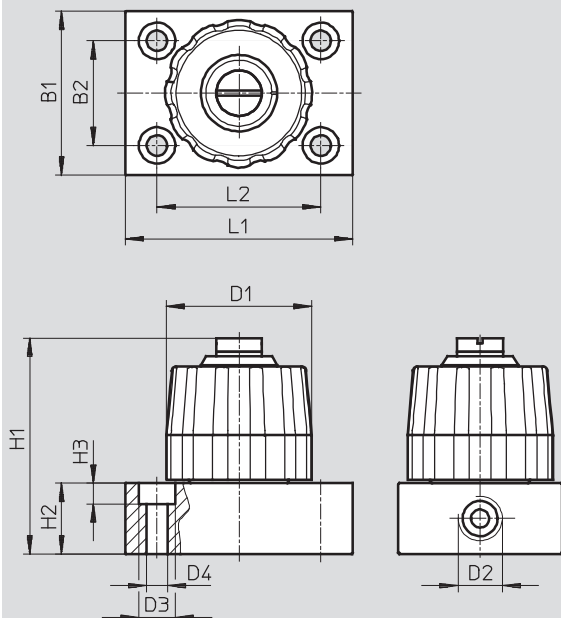
Technical data

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## Dimensions

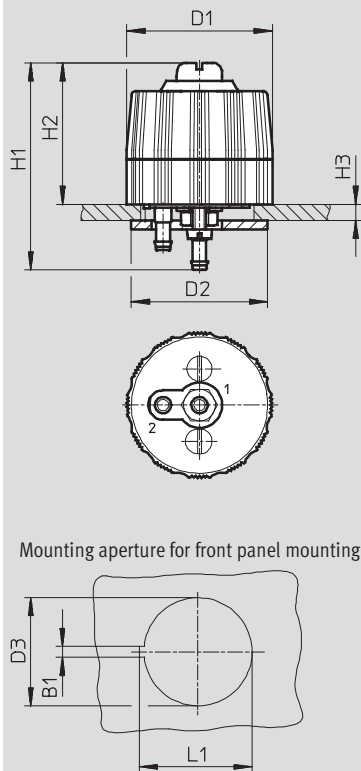
Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

### GRPO-...-AL



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

### GRPO-...-PK



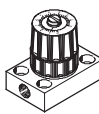

Type	Connection D2	B1	B2	D1	D3
GRPO-70-1/8-AL	G1/8	36	23	32	8
GRPO-160-1/8-AL					

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 flow rate q <sub>n</sub> from 1 bar → 0 bar In direction of flow control [l/min]	Weight [g]	Part No.	Type
	1	2				
Rotary knob with scale						
	G1/8	G1/8	19	110	542024	GRPO-70-1/8-AL
			38	110	542025	GRPO-160-1/8-AL
	PK-3	PK-3	1.65	48	13229	GRPO-10-PK-3
			19	48	10803	GRPO-70-PK-3
	PK-4	PK-4	38	48	13230	GRPO-160-PK-4

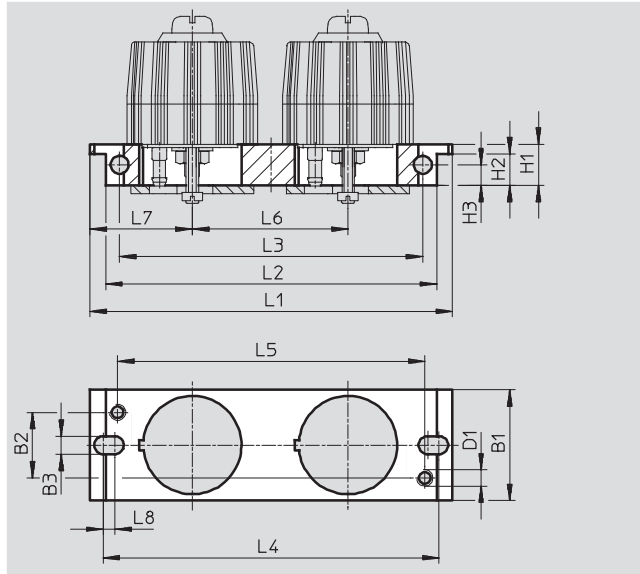
# Precision flow control valves GRPO

Accessories

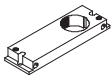
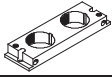
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**Mounting plates APL-2N-GRP**  
for precision flow control valve  
GRPO-...-PK

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-GRP2

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