


## Flow control valves GRO, in-line installation

**FESTO**

# Flow control valves GRO, in-line installation

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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	qnN <sup>1)</sup> [l/min]	Adjustment component	→ Page/ Internet
In-line installation	Polymer								
	Flow control function		GRO	In-line	QS-3, QS-4, QS-6	QS-3, QS-4, QS-6	25 ... 160	Knurled screw	3

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

Type codes	
	GRO – QS-4
Type	
GRO	Flow control valve, in-line installation
Pneumatic connection 1 and 2	
QS-3	Push-in connector for tubing O.D. 3 mm
QS-4	Push-in connector for tubing O.D. 4 mm
QS-6	Push-in connector for tubing O.D. 6 mm




# Flow control valves GRO, in-line installation

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Technical data

Function



-  - Flow rate  
25 ... 160 l/min
-  - Temperature range  
-10 ... +60 °C
-  - Operating pressure  
0 ... 10 bar

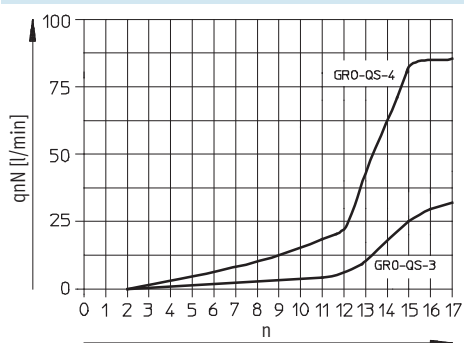


General technical data			
Valve function	Flow control function		
Pneumatic connection 1	QS-3	QS-4	QS-6
Pneumatic connection 2	QS-3	QS-4	QS-6
Adjustment component	Knurled screw		
Type of mounting	Via through-hole		
	Front panel mounting		
	Via accessories		
Mounting position	Any		

Operating and environmental conditions	
Operating pressure [bar]	0 ... 10
Operating medium	Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm
Ambient temperature [°C]	-10 ... +60
Temperature of medium [°C]	-10 ... +60
Storage temperature [°C]	-10 ... +40

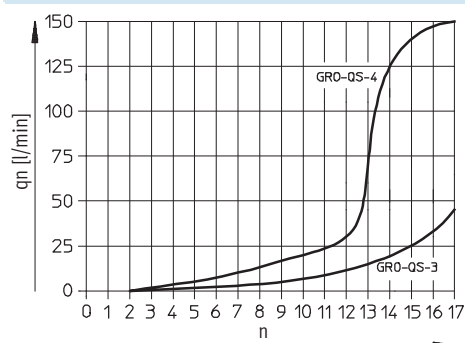
Standard nominal flow rate  $q_{nN}$  at 6 → 5 bar  
as a function of turns of the adjusting screw n

GRO-QS-3/GRO-QS-4

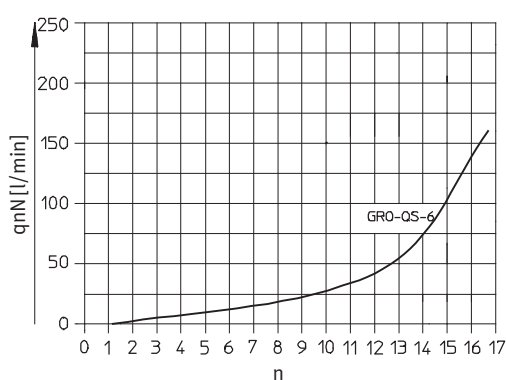


Standard flow rate  $q_n$  at 6 → 0 bar  
as a function of turns of the adjusting screw n

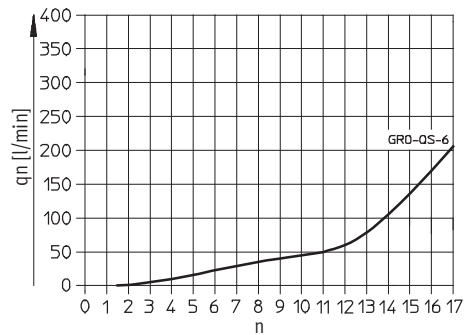
GRO-QS-3/GRO-QS-4



GRO-QS-6



GRO-QS-6



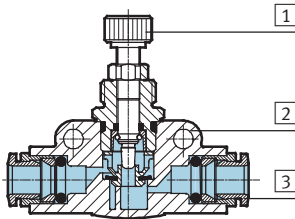
# Flow control valves GRO, in-line installation

Technical data

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## Materials

Sectional view



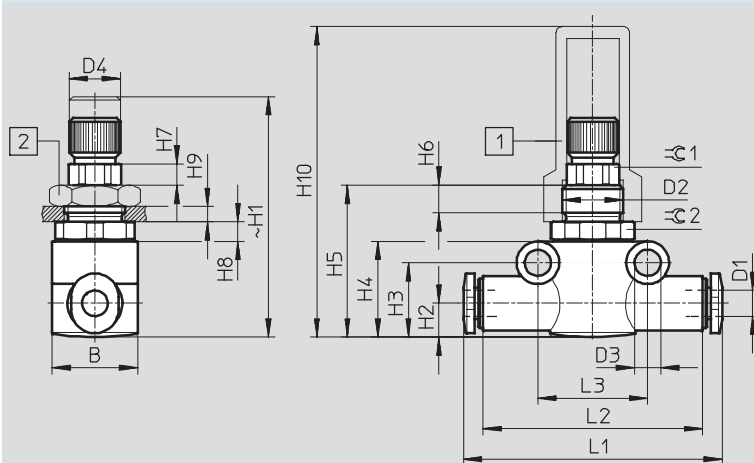
One-way flow control valve

1	Adjusting screw	Nickel-plated brass
2	Housing	PA, reinforced
3	Releasing ring	POM
-	Seals	NBR

## Dimensions

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

Knurled screw



- 1 Cover cap GRK → 5  
2 Hex nut GRM → 5

Type	Tubing O.D. D1	B	D2	D3 Ø	D4 Ø	H1		H2	H3	H4
						min.	max.			
GR-QS-3	3	14	M10x1	4.3 ±0.1	8.0 -0.3	35.9	40	5.55	12.2	15.7
GR-QS-4	4	14	M10x1	4.3 ±0.1	8.0 -0.3	35.9	40	5.55	12.2	15.7
GR-QS-6	6	16	M12x1	4.3 ±0.1	10.1 -0.3	40.4	44.5	8.4	17.3	21.3

Type	H5	H6	H7	H8	H9 max.	H10	L1	L2	L3	∅ 1	∅ 2
GR-QS-3	24.9	4.5	3.5	3.2	2.5	50.9	41.8	36	18	8	13
GR-QS-4	24.9			3.2	2.5	50.9	42.4	36	18		13
GR-QS-6	30.1			2.8	3.5	46.1	51.6	43	24		14

## Ordering data

	Pneumatic connection 1	Pneumatic connection 2	Standard nominal flow rate qnN at 6 → 5 bar in direction of flow control [l/min]	Weight [g]	Part No.	Type
Knurled screw						
	QS-3	QS-3	25	15	193971	GR0-QS-3
	QS-4	QS-4	85	15	193972	GR0-QS-4
	QS-6	QS-6	160	25	193973	GR0-QS-6

## Flow control valves GRO, in-line installation

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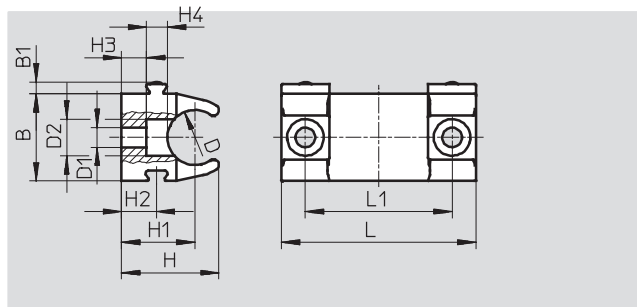
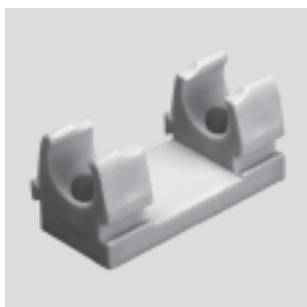
Accessories

### Retainer GR-H-QS

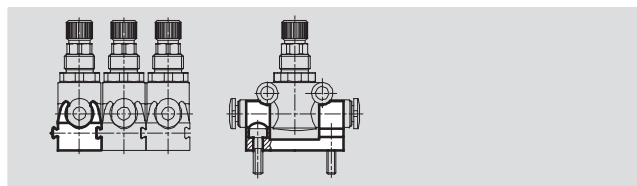
For mounting on a flat surface via M3 screws. The flow control valve is snapped into the retainer. The retainer can be fitted in any position.

Material: POM

Free of copper and PTFE



Linking of multiple retainers via dovetail slot



Dimensions and ordering data								
For type	B	B1	D Ø	D1 Ø	D2 Ø	H	H1	H2
GRO-QS-3, GRO-QS-4	14.3	1.9	9	3.2	6	16	12	5.7
GRO-QS-6	19.8	1.9	14.5	3.2	6	19.2	13	5.7

For flow control valve	H3	H4	L	L1	Weight [g]	Part No.	Type
GRO-QS-3, GRO-QS-4	4.1	3.4	31.8	24	4	195495	GR-H-QS-3-4
GRO-QS-6	2.3	3.4	31.8	24	5	195496	GR-H-QS-6-8

### Hex nut GRM

For front panel mounting

Material: Steel



Ordering data			
For type	Description	Part No.	Type
GRO-QS-3, GRO-QS-4	Thread M10x1	6444	GRM-M5
GRO-QS-6	Thread M12x1	2107	GRM-1/8

### Cover cap GRK

Material: PP



Ordering data			
For type	Description	Part No.	Type
GRO-QS-3, GRO-QS-4	Thread M10x1	6436	GRK-M5
GRO-QS-6	Thread M12x1	2105	GRK-1/8

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