

Series GSCU, GMCU, GSVU, GMVU, GSCO, GMCO flow control valves

Unidirectional and bidirectional banjo flow controllers with nominal diameter 1,5 - 3,5 - 5 mm
Ports: M5, G1/8 and G1/4



These unidirectional and bidirectional flow controllers have been designed as small as possible to enable mounting directly on valves or cylinders. The flow regulation range is wide and gradual, allowing the regulation to be very accurate either at minimum or maximum flow.

GENERAL DATA

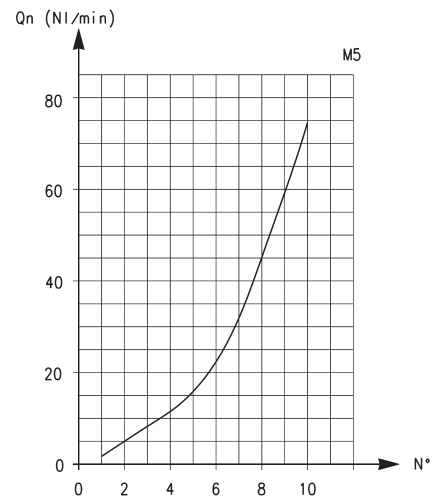
Construction	needle - type
Valve group	unidirectional and bidirectional controller
Materials	body and screws M5 inox; 1/8 - 1/4 - 3/8 - 1/2 OT58 seals NBR
Mounting	by male threaded
Installation	in any position
Operating temperature	0°C ÷ 80°C (with dry air -20°C)
Operating pressure	1 ÷ 10 bar
Nominal pressure	6 bar
Nominal flow	see graph
Nominal diameter	M5 = 1.5 mm - G1/8 = 2 mm - G1/4 = 4 mm G3/8 = 7 mm - G1/2 = 12 mm
Fluid	filtered air. If lubricated air is used, it is recommended to use ISOVG 32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

GM	CU		9	03	-	1/8	-	6
GM	ACTUATION: GM = manual GS = screwdriver							
CU	ASSEMBLY: CU = on cylinders unidirectional VU = on valves unidirectional CO = bidirectional							
9	VERSIONS: 8 = needle (screwdriver operated) 9 = needle (manually operated)							
03	FLOW CONTROL RANGE: <div> <div>size</div> <div>ø tube</div> </div> 13 = 1.5 3 14 = 1.5 4 03 = 3.5 6 04 = 3.5 8 05 = 5 8 06 = 5 10							
1/8	PORTS: M5 1/8 1/4							
6	Ø TUBE: 3 4 6 8 10							

To ensure the right choice of unidirectional flow controller, proceed as follows: calculate the quantity of air in NI/min (see cylinder Table); determine the stroke time of the cylinder; refer to graph to see which controller is the right type.

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS



To ensure the right choice of unidirectional flow controller, proceed as follows: calculate the quantity of air in NL/min (see cylinder Table); determine the stroke time of the cylinder; refer to graph to see which controller is the right type. In the case of bidirectional regulators, refer to the graph and check whether the flow control range is suitable for the work required.

M5

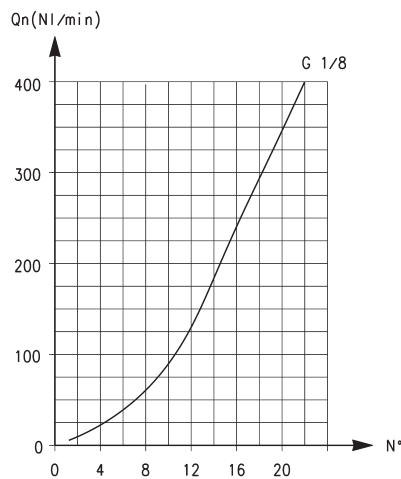
Flow Q_n (NL/min.) from 2 → 1 with controller OPEN: 70

Flow Q_n (NL/min.) from 2 → 1 with controller CLOSED: 33

N° = number of screw turns

NB: Q_n is determined with a supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet.

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS



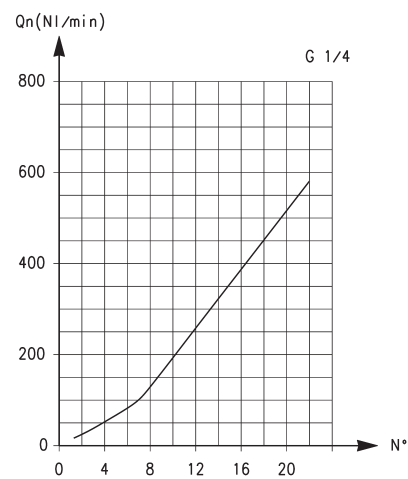
G1/8

Flow Q_n (NL/min.) from 2 → 1 with controller OPEN: 440

Flow Q_n (NL/min.) from 2 → 1 with controller CLOSED: 170

N° = number of screw turns

NB: Q_n is determined with a supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet.



G1/4

Flow Q_n (NL/min.) from 2 → 1 with controller OPEN: 790

Flow Q_n (NL/min.) from 2 → 1 with controller CLOSED: 460

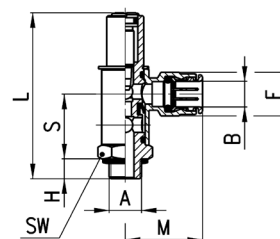
N° = number of screw turns

NB: Q_n is determined with a supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet.

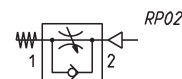
Valves Series GSCU



Unidirectional flow controller for mounting on single-acting or double-acting cylinders.
Screwdriver adjustment.
Ports: M5, G1/8, G1/4.



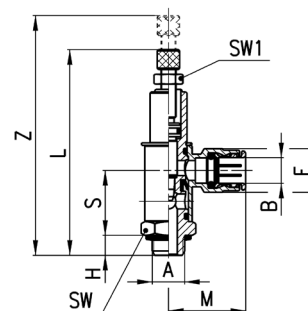
DIMENSIONS								
Mod.	A	B	S	H	L	M	F	SW
GSCU 813-M5-3	M5	3	12	3	27,5	12,5	6,5	8
GSCU 814-M5-4	M5	4	12	3	27,5	19	8,8	8
GSCU 803-1/8-6	G1/8	6	22,5	5	50	26,5	13	14
GSCU 804-1/8-8	G1/8	8	22,5	5	50	28	15	14
GSCU 805-1/4-8	G1/4	8	27	7	67,5	28,5	15	19
GSCU 806-1/4-10	G1/4	10	27	7	67,5	31	17,5	19



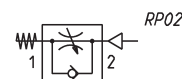
Valves Series GMCU



Unidirectional flow controller for mounting on single-acting or double-acting cylinders.
Knurled screw adjustment.
Ports: M5, G1/8, G1/4.



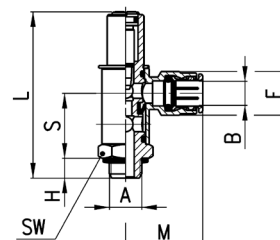
DIMENSIONS										
Mod.	A	B	S	H	L	Z	M	F	SW	SW1
GMCU 913-M5-3	M5	3	12	3	37	42,5	12,5	6,5	8	5,5
GMCU 914-M5-4	M5	4	12	3	37	42,5	19	8,8	8	5,5
GMCU 903-1/8-6	G1/8	6	22,5	5	65,5	72,5	26,5	13	14	7
GMCU 904-1/8-8	G1/8	8	22,5	5	65,5	72,5	28	15	14	7
GMCU 905-1/4-8	G1/4	8	27	7	85	97,5	28,5	15	19	10
GMCU 906-1/4-10	G1/4	10	27	7	85	97,5	31	17,5	19	10



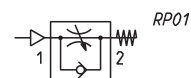
Valves Series GSVU



Unidirectional flow controller for mounting on valves.
Screwdriver adjustment.
Ports: M5, G1/8, G1/4.



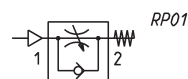
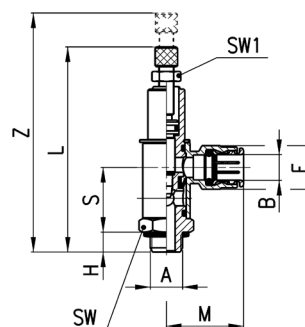
DIMENSIONS								
Mod.	A	B	S	H	L	M	F	SW
GSVU 813-M5-3	M5	3	12	3	27,5	12,5	6,5	8
GSVU 814-M5-4	M5	4	12	3	27,5	19	8,8	8
GSVU 803-1/8-6	G1/8	6	22,5	5	50	26,5	13	14
GSVU 804-1/8-8	G1/8	8	22,5	5	50	28	15	14
GSVU 805-1/4-8	G1/4	8	27	7	67,5	28,5	15	19
GSVU 806-1/4-10	G1/4	10	27	7	67,5	31	17,5	19



Valves Series GMVU



Unidirectional flow controller for mounting on valve.
Adjustment of setting by a manually operated knurled screw.
Ports: M5, G1/8, G1/4.

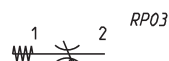
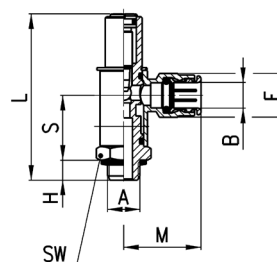


DIMENSIONS										
Mod.	A	B	S	H	L	Z	M	F	SW	SW1
GMVU 913-M5-3	M5	3	12	3	37	42,5	12,5	6,5	8	5,5
GMVU 914-M5-4	M5	4	12	3	37	42,5	19	8,8	8	5,5
GMVU 903-1/8-6	G1/8	6	22,5	5	50	72,5	26	13	14	7
GMVU 904-1/8-8	G1/8	8	22,5	5	50	72,5	28	15	14	7
GMVU 905-1/4-8	G1/4	8	27	7	67,5	97,5	29	15	19	10
GMVU 906-1/4-10	G1/4	10	27	7	67,5	97,5	31	17,5	19	10

Valves Series GSCO



Bidirectional flow controller.
Screwdriver adjustment.
Ports: M5, G1/8, G1/4.

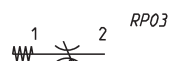
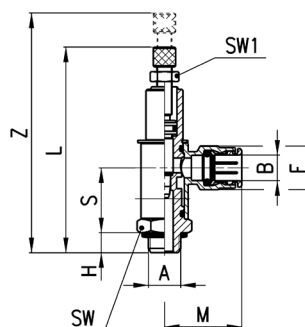


DIMENSIONS									
Mod.	A	B	S	H	L	M	F	SW	
GSCO 813-M5-3	M5	3	12	3	27,5	12,5	6,5	8	
GSCO 814-M5-4	M5	4	12	3	27,5	19	8,8	8	
GSCO 803-1/8-6	G1/8	6	22,5	5	50	26,5	13	14	
GSCO 804-1/8-8	G1/8	8	22,5	5	50	28	15	14	
GSCO 805-1/4-8	G1/4	8	27	7	67,5	28,5	15	19	
GSCO 806-1/4-10	G1/4	10	27	7	67,5	31	17,5	19	

Valves Series GMCO



Bidirectional flow controller.
Adjustment of setting by a manually operated knurled screw.
Ports: M5, G1/8, G1/4.



DIMENSIONS										
Mod.	A	B	S	H	L	Z	M	F	SW	SW1
GMCO 913-M5-3	M5	3	12	3	37	42,5	12,5	6,5	8	5,5
GMCO 914-M5-4	M5	4	12	3	37	42,5	19	8,8	8	5,5
GMCO 903-1/8-6	G1/8	6	22,5	5	65,5	72,5	26,5	13	14	7
GMCO 904-1/8-8	G1/8	8	22,5	5	65,5	72,5	28	15	14	7
GMCO 905-1/4-8	G1/4	8	27	7	85	97,5	28,5	15	19	10
GMCO 906-1/4-10	G1/4	10	27	7	85	97,5	31	17,5	19	10