

Flow control valves

Series SCU-MCU-SVU-MVU-SCO-MCO

Flow control valves
Banjo flow controllers
Unidirectional and bidirectional
Ports M5, G1/8, G1/4, G3/8, G1/2



These unidirectional and bidirectional flow controllers have been designed as small as possible so as to be mounted directly on valves or cylinders. The great variety of adjustable fittings makes it possible to complete the regulator with the most suitable system in relation to the available tube. Only the G1/2 model is supplied complete with banjo flow controllers.

For the other models the banjo flow controller is to be requested separately.

GENERAL DATA

Construction	needle type
Valve group	unidirectional and bidirectional controller
Materials	body and regulation screw: M5 = stainless steel; 1/8 - 1/4 - 3/8 - 1/2 = OT; seals = NBR
Mounting	by male thread
Ports	M5 - G1/8 - G1/4 - G3/8 - G1/2
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

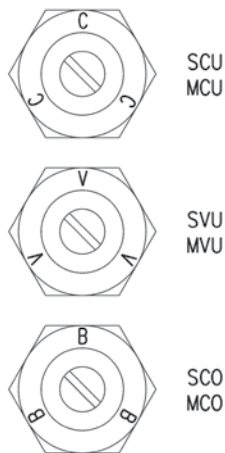
CODING EXAMPLE

M	CU	7	02	-	M5
---	----	---	----	---	----

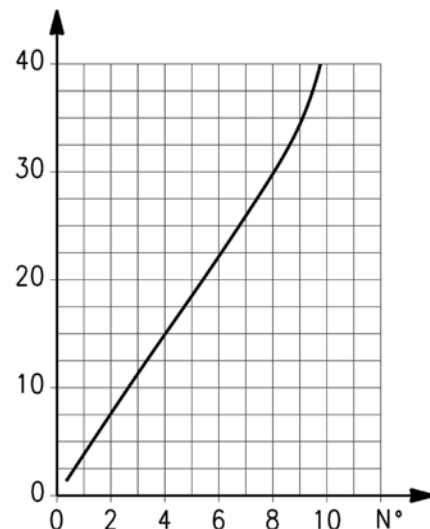
M	ACTUATION: M = Manual S = Screwdriver
CU	ASSEMBLY / VALVE TYPE: CU = directly on double-acting cylinders / unidirectional VU = directly on valves / unidirectional CO = directly on valves exhaust / bidirectional
7	VERSIONS: 6 = needle (screwdriver operated) 7 = needle (manual operated)
02	NOMINAL DIAMETER: 02 = \varnothing 1,5 max 04 = \varnothing 2 max 06 = \varnothing 4 max 08 = \varnothing 7 max 10 = \varnothing 12 max
M5	PORTS: M5 = M5 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 1/2 = G1/2

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 CONTROLLERS

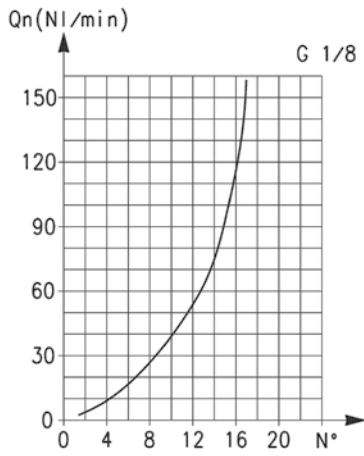


IDENTIFICATION (SEE CODING EXAMPLE)

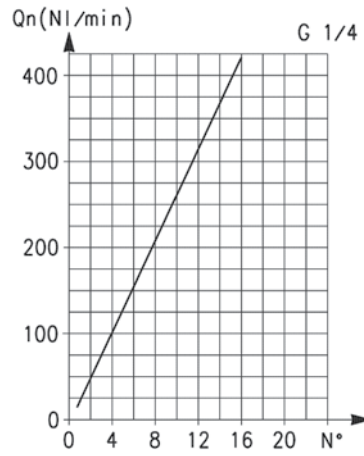


Flow Q_n (NI/min.) from 2 → 1 with controller OPEN: 47
 Flow Q_n (NI/min.) from 2 → 1 with controller CLOSED: 33
 Q_n = supply pressure of 6 bar and with ΔP = 1 bar at the outlet
 N° = number of screw turns.

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROLLERS

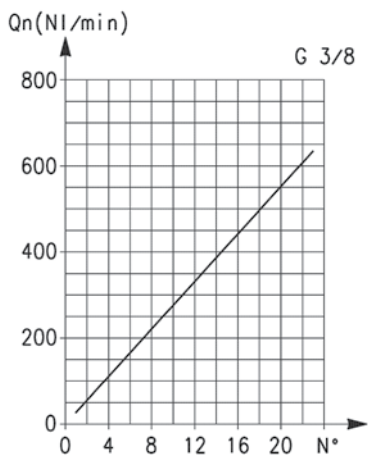


Flow Qn (NI/min.) from 2 → 1 with controller OPEN: 200
 Flow Qn (NI/min.) from 2 → 1 with controller CLOSED: 70
 Qn is determined with a supply pressure of 6 bar and with ΔP = 1 bar at the outlet
 N° = number of screw turns.

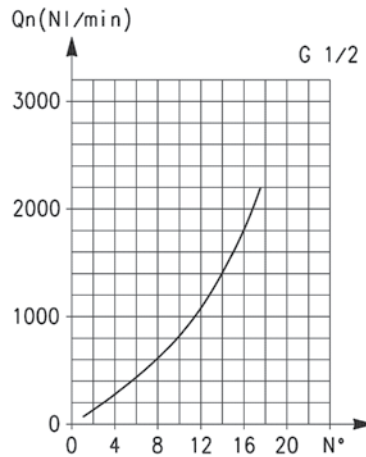


Flow Qn (NI/min.) from 2 → 1 with controller OPEN: 530
 Flow Qn (NI/min.) from 2 → 1 with controller CLOSED: 160
 Qn is determined with a supply pressure of 6 bar and with ΔP = 1 bar at the outlet
 N° = number of screw turns.

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROLLERS



Flow Qn (NI/min.) from 2 → 1 with controller OPEN: 710
 Flow Qn (NI/min.) from 2 → 1 with controller CLOSED: 410
 Qn is determined with a supply pressure of 6 bar and with ΔP = 1 bar at the outlet.
 N° = number of screw turns.

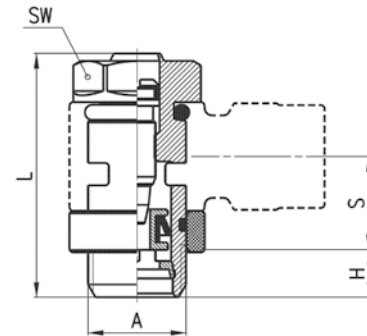


Flow Qn (NI/min.) from 2 → 1 with controller OPEN: 2570
 Flow Qn (NI/min.) from 2 → 1 with controller CLOSED: 1330
 Qn is determined with a supply pressure of 6 bar and with ΔP = 1 bar at the outlet.
 N° = number of screw turns.

Valves Series SCU

Unidirectional flow controller for mounting on single-acting or double-acting cylinders.
Adjustment of setting by a screwdriver.
Ports: M5, G1/8, G1/4 and G3/8.

Assembly with fittings Mod. 6610; 6620; 1610; 1620; 2023; 1170.



Note: M5 flow controllers must be used together with M6 adjustable fittings.

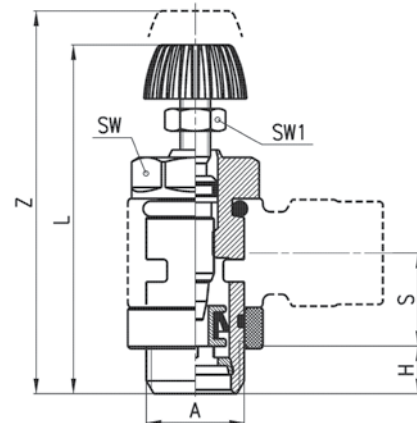
DIMENSIONS

Mod.	A	H	L	S	SW
SCU 602-M5	M5	3,5	21,5	5,5	8
SCU 604-1/8	G1/8	5	31,5	12,5	12
SCU 606-1/4	G1/4	6	32,5	12,5	15
SCU 608-3/8	G3/8	7	40,5	12,5	18

Valves Series MCU

Unidirectional flow controller for mounting on single-acting or double-acting cylinders.
Adjustment of setting by a manually operated knurled screw.
Ports: M5, G1/8, G1/4, G3/8.

Assembly with fittings Mod. 6610; 6620; 1610; 1620; 2023; 1170.



Note: M5 flow controllers must be used together with M6 adjustable fittings.

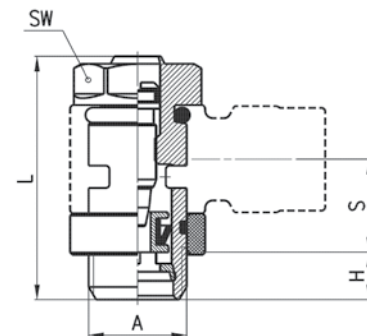
DIMENSIONS

Mod.	A	H	L	S	SW	SW1	Z
MCU 702-M5	M5	3,5	31	5,5	8	5,5	35
MCU 704-1/8	G1/8	5	41	12,5	12	7	46
MCU 706-1/4	G1/4	6	43,5	12,5	15	7	49
MCU 708-3/8	G3/8	7	52,5	12,5	18	10	60,5

Valves Series SVU

Unidirectional flow controller for mounting on valves.
Adjustment of setting by a screwdriver.
Ports: M5, G1/8, G1/4.

Assembly with fittings Mod. 6610; 6620; 1610; 1620; 2023; 1170.



Note: M5 flow controllers must be used together with M6 adjustable fittings.

DIMENSIONS

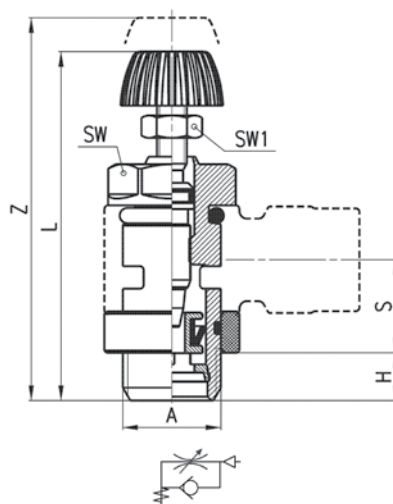
Mod.	A	H	L	S	SW
SVU 602-M5	M5	3,5	21,5	5,5	8
SVU 604-1/8	G1/8	5	31,5	12,5	12
SVU 606-1/4	G1/4	6	32,5	12,5	15

Valves Series MVU



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

Assembly with fittings Mod. 6610; 6620; 1610; 1620; 2023; 1170.



Note: M5 flow controllers must be used together with M6 adjustable fittings.

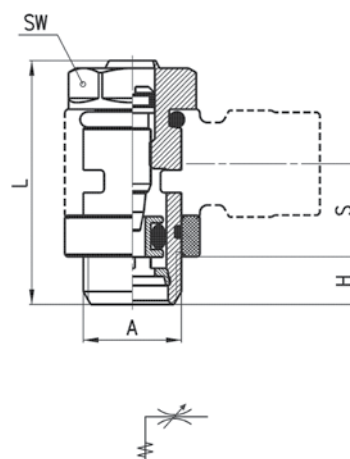
DIMENSIONS							
Mod.	A	H	L	S	SW	SW1	Z
MVU 702-M5	M5	3,5	31	5,5	8	5,5	35
MVU 704-1/8	G1/8	5	41	12,5	12	7	46
MVU 706-1/4	G1/4	6	43,5	12,5	15	7	49

Valves Series SCO



Bidirectional flow controller.
Adjustment of setting by a screwdriver.
Ports: M5, G1/8, G1/4.

Assembly with fittings Mod. 6610; 6620; 1610; 1620; 2023; 1170; 2905.



Note: M5 flow controllers must be used together with M6 adjustable fittings.

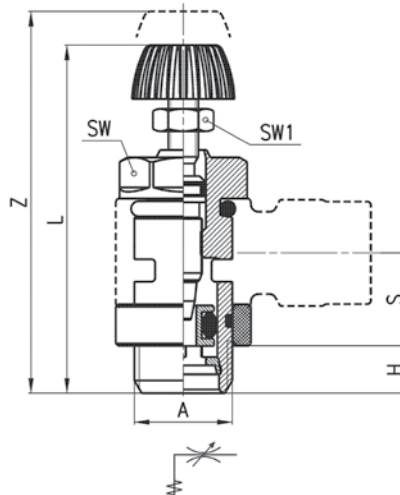
DIMENSIONS						
Mod.	A	H	L	S	SW	
SCO 602-M5	M5	3,5	21,5	5,5	8	
SCO 604-1/8	G1/8	5	31,5	12,5	12	
SCO 606-1/4	G1/4	6	32,5	12,5	15	

Valves Series MCO



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

Assembly with fittings Mod. 6610; 6620; 1610; 1620; 2023; 1170; 2905.

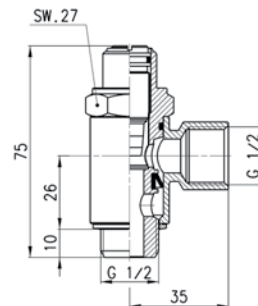


Note: M5 flow controllers must be used together with M6 adjustable fittings.

DIMENSIONS							
Mod.	A	H	L	S	SW	SW1	Z
MCO 702-M5	M5	3,5	31	5,5	8	5,5	35
MCO 704-1/8	G1/8	5	41	12,5	12	7	46
MCO 706-1/4	G1/4	6	43,5	12,5	15	7	49

Valves Series SCU

Unidirectional flow controller for mounting on single-acting or double-acting cylinders.
Screwdriver adjustment.

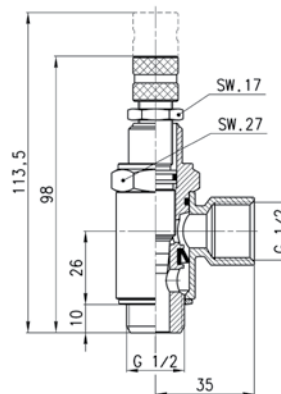


Mod.

SCU 610-1/2

Valves Series MCU

Unidirectional flow controller for mounting on single-acting or double-acting cylinders.
Adjustment of setting by a manually operated knurled screw.

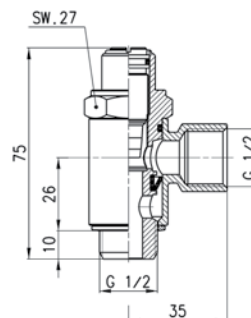


Mod.

MCU710-1/2

Valves Series SVU

Unidirectional flow controller for mounting on valves.
Screwdriver adjustment.

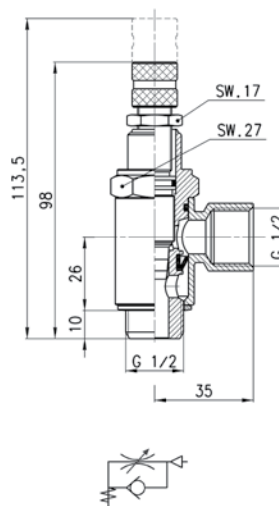


Mod.

SVU 610-1/2

Valves Series MVU

Unidirectional flow controller for mounting on valve.
Adjustment of setting by a manually operated knurled screw.

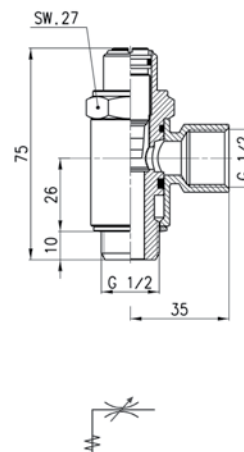


Mod.

MVU 710-1/2

Valves Series SCO

Bidirectional flow controller.
Screwdriver adjustment.

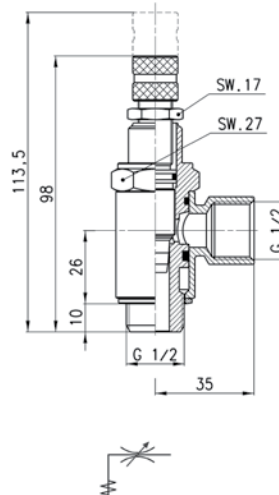


Mod.

SCO 610-1/2

Valves Series MCO

Bidirectional flow controller.
Adjustment of setting by a manually operated knurled screw.

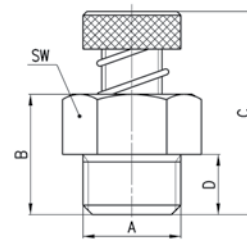


Mod.

MCO 710-1/2

Flow control valves with silencer Series RSW

Flow control valves with silencer.
Ports: G1/8, G1/4, G1/2.



DIMENSIONS

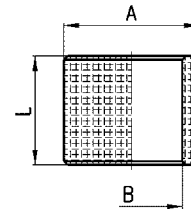
Mod.	A	B	C	D	SW	Qn*(Nl/mm)
RSW 1/8	G1/8	13	22	6	12	410
RSW 1/4	G1/4	16	27	8	16	650
RSW 1/2	G1/2	26	35	11	26	1590



*determined with supply pressure
6 bar with free flow; ensuring
screw is open to maximum output.

Silencing bush Series 2905

Silencing bush for Mod. SCO or MCO



DIMENSIONS

Mod.	A	B	L
2905 1/8	14	10	14,5
2905 1/4	18	13,5	14,5
2905 3/8	21	16,8	14,5