

Series SCU, MCU, SVU, MVU, SCO, MCO flow control valves

Unidirectional and bidirectional banjo flow control regulators

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

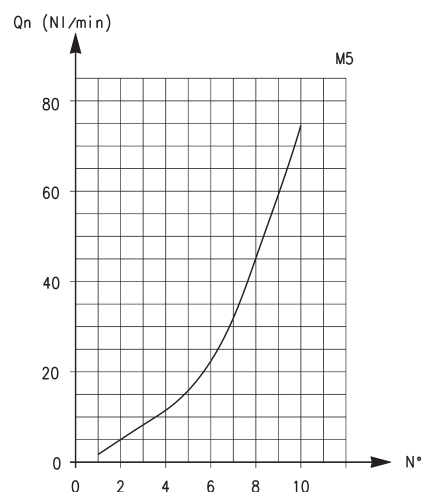
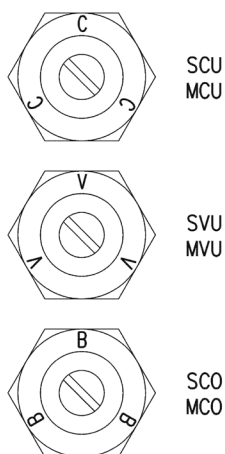
CODING EXAMPLE

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

SERIES SCU, MCU, SVU, MVU, SCO, MCO VALVES

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 OF DIFFERENT TYPES:

SCU - MCU = assembly directly on the cylinders

SVU - MVU = assembly directly on the valves

SCO - MCO = assembly directly on the cylinders or valves

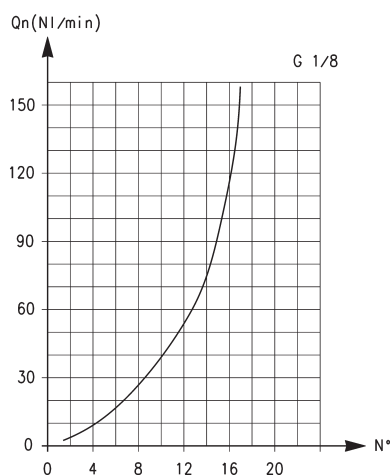
Flow Qn (NI/min.) from 2 → 1 with controller OPEN: 70

Flow Qn (NI/min.) from 2 → 1 with controller CLOSED: 33

Qn = supply pressure of 6 bar and with ΔP = 1 bar at the outlet

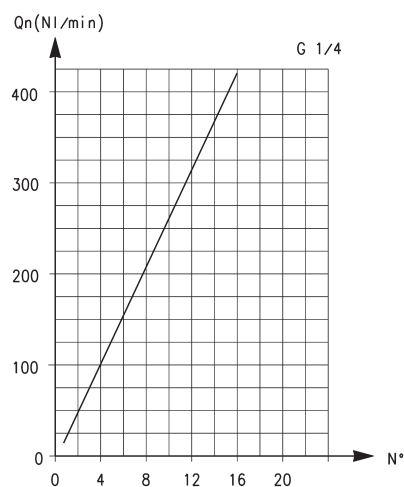
N° = number of screw turns.

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS



Flow Q_n (NL/min.) from 2 → 1 with controller OPEN: 200
 Flow Q_n (NL/min.) from 2 → 1 with controller CLOSED: 70

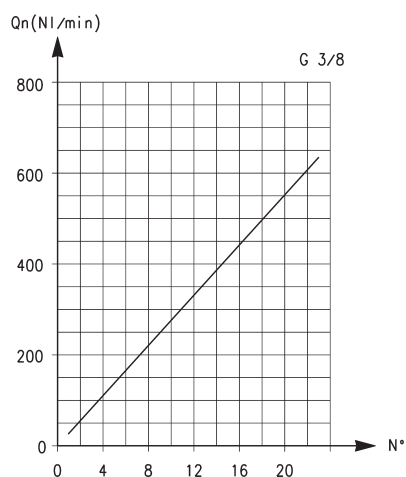
Q_n = supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet
 N° = number of screw turns.



Flow Q_n (NL/min.) from 2 → 1 with controller OPEN: 530
 Flow Q_n (NL/min.) from 2 → 1 with controller CLOSED: 160

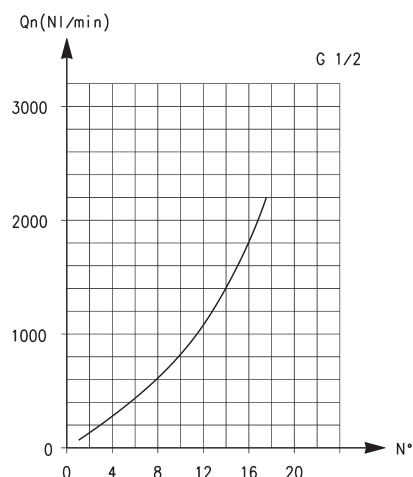
Q_n = supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet
 N° = number of screw turns.

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS



Flow Q_n (NL/min.) from 2 → 1 with controller OPEN: 710
 Flow Q_n (NL/min.) from 2 → 1 with controller CLOSED: 410

Q_n = supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet
 N° = number of screw turns.



Flow Q_n (NL/min.) from 2 → 1 with controller OPEN: 2570
 Flow Q_n (NL/min.) from 2 → 1 with controller CLOSED: 1330

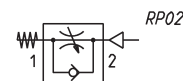
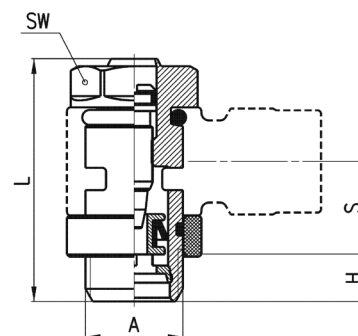
Q_n = supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet
 N° = number of screw turns.

Unidirectional flow controllers Series SCU



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.

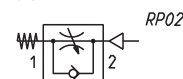
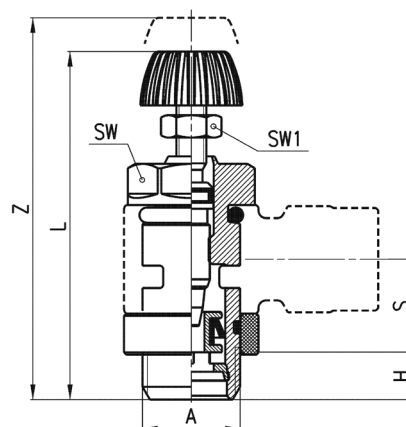
DIMENSIONS					
Mod.	A	H	L	S	SW
SCU 602-M5	M5	3,5	21,5	5,5	8
SCU 604-1/8	G1/8	5	31,5	12,5	12
SCU 606-1/4	G1/4	6	32,5	12,5	15
SCU 608-3/8	G3/8	7	40,5	12,5	18

Unidirectional flow controllers Series MCU



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.

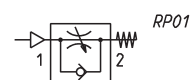
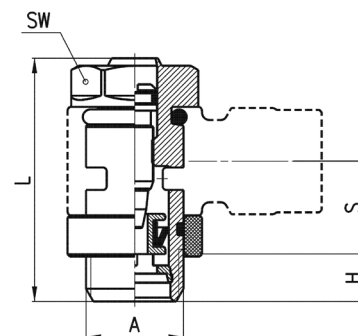
DIMENSIONS							
Mod.	A	H	L	S	SW	SW1	Z
MCU 702-M5	M5	3,5	31	5,5	8	5,5	35
MCU 704-1/8	G1/8	5	41	12,5	12	7	46
MCU 706-1/4	G1/4	6	43,5	12,5	15	7	49
MCU 708-3/8	G3/8	7	52,5	12,5	18	10	60,5

Unidirectional flow controllers Series SVU



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.

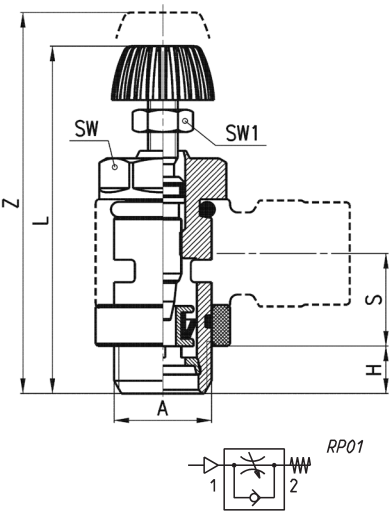
DIMENSIONS					
Mod.	A	H	L	S	SW
SVU 602-M5	M5	3,5	21,5	5,5	8
SVU 604-1/8	G1/8	5	31,5	12,5	12
SVU 606-1/4	G1/4	6	32,5	12,5	15

Unidirectional flow controllers Series MVU



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.

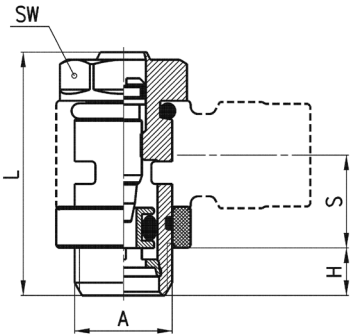
DIMENSIONS							
Mod.	A	H	L	S	SW	SW1	Z
MVU 702-M5	M5	3,5	31	5,5	8	5,5	35
MVU 704-1/8	G1/8	5	41	12,5	12	7	46
MVU 706-1/4	G1/4	6	43,5	12,5	15	7	49

Bidirectional flow controllers Series SCO



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.

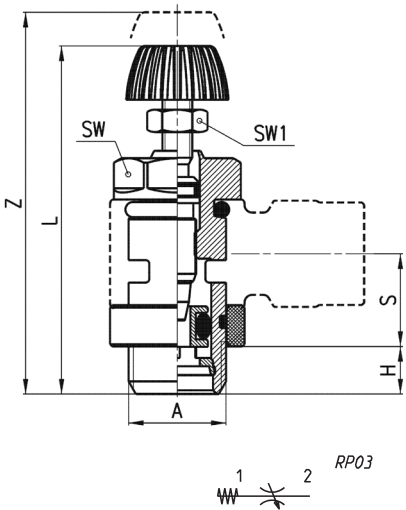
DIMENSIONS					
Mod.	A	H	L	S	SW
SCO 602-M5	M5	3,5	21,5	5,5	8
SCO 604-1/8	G1/8	5	31,5	12,5	12
SCO 606-1/4	G1/4	6	32,5	12,5	15

Bidirectional flow controllers Series MCO



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.



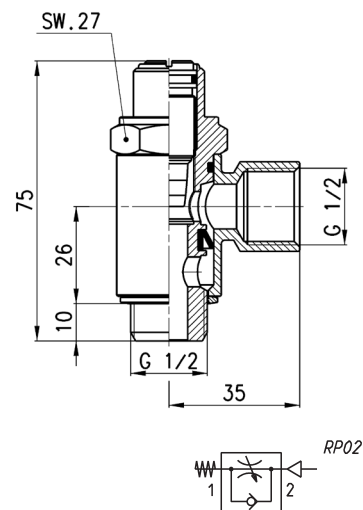
Note: M5 flow controllers must be used together with M6 adjustable fittings.

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

Unidirectional flow controllers Series SCU



For mounting on single-acting or double-acting cylinders.
Screwdriver adjustment.

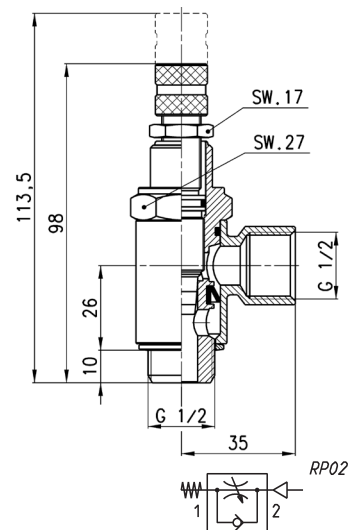


Mod.
SCU 610-1/2

Unidirectional flow controllers Series MCU



For mounting on single-acting or double-acting cylinders.
Adjustment of setting by a manually operated knurled screw.

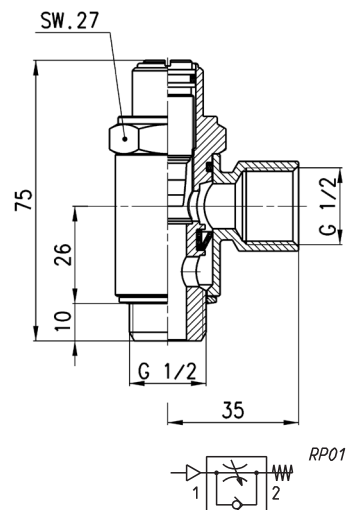


Mod.
MCU 710-1/2

Unidirectional flow controllers Series SVU



For mounting on valves.
Screwdriver adjustment.

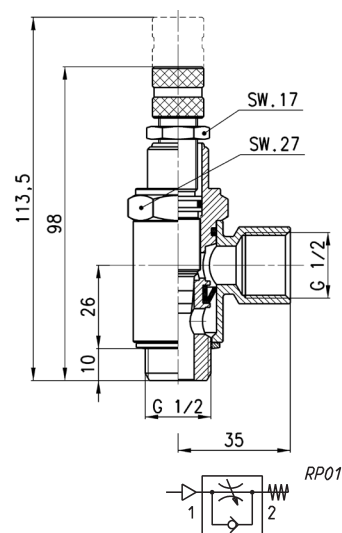


Mod.
SVU 610-1/2

Unidirectional flow controllers Series MVU



For mounting on valve.
Adjustment of setting by a manually operated knurled screw.



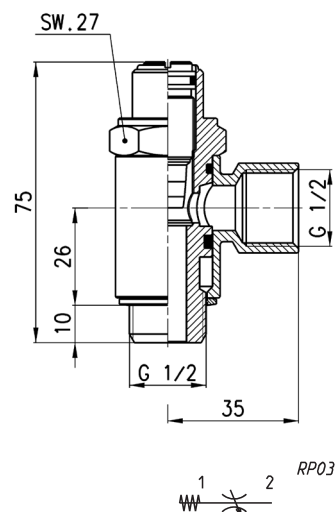
Mod.

MVU 710-1/2

Bidirectional flow controllers Series SCO



Screwdriver adjustment.



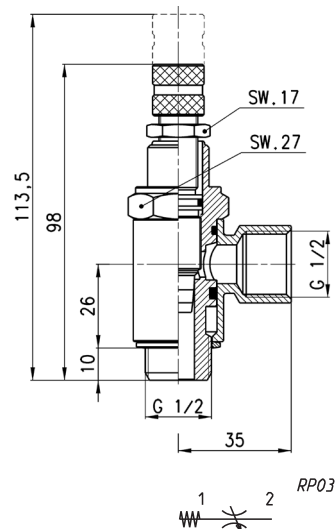
Mod.

SCO 610-1/2

Bidirectional flow controllers Series MCO



Adjustment of setting by a manually operated knurled screw.



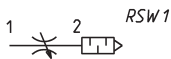
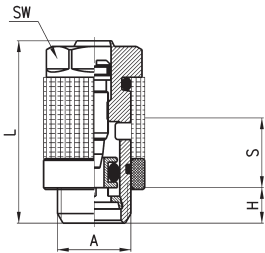
Mod.

MCO 710-1/2

Silenced exhaust controllers Mod. SCO + 2905



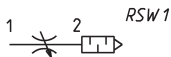
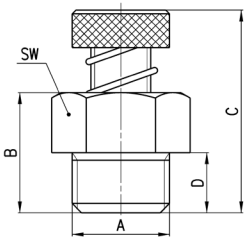
The flow control valve Mod. SCO and the silencer Mod. 2905 are supplied separately.



DIMENSIONS					
Mod.	A	H	L	S	SW
SCO 602-M5+2905 M5	M5	3.5	21.5	5.5	8
SCO 604-1/8+2905 1/8	G1/8	5	31.5	12.5	12
SCO 606-1/4+2905 1/4	G1/4	6	32.5	12.5	15

Series RSW flow control valves with silencer

Ports: G1/8, G1/4, G1/2.



DIMENSIONS						
Mod.	A	B	C	D	SW	Q* (NL/min)
RSW 1/8	G1/8	10.5	22	6	13	410
RSW 1/4	G1/4	13	27	7.5	16	650
RSW 3/8	G3/8	16	30	9.5	20	1100
RSW 1/2	G1/2	18	40	10.5	26	1700

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

Series PSCU, PMCU, PSVU, PMVU, PSCO, PMCO flow control valves

Unidirectional and bidirectional flow regulators with banjo in brass (M5) or in technopolymer (G1/8, G1/4, G3/8)
Ports: M5, G1/8, G1/4, G3/8



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.

All models are supplied complete with banjo flow controllers.

GENERAL DATA

Construction	needle type
Valve group	unidirectional and bidirectional controller
Materials	body, regulation screw: stainless steel (M5), brass (G1/8 - G1/4 - G3/8) collet and insert = brass banjo: brass (M5), technopolymer (G1/8 - G1/4 - G3/8) controller = technopolymer - seals = NBR
Mounting	by male thread
Ports	M5 - G1/8 - G1/4 - G3/8
Installation	in any position
Operating temperature	0°C ÷ 60°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
Fluid	filtered air

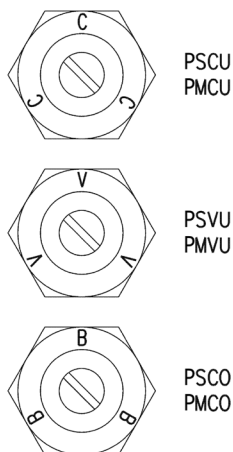
CODING EXAMPLE

P	M	CU		7	04	-	1/8	-	4
P	SERIES								
M	ACTUATION: M = Manual S = Screwdriver								
CU	ASSEMBLY: CU = on cylinders unidirectional VU = on valves unidirectional CO = bidirectional								
7	VERSIONS: 6 = needle (screwdriver operated) 7 = needle (manual operated)								
04	NOMINAL DIAMETER: 02 = Ø1.5 MAX 04 = Ø2 MAX 06 = Ø4 MAX 08 = Ø7 MAX								
1/8	PORTS: M5 = M5 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8								
4	TUBE: 4 = Ø 4 6 = Ø 6 8 = Ø 8 10 = Ø 10 12 = Ø 12								

SERIES PSCU, PMCU, PSVU, PMVU, PSCO, PMCO VALVES

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

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROLLERS



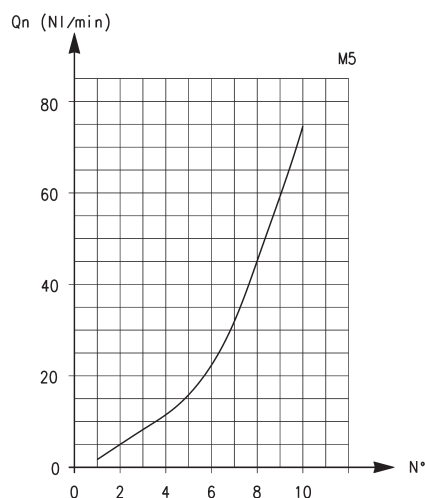
IDENTIFICATION OF DIFFERENT TYPES:

PSCU - PMCU = assembly directly on the cylinders

PSVU - PMVU = assembly directly on the valves

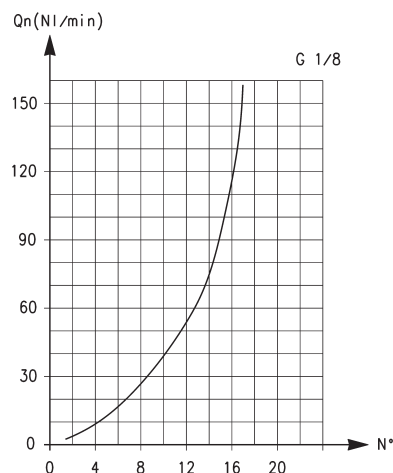
PSCO - PMCO = assembly directly on the cylinders or valves

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS



Flow Q_n (NL/min.) from 2 → 1 with controller OPEN: 70
 Flow Q_n (NL/min.) from 2 → 1 with controller CLOSED: 33

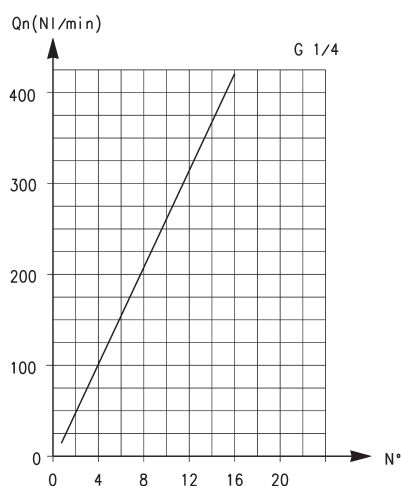
Q_n = supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet
 N° = number of screw turns



Flow Q_n (NL/min.) from 2 → 1 with controller OPEN: 200
 Flow Q_n (NL/min.) from 2 → 1 with controller CLOSED: 70

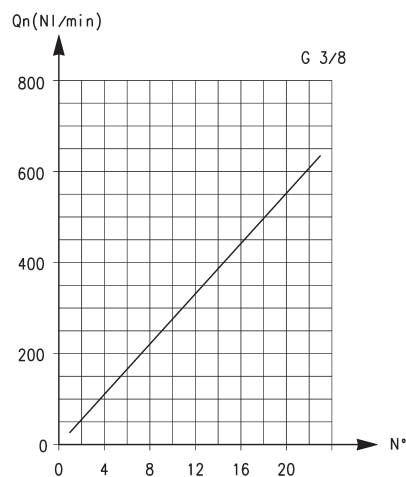
Q_n = supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet
 N° = number of screw turns

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS



Flow Q_n (NL/min.) from 2 → 1 with controller OPEN: 530
 Flow Q_n (NL/min.) from 2 → 1 with controller CLOSED: 160

Q_n = supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet
 N° = number of screw turns



Flow Q_n (NL/min.) from 2 → 1 with controller OPEN: 710
 Flow Q_n (NL/min.) from 2 → 1 with controller CLOSED: 410

Q_n = supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet
 N° = number of screw turns

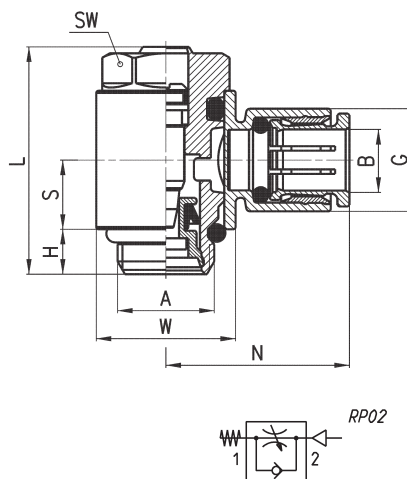
Unidirectional flow controllers Series PSCU



For mounting on single-acting or double-acting cylinders.
A screwdriver must be used to adjust the registration setting.
Ports: M5, G1/8, G1/4 and G3/8.

Port M5: banjo in brass

DIMENSIONS									
Mod.	A	B	G	H	L	N	S	W	SW
PSCU 602-M5-4	M5	4	8.6	3.5	21.5	18	5.7	8	8
PSCU 602-M5-6	M5	6	10.4	3.5	21.5	19	5.7	8	8
PSCU 604-1/8-4	G1/8	4	11.6	5	27	21	7.75	14	12
PSCU 604-1/8-6	G1/8	6	11.6	5	27	21	7.75	14	12
PSCU 604-1/8-8	G1/8	8	13.9	5	27	22.5	7.75	14	12
PSCU 606-1/4-6	G1/4	6	13.9	6	30.5	24.5	9.25	18.6	15
PSCU 606-1/4-8	G1/4	8	13.9	6	30.5	24.5	9.25	18.6	15
PSCU 606-1/4-10	G1/4	10	16.1	6	30.5	27	9.25	18.6	15
PSCU 608-3/8-10	G3/8	10	20.2	7	36.5	29	11	22	18
PSCU 608-3/8-12	G3/8	12	20.2	7	36.5	29	11	22	18



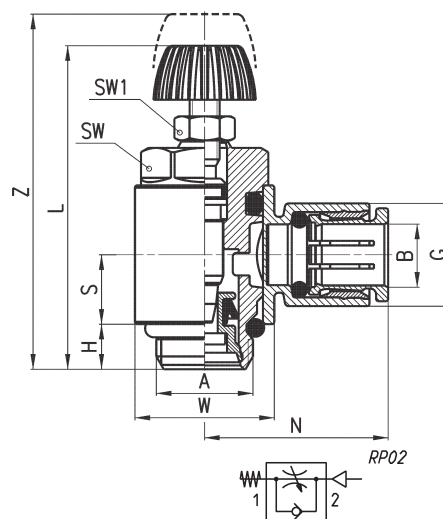
Unidirectional flow controllers Series PMCU



For mounting on single-acting or double-acting cylinders.
A manually operated knurled screw must be used to adjust the registration setting.
Ports: M5, G1/8, G1/4 and G3/8.

Port M5: banjo in brass

DIMENSIONS											
Mod.	A	B	G	H	L	N	S	W	SW	SW1	Z
PMCU 702-M5-4	M5	4	8.6	3.5	31	18	5.7	8	8	5.5	35
PMCU 702-M5-6	M5	6	10.4	3.5	31	19	5.7	8	8	5.5	35
PMCU 704-1/8-4	G1/8	4	11.6	5	36.5	21	7.75	14	12	7	42.5
PMCU 704-1/8-6	G1/8	6	11.6	5	36.5	21	7.75	14	12	7	42.5
PMCU 704-1/8-8	G1/8	8	13.9	5	36.5	22.5	7.75	14	12	7	42.5
PMCU 706-1/4-6	G1/4	6	13.9	6	42	24.5	9.25	18.6	15	7	48
PMCU 706-1/4-8	G1/4	8	13.9	6	42	24.5	9.25	18.6	15	7	48
PMCU 706-1/4-10	G1/4	10	16.1	6	42	27	9.25	18.6	15	7	48
PMCU 708-3/8-10	G3/8	10	20.2	7	48.5	29	11	22	18	10	56.5
PMCU 708-3/8-12	G3/8	12	20.2	7	48.5	29	11	22	18	10	56.5



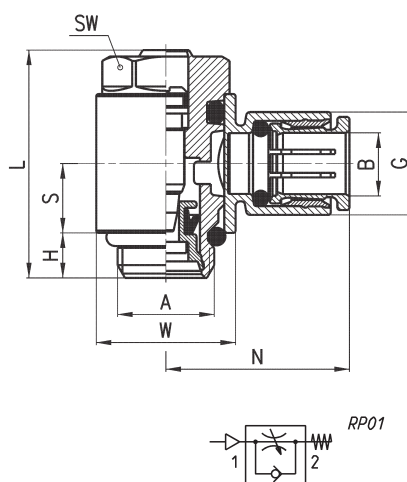
Unidirectional flow controllers Series PSVU



For mounting on valves.
A screwdriver must be used to adjust the registration setting.
Ports: M5, G1/8, G1/4 and G3/8.

Port M5: banjo in brass

DIMENSIONS									
Mod.	A	B	G	H	L	N	S	W	SW
PSVU 602-M5-4	M5	4	8.6	3.5	21.5	18	5.7	8	8
PSVU 602-M5-6	M5	6	10.4	3.5	21.5	19	5.7	8	8
PSVU 604-1/8-4	G1/8	4	11.6	5	27	21	7.75	14	12
PSVU 604-1/8-6	G1/8	6	11.6	5	27	21	7.75	14	12
PSVU 604-1/8-8	G1/8	8	13.9	5	27	22.5	7.75	14	12
PSVU 606-1/4-6	G1/4	6	13.9	6	30.5	24.5	9.25	18.6	15
PSVU 606-1/4-8	G1/4	8	13.9	6	30.5	24.5	9.25	18.6	15
PSVU 606-1/4-10	G1/4	10	16.1	6	30.5	27	9.25	18.6	15
PSVU 608-3/8-10	G3/8	10	20.2	7	36.5	29	11	22	18
PSVU 608-3/8-12	G3/8	12	20.2	7	36.5	29	11	22	18



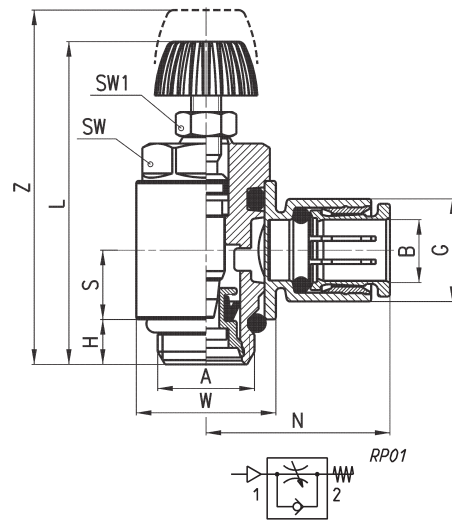
Unidirectional flow controllers Series PMVU



For mounting on valve.
A manually operated knurled screw must be used to adjust the registration setting.
Ports: M5, G1/8, G1/4 and G3/8.

Port M5: banjo in brass

DIMENSIONS											
Mod.	A	B	G	H	L	N	S	W	SW	SW1	Z
PMVU 702-M5-4	M5	4	8.6	3.5	31	18	5.7	8	8	5.5	35
PMVU 702-M5-6	M5	6	10.4	3.5	31	19	5.7	8	8	5.5	35
PMVU 704-1/8-4	G1/8	4	11.6	5	36.5	21	7.75	14	12	7	42.5
PMVU 704-1/8-6	G1/8	6	11.6	5	36.5	21	7.75	14	12	7	42.5
PMVU 704-1/8-8	G1/8	8	13.9	5	36.5	22.5	7.75	14	12	7	42.5
PMVU 706-1/4-6	G1/4	6	13.9	6	42	24.5	9.25	18.6	15	7	48
PMVU 706-1/4-8	G1/4	8	13.9	6	42	24.5	9.25	18.6	15	7	48
PMVU 706-1/4-10	G1/4	10	16.1	6	42	27	9.25	18.6	15	7	48
PMVU 708-3/8-10	G3/8	10	20.2	7	48.5	29	11	22	18	10	56.5
PMVU 708-3/8-12	G3/8	12	20.2	7	48.5	29	11	22	18	10	56.5



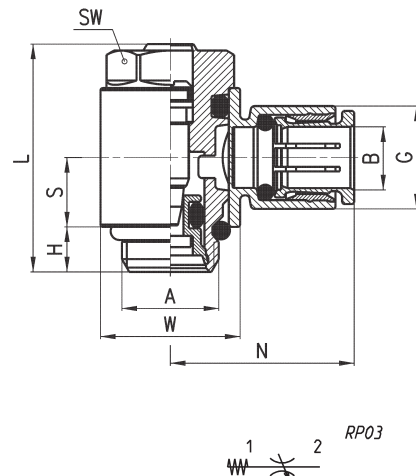
Bidirectional flow controllers Series PSCO



A screwdriver must be used to adjust the registration setting.
Ports: M5, G1/8, G1/4 and G3/8.

Port M5: banjo in brass

DIMENSIONS									
Mod.	A	B	G	H	L	N	S	W	SW
PSCO 602-M5-4	M5	4	8.6	3.5	21.5	18	5.7	8	8
PSCO 602-M5-6	M5	6	10.4	3.5	21.5	19	5.7	8	8
PSCO 604-1/8-4	G1/8	4	11.6	5	27	21	7.75	14	12
PSCO 604-1/8-6	G1/8	6	11.6	5	27	21	7.75	14	12
PSCO 604-1/8-8	G1/8	8	13.9	5	27	22.5	7.75	14	12
PSCO 606-1/4-6	G1/4	6	13.9	6	30.5	24.5	9.25	18.6	15
PSCO 606-1/4-8	G1/4	8	13.9	6	30.5	24.5	9.25	18.6	15
PSCO 606-1/4-10	G1/4	10	16.1	6	30.5	27	9.25	18.6	15
PSCO 608-3/8-10	G3/8	10	20.2	7	36.5	29	11	22	18
PSCO 608-3/8-12	G3/8	12	20.2	7	36.5	29	11	22	18



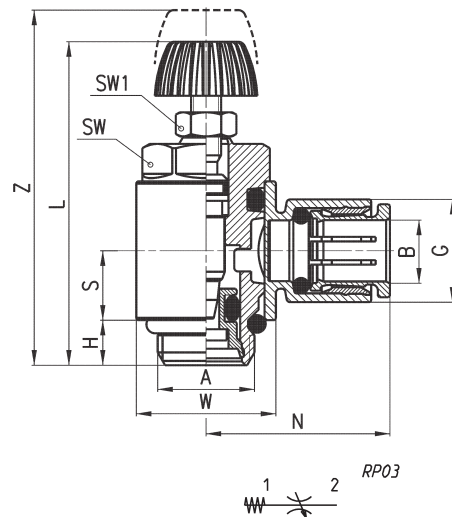
Bidirectional flow controllers Series PMCO



A manually operated knurled screw must be used to adjust the registration setting.
Ports: M5, G1/8, G1/4 and G3/8.

Port M5: banjo in brass

DIMENSIONS											
Mod.	A	B	G	H	L	N	S	W	SW	SW1	Z
PMCO 702-M5-4	M5	4	8.6	3.5	31	18	5.7	8	8	5.5	35
PMCO 702-M5-6	M5	6	10.4	3.5	31	19	5.7	8	8	5.5	35
PMCO 704-1/8-4	G1/8	4	11.6	5	36.5	21	7.75	14	12	7	42.5
PMCO 704-1/8-6	G1/8	6	11.6	5	36.5	21	7.75	14	12	7	42.5
PMCO 704-1/8-8	G1/8	8	13.9	5	36.5	22.5	7.75	14	12	7	42.5
PMCO 706-1/4-6	G1/4	6	13.9	6	42	24.5	9.25	18.6	15	7	48
PMCO 706-1/4-8	G1/4	8	13.9	6	42	24.5	9.25	18.6	15	7	48
PMCO 706-1/4-10	G1/4	10	16.1	6	42	27	9.25	18.6	15	7	48
PMCO 708-3/8-10	G3/8	10	20.2	7	48.5	29	11	22	18	10	56.5
PMCO 708-3/8-12	G3/8	12	20.2	7	48.5	29	11	22	18	10	56.5



Series TMCU, TMVU, TMCU flow control valves

Unidirectional and bidirectional banjo flow controllers with nominal diameter 2 - 3,8 - 5,8 - 8 mm
Ports: G1/8, G1/4, G3/8, G1/2



Series TMCU, TMVU, TMCU unidirectional and bidirectional flow controllers have been revised in order to decrease their dimensions and improve their flow rate characteristics. Their construction allows for easy assembly to cylinders and valves and allows the regulation adjustment to be precise and gradual.

GENERAL DATA

Construction	needle - type
Valve group	unidirectional and bidirectional controller
Materials	brass - technopolymer - NBR
Mounting	by male threaded
Threaded ports	G1/8 - G1/4 - G3/8 - G1/2
Installation	in any position
Operating temperature	0°C ÷ 60°C (with dry air -20°C)
Operating pressure	0,5 ÷ 10 bar
Nominal pressure	6 bar
Nominal flow	see graph
Nominal dia.	Tube 4 Ø2 - Tube 6 Ø3,8 - Tube 8 Ø5,8 - Tube 10 and 12 Ø8
Fluid	filtered air If lubricated air is used, it is recommended to use ISOVG 32 oil. Once applied the lubrication should never be interrupted.

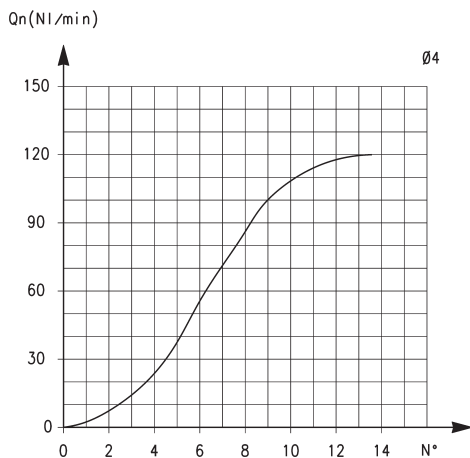
CODING EXAMPLE

TM	CU		9	74	-	1/8	-	6
TM	ACTUATION: TM = manual							
CU	ASSEMBLY: CU = on cylinders unidirectional VU = on valves unidirectional CO = bidirectional							
9	VERSIONS: 9 = manual needle							
74	REGULATION: step - Ø tube 72 = 2 4 74 = 3.8 6 76 = 5.8 8 78 = 8 10							
1/8	PORTS: 1/8 1/4 3/8 1/2							
6	Ø TUBE: 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

SERIES TMCU, TMVU, TMCO VALVES



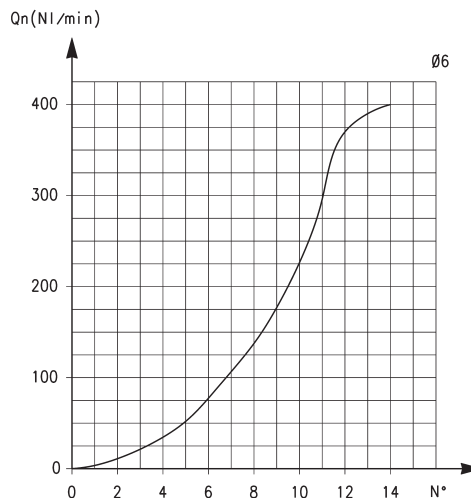
TUBE Ø4

Flow Qn (NL/min.) from 2 → 1 with controller OPEN: 400

Flow Qn (NL/min.) from 2 → 1 with controller CLOSED: 280

Qn is determined with a supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet

N° = number of screw turns.



TUBE Ø6

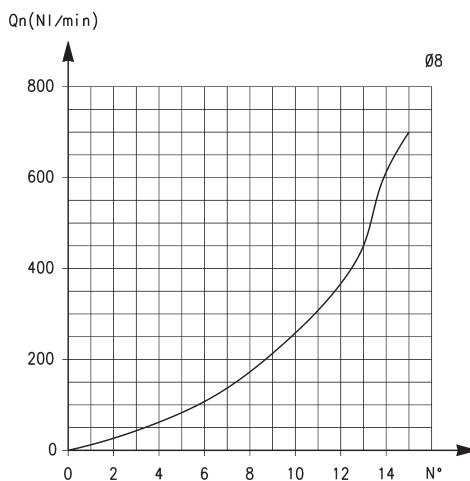
Flow Qn (NL/min.) from 2 → 1 with controller OPEN: 550

Flow Qn (NL/min.) from 2 → 1 with controller CLOSED: 280

Qn is determined with a supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet

N° = number of screw turns.

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS



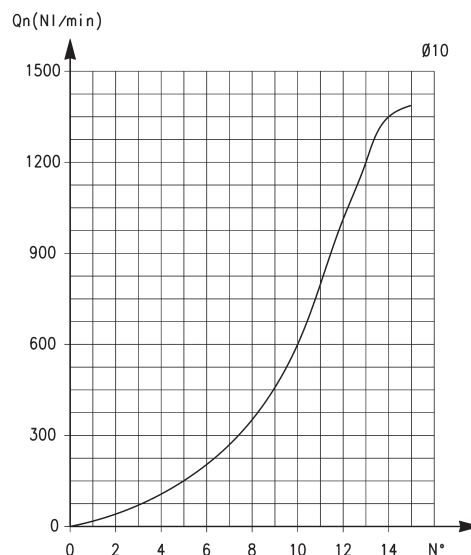
TUBE Ø8

Flow Qn (NL/min.) from 2 → 1 with controller OPEN: 890

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

Qn is determined with a supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet

N° = number of screw turns.



TUBE Ø10

Flow Qn (NL/min.) from 2 → 1 with controller OPEN: Ø 10-1200/Ø12-1250

Flow Qn (NL/min.) from 2 → 1 with controller CLOSED: Ø 10-600/Ø12-600

Qn is determined with a supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet

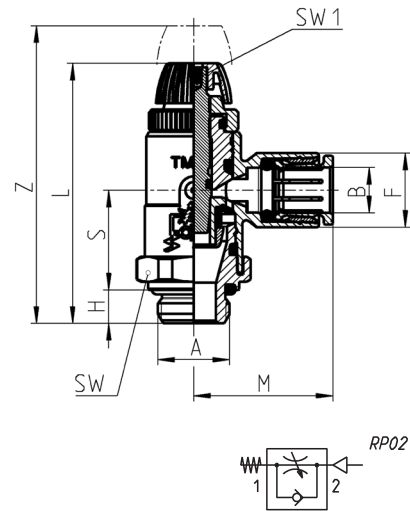
N° = number of screw turns.

Series TMCU valves



Unidirectional flow controller for mounting on single-acting or double-acting cylinders.
Adjustment of setting by a hexagonal male key or a manually operated knurled screw.
Ports: G1/8, G1/4, G3/8, G1/2

DIMENSIONS										
Mod.	A	B	F	H	L	M	S	SW	SW1	Z
TMCU 972-1/8-4	G1/8	4	11,5	5	43	21,5	16,5	16	1,5	50
TMCU 974-1/8-6	G1/8	6	11,5	5	43	21,5	16,5	16	1,5	50
TMCU 974-1/4-6	G1/4	6	11,5	6	44	21,5	16,5	17	1,5	51
TMCU 976-1/8-8	G1/8	8	13,5	5	47	25	17,5	19	2,5	54
TMCU 976-1/4-8	G1/4	8	13,5	6	48,5	25	18	19	2,5	55,5
TMCU 976-3/8-8	G3/8	8	13,5	7	49,5	25	18	20	2,5	56,5
TMCU 978-3/8-10	G3/8	10	16	7	51	29	17	25	2,5	59,5
TMCU 978-1/2-10	G1/2	10	16	8	52	29	17	25	2,5	60,5

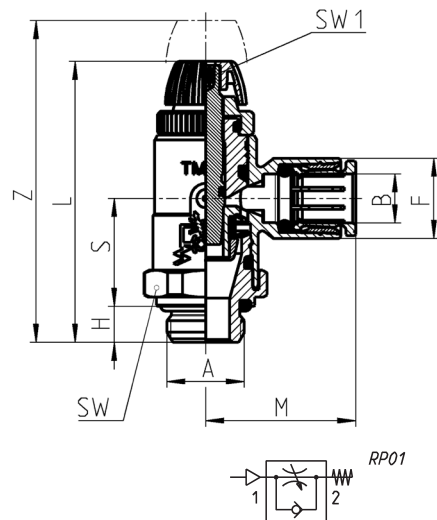


Series TMVU valves



Unidirectional flow controller for mounting on valves.
Adjustment of setting by a hexagonal male key or a manually operated knurled screw.
Ports: G1/8, G1/4, G3/8, G1/2

DIMENSIONS										
Mod.	A	B	F	H	L	M	S	SW	SW1	Z
TMVU 972-1/8-4	G1/8	4	11,5	5	43	21,5	16,5	16	1,5	50
TMVU 974-1/8-6	G1/8	6	11,5	5	43	21,5	16,5	16	1,5	50
TMVU 974-1/4-6	G1/4	6	11,5	6	44	21,5	16,5	17	1,5	51
TMVU 976-1/8-8	G1/8	8	13,5	5	47	25	17,5	19	2,5	54
TMVU 976-1/4-8	G1/4	8	13,5	6	48,5	25	18	19	2,5	55,5
TMVU 976-3/8-8	G3/8	8	13,5	7	49,5	25	18	20	2,5	56,5
TMVU 978-3/8-10	G3/8	10	16	7	51	29	17	25	2,5	59,5
TMVU 978-1/2-10	G1/2	10	18	8	52	29	17	25	2,5	60,5

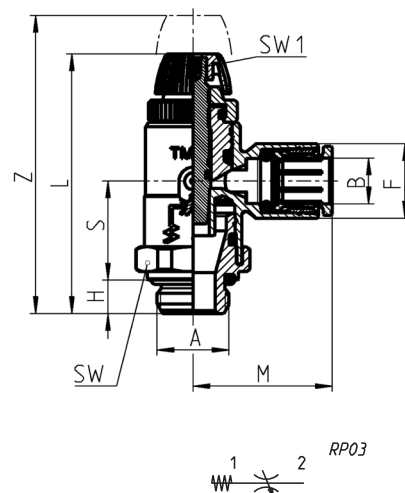


Series TMCO valves



Bidirectional flow controller.
Adjustment of setting by a hexagonal male key or a manually operated knurled screw.
Ports: G1/8, G1/4, G3/8, G1/2

DIMENSIONS										
Mod.	A	B	F	H	L	M	S	SW	SW1	Z
TMCO 972-1/8-4	G1/8	4	11,5	5	43	21,5	16,5	16	1,5	50
TMCO 974-1/8-6	G1/8	6	11,5	5	43	21,5	16,5	16	1,5	50
TMCO 974-1/4-6	G1/4	6	11,5	6	44	21,5	16,5	17	1,5	51
TMCO 976-1/8-8	G1/8	8	13,5	5	47	25	17,5	19	2,5	54
TMCO 976-1/4-8	G1/4	8	13,5	6	48,5	25	18	19	2,5	55,5
TMCO 976-3/8-8	G3/8	8	13,5	7	49,5	25	18	20	2,5	56,5
TMCO 978-3/8-10	G3/8	10	16	7	51	29	17	25	2,5	59,5
TMCO 978-1/2-10	G1/2	10	16	8	52	29	17	25	2,5	60,5



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

CODING EXAMPLE

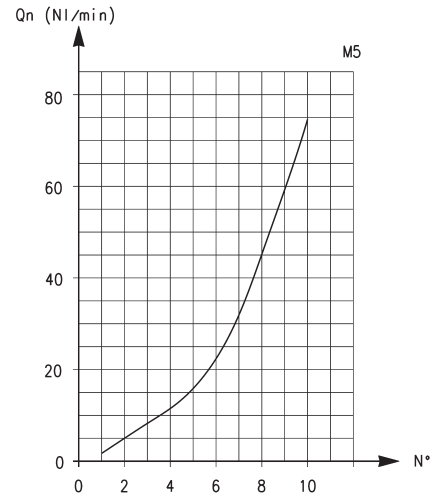
GM	CU		9	03	-	1/8	-	6
GM	ACTUATION: GM = manual GS = screwdriver							
CU	ASSEMBLY: CU = on cylinders unidirectional VU = on valves unidirectional CO = bidirectional							
9	VERSIONS: 8 = needle (screwdriver operated) 9 = needle (manually operated)							
03	FLOW CONTROL RANGE: size Ø tube 13 = 1.5 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							

SERIES GSCU, GMCU, GSCO, GMCO VALVES

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

SERIES GSCU, GMCU, GSCO, GMCO VALVES

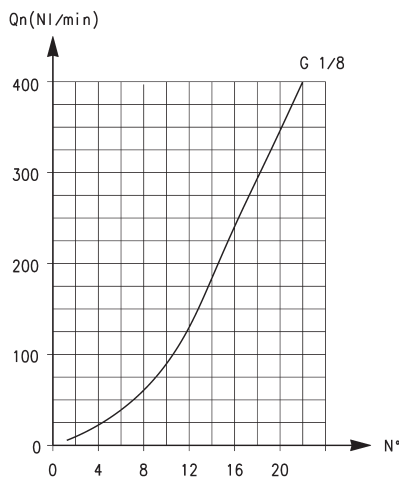


To ensure the right choice of unidirectional flow controller, proceed as follows: calculate the quantity of air in NL/min (see cylinder Table); determine the stroke time of the cylinder; refer to graph to see which controller is the right type. In the case of bidirectional regulators, refer to the graph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

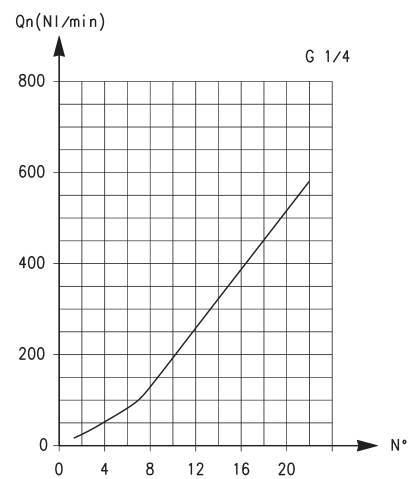
N° = number of screw turns
NB: Q_n is determined with a supply pressure of 6 bar and with $\Delta P = 1$ bar at the outlet.

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.



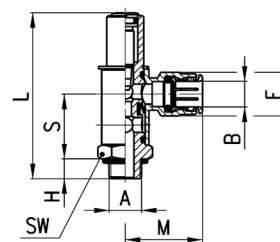
G1/4
Flow Q_n (NL/min.) from 2 → 1 with controller OPEN: 790
Flow Q_n (NL/min.) from 2 → 1 with controller CLOSED: 460

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.

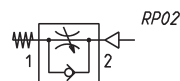
Valves Series GSCU



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



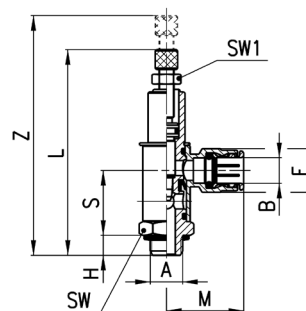
DIMENSIONS								
Mod.	A	B	S	H	L	M	F	SW
GSCU 813-M5-3	M5	3	12	3	27,5	12,5	6,5	8
GSCU 814-M5-4	M5	4	12	3	27,5	19	8,8	8
GSCU 803-1/8-6	G1/8	6	22,5	5	50	26,5	13	14
GSCU 804-1/8-8	G1/8	8	22,5	5	50	28	15	14
GSCU 805-1/4-8	G1/4	8	27	7	67,5	28,5	15	19
GSCU 806-1/4-10	G1/4	10	27	7	67,5	31	17,5	19



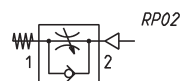
Valves Series GMCU



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



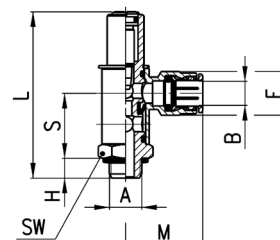
DIMENSIONS										
Mod.	A	B	S	H	L	Z	M	F	SW	SW1
GMCU 913-M5-3	M5	3	12	3	37	42,5	12,5	6,5	8	5,5
GMCU 914-M5-4	M5	4	12	3	37	42,5	19	8,8	8	5,5
GMCU 903-1/8-6	G1/8	6	22,5	5	65,5	72,5	26,5	13	14	7
GMCU 904-1/8-8	G1/8	8	22,5	5	65,5	72,5	28	15	14	7
GMCU 905-1/4-8	G1/4	8	27	7	85	97,5	28,5	15	19	10
GMCU 906-1/4-10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



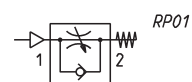
Valves Series GSVU



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



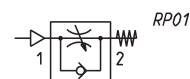
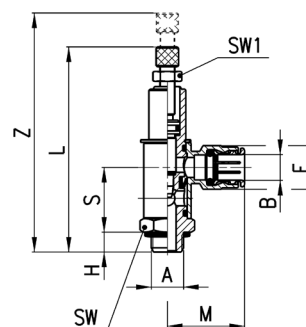
DIMENSIONS								
Mod.	A	B	S	H	L	M	F	SW
GSVU 813-M5-3	M5	3	12	3	27,5	12,5	6,5	8
GSVU 814-M5-4	M5	4	12	3	27,5	19	8,8	8
GSVU 803-1/8-6	G1/8	6	22,5	5	50	26,5	13	14
GSVU 804-1/8-8	G1/8	8	22,5	5	50	28	15	14
GSVU 805-1/4-8	G1/4	8	27	7	67,5	28,5	15	19
GSVU 806-1/4-10	G1/4	10	27	7	67,5	31	17,5	19



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.

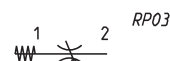
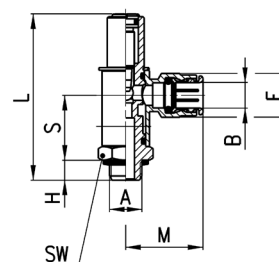


DIMENSIONS										
Mod.	A	B	S	H	L	Z	M	F	SW	SW1
GMVU 913-M5-3	M5	3	12	3	37	42,5	12,5	6,5	8	5,5
GMVU 914-M5-4	M5	4	12	3	37	42,5	19	8,8	8	5,5
GMVU 903-1/8-6	G1/8	6	22,5	5	50	72,5	26	13	14	7
GMVU 904-1/8-8	G1/8	8	22,5	5	50	72,5	28	15	14	7
GMVU 905-1/4-8	G1/4	8	27	7	67,5	97,5	29	15	19	10
GMVU 906-1/4-10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

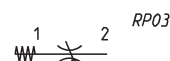
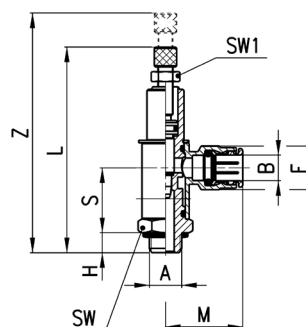


DIMENSIONS									
Mod.	A	B	S	H	L	M	F	SW	
GSCO 813-M5-3	M5	3	12	3	27,5	12,5	6,5	8	
GSCO 814-M5-4	M5	4	12	3	27,5	19	8,8	8	
GSCO 803-1/8-6	G1/8	6	22,5	5	50	26,5	13	14	
GSCO 804-1/8-8	G1/8	8	22,5	5	50	28	15	14	
GSCO 805-1/4-8	G1/4	8	27	7	67,5	28,5	15	19	
GSCO 806-1/4-10	G1/4	10	27	7	67,5	31	17,5	19	

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

Series RFU and RFO flow control valves

Unidirectional and bidirectional

Ports: M5, G1/8, G1/4, G3/8 and G1/2

Nominal diameters: 1,5 mm (M5), 2 and 3 mm (G1/8),
4 and 6 mm (G1/4), 7 mm (G3/8 and G1/2)



- » Series RFU: unidirectional flow control valves for the speed regulation of a cylinder
- » Series RFO: bidirectional flow control valves for the air flow regulation in both directions and for the pressurization or depressurization of a container.

The unidirectional flow controllers are equipped with M5, G1/8, G1/4, G3/8 and G1/2 ports.

G1/8 and G1/4 ports are available with two different types of adjustment (see diagrams), whereas M5, G3/8 and G1/2 ports have just one type of adjustment. All models can be panel or wall mounted or they can be mounted on cylinders, as required.

To choose the most suitable model, it is recommended to:

1. calculate the quantity of air in NL/min (see the cylinders tables in the catalogue appendix);
2. determine the stroke time of the cylinder;
3. check the flow diagrams (see pages 2/7.20.03 and 2/7.20.04).

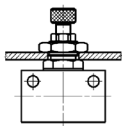
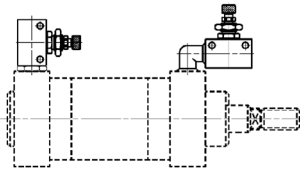
GENERAL DATA

Construction	needle-type
Valve group	unidirectional and bidirectional controller
Materials	AL body - brass needle (not nickel-plated) - NBR seals
Mounting	with screws in the holes of the valve body or panel mounted
Threaded ports	M5 - G1/8 - G1/4 - G3/8 - G1/2
Installation	as required
Operating temperature	0°C ÷ 80°C (with dry air - 20°C)
Operating pressure	1 ÷ 10 bar (for models with M5 - G1/8 - G1/4 ports) 2 ÷ 10 bar (for models with G3/8 - G1/2 ports)
Nominal pressure	6 bar
Nominal flow	see graph
Nominal diameter	M5 = 1,5 - G1/8 = 2 or 3 mm - G1/4 = 4 or 6 mm - G3/8 and G1/2 = 7 mm
Fluid	filtered air

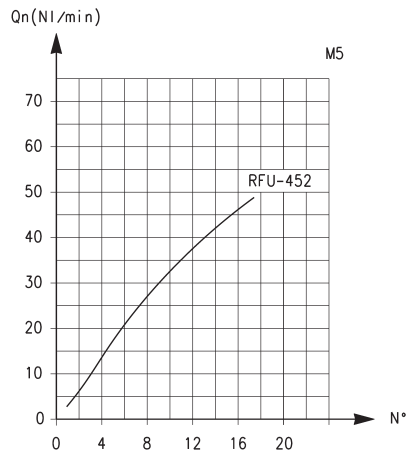
CODING EXAMPLE

RF	U		4	8	2	-	1/8
RF	SERIES						
U 4	FUNCTION: U 4 = unidirectional O 3 = bidirectional						
8	PORTS: 4 = G1/4 5 = M5 6 = G3/8 7 = G1/2 8 = G1/8						
2	FLOW CONTROL RANGE: 2 = ø 1.5 mm max (for ports M5) ø 2 mm max (for ports 1/8 only) 3 = ø 3 mm max (for ports 1/8 only) 4 = ø 4 mm max (for ports 1/4 only) 6 = ø 6 mm max (for ports 1/4 only) 7 = ø 7 mm max (for ports 3/8, 1/2 only)						
1/8	PORTS: M5 1/8 1/4 3/8 1/2						

EXAMPLES OF SERIES RFO - RFU VALVES ASSEMBLY



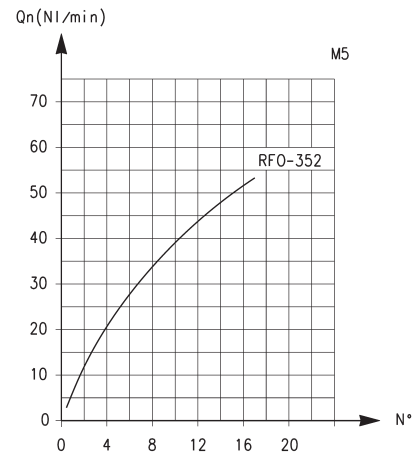
FLOW DIAGRAMS (1 → 2) - VALVES SERIES RFU / RFO - M5 PORTS



RFU 452-M5: flow from 2 → 1 needle type OPEN = 55 NL/min CLOSED = 41 NL/min

N° = number of screw turns

Note: the flow (Q_n) is determined with a pressure of 6 bar at the inlet and $\Delta P = 1$ bar at the outlet.

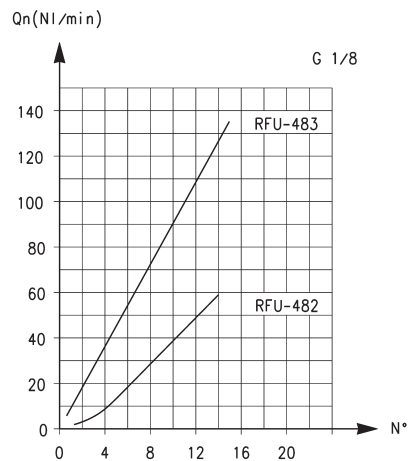


RFO 352-M5

N° = number of screw turns

Note: the flow (Q_n) is determined with a pressure of 6 bar at the inlet and $\Delta P = 1$ bar at the outlet.

FLOW DIAGRAMS (1 → 2) - VALVES SERIES RFU / RFO - G1/8 PORTS

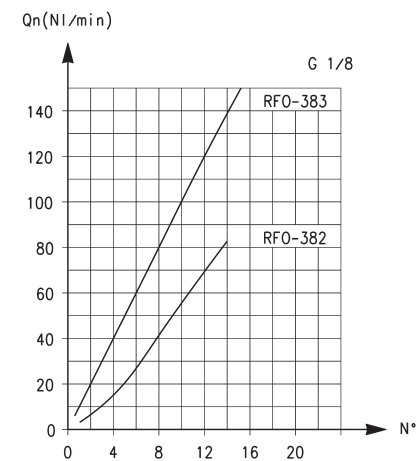


RFU 482-1/8: flow from 2 → 1 needle type OPEN = 149 NL/min CLOSED = 130,5 NL/min

RFU 483-1/8: flow from 2 → 1 needle type OPEN = 180 NL/min CLOSED = 140 NL/min

N° = number of screw turns

Note: the flow (Q_n) is determined with a pressure of 6 bar at the inlet and $\Delta P = 1$ bar at the outlet.

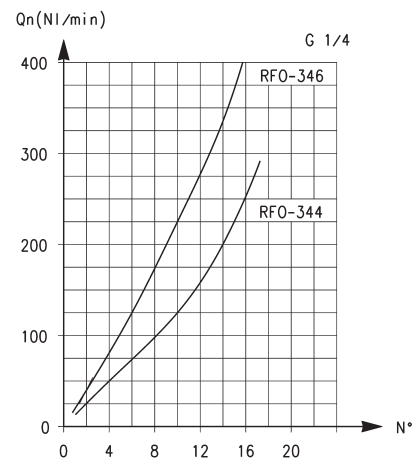
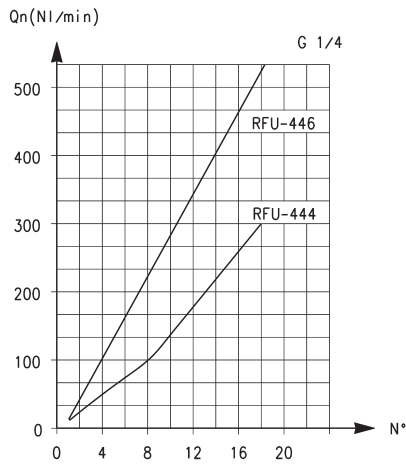


RFO 382-1/8 - RFO 383-1/8

N° = number of screw turns

Note: the flow (Q_n) is determined with a pressure of 6 bar at the inlet and $\Delta P = 1$ bar at the outlet.

FLOW DIAGRAMS (1 → 2) - VALVES SERIES RFU / RFO - G1/4 PORTS



RFU 444-1/4: flow from 2 → 1 needle type OPEN = 680 NL/min CLOSED = 534 NL/min
RFU 446-1/4: flow from 2 → 1 needle type OPEN = 680 NL/min CLOSED = 534 NL/min

RFO 344-1/4 - RFO 346-1/4

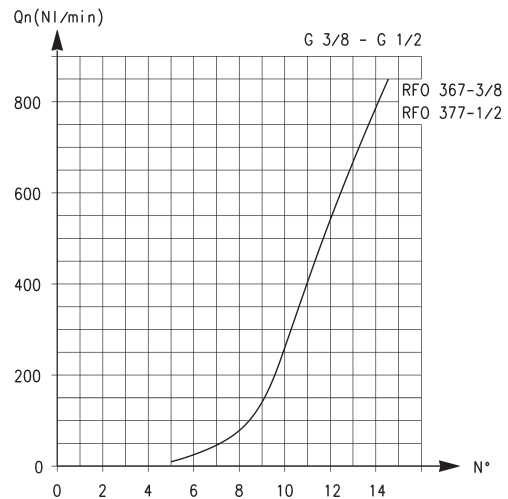
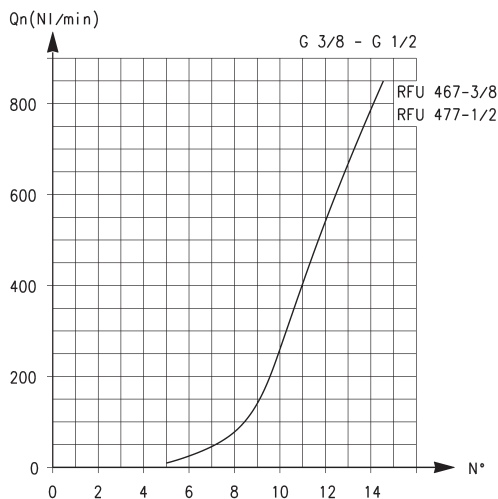
N° = number of screw turns.

Note: the flow (Qn) is determined with a pressure of 6 bar at the inlet and $\Delta P = 1$ bar at the outlet.

N° = number of screw turns

Note: the flow (Qn) is determined with a pressure of 6 bar at the inlet and $\Delta P = 1$ bar at the outlet.

FLOW DIAGRAMS (1 → 2) - VALVES SERIES RFU / RFO - G3/8, G1/2 PORTS



RFU 467-3/8: flow from 2 → 1 needle type OPEN = 1700 NL/min CLOSED = 1700 NL/min
RFU 477-1/2: flow from 2 → 1 needle type OPEN = 1700 NL/min CLOSED = 1700 NL/min

RFO 367-3/8 - RFO 377-1/2

N° = number of screw turns

Note: the flow (Qn) is determined with a pressure of 6 bar at the inlet and $\Delta P = 1$ bar at the outlet.

N° = number of screw turns

Note: the flow (Qn) is determined with a pressure of 6 bar at the inlet and $\Delta P = 1$ bar at the outlet.

Unidirectional flow control valves Series RFU



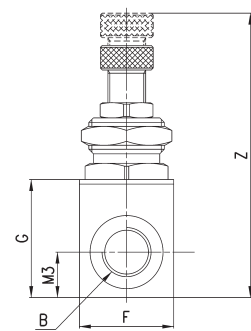
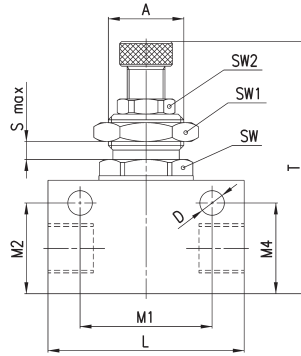
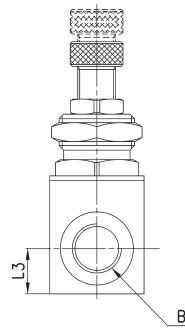
To regulate the cylinder speed, the discharging chamber air flow has to be controlled. Therefore, it is recommended to connect the valve threaded outlet 1 to the cylinder inlet and the outlet 2 to the valve user port.

TABLE NOTE:

* knurled ring nut



RFU1



DIMENSIONS

Mod.	Ø	A	B	D	F	G	L	M1	M2	M3	L3	M4	T	Z	S _{Max}	SW	SW1	SW2
RFU 452-M5	1.5	M10x1	M5	4.2	14	16	26	18.5	13.2	7	-	13.2	39	44.5	3	12	14	8
RFU 482-1/8	2	M12x1	G1/8	4.5	16	21	34	24.5	16.5	8	-	16.5	46	51	4	14	17	9
RFU 483-1/8	3	M12x1	G1/8	4.5	16	21	34	24.5	16.5	8	-	16.5	46	51	4	14	17	9
RFU 444-1/4	4	M20x1.5	G1/4	6.5	25	30	52	35	24	12	-	24	60	69	7	22	24	14
RFU 446-1/4	6	M20x1.5	G1/4	6.5	25	30	52	35	24	12	-	24	60	69	7	22	24	14
RFU 467-3/8	7	M18x1	G3/8	6.5	27	42	56	43	34.5	14	28	7.5	75	85	8	22	22	*
RFU 477-1/2	7	M18x1	G1/2	6.5	27	42	56	43	34.5	14	28	7.5	75	85	8	22	22	*

Bidirectional flow control valves Series RFO

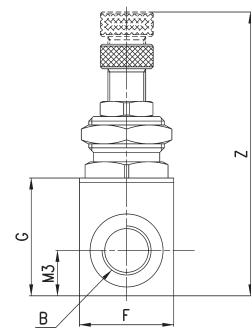
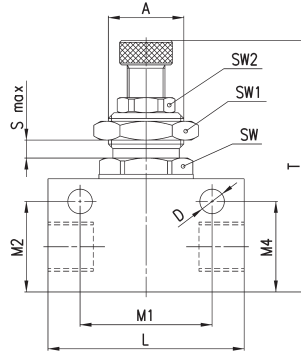
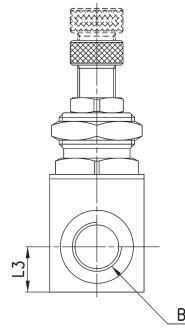


TABLE NOTE:

* knurled ring nut



RFO1



DIMENSIONS

Mod.	Ø	A	B	D	F	G	L	M1	M2	M3	L3	M4	T	Z	S _{Max}	SW	SW1	SW2
RFO 352-M5	1.5	M10x1	M5	4.2	14	16	26	18.5	13.2	7	-	13.2	39	44.5	3	12	14	8
RFO 382-1/8	2	M12x1	G1/8	4.2	16	21	34	24.5	16.5	8	-	16.5	46	51	4	14	17	9
RFO 383-1/8	3	M12x1	G1/8	4.5	16	21	34	24.5	16.5	8	-	16.5	46	51	4	14	17	9
RFO 344-1/4	4	M20x1.5	G1/4	6.5	25	30	52	35	24	12	-	24	60	69	7	22	24	14
RFO 346-1/4	6	M20x1.5	G1/4	6.5	25	30	52	35	24	12	-	24	60	69	7	22	24	14
RFO 367-3/8	7	M18x1	G3/8	6.5	27	42	56	43	34.5	14	28	7.5	75	85	8	22	22	*
RFO 377-1/2	7	M18x1	G1/2	6.5	27	42	56	43	34.5	14	28	7.5	75	85	8	22	22	*

Series 28 flow control valves

Bidirectional

Ports: G1/8, G1/4, G3/8, G1/2



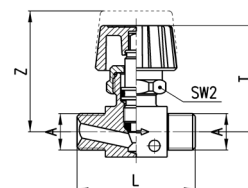
These are bidirectional control valves made entirely of nickel-plated brass, with NBR seals and a technopolymer control knob.

They are suitable for regulating compressed air, water or mineral oil. For models 2810, 2820, 2819 and 2829 exists the possibility to connect plastic, brass or copper tubes, using nut Mod. 1303 and cushion sleeve Mod. 1310/1320.

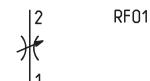
GENERAL DATA

Construction	cone - type
Materials	body = nickel-plated brass control knob = technopolymer seals = NBR
Ports	G1/8, G1/4, G3/8, G1/2
Installation	as required
Operating pressure	0°C ÷ 80°C (with dry air - 20°)
Operating pressure	0 ÷ 10 bar
Nominal flowrate	see table

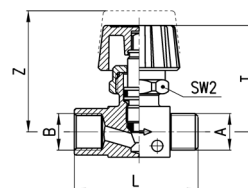
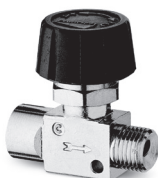
Valve Mod. 2810



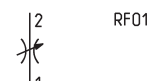
DIMENSIONS							
Mod.	A	L	T	Z	SW2	$\Delta 1\text{bar NL/min}$	Free flow NL/min
2810 1/8	G1/8	40	37	42,5	19	415	590
2810 1/4	G1/4	42	37	42,5	19	508	740
2810 3/8	G3/8	42	37	42,5	19	620	900
2810 1/2	G1/2	54	42	48	22	1540	2080



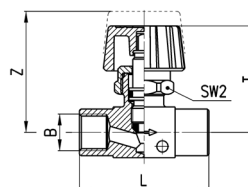
Valve Mod. 2820



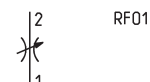
DIMENSIONS								
Mod.	A	B	L	T	Z	SW2	Δ1bar NL/min	Free flow NL/min
2820 1/8	G1/8	G1/8	41	37	42,5	19	400	640
2820 1/4	G1/4	G1/4	44	37	42,5	19	530	840
2820 3/8	G3/8	G3/8	55,5	41,5	48	22	1415	1990
2820 1/2	G1/2	G1/2	59	42	49	22	1520	2150



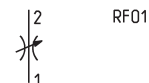
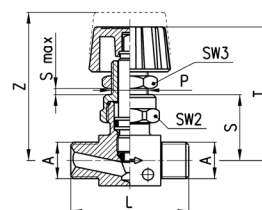
Valve Mod. 2830



DIMENSIONS							
Mod.	B	L	T	Z	SW2	$\Delta 1\text{bar NL/min}$	Free flow NL/min
2830 1/8	G1/8	42	37	42,5	19	415	635
2830 1/4	G1/4	46	37	42,5	19	530	850
2830 3/8	G3/8	62	41,4	48	22	1415	1980
2830 1/2	G1/2	64	42	49	22	1520	2100

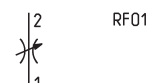
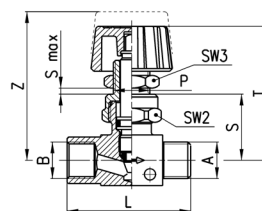


Valve Mod. 2819



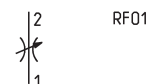
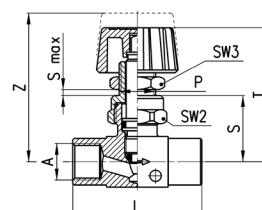
DIMENSIONS									
Mod.	A	L	P	S	T	Z	S _{max}	SW2	SW3
2819 1/8	G1/8	40	1/4	23	47	52,5	7	19	17
2819 1/4	G1/4	42	1/4	23	47	52,5	7	19	17

Valve Mod. 2829



DIMENSIONS										
Mod.	A	B	L	P	S	T	Z	S max	SW2	SW3
2829 1/8	G1/8	G1/8	41	1/4	23	47	52,5	7	19	17
2829 1/4	G1/4	G1/4	44	1/4	23	47	52,5	7	19	17

Valve Mod. 2839



DIMENSIONS									
Mod.	A	L	P	S	T	Z	S _{max}	SW2	SW3
2839 1/8	G1/8	42	1/4	23	47	52,5	7	19	17
2839 1/4	G1/4	46	1/4	23	47	52,5	7	19	17
2839 3/8	G3/8	62	14X1	28	56,5	63	7	22	17
2839 1/2	G1/2	64	14X1	29	57	64	7	22	17