

# Flow control valves

## Series PSCU, PMCU, PSVU, PMVU, PSCO, PMCO

New port M5

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

2

CONTROL



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

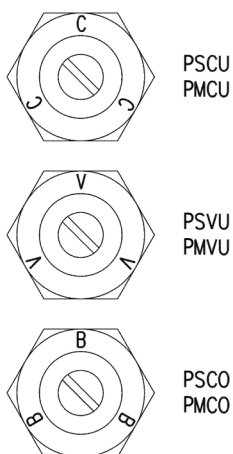
<b>Construction</b>	needle type
<b>Valve group</b>	unidirectional and bidirectional controller
<b>Materials</b>	body, regulation screw: stainless steel (M5), brass (G1/8 - G1/4 - G3/8) collet and insert = brass banjo: brass (M5), technopolymer (G1/8 - G1/4 - G3/8) controller = technopolymer - seals = NBR
<b>Mounting</b>	by male thread
<b>Ports</b>	M5 - G1/8 - G1/4 - G3/8
<b>Installation</b>	in any position
<b>Operating temperature</b>	0°C ÷ 60°C (with dry air -20°C)
<b>Operating pressure</b>	1 ÷ 10 bar
<b>Nominal pressure</b>	6 bar
<b>Nominal flow</b>	see graph
<b>Nominal diameter</b>	M5 = 1.5 mm - G1/8 = 2 mm - G1/4 = 4 mm - G3/8 = 7 mm
<b>Fluid</b>	filtered air

## CODING EXAMPLE

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

To ensure the right choice of unidirectional flow controller, proceed as follows:  
 calculate the quantity of air in NI/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:

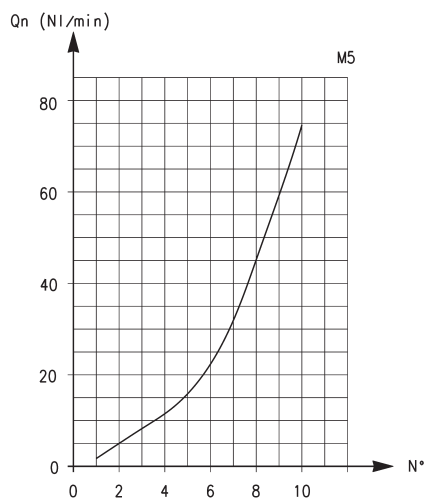
PSCU - PMCU = assembly directly on the cylinders

PSVU - PMVU = assembly directly on the valves

PSCO - PMCO = assembly directly on the cylinders or valves

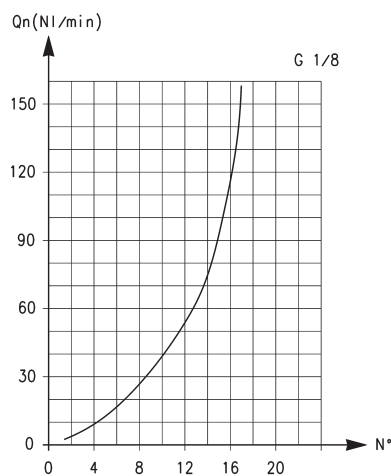
## UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS

New port M5



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

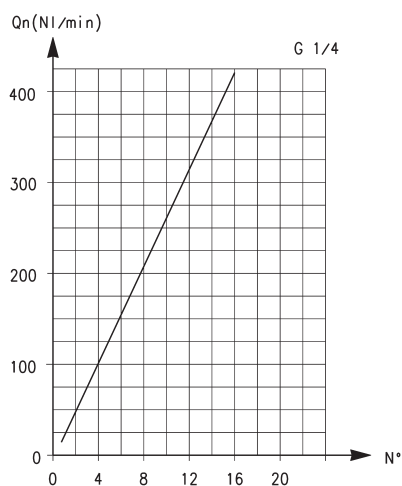
$Q_n$  = supply pressure of 6 bar and with  $\Delta P = 1$  bar at the outlet  
 $N^\circ$  = number of screw turns



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

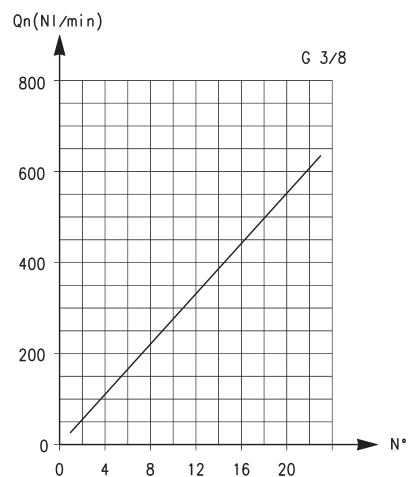
$Q_n$  = supply pressure of 6 bar and with  $\Delta P = 1$  bar at the outlet  
 $N^\circ$  = number of screw turns

## UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS



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

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



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

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



### Unidirectional flow controllers Series PSCU

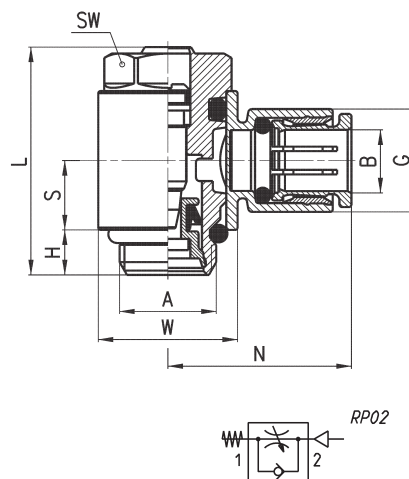
For mounting on single-acting or double-acting cylinders.

A screwdriver must be used to adjust the registration setting.

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

Port M5: banjo in brass

New port M5



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

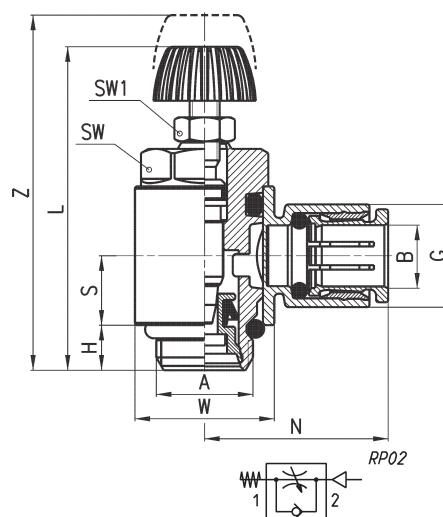
For mounting on single-acting or double-acting cylinders.

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

New port M5



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

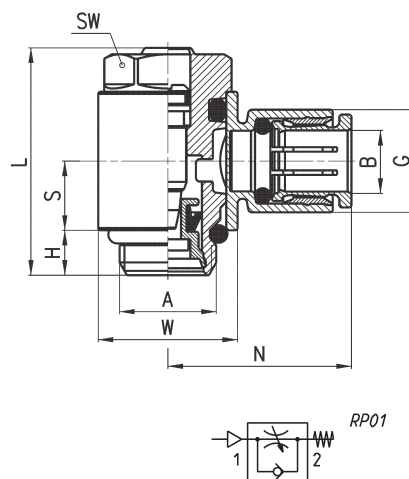
For mounting on valves.

A screwdriver must be used to adjust the registration setting.

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

Port M5: banjo in brass

New port M5



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

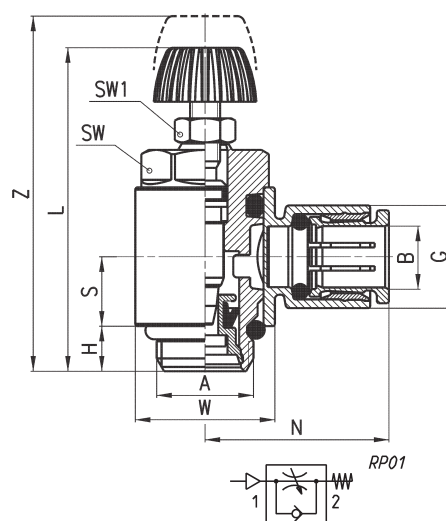


### Unidirectional flow controllers Series PMVU

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

New port M5



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

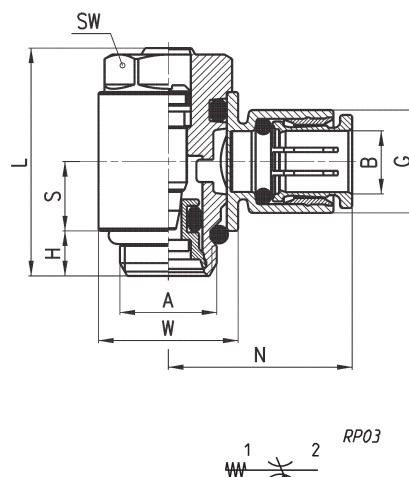


### Bidirectional flow controllers Series PSCO

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

Port M5: banjo in brass

New port M5



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

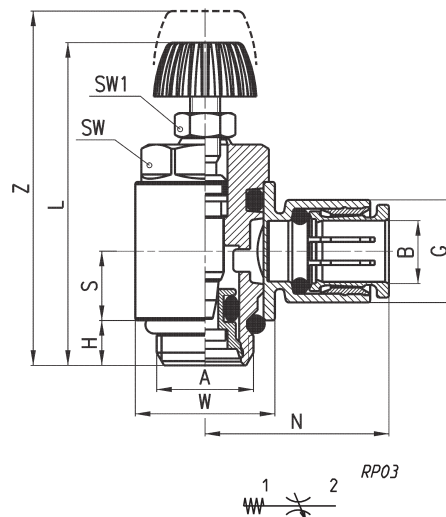


### Bidirectional flow controllers Series PMCO

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

New port M5



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