FLOW CONTROL VALVES
SERIES TMCU, TMVU, TMCO

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, TMCO 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.

FLOW CONTROL VALVES
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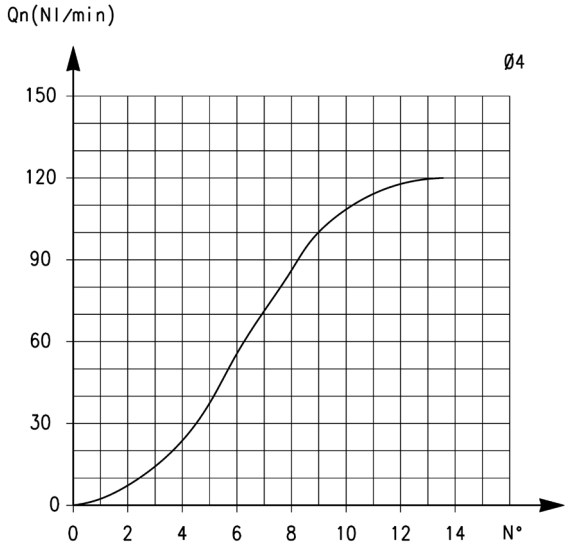
Coding Example

TM	CU	9	74	-	1/8

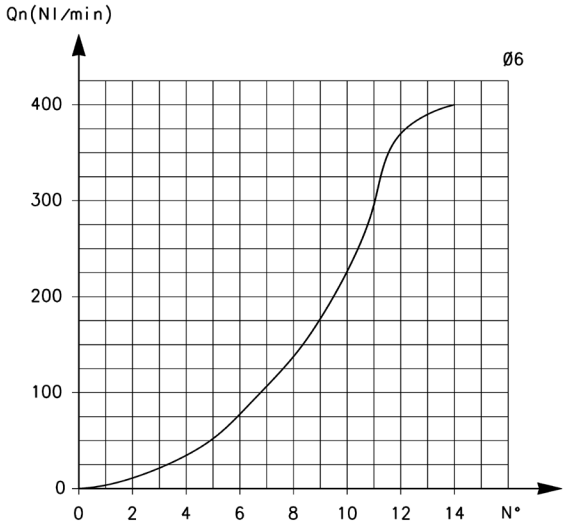
TM	ACTUATION TM = Manual
CU	ASSEMBLY CU = On cylinders unidirectional VU = On valves unidirectional CO = Bidirectional
9	VERSIONS 9 = Manual needle
74	REGULATION 72 (step = 2 / Ø tube = 4) 74 (step = 3,8 / Ø tube = 6) 76 (step = 5,8 / Ø tube = 8) 78 (step = 8 / Ø tube = 10)
1/8	PORTS 1/8 1/4 3/8 1/2
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 Nl/min (see cylinder Table); determine the stroke time of the cylinder; refer to graph to see which controller is the right type.

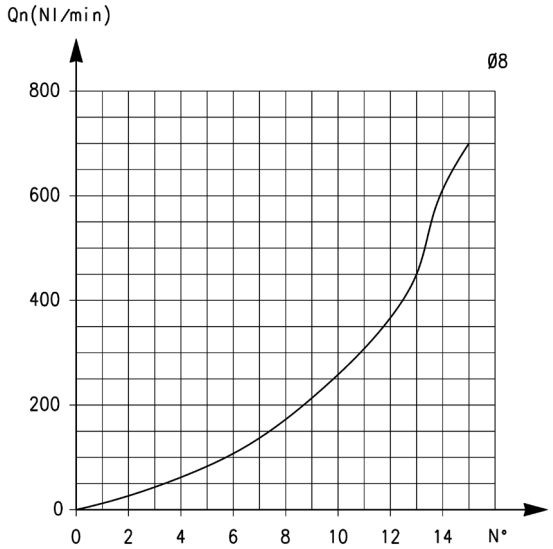
Unidirectional and bidirectional flow control regulators



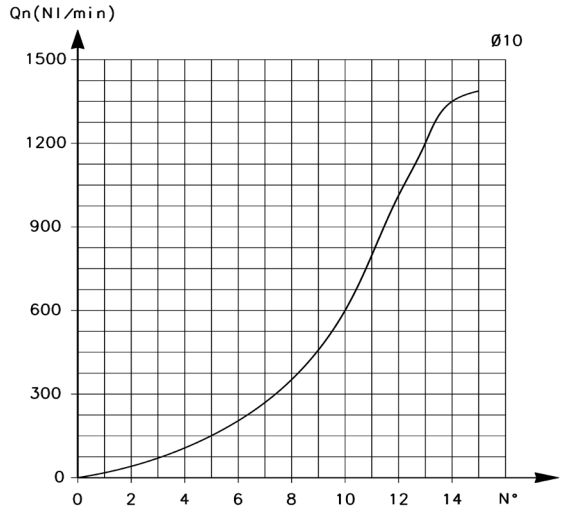
TUBE Ø4
Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 400
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 280
Qn is determined with a supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = Number of screw turns.



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 ΔP = 1 bar at the outlet
N° = Number of screw turns.



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 ΔP = 1 bar at the outlet
N° = Number of screw turns.



TUBE Ø10
Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: Ø10-1200/Ø12-1250
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: Ø10-600/Ø12-600
Qn is determined with a supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = Number of screw turns.

FLOW CONTROL VALVES
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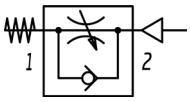
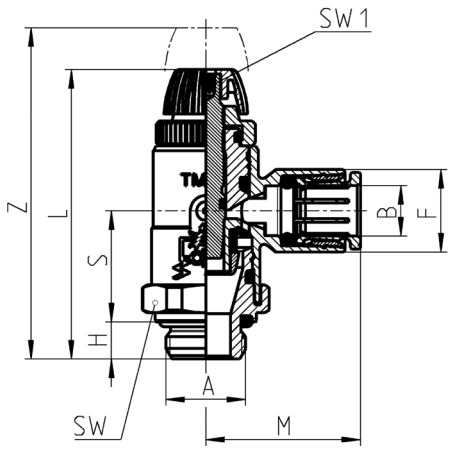
Series TMCU valves



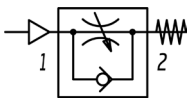
RP02

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



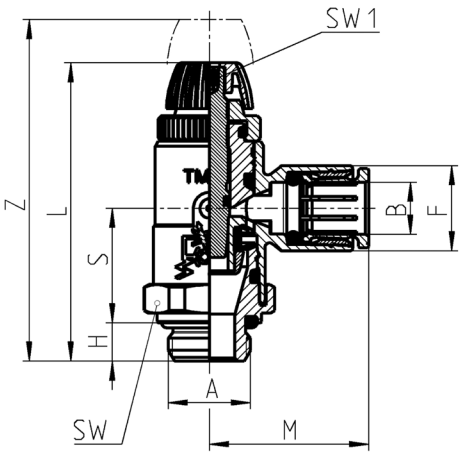
Mod.	A	B	F	H	L	M	S	SW	SW1	Z
TMCU 972-1/8-4	G1/8	4	11,5	5	43	21,5	16,5	16	1,5	50
TMCU 974-1/8-6	G1/8	6	11,5	5	43	21,5	16,5	16	1,5	50
TMCU 974-1/4-6	G1/4	6	11,5	6	44	21,5	16,5	17	1,5	51
TMCU 976-1/8-8	G1/8	8	13,5	5	47	25	17,5	19	2,5	54
TMCU 976-1/4-8	G1/4	8	13,5	6	48,5	25	18	19	2,5	55,5
TMCU 976-3/8-8	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



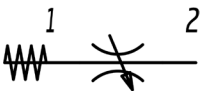
RP01

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



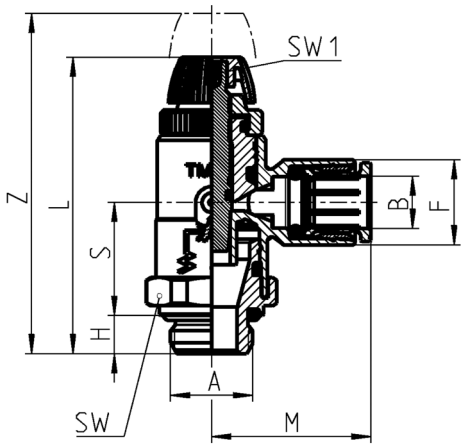
Mod.	A	B	F	H	L	M	S	SW	SW1	Z
TMVU 972-1/8-4	G1/8	4	11,5	5	43	21,5	16,5	16	1,5	50
TMVU 974-1/8-6	G1/8	6	11,5	5	43	21,5	16,5	16	1,5	50
TMVU 974-1/4-6	G1/4	6	11,5	6	44	21,5	16,5	17	1,5	51
TMVU 976-1/8-8	G1/8	8	13,5	5	47	25	17,5	19	2,5	54
TMVU 976-1/4-8	G1/4	8	13,5	6	48,5	25	18	19	2,5	55,5
TMVU 976-3/8-8	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



RP03

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



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