

2-way flow control valves NG 6



with jump start suppression
Interface to DIN 24 340 and ISO

PN [$p_{max.}$] = 315 bar

7500990.06.02.06

Description (standard units)

Design

Control function from A to B by means of two restrictors connected in series - a variable throttle (differential pressure piston) in front of a fixed restrictor (orifice). Due to the triangle-shaped cross section of the throttle it is possible to regulate even small streams of oil.

Efficient suppression of jumping starts:

The restrictors are axially arranged and work in the same direction against the regulating spring. With no flow passing through the valve there is a fixed aspect ratio between the two restrictors. This ratio keeps the throttled area of the differential pressure piston from opening more than absolutely necessary.

Actuation

The flow is set by hand, or by roller rocker. The setting can, if desired, be safeguarded by means of locking (E 10-closure).

Mounting

The units are bolted on subplates and sealed by O-rings.

Line connection

Subplate, interface to DIN 24 340 and ISO.



Features

- Jump start suppression (standard)
- Regulating range from 20 up to 16000 cm³/min with an inlet pressure range from 5 to 315 bar
- Space saving, vertical mounting on subplate
- Incorporated by-pass check-valve

Type code

Flow control valve

M	...	6	...	G	...	001	...	O	...
	1		2		3		4		5

1 Operating characteristics: **RU** – Regulator (2-way) with check-valve

2 Actuation: **H** – By hand
HV – By hand, lockable
R – By roller rocker

3 Flow rate: **1** – 2 l/min
2 – 4 l/min
3 – 8 l/min
4 – 16 l/min
024 – 24 l/min

4 Engineering version: **1**

5 Sealing material: **V** – Viton

Subplate

P	S	6	G	O	O
				1	2	3		

1 Line connection: **2** – G 1/4 (Internal thread)
3 – G 3/8 to DIN ISO 228/1)

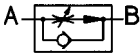
2 Code No.: **024** – G 1/4
001 – G 3/8

3 Engineering version: **2**

Parameters according to VDI 3268

Type designation	2-way flow control valve
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General parameters

Symbol	
Design	Orifice behind a differential pressure piston
Type of mounting	Flange
Line connection	Subplate
Mounting position	Optional
Flow direction	From A to B flow regulating function. From B to A free flow via check valve
Weight [kg]	1.5
Weight of subplate	G 1/4 0.7 G 3/8 1.0
Ambient temperature range ϑ_u [°C]	-20 ... +50
Nominal diameter NG	6

Type	[l/min]	2	4	8	16	24
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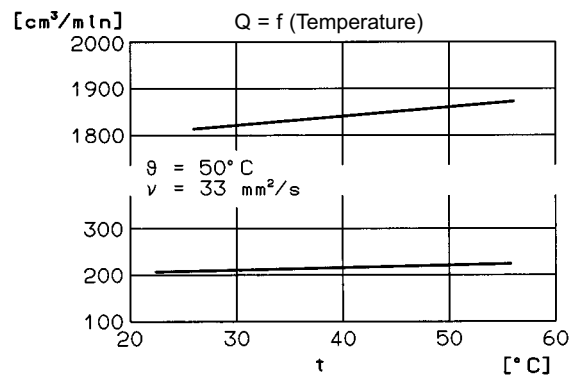
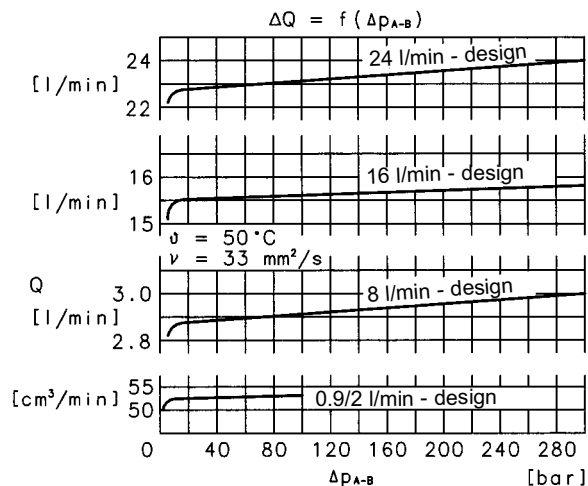
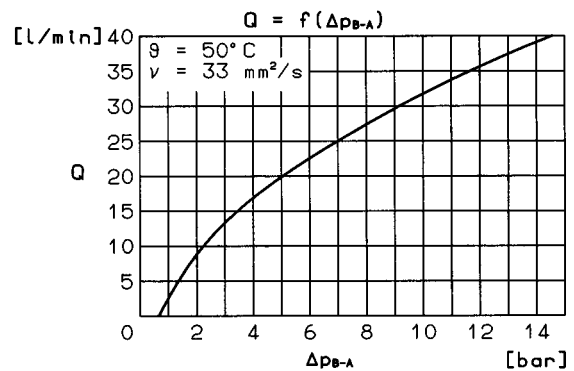
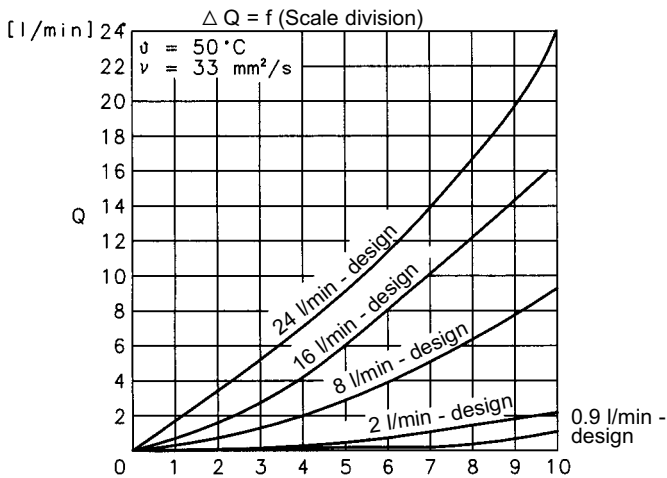
Hydraulic parameters

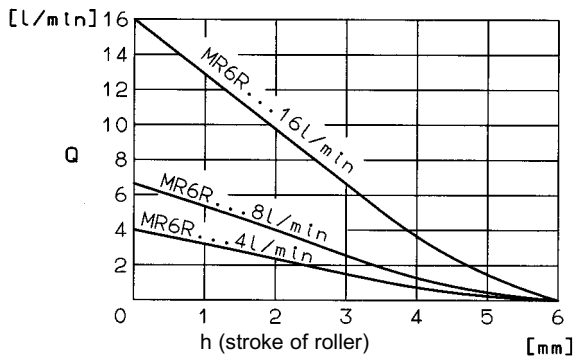
Operating pressure-range [bar]	... 100	... 315				
Operating pressure drop at Q_{max} Δp_{A-B} min. [bar]	2	4	8	16	24	
Δp_{A-B} max. [bar]	100	305				
Pressure medium temperature ϑ_m max. [°C]	+70					
Viscosity range ν [mm ² /s]	12 ... 500					
Actuation	By hand					
Adjusting torque M_b [cmN]	10 when actuated by hand					
Flow rate Q_{min} [l/min]	0.05	0.07	0.10			
Q_{max} [l/min]	2	4	8	16	24	
Angle of rotation α [°]	Approx. 345					

Filter

Filter size s [mm]	
at Q up to 0.5 l/min	0.01
at Q higher than 0.5 l/min	0.05

Characteristic curves





Ordering

The units are designated by their type number. The composition of this number can be drawn from the type code. The standard versions are listed in the type survey. When ordering any of the standard versions, please state type number as well as catalog number to preclude possible misinterpretations.

When inquiring about or ordering units not listed in our type survey of this publication, the type number made up by you by means of the type code, however, will do. The corresponding catalog number will then be stated in our confirmation of order. Mounting bolts and O-rings are included in the delivery. The subplate is to be ordered separately.

Example of order

Wanted: 2-way flow control valve. Flow 0.03 to 8 l/min, with manual adjustment, lockable and corresponding subplate, screwed connection G 1/4.

Flow control valve:

Type No.: M RU 6 HV G 3 001 1 O V
Cat-No.: **5100028**

Subplate:

Type No.: P S 6 G 2 024 2 O O
Cat-No.: **1065173**

Mounting screws: (2 pieces needed)

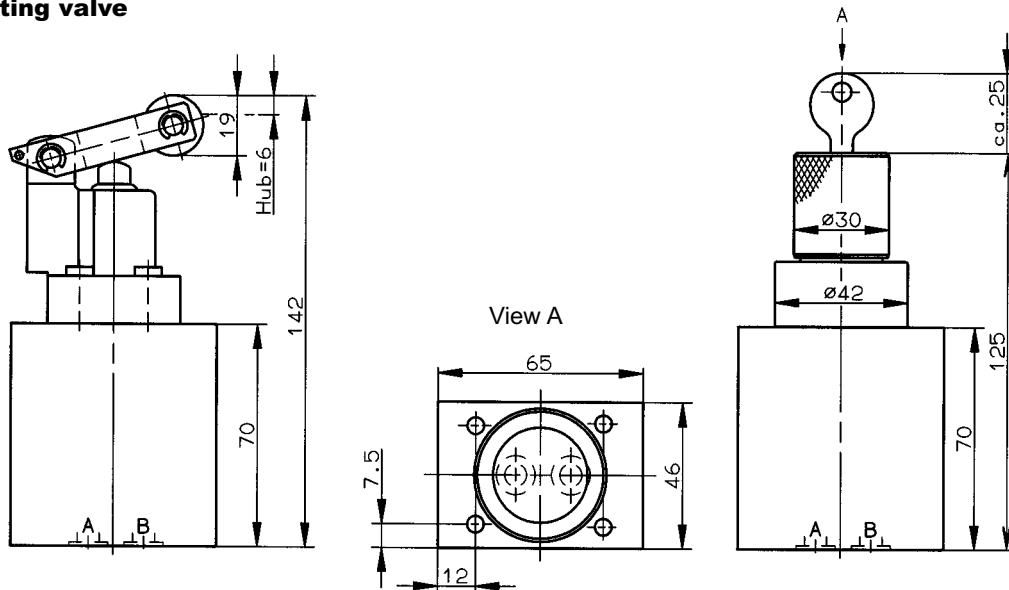
Cylinder bolt: (M 5 x 65 DIN 912-10.9)
Cat-No.: **0700394**

Type survey (standard designs)

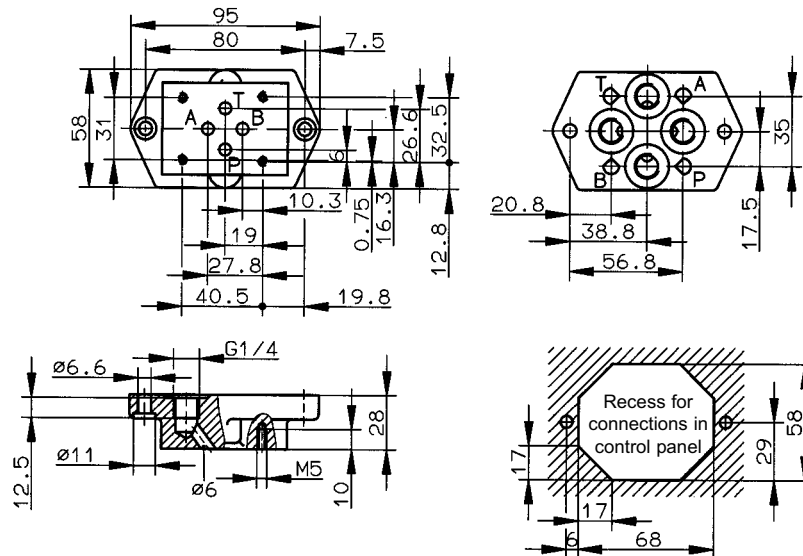
Size	Q [l/min]	Δp_{A-B} [bar]	Actuation	Line connection	Type	Cat. No.
6	0,03 ... 2	4 ... 100	By hand (lockable)	Subplate G 1/4 P S 6 G 2 024 2 O O Cat. No. 1065173 Subplate G 3/8 P S 6 G 3 001 2 O O Cat No. 1065183	M RU 6 HV G 1 001 1 O V	5100026
	0,03 ... 4	4 ... 100			M RU 6 HV G 2 001 1 O V	5100163
	0,07 ... 8	12,5 ... 315			M RU 6 HV G 3 001 1 O V	5100028
	0,10 ... 16	20 ... 315			M RU 6 HV G 4 001 1 O V	5100030
	0,10 ... 24	20 ... 315			M RU 6 HV G 024 001 1 O V	5100165
	0,03 ... 4	4 ... 100	By roller rocker	M RU 6 R G 2 001 1 O V	5100139	
	0,07 ... 8	12,5 ... 315		M RU 6 R G 3 001 1 O V	5100141	
	0,10 ... 16	20 ... 315		M RU 6 R G 4 001 1 O V	5100143	

Dimensional drawings

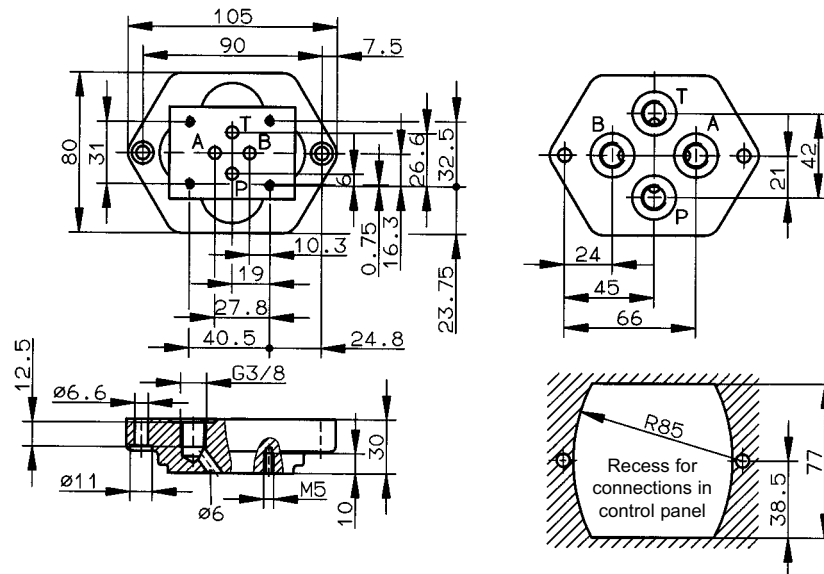
Flow regulating valve



Subplate G 1/4



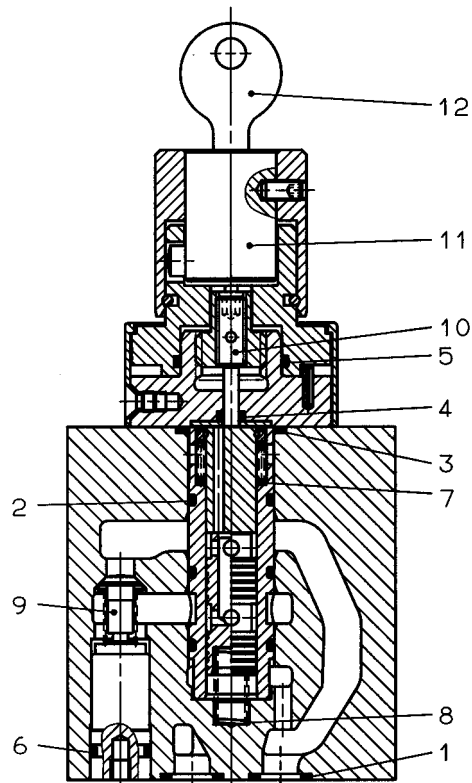
Subplate G 3/8



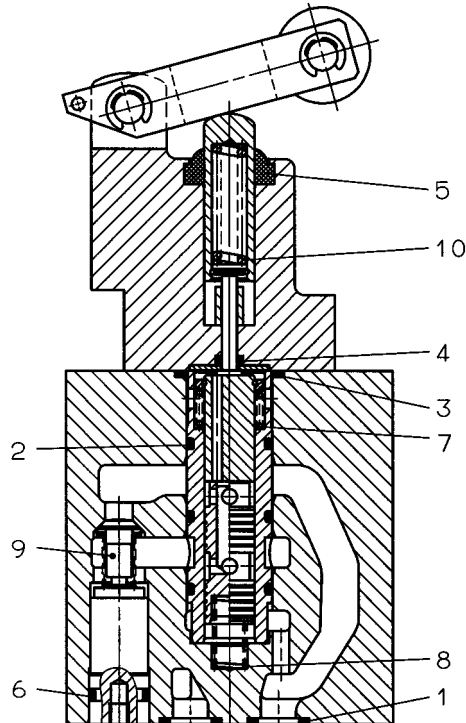
For corresponding plate-type rectifying unit, see 7500991

Spare parts drawings

M RU 6 HV G 1..
M RU 6 HV G 024..
M RU 6 HV G 3..
M RU 6 HV G 4..



M RU 6 R G 2..
M RU 6 R G 3..
M RU 6 R G 4..



Note:

The surface onto which the rectifying unit is to be flanged must not contain any other bores than those needed for connection and fastening of the valve.

Spare parts (Number of pieces)

Part	Designation	MR6HV G2 : MR6HV G1 :	MRU6HV G2 : MRU6HV G1 :	MR6HV G3 : MR6HV G4 : MR6HV G024 :	MRU6HV G3 : MRU6HV G4 : MRU6HV G024 :	MR6RG2 :	MRU6RG2 :	MR6RG3 : MR6RG4 :	MRU6RG3 : MRU6RG4 :	Cat. No.
1	O-ring (9.2 x 1.8)	2	2	2	2	2	2	2	2	0701728
2	O-ring (12.4 x 1.8)	3	3	3	3	3	3	3	3	0701623
3	O-ring (18.7 x 1.8)	1	1	1	1	1	1	1	1	0701627
4	O-ring (2.8 x 1.6)	1	1	1	1	1	-	1	-	0657483
5	O-ring (20.3 x 1.8)	1	1	1	1	-	-	-	-	0701259
5	Seal part (10 x 18 x 7)	-	-	-	-	1	1	1	1	0701017
6	O-ring (7.66 x 1.78)	-	1	-	1	-	1	-	1	0701621
7	Pressure spring	1	1	1	1	1	1	1	1	0721725
8	Pressure spring	1	1	-	-	1	1	-	-	0721723
8	Pressure spring	-	-	1	1	-	-	1	1	0721724
9	Check valve	-	1	-	1	-	1	-	1	0658937
10	Stop screw	1	1	1	1	-	-	-	-	0498749
10	Pressure spring	-	-	-	-	1	1	1	1	0725909
11	Lock with key	1	1	1	1	-	-	-	-	0568519
12	Key	1	1	1	1	-	-	-	-	0660051

Mounting bolts

-	Cylinder bolt (M5 x 65 DIN 912-10.9)	4	4	4	4	4	4	4	4	0700394
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Set of spare parts

1 Set of spare parts consists of parts:	1 ... 5	1	-	1	-	-	-	-	-	0726556
	1 ... 6	-	1	-	1	-	-	-	-	0726558
	1 ... 5	-	-	-	-	1	-	1	-	0726560
	1 ... 6	-	-	-	-	-	1	-	1	0726562