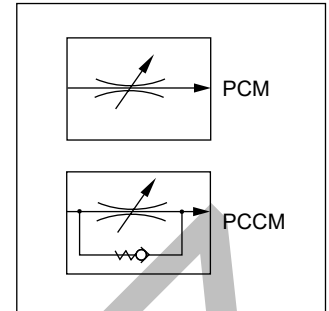
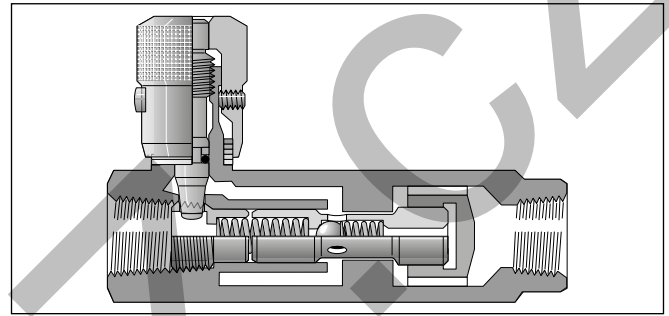


Manatrol 2 way flow control valves for pressure compensated regulation of the flow rate. As a consequence of pressure changes, the set value can vary by $\pm 5\%$ within the tolerance range. Viscosity changes have the same effect and must be observed.



Technical data

Size	Max. press. [bar]	Flow control		Check valve		Weight [kg]
		Q* [l/min]	Δp [bar]	Q _{max} [l/min]	Δp [bar]	
400	210	1 - 10	7	20	3	0.82
600	210	2 - 25	7	30	3	1.05
800	210	6 - 60	11	75	8	1.68
1200	210	10 - 100	11	130	8	3.64
1600	210	19 - 190	11	250	10	6.59



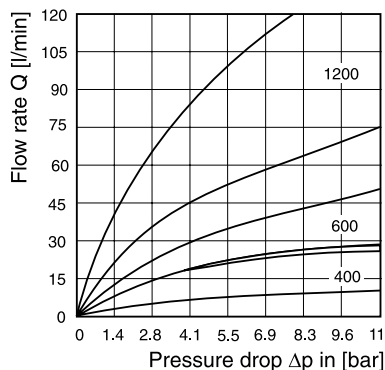
Ordering code

<div style="border: 1px solid black; width: 30px; height: 30px; margin: 0 auto;"></div> <p>Thread type</p> <table border="1" style="margin-top: 10px;"> <tr><td>Code</td><td>Thread</td></tr> <tr><td>omit</td><td>NPTF</td></tr> <tr><td>9</td><td>BSPP</td></tr> </table>	Code	Thread	omit	NPTF	9	BSPP	<div style="border: 1px solid black; padding: 2px; width: 30px; height: 30px; margin: 0 auto;">PC</div> <p>Press. comp. flow control valve</p>	<div style="border: 1px solid black; width: 30px; height: 30px; margin: 0 auto;"></div> <p>Design</p> <table border="1" style="margin-top: 10px;"> <tr><td>Code</td><td>Design</td></tr> <tr><td>omit</td><td>Without check valve</td></tr> <tr><td>C</td><td>With check valve</td></tr> </table>	Code	Design	omit	Without check valve	C	With check valve	<div style="border: 1px solid black; padding: 2px; width: 30px; height: 30px; margin: 0 auto;">M</div> <p>Thread size</p> <table border="1" style="margin-top: 10px;"> <tr><td>Code</td><td>Size</td></tr> <tr><td>400</td><td>1/4</td></tr> <tr><td>600</td><td>3/8</td></tr> <tr><td>800</td><td>1/2</td></tr> <tr><td>1200</td><td>3/4</td></tr> <tr><td>1600</td><td>1</td></tr> </table>	Code	Size	400	1/4	600	3/8	800	1/2	1200	3/4	1600	1	<div style="border: 1px solid black; padding: 2px; width: 30px; height: 30px; margin: 0 auto;">S</div> <p>Steel body</p>	<div style="border: 1px solid black; width: 30px; height: 30px; margin: 0 auto;"></div> <p>Clamping screw</p> <table border="1" style="margin-top: 10px;"> <tr><td>Code</td><td>Clamping screw</td></tr> <tr><td>omit</td><td>Hexagon socket</td></tr> <tr><td>F</td><td>With knurled knob</td></tr> <tr><td>T¹⁾</td><td>Tamper-proof</td></tr> </table>	Code	Clamping screw	omit	Hexagon socket	F	With knurled knob	T ¹⁾	Tamper-proof	<div style="border: 1px solid black; width: 30px; height: 30px; margin: 0 auto;"></div> <p>Seal</p> <table border="1" style="margin-top: 10px;"> <tr><td>Code</td><td>Seal</td></tr> <tr><td>omit</td><td>NBR</td></tr> <tr><td>V</td><td>FPM</td></tr> </table>	Code	Seal	omit	NBR	V	FPM	<div style="border: 1px dashed black; width: 30px; height: 30px; margin: 0 auto;"></div> <p>Design series (not required for ordering)</p>
Code	Thread																																												
omit	NPTF																																												
9	BSPP																																												
Code	Design																																												
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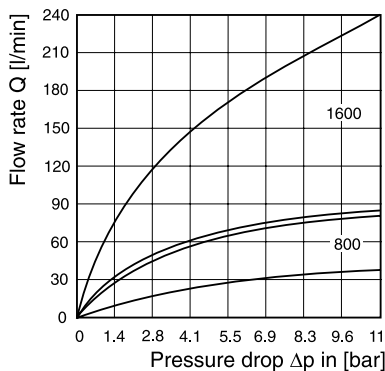
Bold letters =
Short-term availability

* Min. and max. flow rate
¹⁾ Only for size 400 to 1200

$\Delta p/Q$ curves

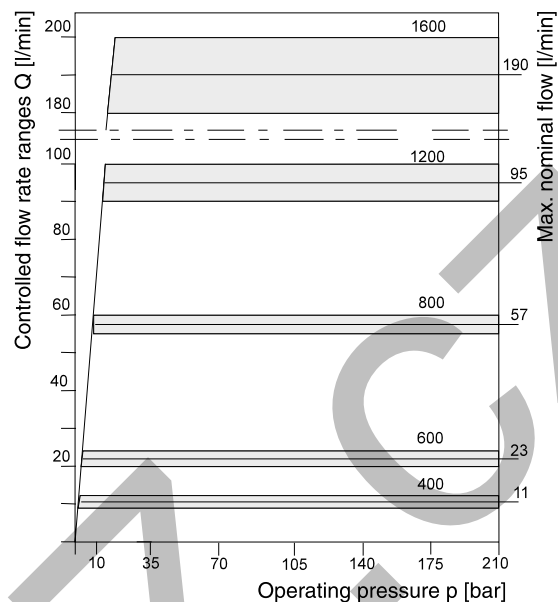


Sizes 400, 600 and 1200:
Pressure drop Δp for flow
through check valve in
range Q_{\max} / Q_{\min} with
each size



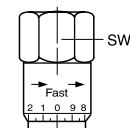
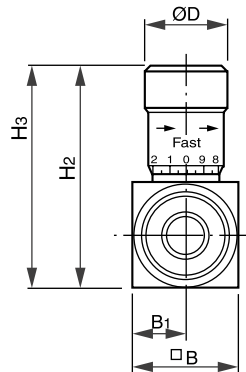
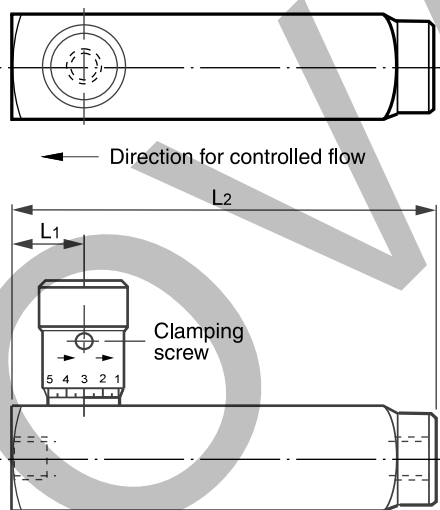
Sizes 800 and 1600:
Pressure drop Δp for flow
through check valve in
range Q_{\max} / Q_{\min} with
each size

Size 400 - 1600 p/Q control characteristic



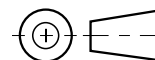
All characteristic curves measured with HLP46 at 50 °C.

Dimensions



Hexagon ad-
justing knob,
standard for
size 1600

H2 = closed
H3 = open



Size	R*	H3	H2	B	L1	B1	L2	ØD	SW
400	1/4	69	64	35	16	18	92	21	-
600	3/8	80	74	38	18	19	106	25	-
800	1/2	103	95	44	22	22	125	30	-
1200	3/4	128	116	57	28	29	149	35	-
1600	1	175	158	70	33	35	176	-	47.8

* Pipe thread G or NPTF