

Series	Description	Size						Mounting		Page			
		1/4	3/8	1/2	3/4	1	06	10	16		Subplate	Screw-in	
	Parker Standard DIN / ISO												
	Throttle valves, manual adjustment												
MVI		•	•	•	•	•					•		5-3
NS		•	•	•	•	•					•		5-5
FS	With free return flow	•	•	•	•	•					•		5-7
	Flow control valves, manual adjustment												
PC*MS		•	•	•	•	•					•		5-9
GFG2							•				•		5-11
2F1C								•	•		•		5-15
	Flow control valves, proportional adjustment												
DUR*L							•				•		5-21

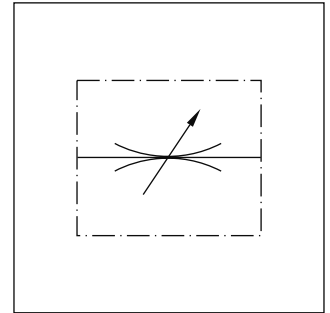
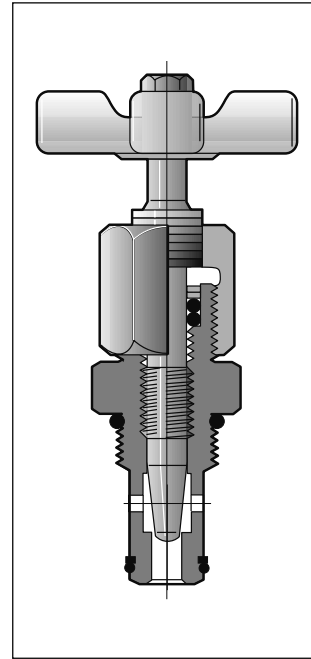
More flow valves are presented in the following chapters:
Chapter 7: Sandwich Valves
Chapter 8: Slip-In Cartridge Valves
Chapter 9: SAE Flange Valves
Chapter 10: Valves for Pipe Mounting

Characteristics / Ordering Code

Manatrol needle valve with steel body as screw-in valve for block insertion, optionally with a 30° taper-fine, V-notch or micro-fine rectangular slot. The form of the metering opening influences the accuracy of the flow adjustment, which is pressure and viscosity dependent. The needle is made of stainless steel and fits into a ring gap in the valve cartridge. For details of cutting tools for reaming the block bore, see 'Accessories' at the end of this chapter.

Characteristic values

Size	Operating press. [bar]	Flow [l/min] Δp 10bar	Max. orifice area [cm ²]	Kv factor valve	Weight [kg]
400	350	25	0.14	6.3	0.18
600	350	65	0.37	18.5	0.32
800	350	105	0.55	27.5	0.59
1200	350	160	0.90	45.7	0.95
Needle size					
400-2		11	0.52		
400-3		2	0.012		

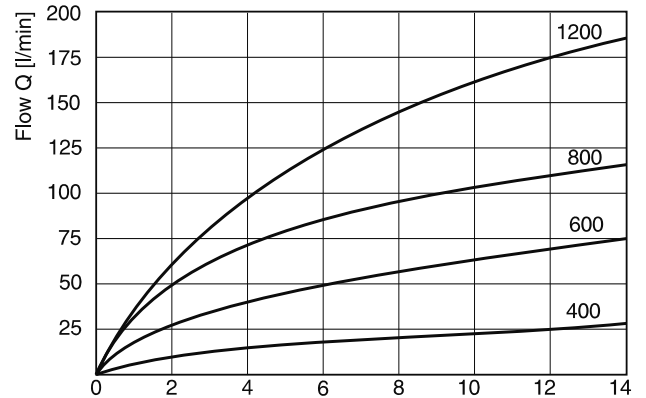


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Flow rate Q [l/min] = Kv · $\sqrt{\frac{\Delta p}{\gamma}}$

Kv see table
 Δp [bar]
 γ [kg/dm³] = specific gravity of fluid
 (γ for mineral oil = 0.85 – 0.9)

Δp/Q curves



All characteristic curves measured with HLP46 at 50°C. Pressure drop Δp [bar]

Ordering code

MVI Cartridge-type needle valve

S Steel body

Size and screw-in threads

Needle

Seal

Code	Size	Threads
400	1/4"	3/4 - 16 UNF-2B
600	3/8"	7/8 -14 UNF-2B
800	1/2"	1 1/16 - 12 UN-2B
1200	3/4"	1 5/16 - 12 UN-2B

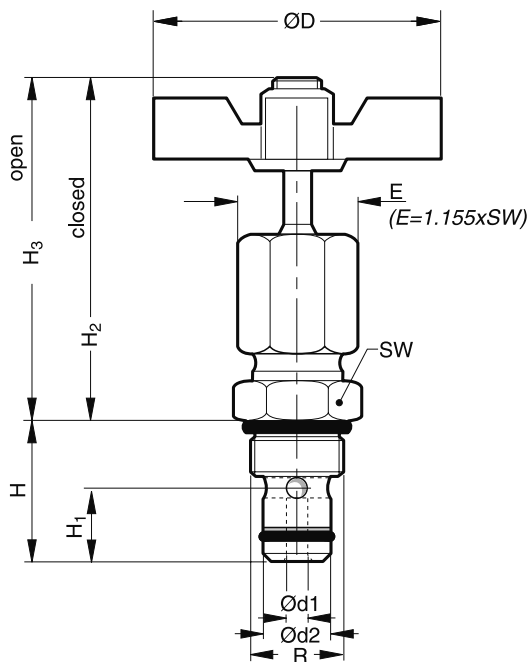
Code	Seal
omit	NBR
V	FPM

Code	Needle
omit	Standard 30° taper
2*	Fine V-notch
3*	Micro-fine slotted

Bold letters = Short-term availability

* only for size 400

Threaded cartridge valve

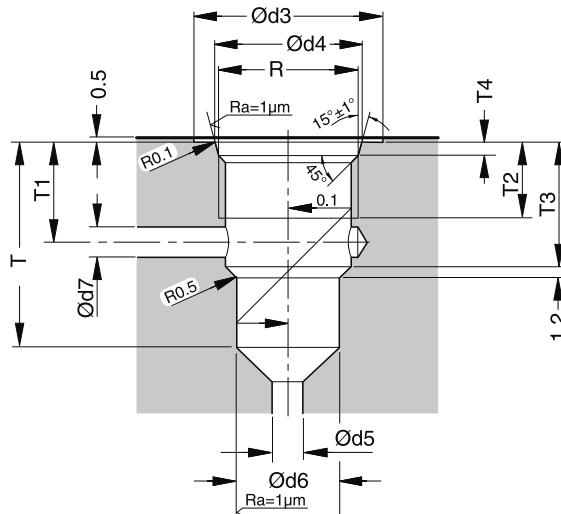


Size	H	H ₃	H ₂	H ₁	Ød ₁	Ød ₂	R (Threads)	ØD	SW
MVI 400	25.4	65	60	10.9	4.6	14.22	3/4 - 16 UNF-2	51	22.1
MVI 600	30	81	73	13.5	7.9	15.8	7/8 - 14 UNF-2	64	25.4
MVI 800	39.6	91	79	15.2	9.4	20.55	1 1/16 - 12 UN-2	83	31.8
MVI 1200	43.4	102	88	19.1	11.7	26.92	1 5/16 - 12 UN-2	98	38.1

Drills for MVI valves

Material	Valve sizes and ordering code		
	400	600	800 and 1200
Cutting alloy	SE 1062	SE 567	on request
Steel	SE 1063	SE 1061	

Mounting cavity



Size	Ød ₃	Ød ₄ ^{+0.12}	Ød ₅ (min)	Ød ₆ ^{+0.05}	Ød ₇	T ₄ ^{+0.38}	T ₂	T ₃	T	T ₁
MVI 400	26	20.6	5.3	14.275	5.3	2.54	15	17.8	27	14.2
MVI 600	30	23.93	8.1	15.85	8.1	2.54	17	21.6	32	16.5
MVI 800	37	29.16	10.2	20.6	10.2	3.3	19	30	42	24.1
MVI 1200	44	35.54	12.7	26.975	12.7	3.3	19	31.8	46	24.6

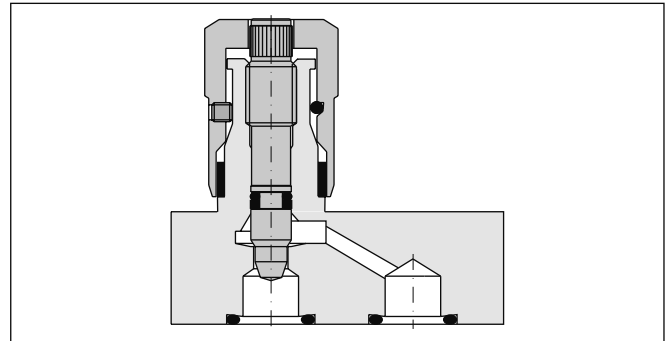
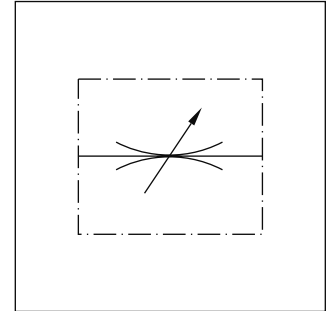
Manatrol shut-off and metering valves with 2 stage needle cone. Fine adjustment for the first stage can be achieved with 3 rotations of the adjustment knob. The second stage with normal throttle characteristics is achieved with 3 further rotations.

A cylindrical needle with a rectangular slot is provided to reduce the viscosity effect for sizes 400 and 600. The flow is dependent on pressure and viscosity.

Characteristic values

(only for standard 2 stage needle)

Size	Press. [bar]		Flow [l/min] Δp 10bar	Max. cross-section [cm²]	Kv factor valve open	Weight [kg]
	steel	brass				
400	210	140	25	0.13	6.3	0.4
600	210	140	40	0.22	11.2	0.6
800	210	140	50	0.28	13.9	1.0
1200	210	140	120	0.70	35.4	2.0
1600	210	35	250	1.48	75	4.0

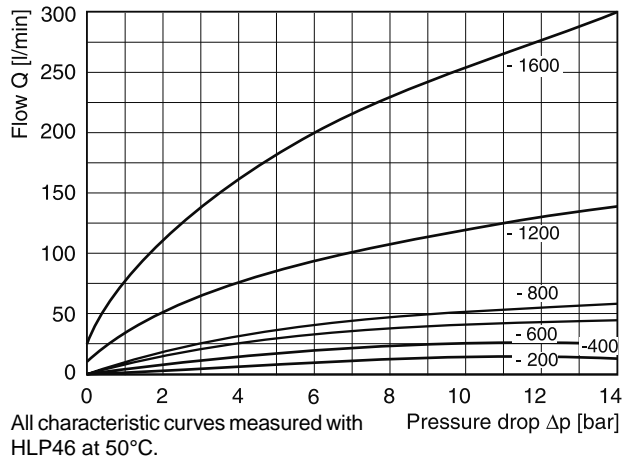


5

Flow rate Q [l/min] = $K_v \cdot \sqrt{\frac{\Delta p}{\gamma}}$

Kv from the table
 Δp [bar]
 γ [kg/dm³] = specific weight of the medium
 (γ for mineral oil = 0.85 – 0.9)

Δp/Q curves



Ordering code

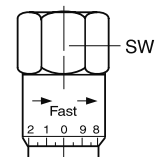
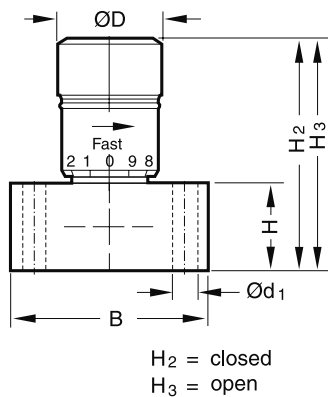
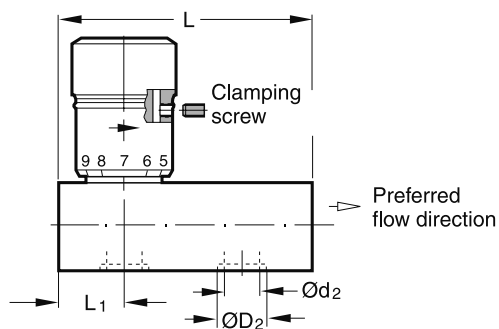
N	S		S			
Needle valve	Manifold mounting	Size	Steel body	Needle	Clamping screw	Seal

Code	Size						
400	400					Code	Seal
600	600					omit	NBR
800	800					V	FPM
1200	1200					Code	Clamping screw
1600	1600					omit	Hexagon socket
						F	With knurled knob

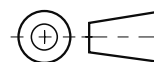
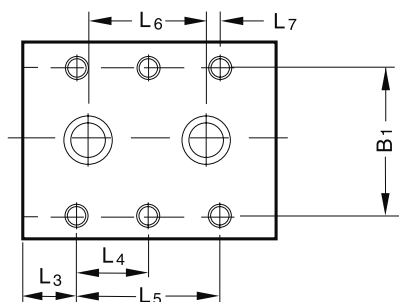
Code	Needle
omit	Standard 2 stage needle
4*	Micro-fine hollow needle with slot

Bold letters = Short-term availability

* only for sizes 400 to 600
 NS UK.INDD CM 07.09.2011



Hexagon adjusting knob, standard for size 1600

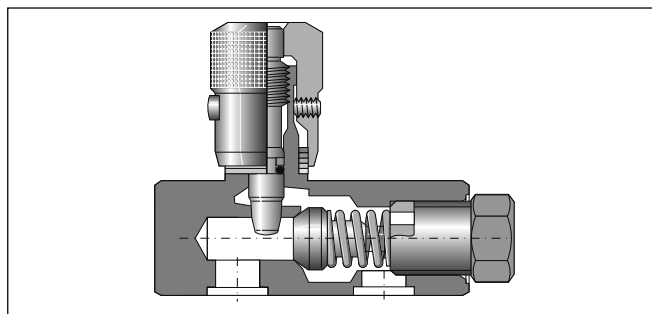
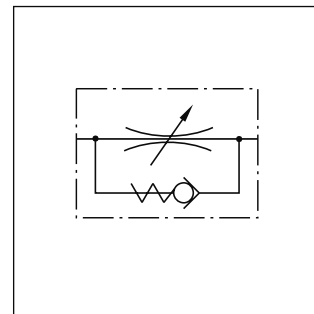


Size	L	L5	L4	L3	L7	L6	ØD2	Ød2	B1	B	H3	H2	H	Ød1	ØD	SW	L1
400	47.5	34.8	-	6.4	4.5	25.4	13.3	7	33.5	44.5	55	50	21	6.8	21	-	11
600	51	33.3	-	8.6	4.1	25.4	16	10	38.1	51	67	61	25.4	7	25	-	13
800	75	38.1	-	18.5	4.1	30	19.1	13	44.5	57.5	77	70	25.4	7	30	-	23
1200	93.5	76.2	38.1	8.6	11.2	54.4	24	17	54	70	95	80	29	9.5	35	-	20
1600	111	95.3	47.5	7.9	19	57.2	32	22	60.2	76.5	140	123	45	9.5	-	47.8	27

5

Manatrol throttle check valves of series FS allow the adjustment of the flow for a defined direction.

A 2 stage needle allows for very exact setting of smaller flow rates with the first 3 rotations of the adjustment knob. After 3 more rotations, the valve is completely open. The valve setting can be locked by a locking screw.



$$\text{Flow rate } Q \text{ [l/min]} = K_v \cdot \sqrt{\frac{\Delta p}{\gamma}}$$

K_v from the table
 Δp [bar]
 γ [kg/dm³] = specific gravity of fluid
 (γ for mineral oil = 0.85 – 0.9)

5

Characteristic values

Size	Pressure [bar]	Max. flow [l/min Δp 10bar]	Opening [cm ²]	Check Kv factor	Throttle surface [cm ²]	Throttle v. open Kv factor	Weight [kg]
400*	210	25	0.37	18.6	0.13	6.3	0.23
600*	210	40	0.62	30.4	0.22	11.2	0.31
800*	210	50	0.86	43.4	0.28	14	0.67
1200*	210	120	1.18	60	0.70	35.4	1.17
1600*	210	250	2.23	111	1.48	75	2.31

* MTTFD₀ value 150 years

Ordering code

F	S		S				
Throttle and check valve	Subplate mounting	Size	Steel body	Needle	Clamping screw	Seal	

Code	Size
400	400
600	600
800	800
1200	1200
1600	1600

Code	Needle
omit	Standard 2 stage needle
4*	Micro-fine hollow needle with slot

Code	Seal
omit	NBR
V	FPM

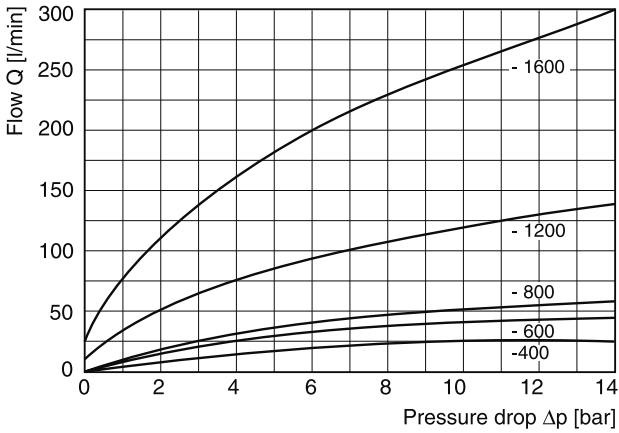
Code	Clamping screw
omit	Hexagon socket
F	With knurled knob

* only for sizes 400 to 600

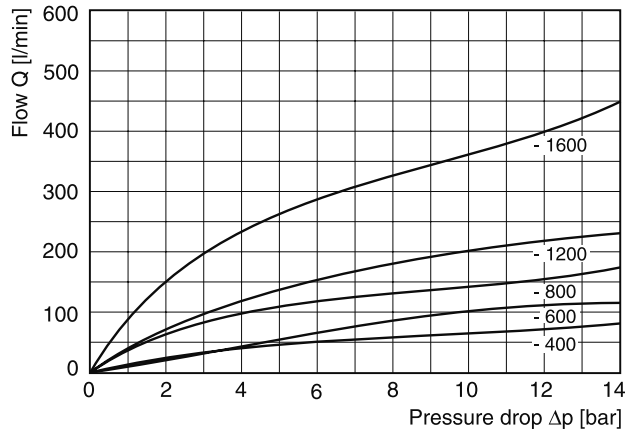
**Bold letters =
Short-term availability**

Performance Curves / Dimensions

$\Delta p/Q$ performance curves



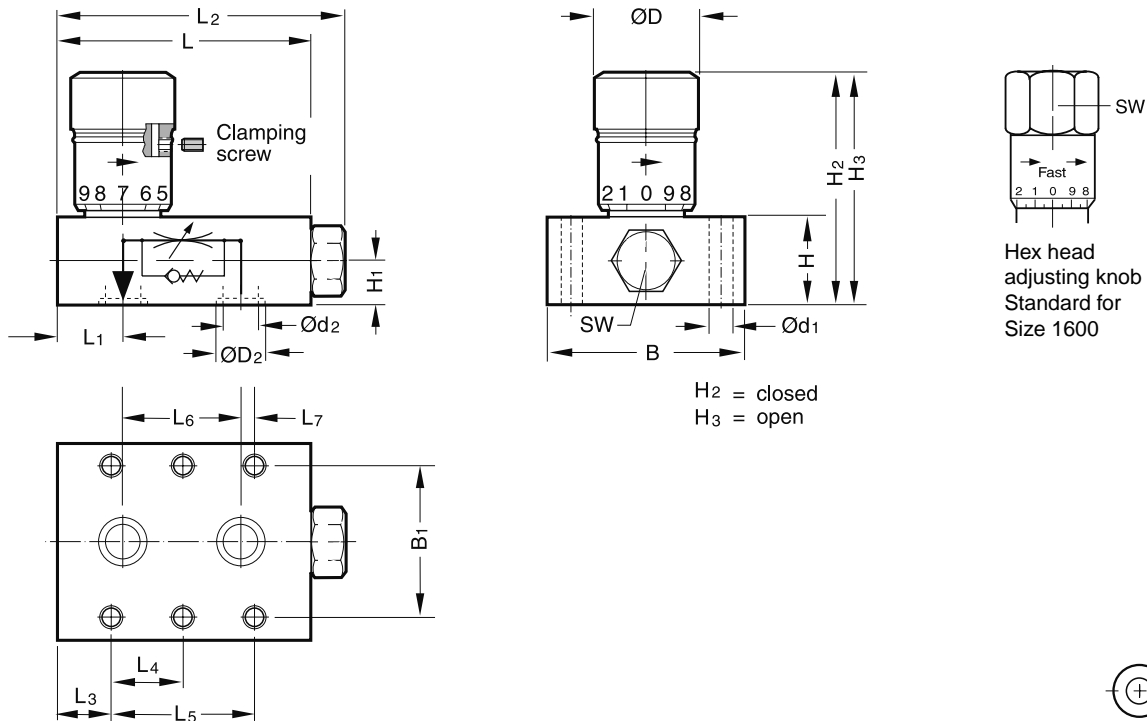
$\Delta p/Q$ performance curves free flow



All characteristic curves measured with HLP46 at 50°C.

5

Dimensions

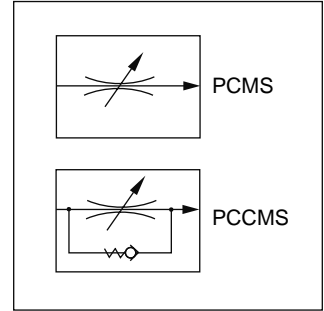


Size	L2	L5	L4	L3	L7	L6	ØD2	Ød2	B1	B	H3	H2	H	Ød1	H1	ØD	SW	W1	L1	L
400	71	34.8	-	14.2	4.8	25.5	13.3	7	33.5	44.5	56.5	51	22	6.8	11	21	-	17.5	21.5	63
600	78	33.5	-	18	4.0	25.5	16	10	38.1	51	67.5	61	25.5	7	12.2	25	-	22.2	25.5	70
800	89	38.1	-	21.3	4.0	30	19.1	13	44.5	57.5	84	76	32	7	16	30	-	25.5	24.5	81
1200	114	76.2	38.1	13.7	11.4	54.1	24	14	54	70	111	96	45	9	22.5	35	-	31.8	38.5	104
1600	138	95.2	47.7	15.8	19	57.2	32	22	60.2	76.5	146.5	130	51	9	25.5	-	47.8	38.1	44.5	127

Characteristics / Ordering Code

Manatrol 2 way flow control valves for pressure compensated regulation of the flow. As a consequence of pressure changes, the set value can vary by ± 5% within the tolerance range. Changes in viscosity and in temperature have the same effect and are to be observed.

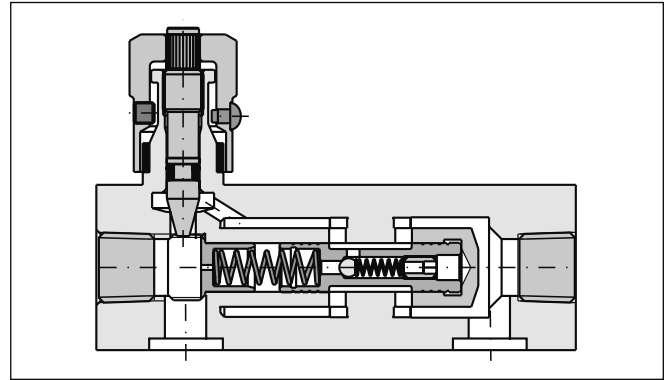
The series PCCMS is additionally equipped with a built-in check valve for the return flow.



Characteristic values

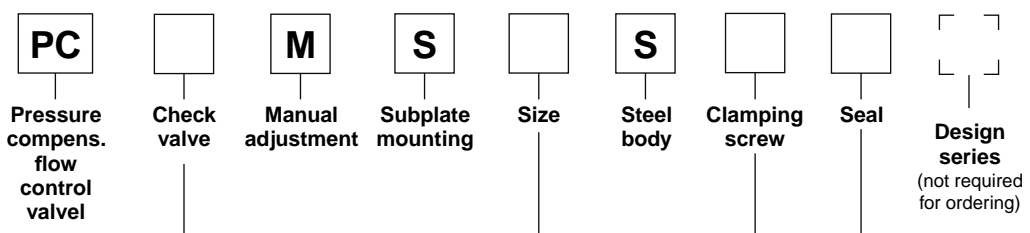
Size	Max. press. [bar]	Flow control		Check valve		Weight [kg]
		Q* [l/min]	Δp [bar]	Q _{max} [l/min]	Δp [bar]	
400	210	1 - 10	7	20	3	0.77
600	210	2 - 25	7	30	3	1.23
800	210	6 - 60	11	75	8	2.50
1200	210	10 - 100	11	130	8	3.18
1600	210	19 - 190	11	250	10	7.41

* Min. and max. flow rate



5

Ordering code



Code	Check valve
omit	Without check valve
C	With check valve

Code	Seal
omit	NBR
V	FPM

Code	Nominal size
400	400
600	600
800	800
1200	1200
1600	1600

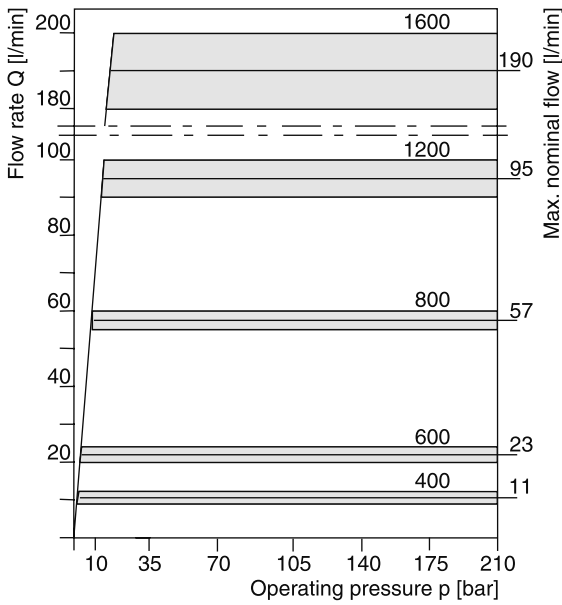
Code	Clamping screw
omit	Hexagon socket
F	With knurled knob

Bold letters = Short-term availability

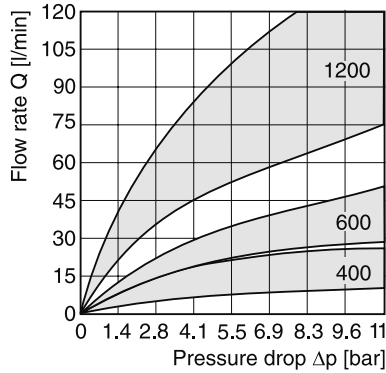


Characteristics Curves / Dimensions

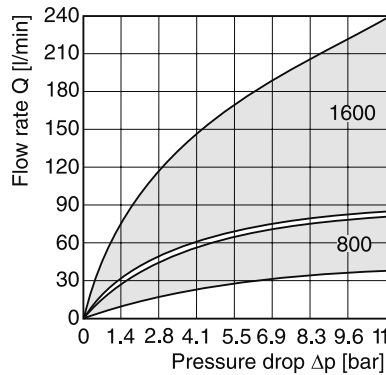
Controlled flow vs. pressure drop



Reverse flow vs. pressure drop at minimum and maximum settings



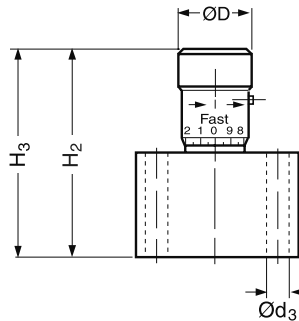
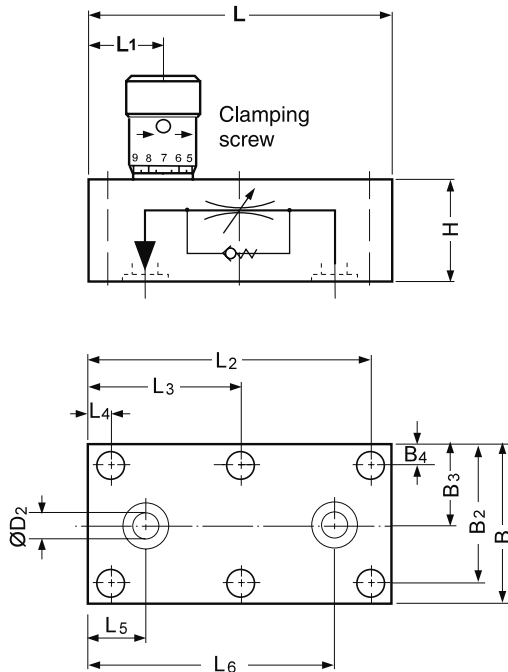
Sizes 400, 600 and 1200



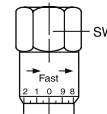
Sizes 800 and 1600

All characteristic curves measured with HLP46 at 50°C.

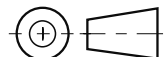
Dimensions



H₂ = closed
H₃ = open



Hexagon adjusting knob, standard for size 1600



Size	B	B2	B3	B4	L4	L5	L6	L2	L	H	Ød3	H3	H2	ØD2	ØD	L1	L3	SW
400	45	38.9	22.4	5.6	6.4	15.7	69.9	79.2	86	29	6.8	63	58	7.1	21	21	-	-
600	51	44.5	25.4	6.4	6.4	16.8	84.8	95.3	102	32	7	73	68	8.6	25	25	-	-
800	58	50.8	28.4	6.4	6.7	19.1	98.6	111.3	117	45	7	103	95	11.9	30	45	-	-
1200	70	62.0	35.1	7.9	9.7	25.4	117.3	133.4	143	57	9.5	129	116	16.8	35	41	71.4	-
1600	76	68.3	38.1	7.9	12.7	31.7	139.7	158.7	172	70	9.5	175	158	22.3	-	49	85.8	47.8

5

Characteristics

2 way flow control valves are used to provide pressure compensated flow. The valve design compensates temperature variations to a certain extent.

Optionally the flow from A to B can be blocked by external pilot pressure applied to port P (option X). This can be used to avoid unintended initial movements of actuators.

The GFG is optionally equipped with a built-in check valve for the return flow.

Design

The 2 way flow control valves are fitted with a triangular flow restrictor and a subsequent pressure compensator. The setting of the flow rate can be locked by a key lock in the adjusting knob against unauthorised adjustment (option C).

Function

The fluid enters through port A through the flow restrictor. Downstream of the flow restrictor the pressure compensator is located. The control edges are provided by four radial bores in the poppet, which are fully open to port B in the neutral position.

This can cause a short non-compensated flow when the valve is initialized.

Optionally the compensator spool can be held in closed position by external pilot pressure in port P (option X).

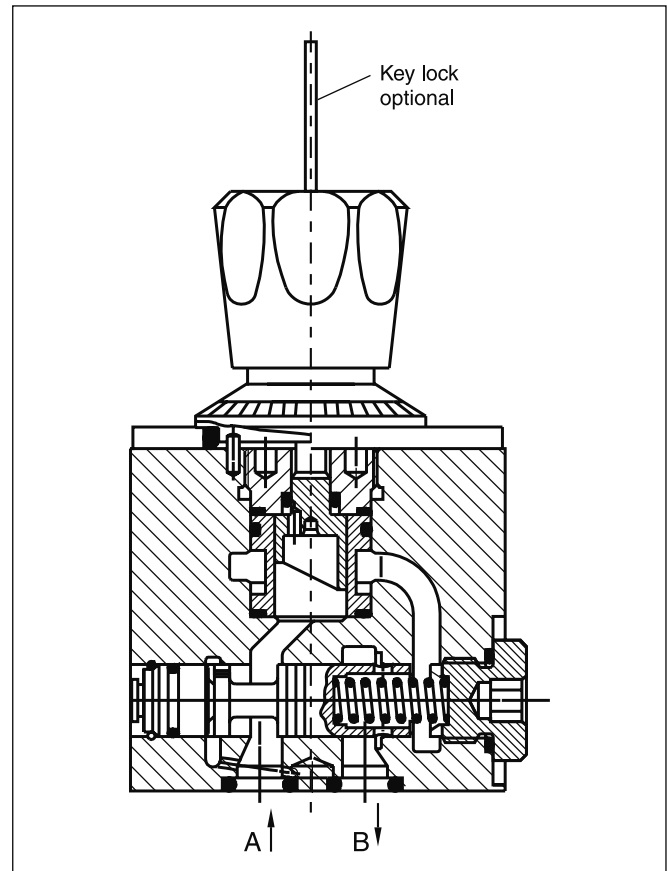
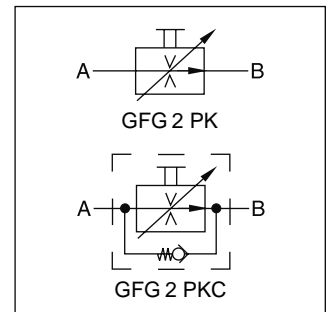
The flow adjustment is done via the flow resistor which is adjusted by the hand knob. The adjusting angle of the hand knob is 270°.

Features

- Flow rate independent of pressure and temperature
- Available for 7 different flow rates
- Good fine adjustment
- Optional reverse flow check valve
- Turn knob with key lock (option C)

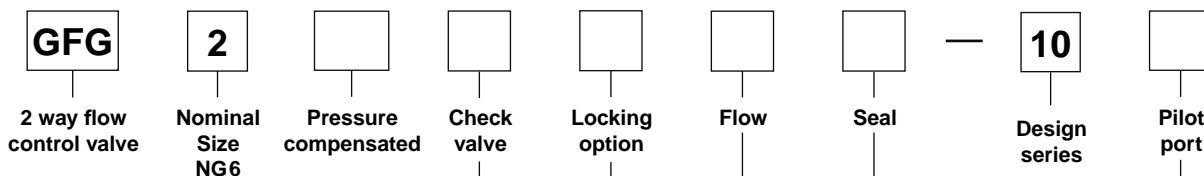
Note

Rectifier plate and subplates see 'Accessories' at the end of this chapter.



Ordering Code / Technical Data

Ordering code



Code	Check valve
omit	Without check valve
C	With check valve

Code	Locking option
omit	Standard without lock
S	With 2H (E10) lock

Code	Flow [l/min]
0.6	0.015 to 0.6
1.0	0.015 to 1.0
1.6	0.015 to 1.6
3.2	0.025 to 3.2
6.3	0.025 to 6.3
12.0	0.080 to 12.0
18.0	0.080 to 18.0

Code	Control of the pressure differential valve
omit	Standard internal
X*	External

* only in combination with integrated check valve.

Code	Seal
omit	NBR
V	FPM

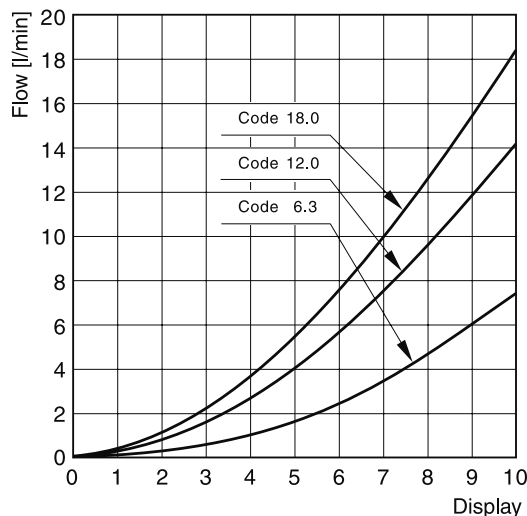
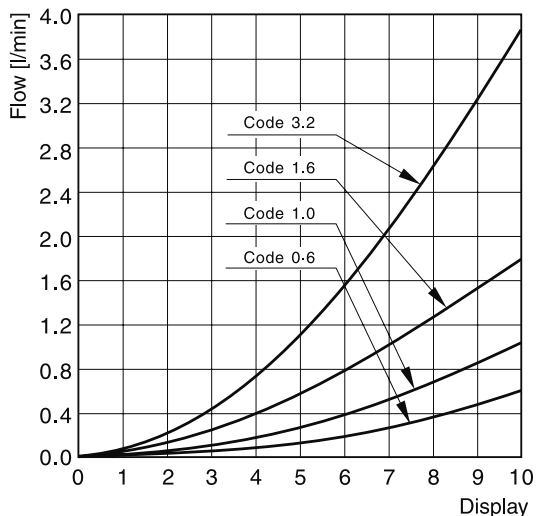
Bold letters = Short-term availability

Technical data

General	
Design	Orifice, infinitely variable, pressure-compensated
Actuator	Manual flow rate adjustment
Mounting type	ISO 6263 code: ISO 6263-AB-03-4-B
Mounting position	unrestricted
MTTF _D value	[years] 150
Weight	[kg] 1.1 (without subplate)
Fluid	Hydraulic oil according to DIN 51524/525
Fluid temperature	[°C] Max. 70
Ambient temperature	[°C] -25...+50
Viscosity range	[cSt] / [mm ² /s] 2.8...400
Filtering	[µm] ISO 4406 (1999); 18/16/13 (meet NAS 1638: 7)
Min. pressure difference	[bar] 5 (GFG*1.6/3.2), 8.5 (GFG*6.3/12/18)
Operating pressure	[bar] A; B = 315 , P = 5 (GFG*, GFG*C), A, B, P = 160 (GFG*X)
Effect of pressure on Q _{max} at p = 160 bar	[%] ± 2 (GFG*1.6/3.2/6.3/12), ± 2.5 (GFG*18)
Flow direction	A → B B → A
	Flow control function Throttle function or free flow through check valve

Performance Curves / Dimensions

Performance curves

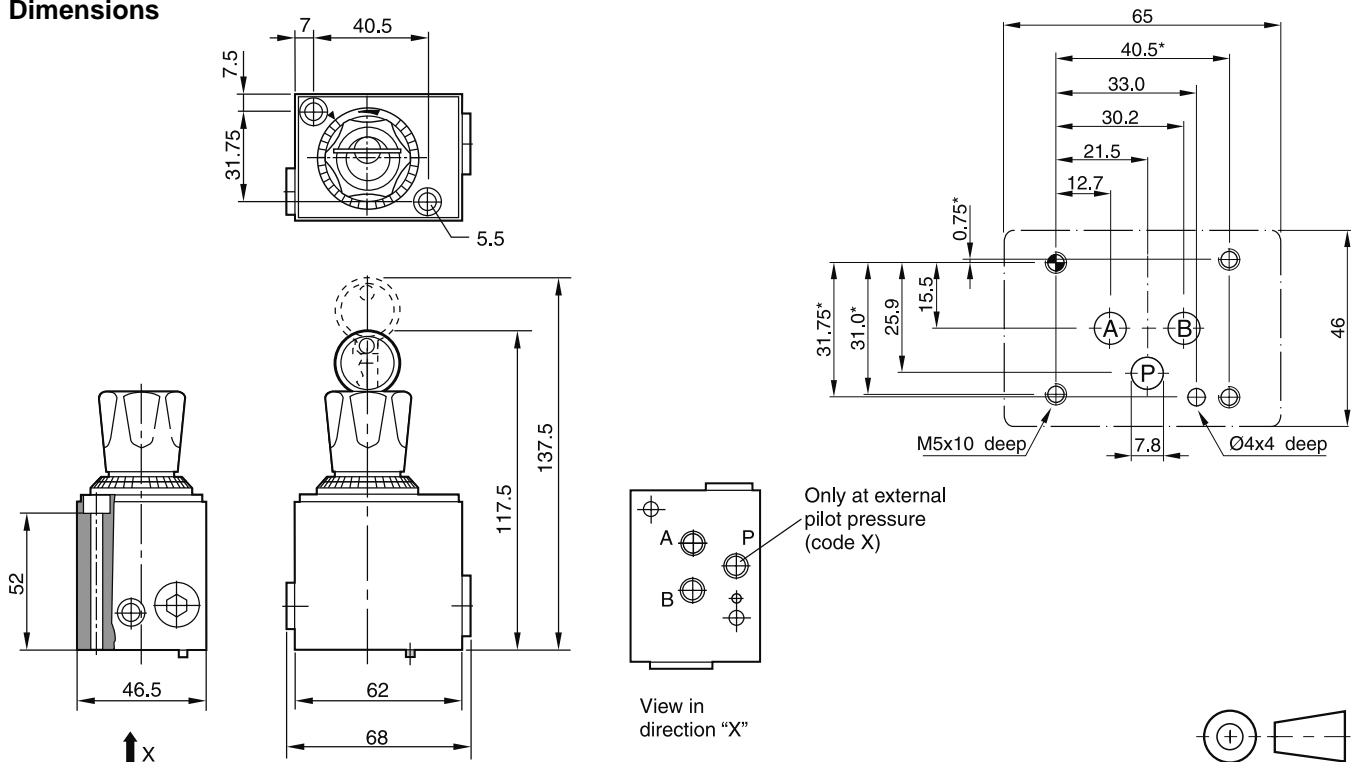


All characteristic curves measured with HLP46 at 50°C.

Changes in pressure cause a change of pre-set flow rate.

Flow rate deviations a Q_{max} : ± 2%

Dimensions



Bolt kits (Cylinder head DIN 912-12.9 not included)

Nominal size Valve	Valve model	Quantity	Tightening torque [Nm]	Valve without rectifier plate		Valve with rectifier plate	
				Dimensions	Order No.	Dimensions	Order No.
NG6	GFG2	2	8.1Nm	2xM5x60	BK380	2xM5x100	BK466

O-rings for sealing the connecting surface

Nominal size Valve	Valve model	Ports	Dimensions Ø-inner x cord thickness	Quantity	Seal kits	
					NBR	FPM
NG6	GFG2	A and B	9x1.5	3	SK-GFG2	SK-GFG2 FPM

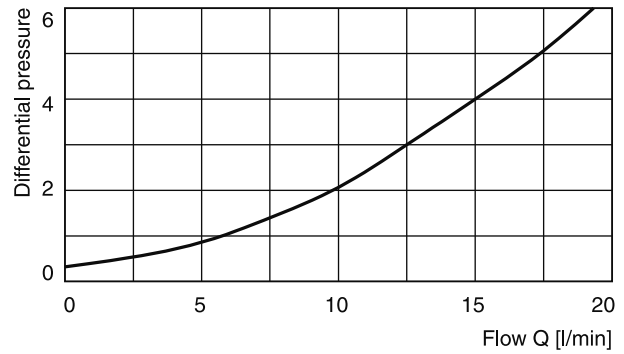
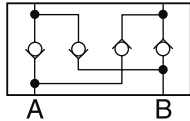
Accessories

Sandwich rectifier plate

If a 2 way flow control valve is used in combination with a rectifier plate the valve can be used for meter-in and meter-out flow control of an actuator.

Design

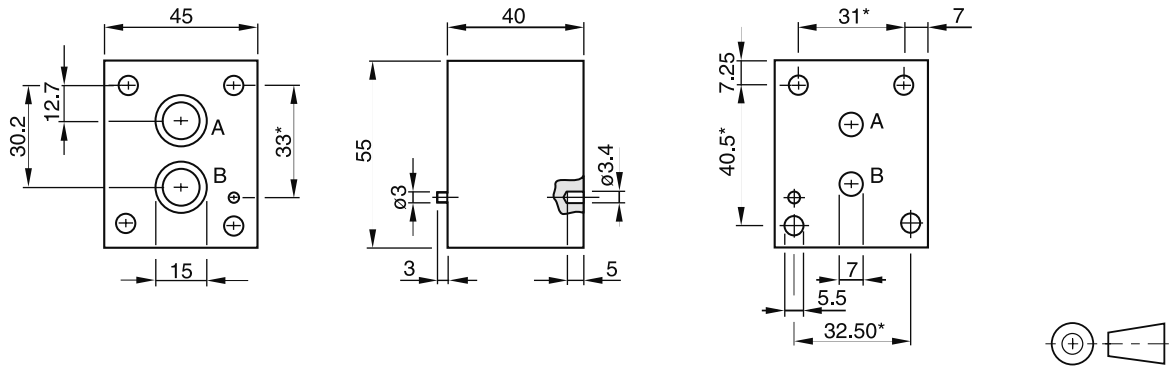
The intermediate rectifier plate is designed with 4 identical, symmetrically arranged check valves. Thus the differential pressure is the same in both flow directions.



Measured with HLP46 at 50°C.

5

Dimensions



Dimension tolerances
 * : ± 0.1 mm
 others : ± 0.2 mm
 holes and silhouette of
 valve body : untoleranced dimension

Ordering code: HR OA 06 C

O-ring for sealing the connecting surface
(not included)

Subplates ¹⁾

Connections	Dimensions	required units
A, B	12 x 1.5	2

Ordering code	
SPD 22 B 910	P, A, B and T = G1/4
SPD 23 B 910	P, A, B and T = G1/8

¹⁾ Details see chapter 12, series SPD

Characteristics / Ordering Code

2 way flow control valves series 2F1C provide pressure and viscosity compensated flow from port A to port B. The counter direction is blocked (standard) or can be open via an integral reverse flow check valve (optional).

Function

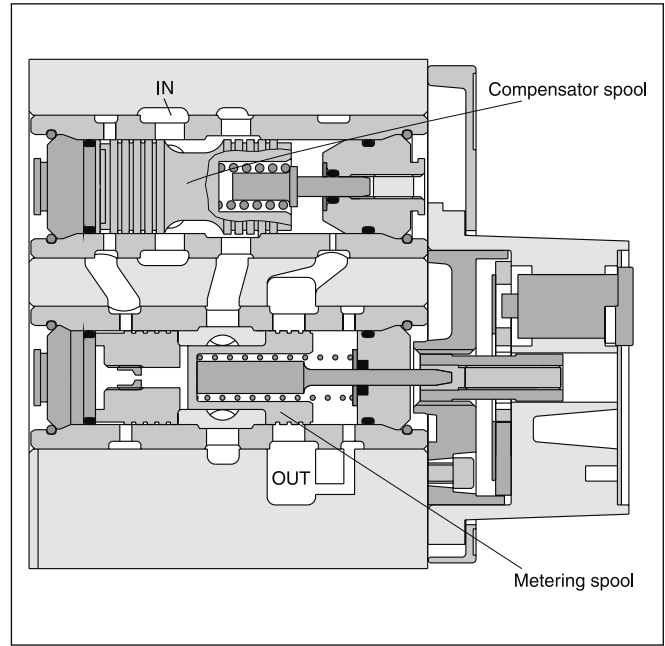
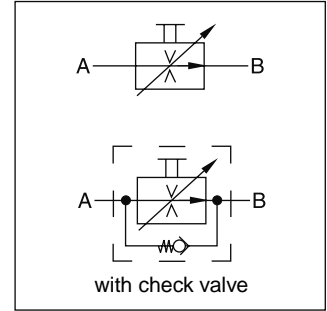
The compensator spool is located in front of the metering spool. The metering spool is closed in the neutral position to avoid undesired initial actuator motion. The oil flow to open the metering spool has to pass a needle valve (not shown in the sectional drawing). The needle valve can be adjusted from the front panel to set the response time of the 2F1C.

The metering spool is adjusted by the main control knob. The key lock has three positions:

- Lock: Adjustment is locked.
- Adjust: Full adjustment is permitted.
- Trim: Fine adjustment of +/- 5% is possible.

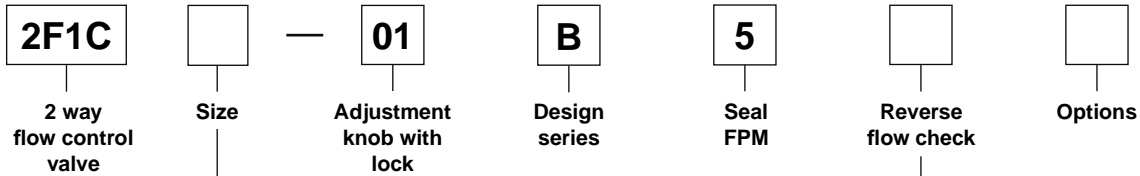
Features

- 2 way flow control valve
- Subplate mounting according to ISO 6263
- Excellent fine adjustment
- Adjustable response time
- Closed in neutral position
- Optional reverse flow check valve
- 2 sizes, NG10 (3/8"), NG16 (3/4")



5

Ordering code



Code	Size
02	NG10 (3/8")
03	NG16 (3/4")

Code	Check valve
0	without check
C	with check

Technical Data

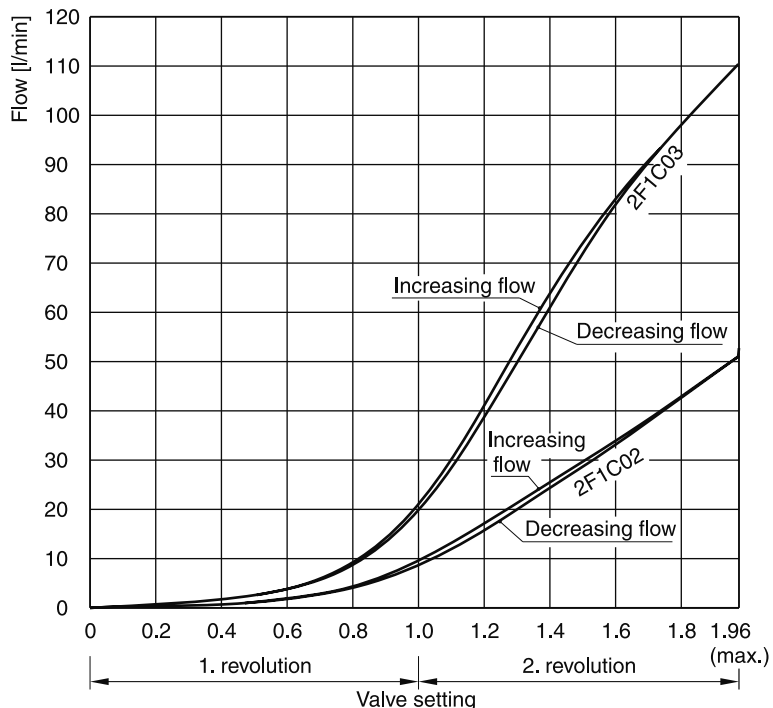
Technical data

General			
Design	Orifice, infinitely variable, pressure-compensated		
Actuator	Manual flow rate adjustment		
Mounting type	ISO 6263		
MTTF _D value	[years]	150	
Mounting position	unrestricted		
Weight	[kg]	6.0 (2F1C02), 9.0 (2F1C03)	
Fluid	Hydraulic oil according to DIN 51524/525		
Fluid temperature	[°C]	Max. 70	
Ambient temperature	[°C]	-25...+50	
Viscosity range	[cSt] / [mm ² /s]	2.8...400	
Filtering	ISO 4406 (1999); 18/16/13 (meet NAS 1638: 7)		
Min. pressure difference	[bar]	see diagram	
Max. operating pressure		2F1C02	2F1C03
	Port A [bar]	14...280	14...350
	Port B [bar]	0...270	0...340
Flow direction	Flow control function		
A → B	blocked or free flow through check valve		
B → A			

5

Performance curves

Flow / knob adjustment characteristics at 210 bar

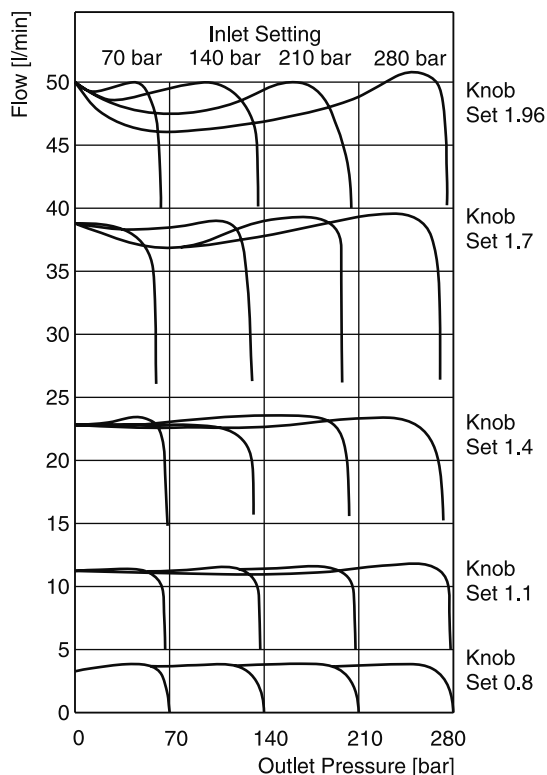


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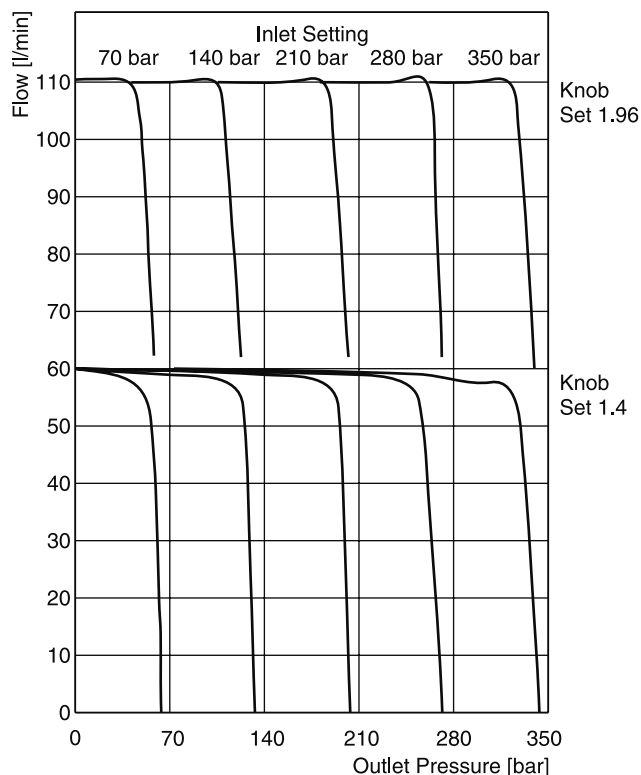
Flow / pressure drop curves

Constant inlet pressure – variable outlet pressure

2F1C02



2F1C03



All characteristic curves measured with HLP46 at 50°C.

2F1C UK.INDD CM 07.09.2011

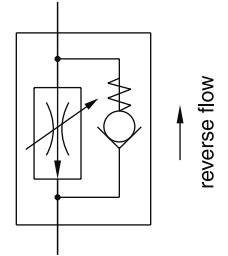
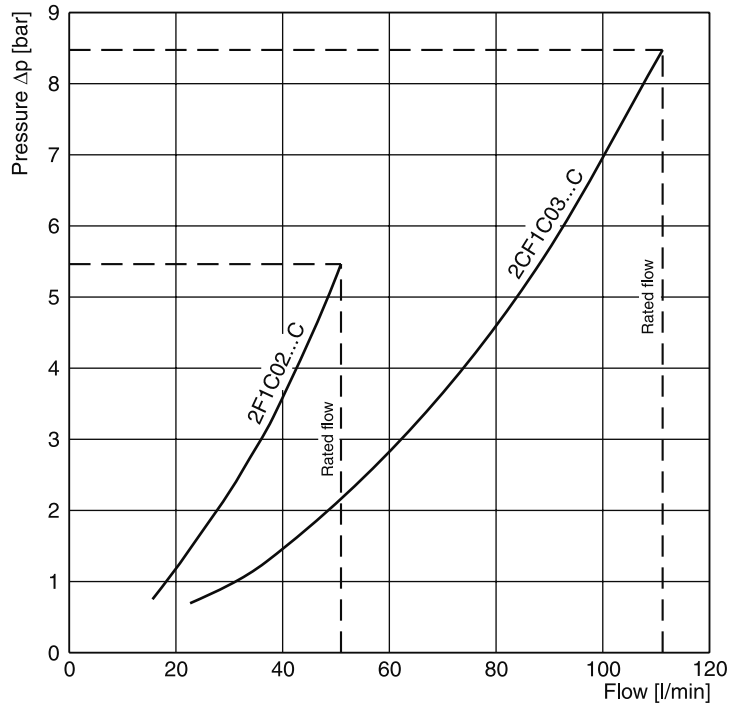
$\Delta p/Q$ performance curves

for reverse flow direction

2F1C02 at 280 bar

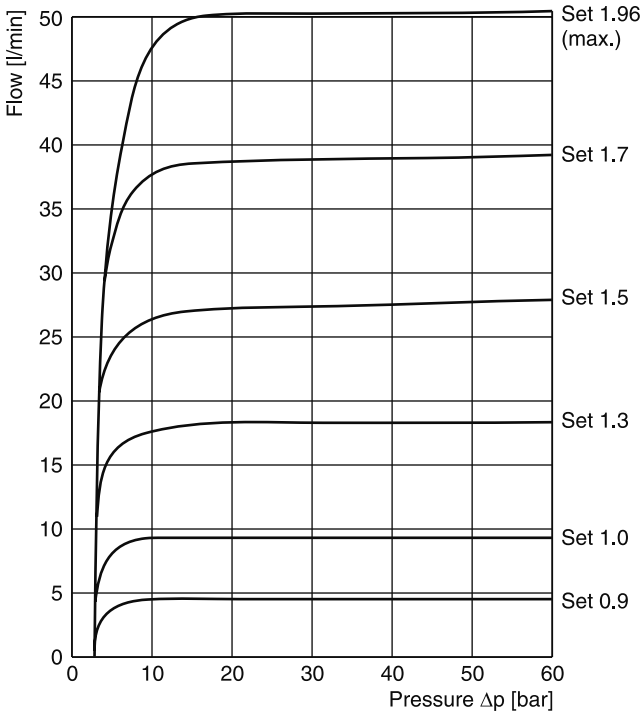
2F1C03 at 350 bar

5

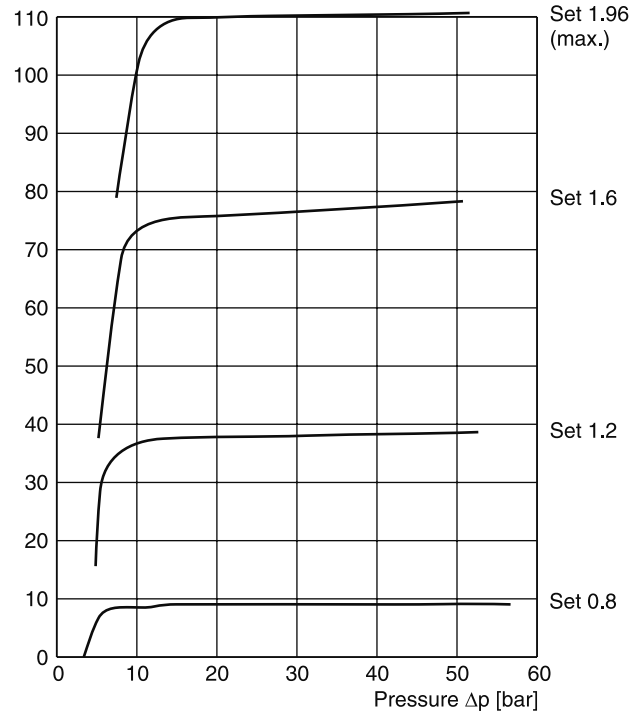


Minimum pressure difference curves

2F1C02



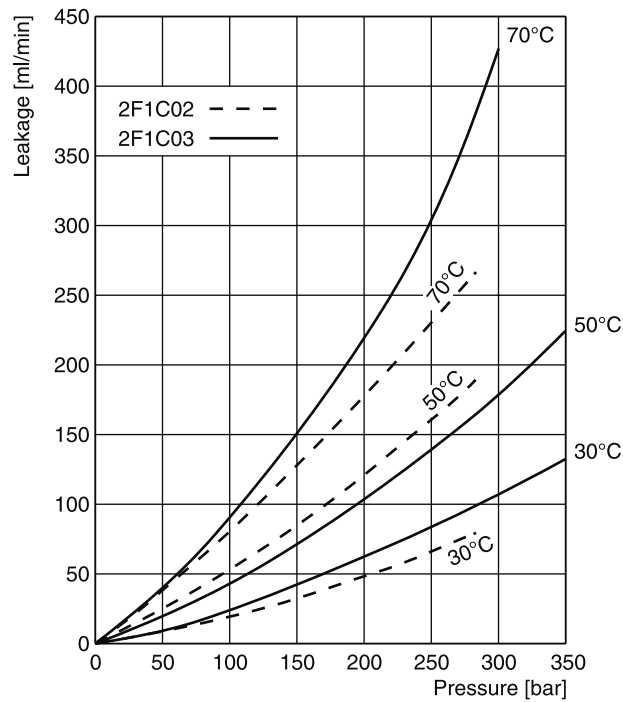
2F1C03



All characteristic curves measured with HLP46 at 50°C.

2F1C UK.INDD CM 07.09.2011

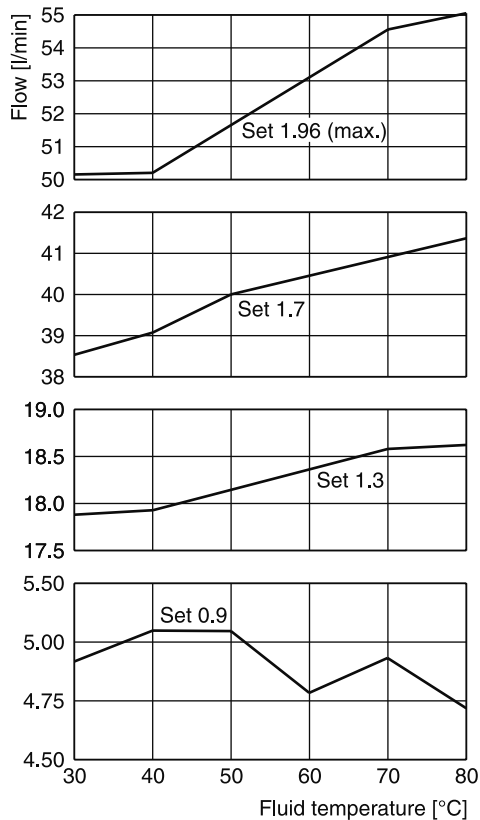
Leakage / pressure curves



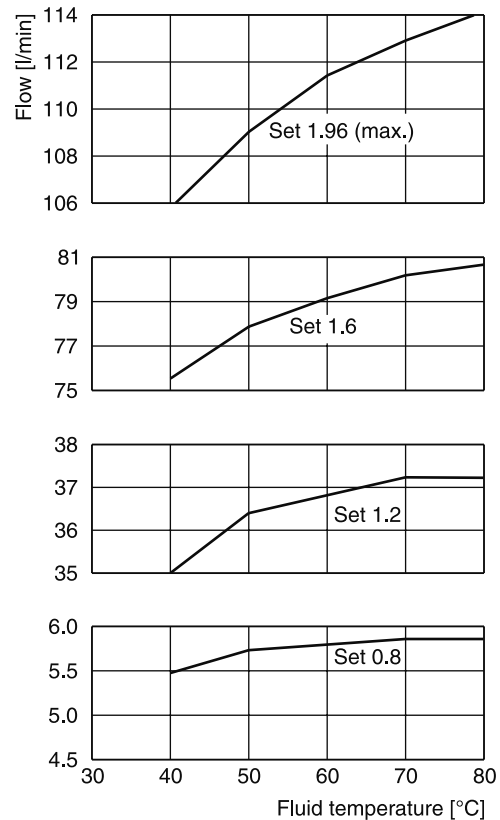
Flow / temperature curves

at 210 bar

2F1C02



2F1C03

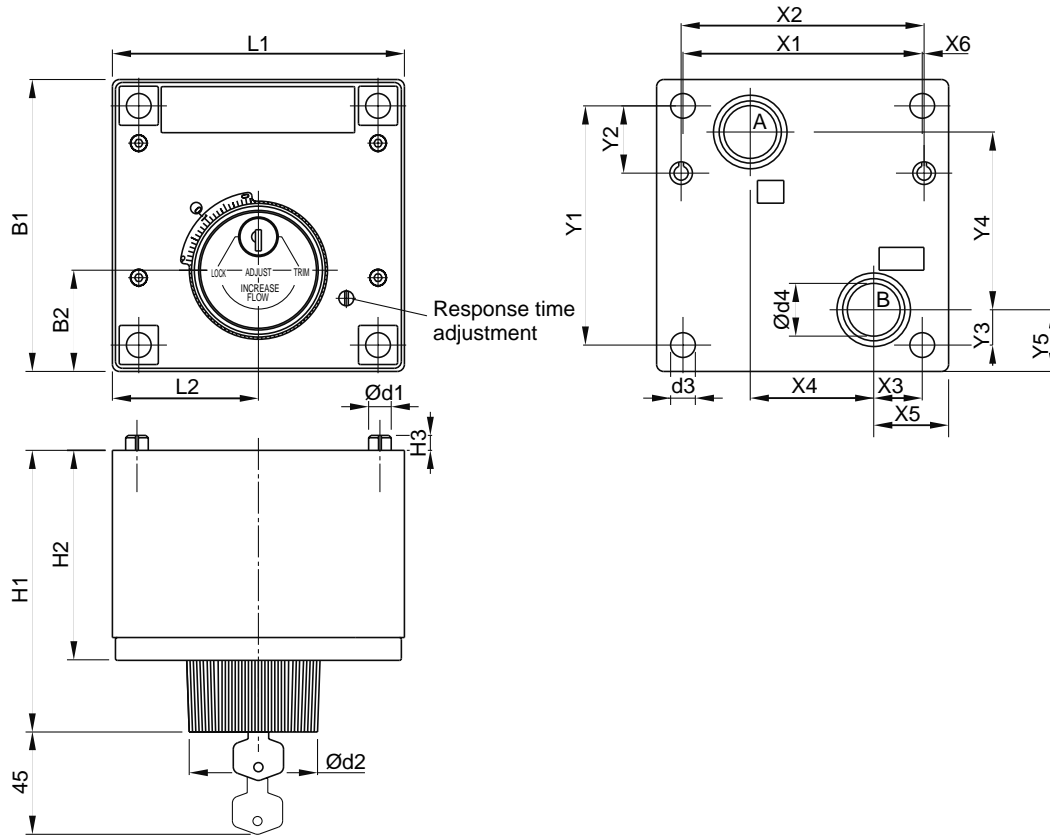


All characteristic curves measured with HLP46 at 50°C.

2F1C UK.INDD CM 07.09.2011






Dimensions

5



Size	ISO-code	x1	x2	x3	x4	x5	x6	y1	y2	y3	y4	y5
02	6263-AM-07-2-A	76.2	79.4	9.5	44.5	19	-	82.5	23.8	30.2	41.3	39.7
03	6263-AK-06-2-A	101.6	103.2	20.6	52.4	31.8	0.8	101.6	28.6	15.1	75.4	26.2

Size	ISO-code	B1	B2	H1	H2	H3	L1	L2	d1	d2	d3	d4
02	6263-AM-07-2-A	101.6	38.1	119.6	87.4	6.4	95.2	47.6	6.4	57.2	8.7	14.2
03	6263-AK-06-2-A	124	42.9	121.4	89.2	6.4	124	62	9.5	57.2	10.5	22.4

NG	ISO-code	Bolt kit -  DIN912 12.9		 Kit	Surface finish
02	6263-AM-07-2-A	BK-700-70842-8 4xM8x100	31.8 Nm ±15%	on request	$\sqrt{R_{max} 6.3}$ 
03	6263-AK-06-2-A	BK395 4xM10x100	63 Nm ±15%	on request	$\sqrt{R_{max} 6.3}$ 

Characteristics / Ordering Code

Proportional flow control valves of the series DUR*L06 are used to generate pressure-compensated flow from A to B. The valve is equipped with a built-in check valve for the return flow.

For meter-in and meter-out control of an actuator a rectifier plate can be used.

Function

When solenoid current is applied, the metering spool opens against the reset spring and the flow is regulated by the pressure compensating spool to port B.

With the aid of the pressure compensating spool, the pressure drop is held constant on the metering window. Thus pressure load changes are compensated, and the oil flow remains constant.

In combination with the digital electronic module PC-D00A-400 the valve parameters can be saved changed and duplicated.

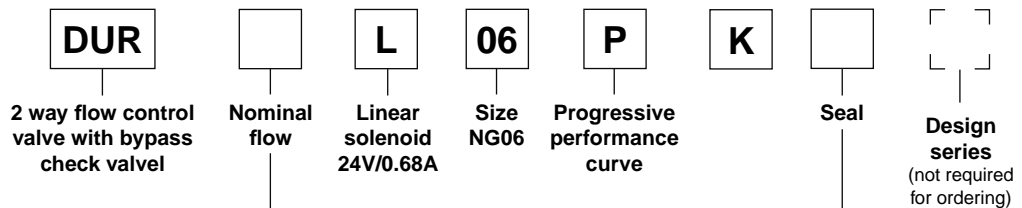
Technical features

- Low hysteresis
- High reproducibility
- Load-independent oil flow
- Bypass check valve
- Mounting pattern to ISO 6263
- 5 flow rates

Note

Rectifier plate and subplates see 'Accessories' at the end of this chapter.

Ordering code

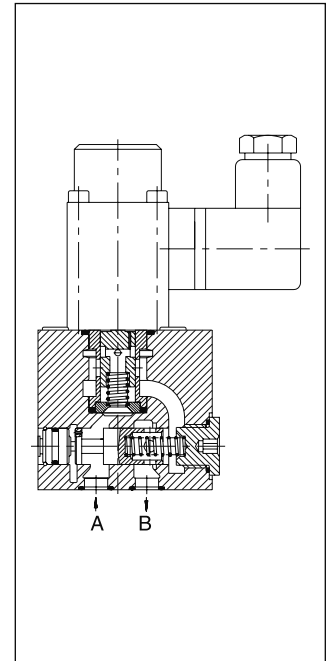
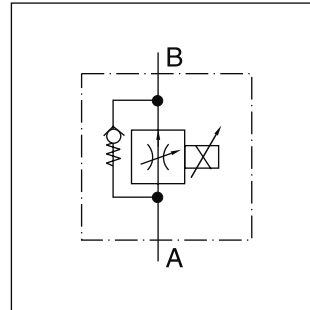


Code	Flow [l/min]
1,6	1.6
3,2	3.2
6,3	6.3
12	12.0
18	18.0

Code	Seal
A	NBR
1	FPM

Seal kits

NBR	FPM
SK-DUR***L	SK-DUR***L FPM



Technical Data / Performance Curves

Technical data

General	
Design	Electrically adjustable orifice valve with load sensing
Mounting type	Subplate NG06, Interface DIN 24340, ISO, CETOP
Mounting position	unrestricted, preferably horizontal
Ambient temperature	[°C] -20°C...+50
MTTF _D value	[years] 150
Weight	[kg] 1.6
Type of voltage	[V] 24
Solenoid nominal current	[mA] 680
Duty cycle	100% ED
Solenoid connection	Connector as per EN 175301-803
Protection class	IP 65 in accordance with EH60529 (with correctly mounted plug-in connector)
Amplifier module	PCD00A-400
Operating pressure	[bar] Max. 210
Fluid	Hydraulic oil according to DIN 51524/525
Fluid temperature	[°C] +20 up to max. +70
Viscosity range	[cSt] / [mm ² /s] 12...230
Filtration	ISO 4406 (1999); 18/16/13 (meet NAS 1638: 7)
Min. pressure difference	[bar] DUR 1.6/3.2: 3; DUR 6.3/12: 5; DUR 18: 8
Hysteresis at Q _{nom}	[%] 6
Hysteresis at Q ≤ 20% • Q _{nom}	[%] 6
Repeatability at ΔU _{set} = 5V	[%] 2

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Performance curves

DUR 1.6 L 06 PK*



DUR 12 L 06 PK* / DUR 18 L 06 PK*



DUR 3.2 L 06 PK* / DUR 6.3 L 06 PK*

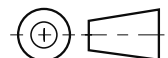
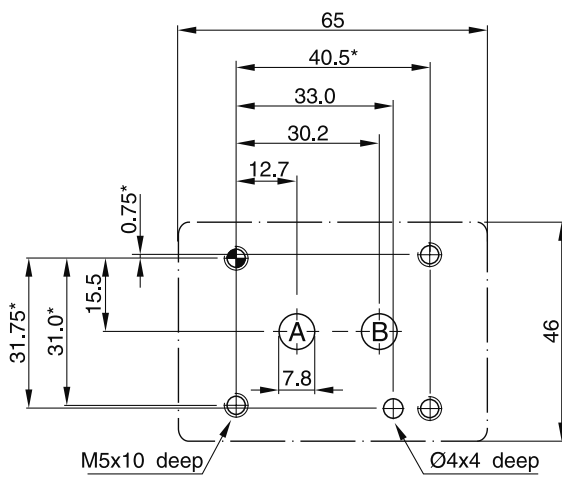
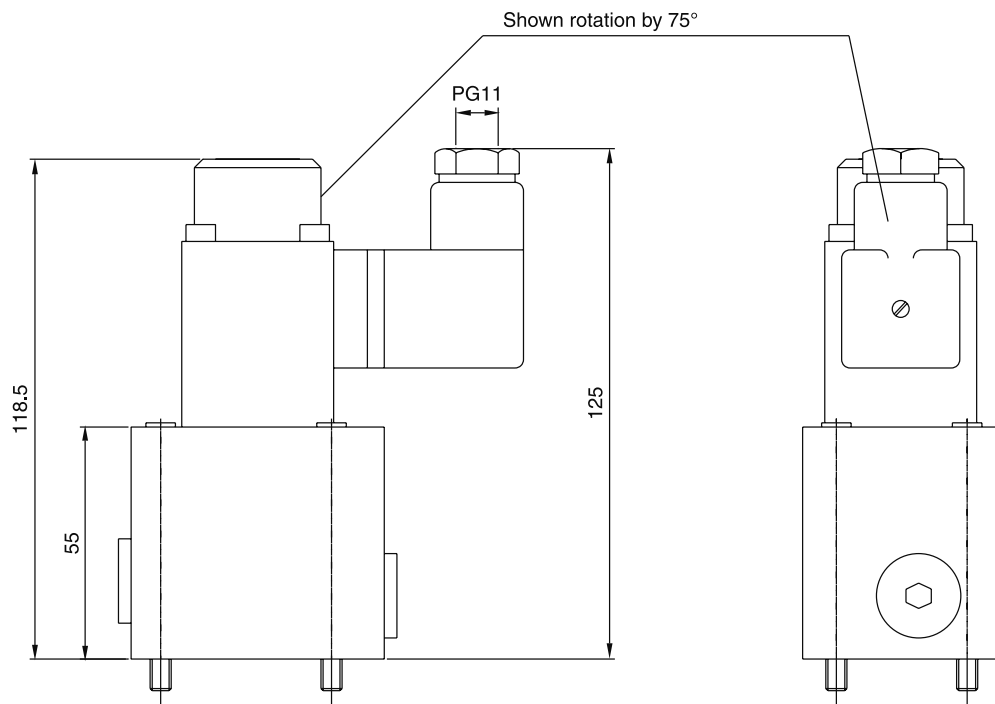
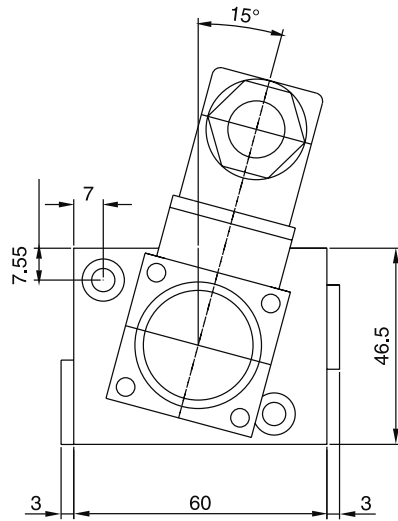


All characteristic curves measured with HLP46 at 50°C.

DUR_L06 UK.INDD CM 07.09.2011

Dimensions

Dimensions



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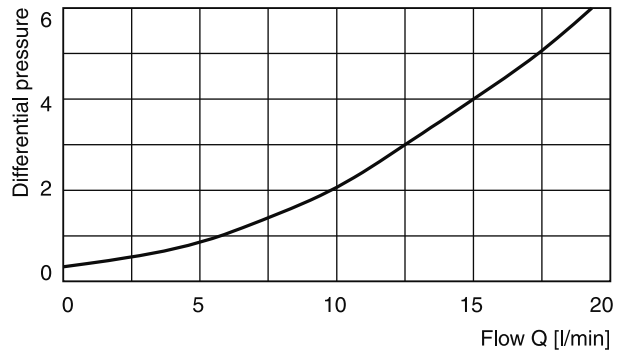
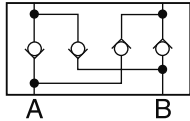
Accessories

Sandwich rectifier plate

If a 2 way flow control valve is used in combination with a rectifier plate the valve can be used for meter-in and meter-out flow control of an actuator.

Design

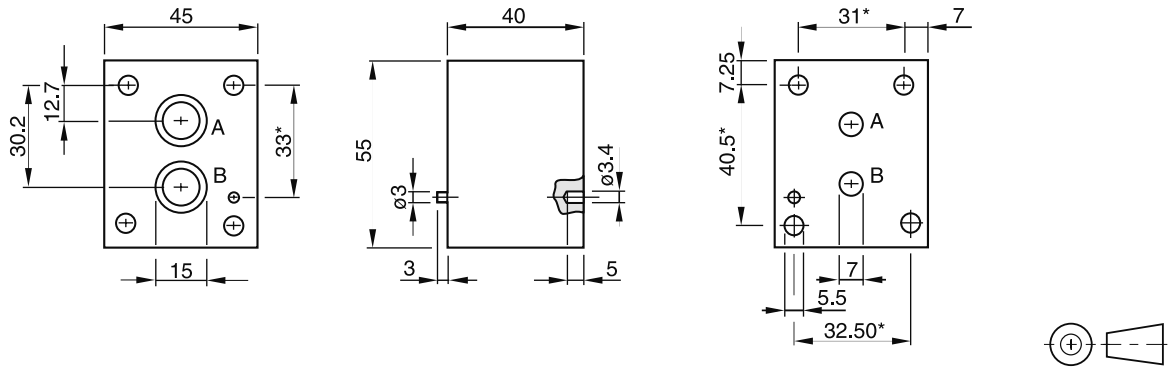
The intermediate rectifier plate is designed with 4 identical, symmetrically arranged check valves. Thus the differential pressure is the same in both flow directions.



Measured with HLP46 at 50°C.

5

Dimensions



Dimension tolerances
 * : ± 0.1 mm
 others : ± 0.2 mm
 holes and silhouette of valve body : untoleranced dimension

Ordering code: HR OA 06 C

O-ring for sealing the connecting surface
(not included)

Subplates ¹⁾

Connections	Dimensions	required units
A, B	12 x 1.5	2

Ordering code	
SPD 22 B 910	P, A, B and T = G1/4
SPD 23 B 910	P, A, B and T = G1/8

¹⁾ Details see chapter 12, series SPD