

## Characteristics

2 way flow control valves are used to provide pressure compensated flow. The valve design also compensates temperature and viscosity 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°.

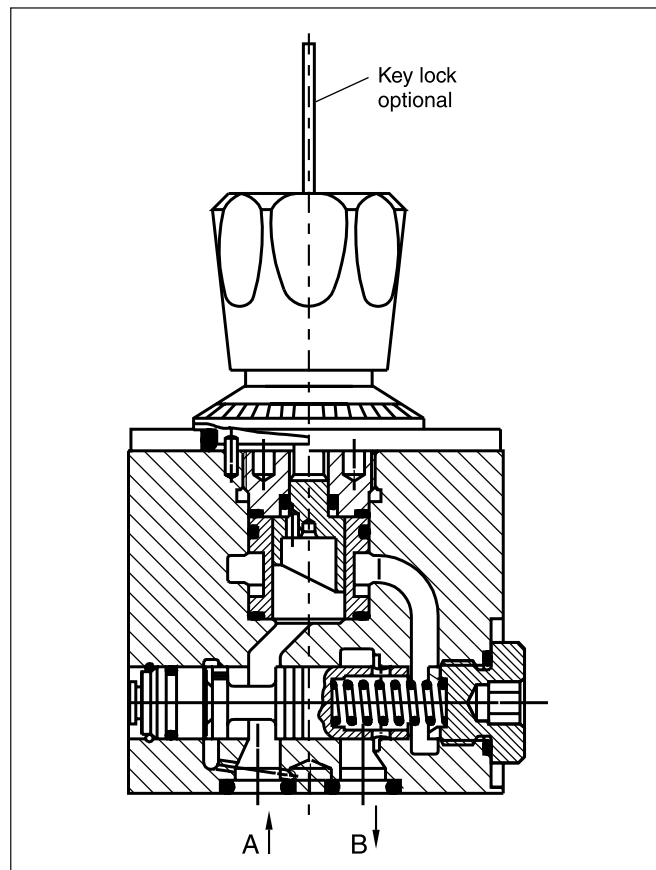
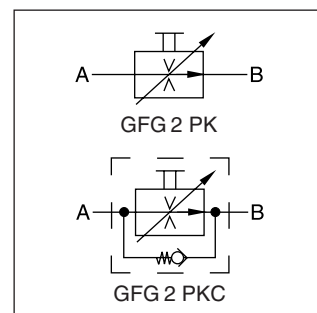
### Features

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

### Note

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

## 2 Way Flow Control Valve Series GFG2



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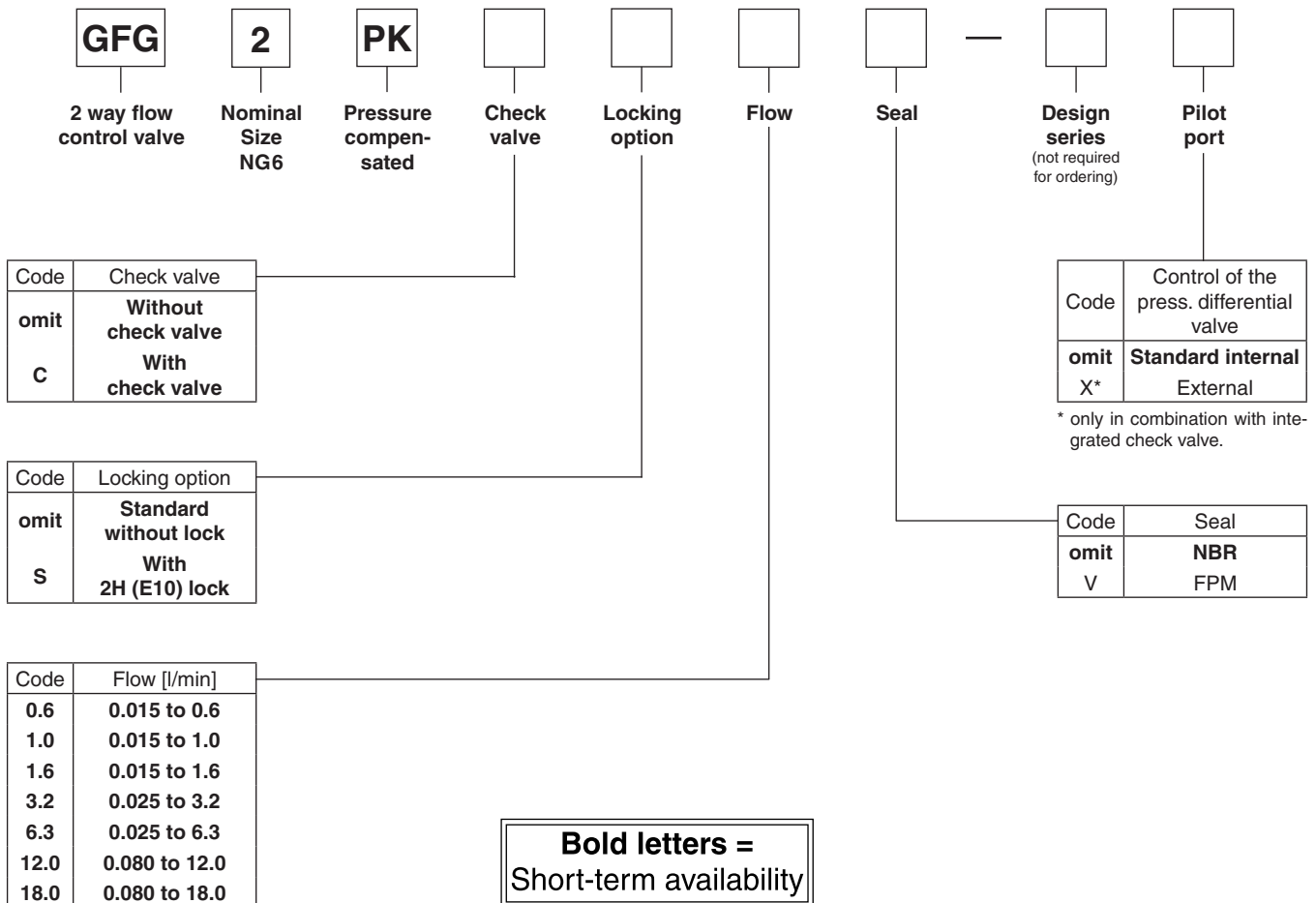
Technical Data / Ordering Code

Technical data

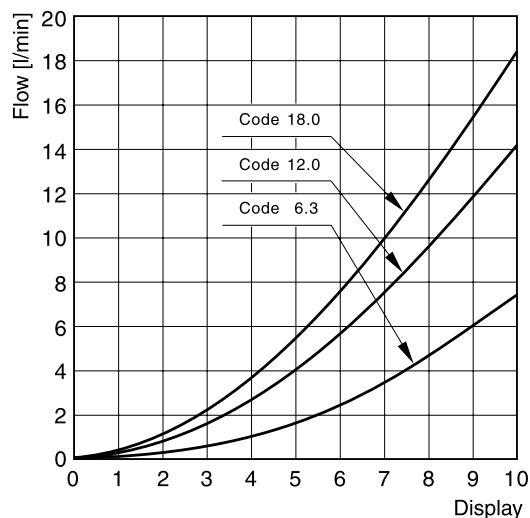
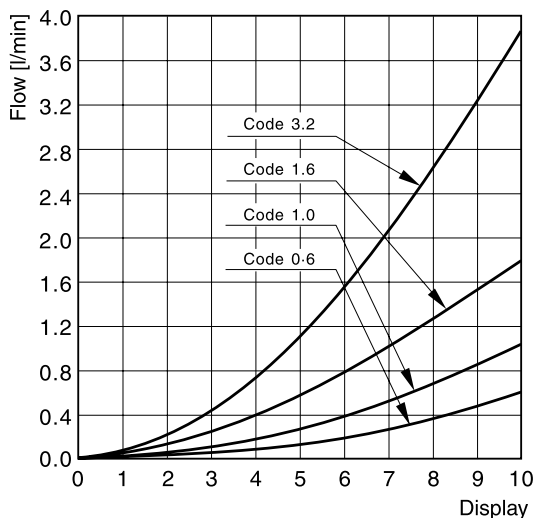
Design		Orifice, infinitely variable, pressure-compensated
Actuator		Manual flow rate adjustment
Mounting type		ISO 6263 code: ISO 6263-AB-03-4-B
Mounting position		unrestricted
Weight	[kg]	1.1 (without subplate)
Fluid temperature	[°C]	Max. 70
Ambient temperature	[°C]	-25...+50
Viscosity range	[cSt] / [mm²/s]	2.8...400
Filtering	[µm]	ISO 4406 (1999); 18/16/13
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 <sub>max</sub> at p = 160 bar	[%]	± 2 (GFG*1.6/3.2/6.3/12), ± 2.5 (GFG*18)
Flow direction		Flow control function
A → B		Throttle function or free flow through check valve
B → A		

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Ordering code

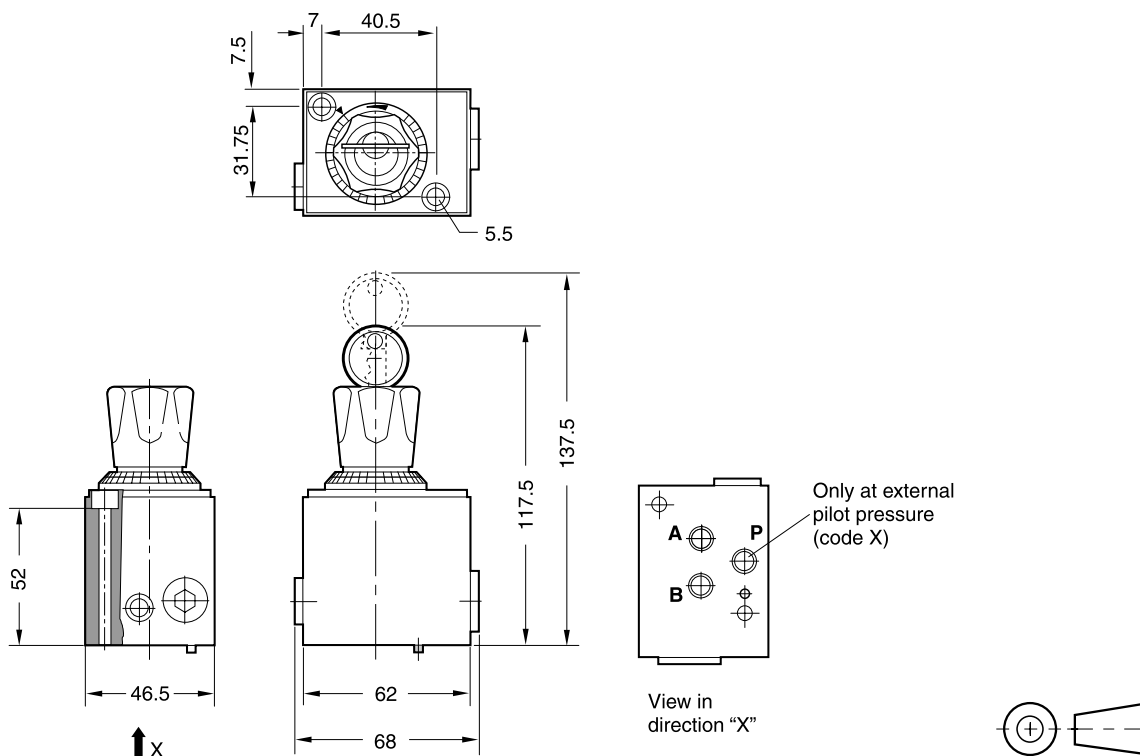


Performance curves



Changes in pressure cause a change of pre-set flow rate.  
Flow rate deviations a  $Q_{max} : \pm 2\%$

Dimensions



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

Nom. 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

Nom. 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

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