6/2 WAY CIRCUIT SELECTOR VALVES KV6K2

- NG 6, 8
- Up to 350 bar *[5 076 PSI]*
- Up to 90 L/min *[23.8 GPM]*

- Threaded connections to ISO 9974 (Metric), ISO 1179 (BSPP/Gas), ISO 11926 (UNF)
- Solenoids fulfil EMC (89/336/EEC)
- Plug-in connector for solenoids to ISO 4400 / AMP / Deutsch
- With internal or external drain release
- For pipe connection (all ports) or flange connection ports A, B, C, D
- With coils type SR-045, MR-045 for NG 6, or MR-060 for NG 8 (see page 223).

KV6K2-6

Operation

Valves type KV6K2 with direct solenoid operation control the direction of the hydraulic medium flow. They are used as circuit selector valve between two consumers controlled by means of one basic directional control valve.

The valve basically consists of a housing (1), a control spool (2), a solenoid (3) and a return spring (5).
Change-over to the operating position is done by energizing the solenoid (3), whereby the solenoid plunger acts on the control spool (2) via operating pin (4), thus clearing the corresponding flow ways and establishing respective links between the ports P1-A and P2-B.

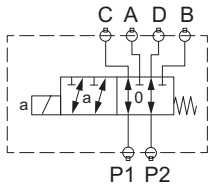
When the solenoid (3) is de-energized, the control spool (2) is returned to its neutral position by the return spring (5), thus establishing again the links between ports P1-C and P2-D.
The change-over can also be done manually by pressing the pin for emergency manual override (6).

Solenoid coil is fastened to the core by the retaining nut (7).

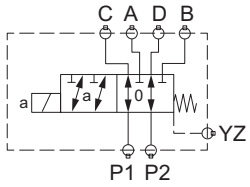
Wet pin tube of the solenoid core is loaded by working pressure.
When the valve is used at pressure over 250 bar the pressure in the tube must be released by external drain port (8) to tank (option Z), or internally over the check valves (9) to the lower pressure port – alternatively P1/P2 (option N).

Hydraulic symbol

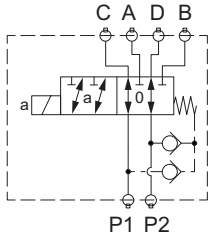
Without drainage

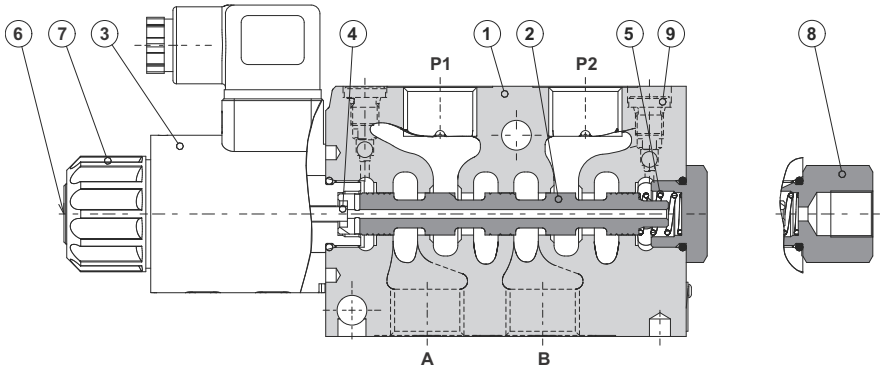


With external drain

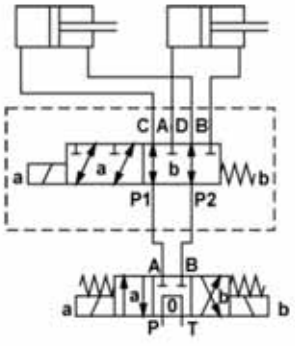


With internal drain





Mounting example



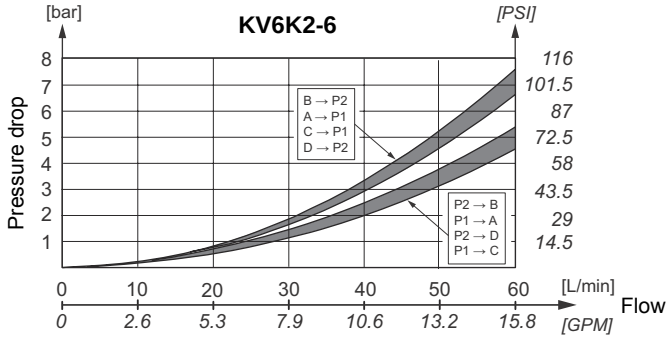
Features

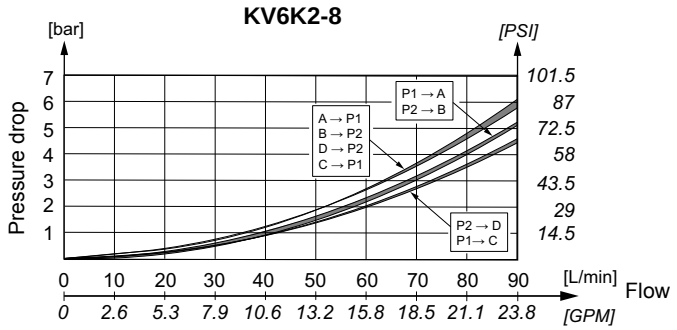
Hydraulic				
Size			**6**	**8**
Flow rate		L/min *[GPM]*	60 *[15.8]*	90 *[23.8]*
Operating pressure	without drain release	bar *[PSI]*	250 *[3 625]*	
	with YN or YZ		350 *[5 076]*	
Oil temperature range		°C *[°F]*	-20 to +70 *[-4 to +158]*	
Viscosity range		mm^2/s *[SUS]*	15 to 380 *[3.24 to 82]*	
Mounting position			Optional	
Mass		kg *[lb]*	2,9 *[6.4]*	4,8 *[10.6]*
Filtration		ISO 4406:1999	19/17/14	
Electrical				
Supply voltage		V	12, 24 DC	
Max. allowable voltage variation		%	+/- 10	
Power		W	31	45
Ambient temperature		°C *[°F]*	to +50 *[to +122]*	
Coil temperature		°C *[°F]*	to +180 *[to +356]*	
Duty cycle			Continuous	
Protection class to EN 50529 / IEC 60529	connector type ISO 4400		IP65	
	connector type AMP		IP65	
	connector type Deutsch		IP69K	

See chapter Solenoids (page 223) for more detailed technical info.

ΔP - Q Performance curves

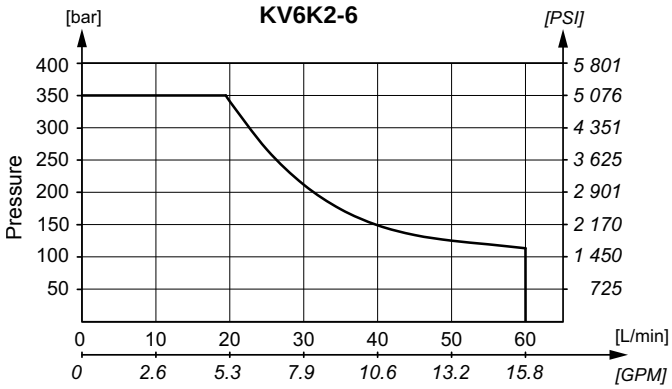
Measured at 50°C *[122°F]* and viscosity of 32 mm^2/s *[148 SUS]*.

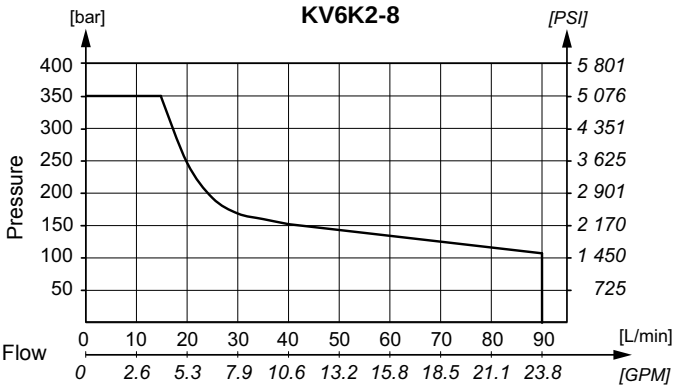




Pressure drop curves for flow in one direction, measured on the valves with ports G1/2 and spool with negative overlapping.

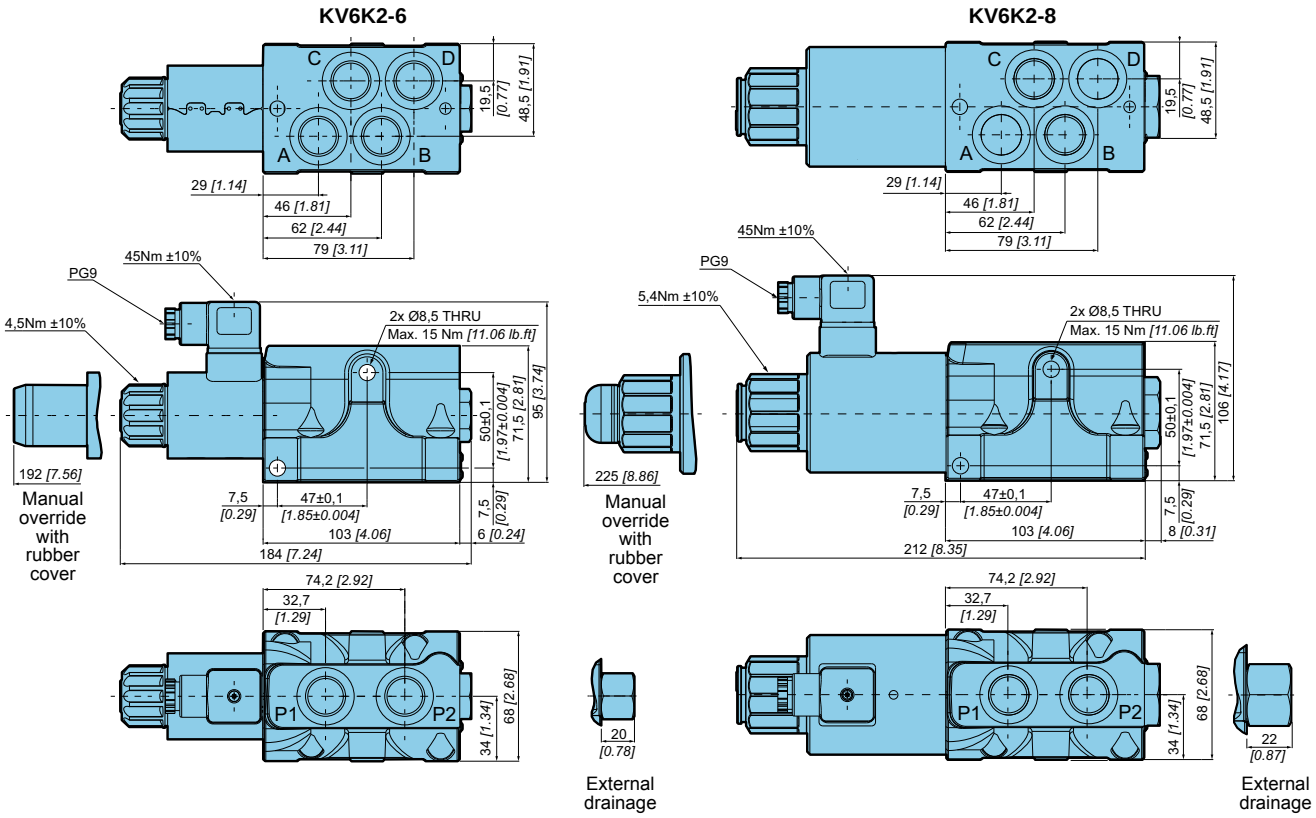
p - Q operating limits





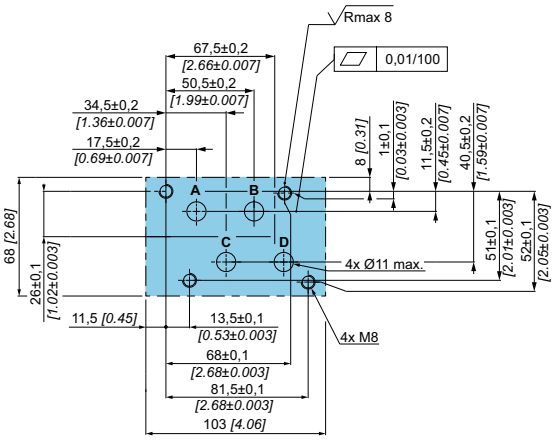
Given operating limits are valid for the worst case flow direction. Change-over of the spool is assured in the p-Q range below the operating limit curves.
Stability of the spool in position “a” or “0” is assured in the whole p-Q range up to 350 bar and up to 60l/min - size 6 and up to 90l/min - size 8.

Dimensions

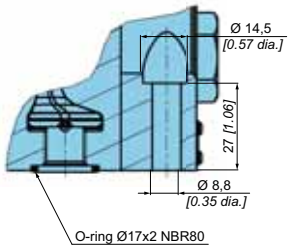


Coil can be assembled in any position with span 90° around the axis. See chapter Solenoids (page 223) for detailed information regarding coil options.

Mounting surface for flange connection



Seals and screws for flange connection



Mounting screws *		4x ISO 4762: M8x40 - 10.9
Tightening torque	Steel tapped holes	15 Nm +/- 10%
	Aluminium tapped holes	11 Nm +/- 10%

* Not included

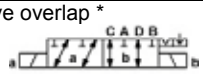
Model code

	S	H	M						B					S			
	1	1	1	2	3	4	5	6	1	2	3	4	5	1	2	3	4
K V 6 K 2 -		-		-						-					-			

S1 - Size

Nominal size 6 (solenoid 045, max. flow 60 l/min)	**6**
Nominal size 8 (solenoid 060, max. flow 90 l/min)	**8**

H1 - Spool type

Negative overlap 	**0**
Positive overlap 	**P**
Detent spool, negative overlap * 	**A**

* Available only on valve size 6.

M1 - Emergency override

Basic emergency override	**0**
Manual override with rubber cover	**G**

M2 - M4 Supply voltage *

12V DC	**12D**
24V DC	**24D**
48V DC	**48D**
Without coil	**0WC**

* Other voltages available on request.

M5 - Terminal / Connector type

Connector EN 175301-803 without signal lamp	**0**
Connector EN 175301-803 with signal lamp	**L**
Terminal EN 175301-803 without connector	**K**
Terminal AMP Junior timer without connector	**M**
Terminal Deutsch without connector	**V**

M6 - Overvoltage protection

Without overvoltage protection	**0**
With overvoltage protection (transil diode)	**T**

B1 - B3 - Threaded connections

G3/8 (BSPP) *	**G38**
G1/2 (BSPP)	**G12**
9/16-18 UNF (SAE) *	**S06**
3/4-16 UNF (SAE)	**S08**

* Available only on valve size 06.

B4 - Connection

Pipe connection P1, P2, A, B, C, D	**C**
Flange connection A, B, C, D Pipe connection P1, P2	**F**

B5 - Drainage

Without drainage	**0**
Internal release to P1/P2	**N**
External release to tank	**Z**

S1 - S4 - Special options

Without *	**0**
Solenoid type SR-045 **	**S1**
Low leakage spool	**L**
Painted RAL 9005	**D**
Phosphate coated housing	**G**
FPM seals for HETG, HEES, HEPG to VDMA 24568 and ISO 15380	**E**
Customer name plate	**P**
Warning (model code does not describe the final product - check documentation)	**F**

* Standard surface protection is Zinc coating, unless otherwise required.
** Available only on valve size 06.