



6/2 WAY DIRECTIONAL VALVE KVH

- NG 8
- Up to 350 bar [5 076 PSI]
- Up to 90 L/min [23.8 GPM]
- Threaded connections to ISO 9947 (Metric), ISO 1179 (BSPP/Gas), ISO 11926 (UNF)
- Fulfil EMC (89/336/EEC)
- Plug-in connector for solenoids to ISO 4400/AMP/Deutch
- With internal or external drain release
- For single use or series assembly of 2 to 6 sections



KVH-6/2-8

Operation

Directional valves type KVH with direct solenoid operation control the direction of the hydraulic medium flow. They are mostly used as circuit selector valve between two (or more) consumers when we want to control two (or more) consumers by means of one basic directional control valve.

A 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 on the solenoid core (6).

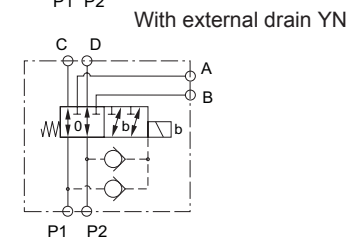
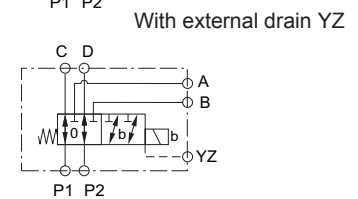
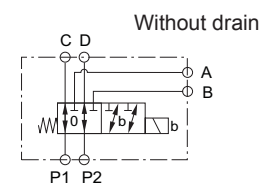
Solenoid coil is fastened to the core by retaining nut (7).

Position of the coil is pre-defined by a pin on the coil (8) and fixation hole on the valve housing.

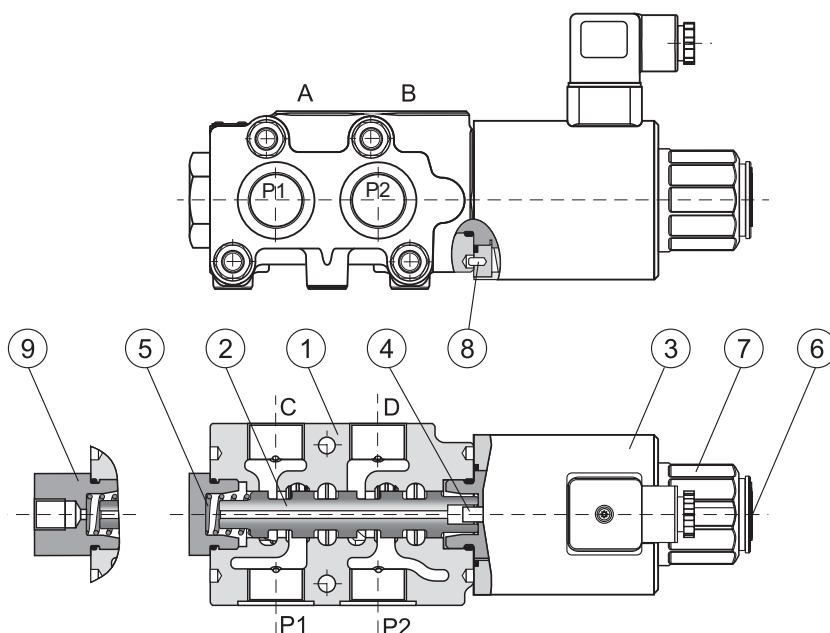
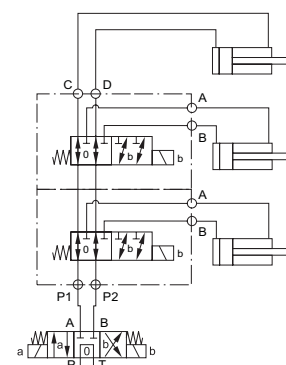
Wet pin tube of the solenoid core is loaded by working pressure.

When the valve is used at pressure over 250 bar the pressure in the tube must be released by external drain port (9) to tank (option YZ), or internally over the check valves to the lower pressure port - alternatively P1/P2 (option YN).

Hydraulic symbols



Mounting example





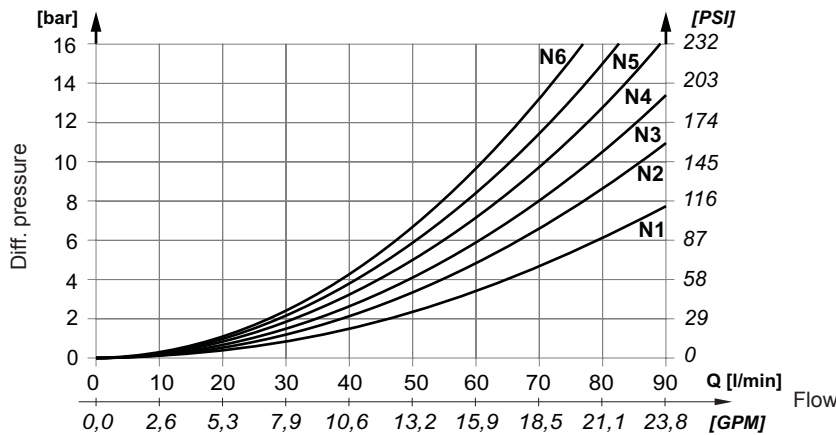
Features

Hydraulic			
Size		8	
Flow rate	L/min [GPM]	90 [24]	
Operating pressure	with YN or YZ	bar [PSI]	350 [5 076]
	without drain release	bar [PSI]	250 [3 625]
Viscosity range	mm ² /s [SUS]	15 to 380 [69.5 to 1 760]	
Oil temperature range	°C [°F]	-20 to +70 [-4 to +158]	
Filtration	ISO 4406:1999	19/17/14	
Mass	kg [lb]	3,8 [7.71]	
Mounting position		Optional	
Electrical			
Supply voltage	V	12 DC, 24 DC	
Max. allowable voltage variation		+/- 10 %	
Power	W	45	
Ambient temperature	°C [°F]	to 50 [122]	
Coil temperature	°C [°F]	to 180 [356]	
Duty cycle		Continuous	

Protection class to EN 50529 / IEC 60529

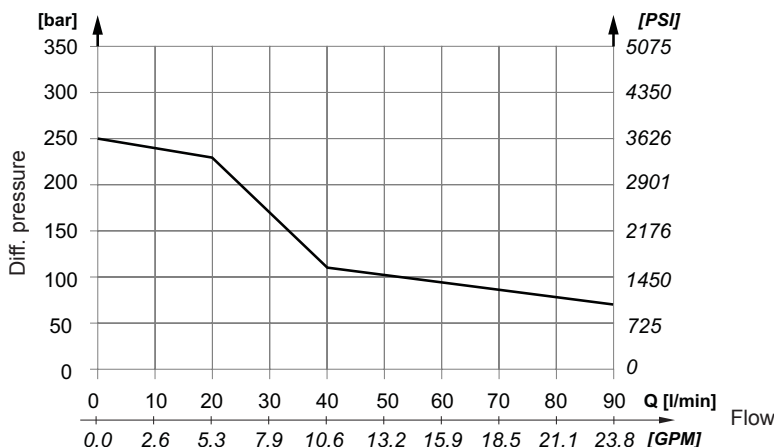
- Connector ISO 4400
- Connector AMP
- Connector Deutsch
- IP65
- IP65
- IP69K

ΔP-Q Performance curves



Pressure drop curves for flow in one direction, measured on the valves with ports M22x1,5 and spool with negative overlapping.

P-Q Operating limits

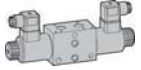


Change-over of the spool is assured in the p-Q range below the operating limit curve. However, stability of the spool in position "0" or "b" is assured in the whole p-Q range up to 350 bar and up to 90 l/min [23.8 GPM].

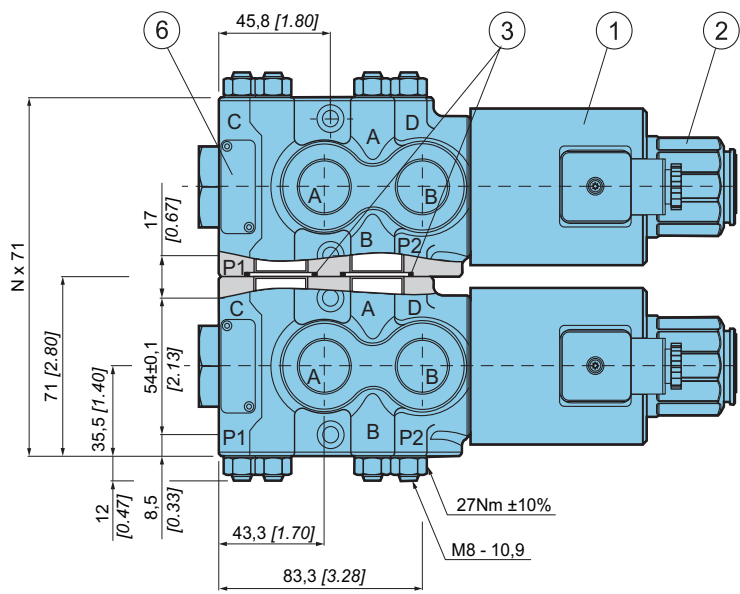
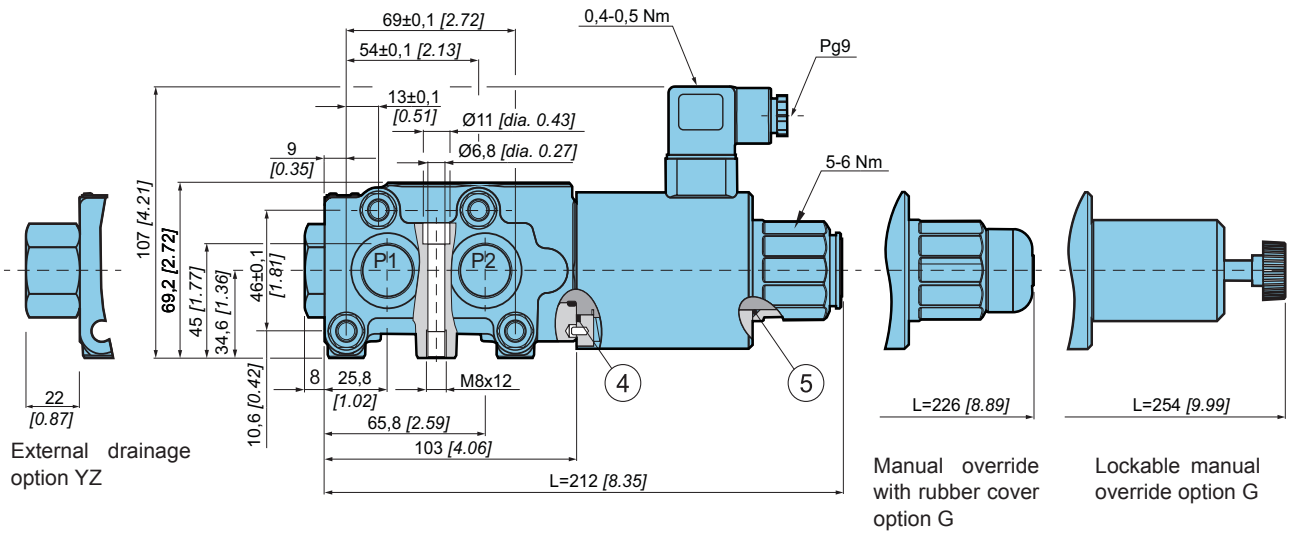
Mechanically operated

Hydraulically operated

Electrically operated



Dimensions



1. Solenoid coil - MR-060-O...
2. Retaining nut - MR-060-M...
3. O-ring FI 26x2
4. O-ring FI 35x2
5. O-ring FI 31x2
6. Nameplate



Model code



Spool/Overlap

negative overlap



No designation

positive overlap



P

Manual override option

Emergency manual override No designation

Manual override with rubber cover G

Lockable manual override C

Supply voltage

24V DC No designation

12V DC 12DC

without coil WC

Connector type

EN 175301-803 without signal lamp No designation

EN 175301-803 with signal lamp L

EN 175301-803 without connector K

AMP Junior timer without connector M

Deutch without connector V

Overvoltage protection

Without protection No designation

With overvoltage protection (transil diode) T

Threaded connections P1, P2, A, B, C, D (YZ)

M22x1,5 (M12x1,5) M22

G1/2 (G1/4) 1/2

3/4 - 16 UNF (9/16 - 18 UNF) SAE8

Seal type

NBR seals for mineral oil HL, HPL to DIN 51524 No designation

FPM seals for HETG, HEES, HEPG to VDMA 24 568 and ISO 15 380 E

Number of units

1 unit No designation

X units (2 to 6) NX

Drainage (see hydraulic symbol)

Without drain No designation

Internal drain release to P1/P2* YN

External drain port on plug** YZ

* Functional when the valve is used in standalone application

** On series assembly of 2 or more sections YZ port has to be released to tank from every section with working pressure over 250 bar

Special options

Zinc coated surface No designation

Phosphate coated PF

Painted with RALXXXX RALXXXX

Low leakage spool LL

Without identification plate S4

Identification plate with customer logo S5

Customer marking on the identification plate S6

Solenoid on the opposite side I

Mechanically operated

Hydraulically operated

Electrically operated