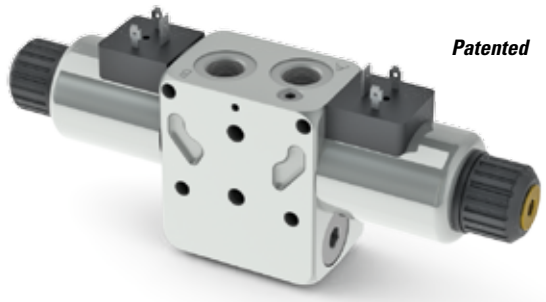
PROPORTIONAL PRE COMPENSATED VALVES



Patented

Connector to be ordered separately, see page 105.

Stackable proportional directional valves CXDH with LS signal locally compensated

- Used for controlling fluid direction and flow rate as a function of the supply current to the proportional control solenoid.
- Flow regulation load indipendent.
- Load compensantionis achieved by a 2 way pressure compensator wich holds, the pressure drop constants across the proportional spool.
- Emergency control.
- Threaded ports or interface for modular valves
- Regulated flow rate until 35 l/min.
- Standard connectors DIN 43650 ISO 4400, AMP Junior and Deutsch
- Cast iron zinc plated body.

ORDERING CODE

CXDH	Proportional compensated bankable valve
3	Size
*	Mounting (see table 1)
*	Body type: **A** = Ports G3/8" parallel **G**= Interface for modular valves **B**= Ports SAE 9/16" - 18UNF **L**= Ports G3/8" parallel with valves LSA LSB **M**= Interface for modular valves with valves LSA LSB
**	Type of spool (*1*) **03** = 
N	Symmetrical flow path control
*	Flow rating
*	Differential pressure Δp **8** = Δp 8 bar **4** = Δp 4 bar
*	Max. current at solenoid (*2*): **E** = 2.35 A (9 Vdc) - Special coil **F** = 1.76 A (12 Vdc) **G** = 0.88 A (24 Vdc)
**	Variants (*3*): **S1** = No variant **LF/LV** = Emergency control lever (see page 72) For body type G and M order LR variant (emergency lever 180° rotated) **SV** = Viton **ES** = Emergency button (*4*) **P2**= Rotary emergency (*4*) **R5** = Rotary emergency 180° (*4*) **AJ** = AMP Junior coil (see page 111) **CZ** = Deutsch DT04-2P coil (see page 111)
1	Serial No.

*	Δp 8bar	Δp 4bar
D	8 l/min	6 l/min
2	16 l/min	12 l/min
3	22 l/min	18 l/min
4	35 l/min	28 l/min

Calibrated diaphragms on P line, see page 104.

(*1*) Available spool 01  A and B ports are not sealed: fluid can escape from LS line (see hydraulic scheme).
(*2*) Coils technical data, see page 111
Voltage codes are not stamped on the plate, their are readable on the coils
(*3*) Connector to be ordered separately, see page 105; Other variants available on request.
(*4*) Emergency see page72

FEATURES

Max. operating pressure	300 bar
Max. operating pressure ports T (Pressure dynamic allowed for 2 millions of cycles)	250 bar
Regulated flow rate (A / B ports)	up to 35 l/min
Relative duty cycle	Continuous 100% ED
Type of protection (Hirschmann coil)	IP 65
Fluid viscosity	10 ÷ 500 mm²/s
Fluid temperature	-20°C ÷ 75° C
Ambient temperature	-20°C ÷ 60°C
Max. contamination level (filter $ß_{10} \geq 75$)	ISO 4406:1999: class 19/17/14 NAS 1638: class 8
Weight with single solenoid Weight with double solenoid	2.38 kg 2.77 kg

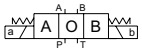
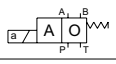
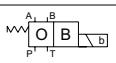
Solenoid	**@ 9Vdc**	**@ 12Vdc**	**@ 24Vdc**
Current supply	PWM (pulse width modulation)		
Max. current solenoid	2.35 A	1.76 A	0.88 A
Solenoid coil resistance at 25°C (77°F)	2.25 Ohm	4.0 Ohm	16.0 Ohm
PWM or superimposed dither frequency	100 ÷ 150 Hz		
Response time 0 ÷ 100% 100% ÷ 0	 32 ms 33 ms	 40 ms 33 ms	 85 ms 33 ms
Frequency response -3db (input signal 50% ±25% Vmax)	22 Hz	22 Hz	12 Hz

Operating specifications are valid for fluid with 46 mm²/s viscosity at 40°C, using the specified Dana Brevini electronic control units. (input voltage = 24V).

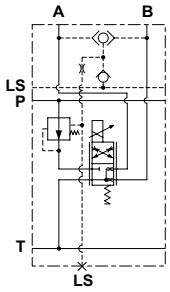
Accessories

REM.S.RA.*.*. REM.D.RA.*.*.	Card type control for single and double solenoid
CEP.S...	Electronic amplifier plug version for signle solenoid
MAV	Electronic module for integrate control of proportional valves and ON/OFF
JMPEI0M700101	Joystick with standard handle
JMPIU0M700138	Joystick Person present handle
Modular valves	CM3P (page 95) and CM3M (page 97)

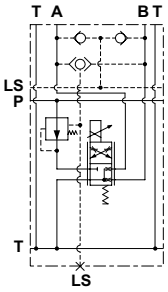
Tab.1 - Mounting

Code	Symbol
C	
A	
B	

HYDRAULIC SYMBOLS



CXDH3AA03 ..



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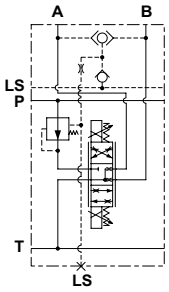
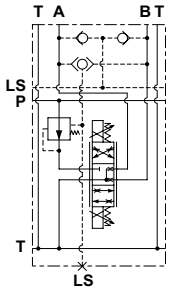
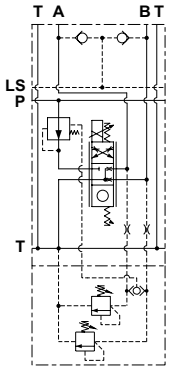


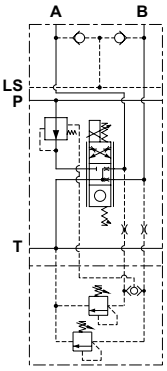
CXDH3CA03 ..



CXDH3CG03 ..



CXDH3AM03 ..



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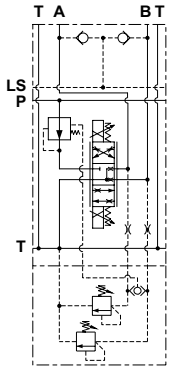
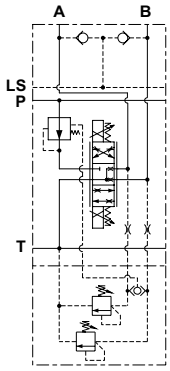


CXDH3CM03 ..



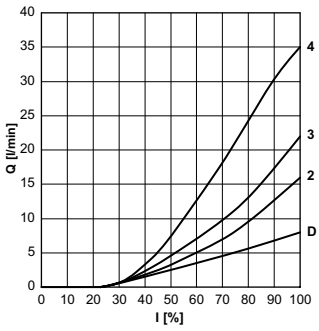
CXDH3CL03 ..

* Thanks to the design of the modular body (type G), an anti-shock modular valve can works same with CXDH3 valve energized or de-energized (see hydraulic symbol)

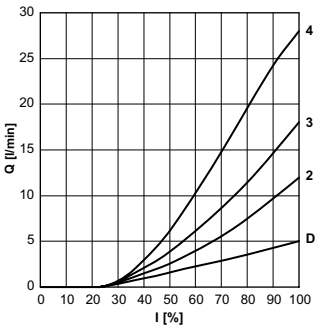
CHARACTERISTIC CURVES

I-Q curves - (Curves acquired with REM card, opening stroke)

Differential Pressure Δp = 8 bar

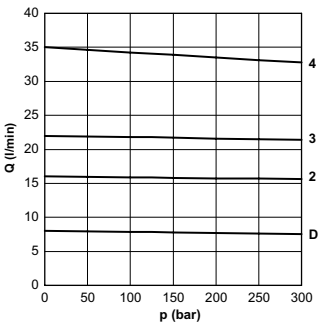


Differential Pressure Δp = 4 bar

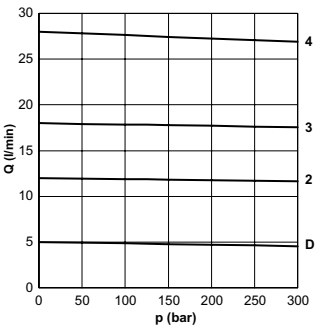


Compensation curves (curves acquired with FEH30.PQ inlet module)

Differential Pressure Δp = 8 bar



Differential Pressure Δp = 4 bar

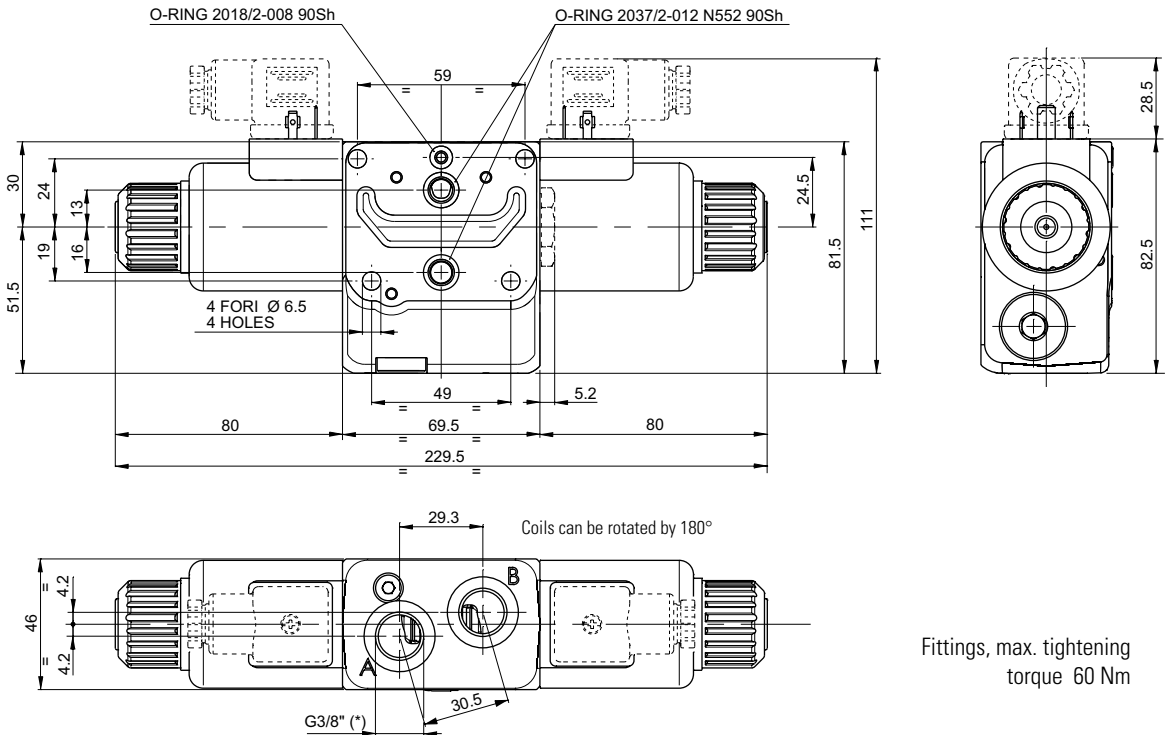


The fluid used is a mineral based oil with a viscosity of 46 mm²/s at 40°C. The tests have been carried out at with a fluid of a 40°C.

OVERALL DIMENSIONS

Body type A

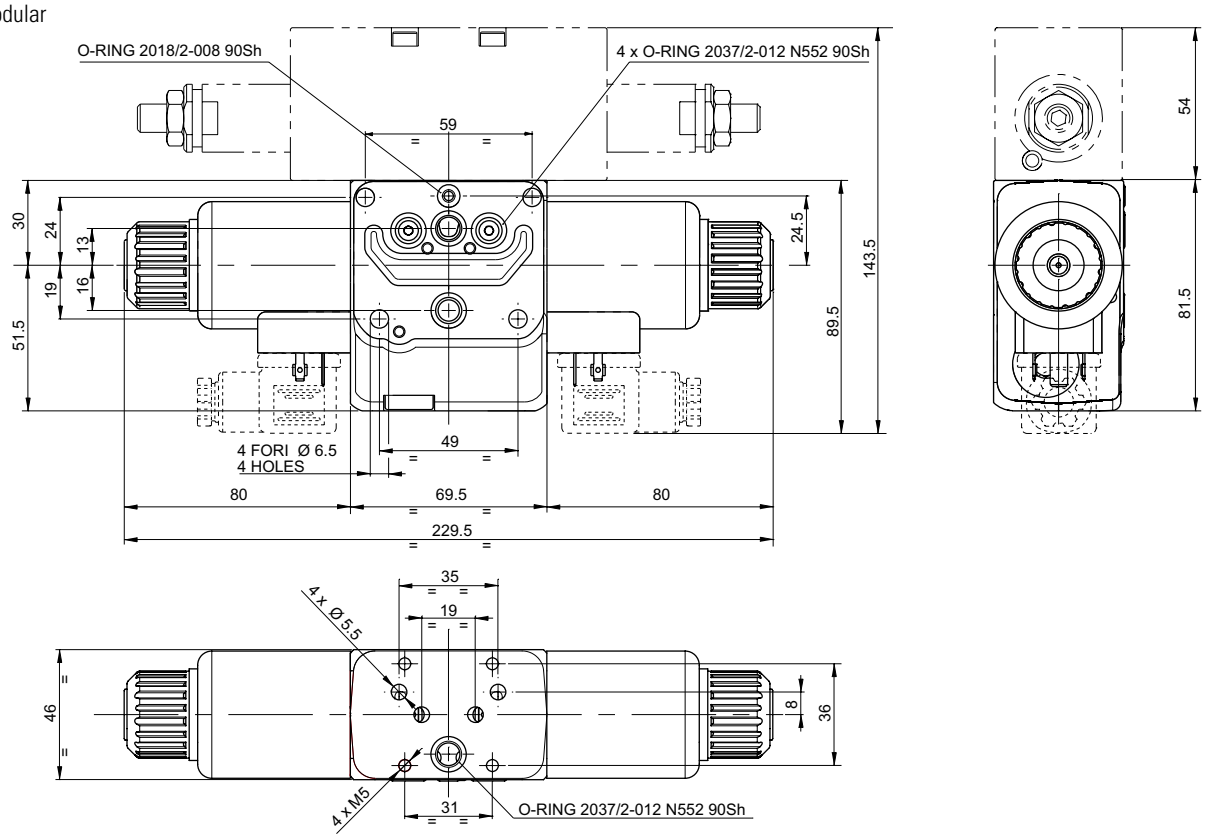
Ports G3/8" Parallel



Fittings, max. tightening torque 60 Nm

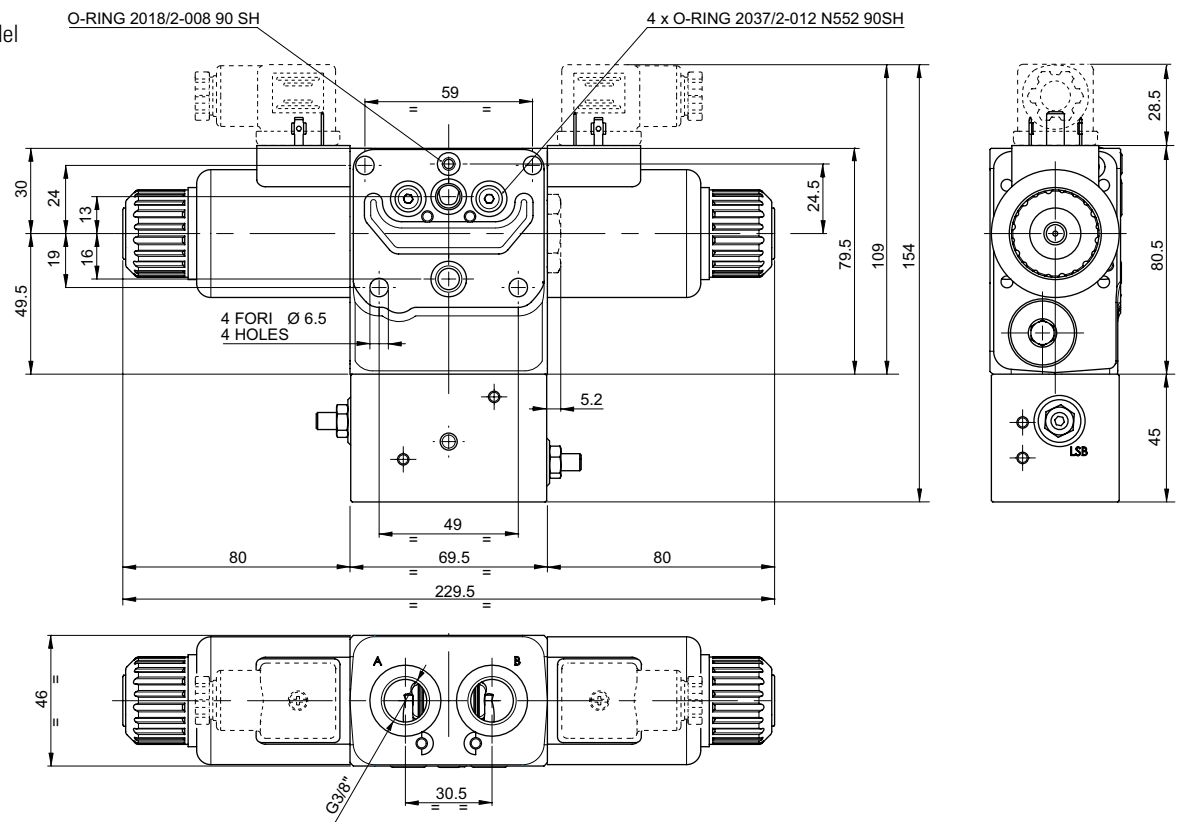
Body type G

Interface for modular valves



OVERALL DIMENSIONS

Body type L
Ports G3/8" parallel with valves LSA LSB



Body type M
Interface for modular valves with valves LSA LSB