

XQ.3... PROPORTIONAL FLOW CONTROL VALVES PRESSURE COMPENSATED CETOP 3



This is a proportional valve where both the flow rate and pressure control flow functions have been integrated according to the 3 way regulation concept.

The interface UNI ISO 4401 - 03 - 02 - 0 - 94 standard (ex CETOP R 35 H 4.2-4-03) allows for direct mounting on modular block or multiple sub-bases, which makes possible many advantageous and extremely compact application solution as a consequence of their simplicity of installation.

The 3 way type pressure compensator, inserted into the valve, holds the pressure drop across the flow rate proportional regulator constant (approx. 8 bar) independently from the controlled load variations, whereby ensuring proportional between the set flow rate and the electrical command signal.

Additionally, the system maximum safety pressure can be regulated through a manual command. This valve, if mounted on the feed line to the manifold block, can be used to control several circuits which are not operating at the same time.

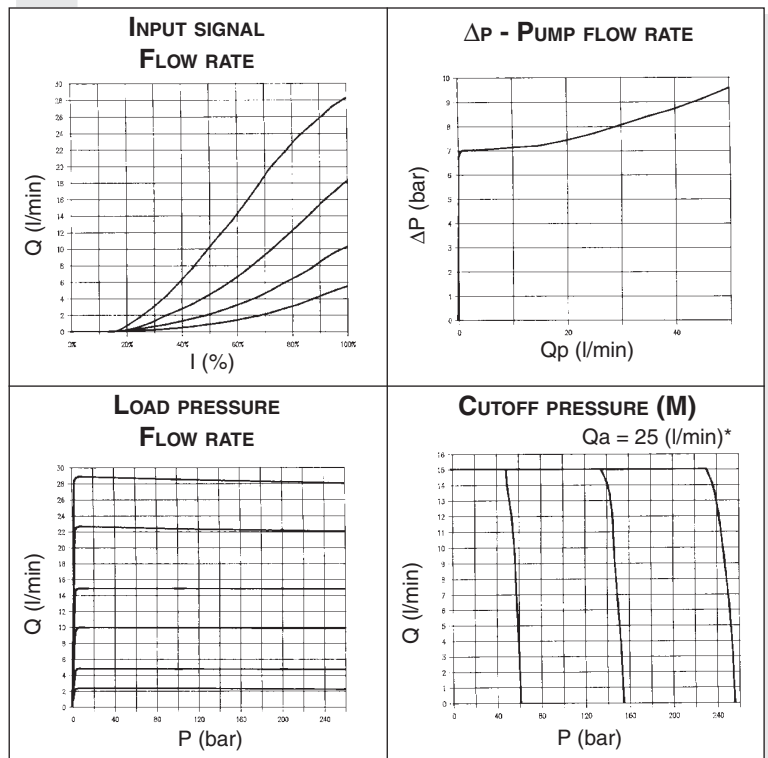
XQ.3...	
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ORDERING CODE

XQ	Proportional flow control valve
3	No. of way
C	Pressure compensation
3	CETOP 3/NG6
*	Flow rates F = 5 l/min G = 10 l/min H = 16 l/min I = 28 l/min
*	M = With manual pressure limiter S = Without manual pressure limiter
*	Setting ranges 1 = 8 ÷ 50 bar 2 = 25 ÷ 170 bar 3 = 50 ÷ 315 bar Omit for XQ.3.C.*.S version
*	E = With rotary emergency (type P2) S = Without rotary emergency
*	Voltage E = 9VDC (2,35 A) F = 12VDC (1,76 A) G = 24VDC (0,88 A)
**	Variant (*): S1 = No variant (without connectors) SV = Viton L5 = emergency lever R5 = Rotary emergency 180°
2	Serial No.

(* All variants are considered without connectors. The connectors must be order separately. See Ch. I Page 19

DIAGRAMS



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.

(*) Tested with 25 l/min supply

TABLE 1 - FLOW / PRESSURE SPECIFICATIONS

Model	Hydraulic symbol	Max flow rate (l/min)	Max flow in P (l/min)	Max limiter pressure (bar)	Max load pressure (bar)	Δp Control (bar)
XQ.3.C.3.*.M		5 10 16 28	40	8÷50 25÷170 50÷315	250	8
XQ.3.C.3.*.S		5 10 16 28	40		250	8

Max. operat. pressure ports A/B / With P port blocked on subplate	315 bar
Max. operating pressure ports T - for dynamic pressure see note (*)	250 bar
Regulated flow rate	See diagram page before
Relative duty cycle	Continuous 100% ED
Type of protection	IEC 144 class IP 65
Flow rate gain	See diagrams
Hysteresis with connection P/A/B/T $\Delta p = 5$ bar (P/A)	$\leq 4\%$ of max. flow rate
Fluid viscosity	$10 \div 500$ mm ² /s
Fluid temperature	$-20^{\circ}\text{C} \div 75^{\circ}\text{C}$
Max. contamination level	class 8 in accordance with NAS 1638 with filter $\beta_{10} \geq 75$
Weight version XQ.3.C.*.M...	2,89 Kg
Weight version XQ.3.C.*.S...	2,39 Kg

Type of voltage	9V	12V	24V
Max. current	2.35A	1.76 A	0.88 A
Solenoid coil resistance at 25°C (77°F)	2.25 Ohm	4.0 Ohm	16.0 Ohm

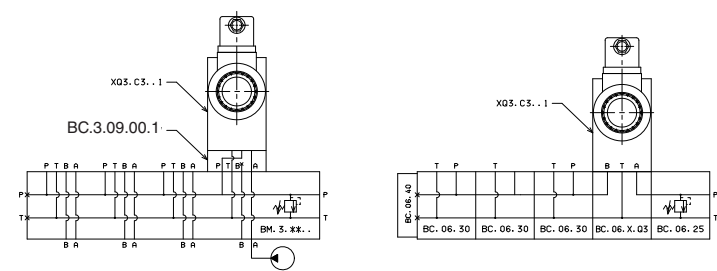
(*) Pressure dynamic allowed for 2 millions of cycles.

ELECTRONIC CONTROL UNIT

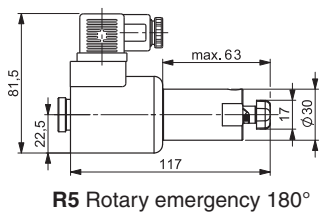
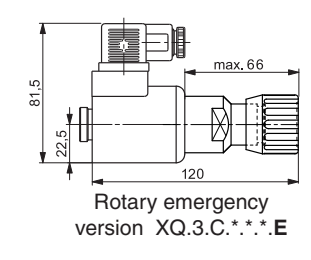
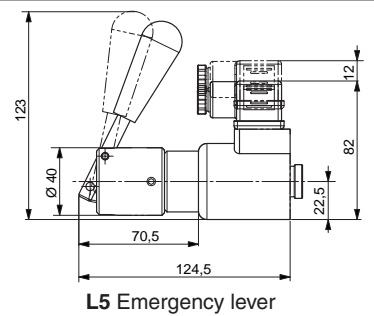
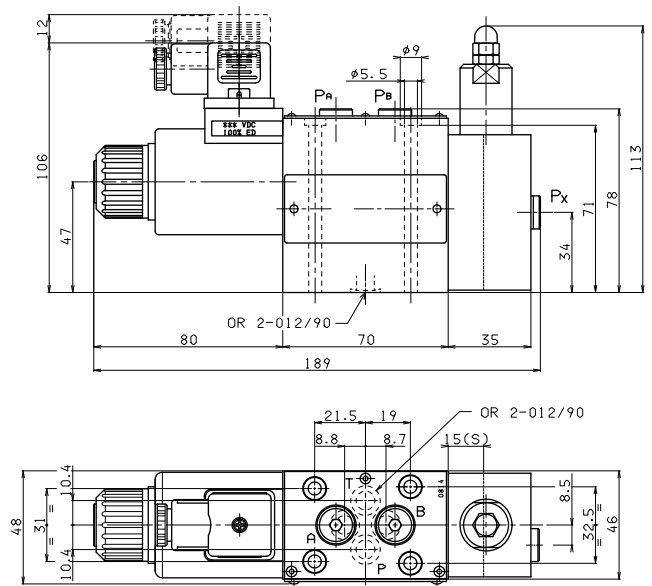
REM.S.RA.**	Card type control for single solenoid
SE.3.AN.21.00...	EUROCARD type control for single solenoid

• Operating specifications are valid for fluid with 46 mm²/s viscosity at 40°C, using the specified ARON electronic control units

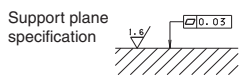
TYPICAL INSTALLATION



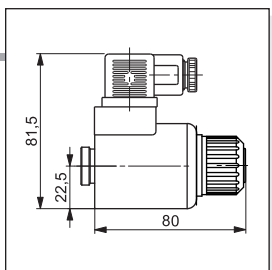
OVERALL DIMENSIONS



Fixing screws UNI 5931 M5x80
(min. 8.8 material screws are recommended)
Tightening torque $4 \div 5$ Nm / $0.4 \div 0.5$ Kgm



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"D15P" PROPORTIONAL SOLENOIDS



Type of protection (in relation to connector used)	IP 66
Duty cycle	100% ED
Insulation class wire	H
Weight (coil)	0,354 Kg
Weight (solenoid)	0,608 Kg

ETD15P - 01/2002/e