

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 ISO 4401 standard 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.

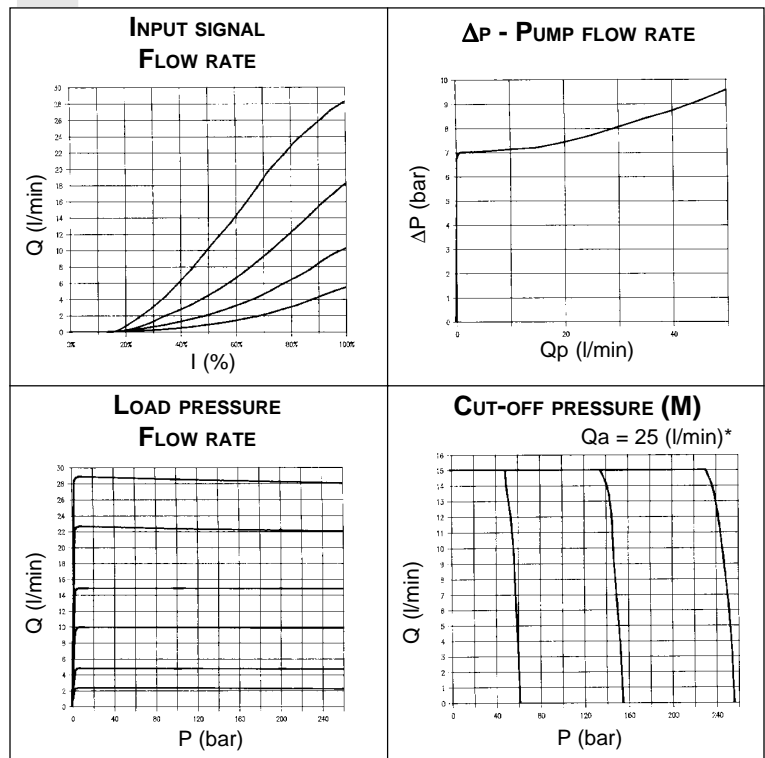
Additionally, the system maximum safety pressure can be regulated through a manual command. This valve, if mounted on the feed line to the manifold block, can be used to control several circuits which are not operating at the same time.

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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 = 17 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 P1) S = Without rotary emergency
*	Voltages E = 9VDC (2,35 A) F = 12VDC (1.76 A) G = 24VDC (0.88 A)
**	00 = No variant V1 = Viton
2	Serial No.

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	40	8÷50	250	8
		10		25÷170		
		17		50÷315		
		28				
XQ.3.C.3.*.S		5	40		250	8
		10				
		17				
		28				

Pressione max. di esercizio sulle vie A/B (P tappata sul blocco)	315 bar
Max. operating pressure ports T - for dynamic pressure see note (*)	250 bar
Regulated flow rate	Vedi tabella pagina precedente
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 voltages	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.*.*

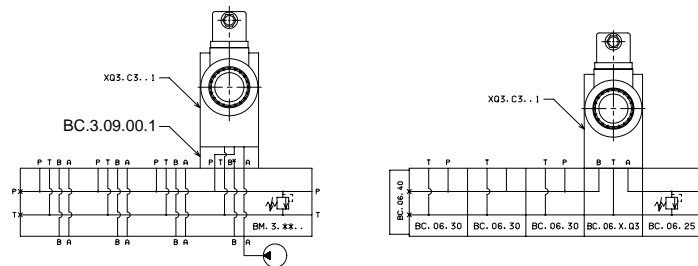
Card type control for single solenoid

SE.3.AN.209.16..

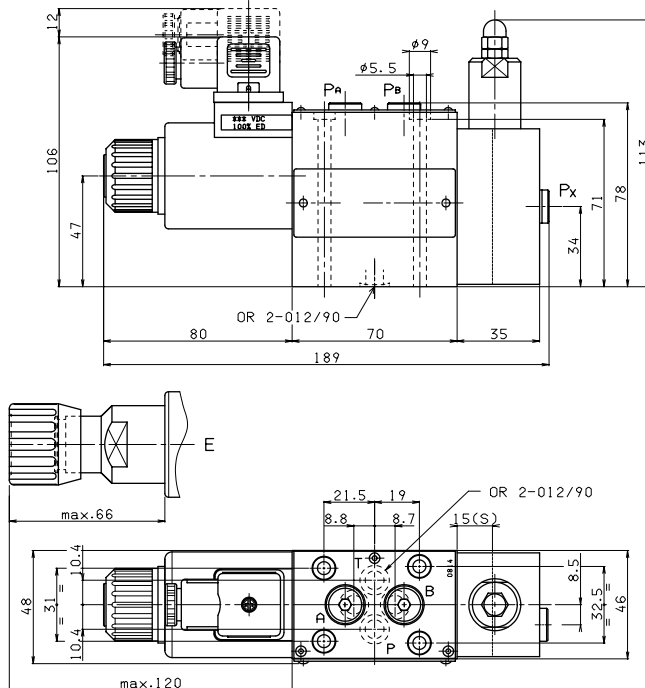
EUROCARD type control for single solenoid

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

TYPICAL INSTALLATION



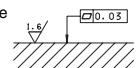
OVERALL DIMENSIONS



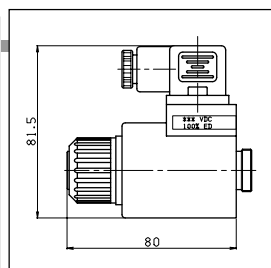
E = Rotary emergency version XQ.3.C.*.*.E...

Fixing screws UNI 5931 M5x80
(Screws with material specification 12.9 recommended)
Tightening torque $4 \div 5$ Nm / $0.4 \div 0.5$ Kg

Support plane specification



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PROPORTIONAL SOLENOID D15P

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