

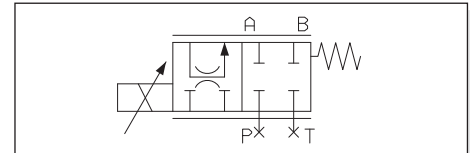
XQP3... OPEN LOOP 2/3 WAY PROPORTIONAL PRESSURE COMPENSATED FLOW REGULATORS



The open loop proportional flow regulator is 2 and 3 way compensated with priority function. It is designed to regulate flow in proportion to an applied electrical current (REM or SE3AN power amplifier). Flow regulation is load independent - B port. Load compensation is achieved by a spool compensator which holds the pressure drop constant across the proportional spool.

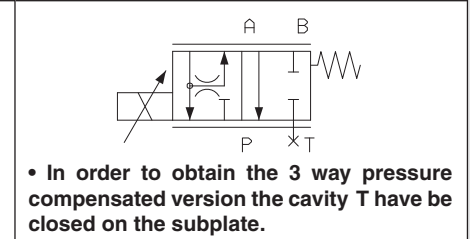
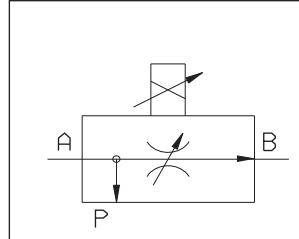
Valves are available in the following versions (see hydraulic symbol):

- 2 way pressure compensated - 3 way pressure compensated with priority function.
- 3 way pressure compensated with priority and venting function.



• In order to obtain the 2 way pressure compensated version the cavities P and T have to be closed on the subplate.

HYDRAULIC SYMBOLS



• In order to obtain the 3 way pressure compensated version the cavity T have to be closed on the subplate.

ORDERING CODE

XQP

Open loop 2/3 way proportional compensated flow regulator

3

CETOP 3/NG6

C

2/3 way compensation with priority function

3

3 way version (standard)
For to obtain 2-way version the P line must be closed on the subplate

Nominal flow rates

- F = 6 l/min
- G = 12 l/min
- H = 22 l/min
- I = 32 l/min
- L = 40 l/min

S = without decompression
D = with decompression

Max. current to solenoid

- E = 2.35 A
- F = 1.76 A
- G = 0.88 A

Variants (*):

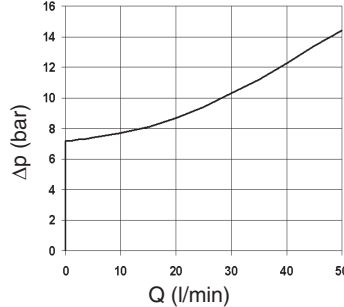
- S1 = No variant
- P2 = Rotary emergency
- R5 = Rotary emergency 180°
- SV = Viton

2

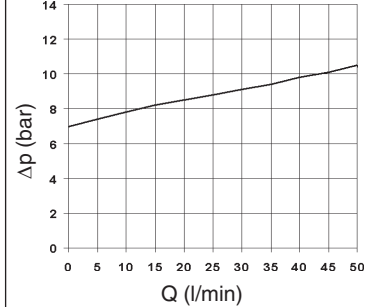
Serial No.

DIAGRAMS

ΔP - FLOW RATE A → B
(WITH 5 l/min TO P)

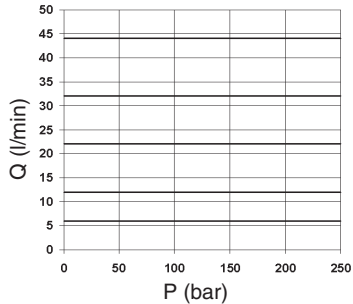


ΔP - SECONDARY LINE FLOW
(A → P FREE)



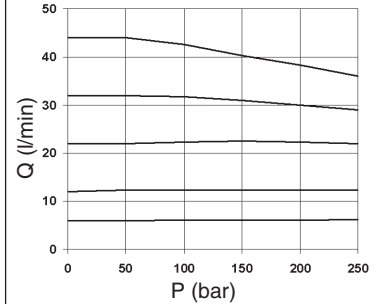
FLOW RATE

BACK PRESSURE ON PRIORITY LINE

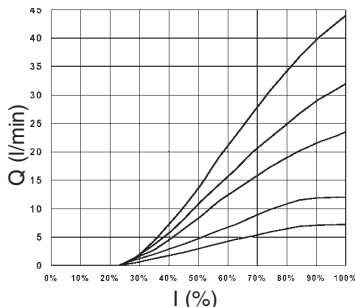


FLOW RATE

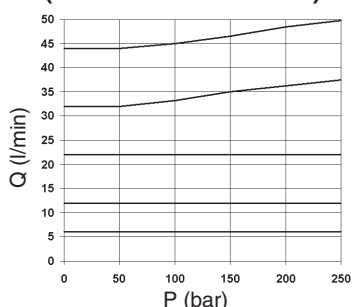
BACK PRESSURE ON SECONDARY LINE



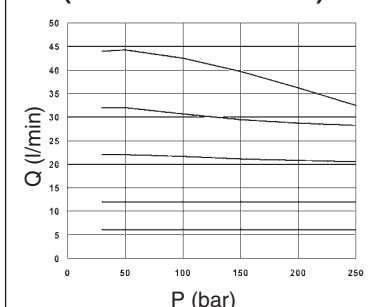
INPUT SIGNAL
FLOW



2 WAY COMPENSATION
(A 270 bar - B VARIABLE)



2 WAY COMPENSATION
(A VARIABLE - B 30 bar)



(* All variants are considered without connectors. The connectors must be order separately. See Cap. I • 20.

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.

XQP3... OPEN LOOP 2/3 WAY PROPORTIONAL PRESSURE COMPENSATED FLOW REGULATORS

OPERATING SPECIFICATIONS

Max. operat. pressure ports A/B /P see note (*) With T port blocked on subplate	250 bar		
Regulated flow rate	6 / 12 / 22 / 32 / 40 l/min		
Decompression drain flow	max 0,7 l/min		
Relative duty cycle	Continuous 100% ED		
Type of protection (in relation to the connector used)	IP 65		
Flow rate gain	See diagram "Input signal flow"		
Fluid viscosity	10 ÷ 500 mm ² /s		
Fluid temperature	-20°C ÷ 75°C		
Ambient temperature	-20°C ÷ 70°C		
Max. contamination level	from class 7 to 9 in accordance with NAS 1638 with filter $\beta_{10} \geq 75$		
Weight	1,7 Kg		

Max. current	2.33A	1.76 A	0.88 A
Solenoid coil resistance at 25°C (77°F)	2.25 Ohm	4.0 Ohm	16.0 Ohm
Hysteresis with Δp 7 bar	≤5%	<5%	<8%
Response to step $\Delta p = 7$ bar			
0 ÷ 100%	32 ms	40 ms	85 ms
100% ÷ 0	33 ms	33 ms	33 ms
Frequency response -3db (Input signal 50% ± 25% Vmax.)	22Hz	22Hz	12Hz

(*) Pressure dynamic allowed for 2 millions of cycles

Operating specifications are valid for fluids with 46 mm²/s viscosity at 40°C, using specified electronic control units.

Performance data are carried out using the specified power amplifier SE3AN... powered to 24V.

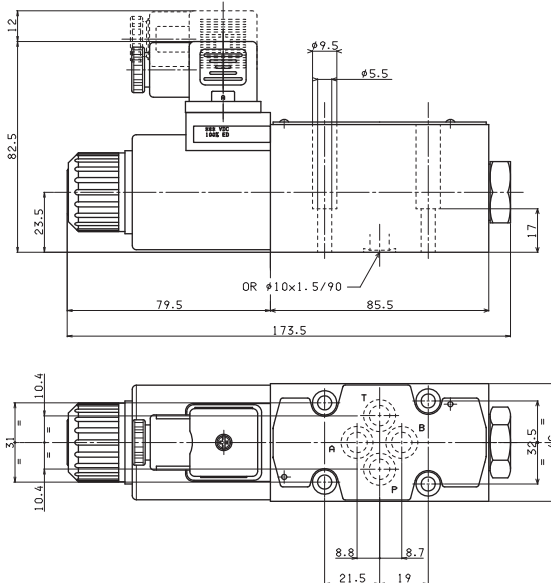
AMPLIFIER UNIT AND CONTROL

REMSRA**...

Electronic card for control single proportional solenoid valve.

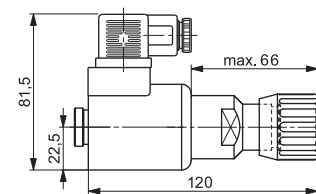
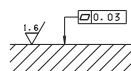
Recommended dither frequency 100 Hz.

OVERALL DIMENSIONS

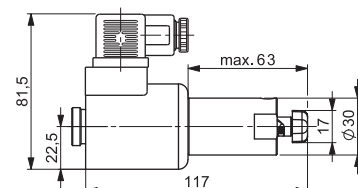


Fixing screws UNI 5931 M5x25
(min. 8.8 material screws are recommended)
Tightening torque 4 ÷ 5 Nm / 0.4 ÷ 0.5 Kgm

Support plane specifications



P2 Rotary emergency (1)



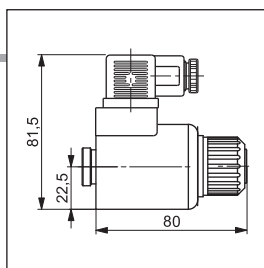
R5 Rotary emergency 180° (2)

(1) **P2** - Adjustable hand emergency.

(2) **R5** - Two positions hand emergency. The regulated flow with emergency actuated can be less than nominal value.

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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