



3.8

35EF72-30 TYPE

Proportional Flow Control Cartridge

Rated pressure (bar / psi)	Port ①: 240 / 3500
	Port ② and ③: 207 / 3000
Rated flow (L/min / gpm)	See technical data

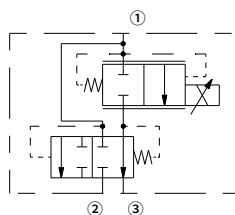
Features

- Excellent linearity and hysteresis
- Efficient wet-armature construction
- Optional waterproof E-Coils rated up to IP69K
- Industry common cavity
- Cartridges voltage interchangeable
- Hardened parts for long life

Contents

Description	02
Operation	02
Technical data	02
Ordering code	03
Materials	03
Performance	04
Dimensions	05

Symbol



Description

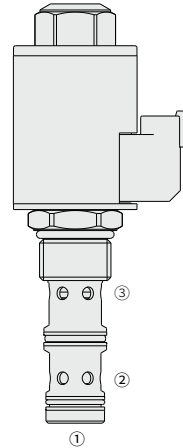
A solenoid-operated, electrically-variable, three-port, pressure-compensated, spool valve type, normally closed when de-energized, proportional flow control valve. It can be used as a priority-type flow regulator with pressure-compensated, regulated and bypass flow. It can also be used as a restrictive-type 2-way, pressure-compensated flow regulator when the bypass line (port ②) is blocked.

Operation

The 35EF72-30 will regulate flow out of port 3 regardless of system working pressure.

With increasing current applied to the solenoid, the 35EF72-30 will increase output flow.

Note: When used as a bypass flow control in applications where the priority flow port will be blocked by external valving, bypass pressure drop will increase unless a small amount of leakage is provided for the priority port. Consult factory.



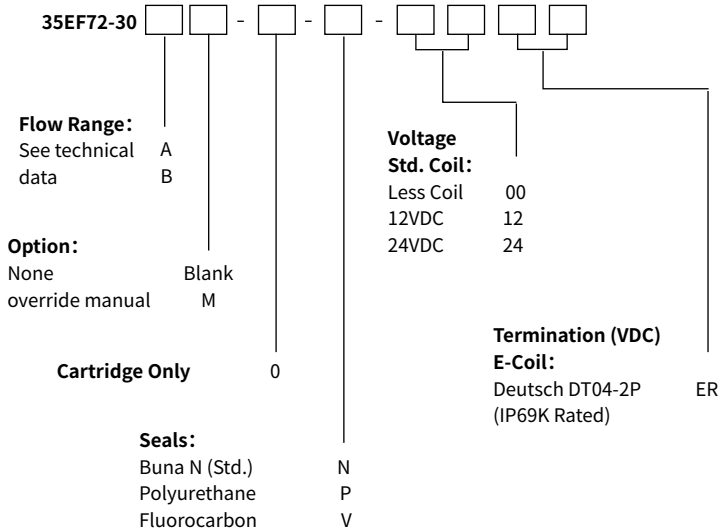
Technical Data

Rated pressure	Port ① : 240 bar (3500 psi); Port ② and ③ : 207 bar (3000 psi)	
Regulated flow rate in 3-port mode	Range A: 57 L/min (15 gpm); Range B: 38 L/min (10 gpm)	
Maximum input flow in 3-port mode	Range A and B: 114 L/min (30 gpm)	
Maximum flow rate in 2-port mode	Range A: 53 L/min (14 gpm); Range B: 31 L/min (8 gpm)	
Cavity	VC12-3 (See technical reference)	
Internal leakage	0.38 L/min fully closed @207 bar	
Fluid	Mineral-based or synthetics with lubricating properties	
Viscosity range	7.4 to 420 mm ² /s	
Temperature range	-40 to 100 °C (Buna N seals)	
	-54 to 107 °C (Polyurethane seals)	
	-26 to 204 °C (Fluorocarbon seals)	
Degree of fluid contamination	The minimum pollution level is ISO4406 level 18/16/13, and level 15/13/11 is recommended to prolong the service life	

Electric

Coil voltage	12 VDC	24 VDC
Threshold current	350±100 mA	175±50 mA
Max. control current	1600±200 mA	800±100 mA

Ordering Code



Materials

Cartridge:

Weight: 0.36 kg; Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N(Std.) seal.

Standard Ported Body:

Anodized high-strength aluminum alloy, rated to 240 bar; Ductile iron and steel bodies available; Dimensions may differ, consult factory.

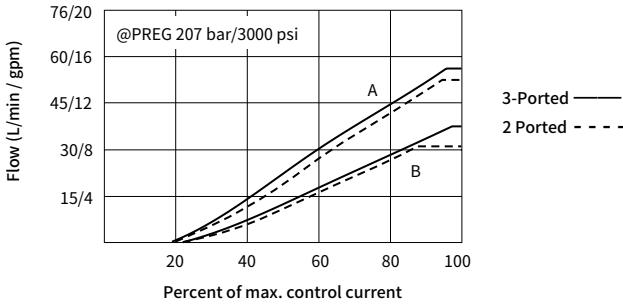
Standard Coil: Consult factory.

E-Coil:

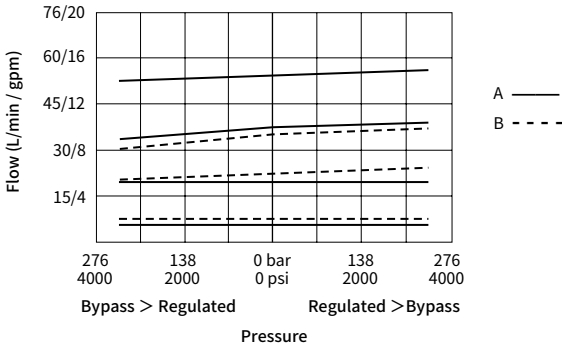
Weight: 0.41 kg; Perfect wound, fully encapsulated with rugged external metal shell; Rated up to IP69K with Deutsch sockets.

Characteristic curves

Flow vs. Current
 Input flow: 76 L/min / 20 gpm
 12V Coil; 110 Hz PWM
 32 cSt/150 sus oil at 40°C



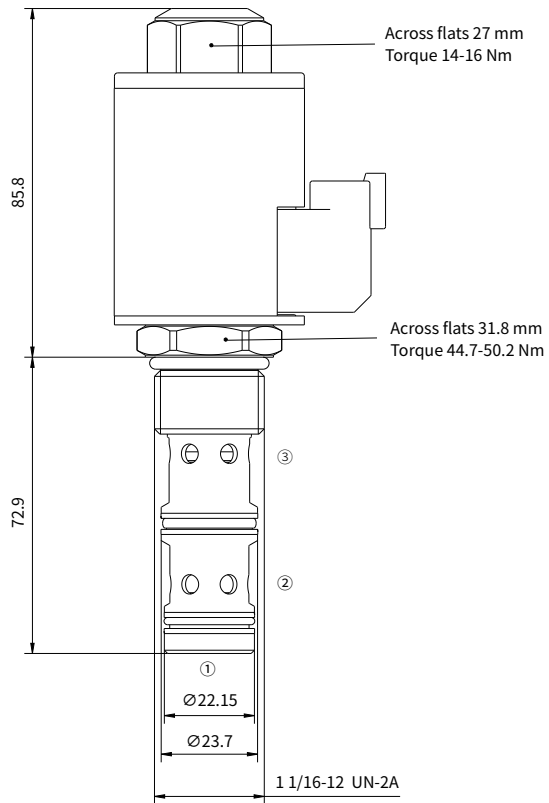
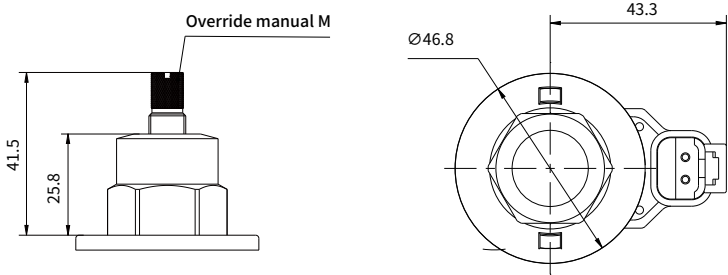
Regulated Flow vs. Pressure
 Input flow: 76 L/min / 20 gpm
 12V Coil; 110 Hz PWM
 32 cSt/150 sus oil at 40°C



02

Dimensions

(Dimensions in mm)



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