

DIRECT OPERATED FLOW CONTROL VALVE PFC-34-03-*

30 l/min - 250 bar

1 DESCRIPTION

The PFC-34 is a proportional solenoid operated, two-way, poppet-type, normally closed, screw-in hydraulic cartridge valve in cavity 3/4"-16 UNF for low leakage blocking and load-holding applications. When de-energized, the valve operates as a check valve and allows flow from 2 to 1, while blocking flow from 1 to 2. When energized, the 1 to 2 flow path is opened: flow is directly proportional to the current applied to the coil.

2 ORDERING CODE

(1)	(2)	(3)	(4)	(5)
PFC	- 34	- 03	-	-

(1) PFC: proportional flow control valve

(2) 34: cavity SAE08 (3/4"-16 UNF)

(3) 03: without manual override

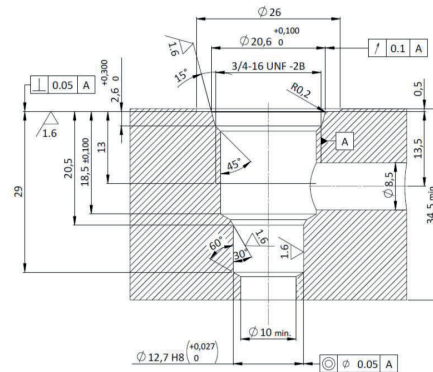
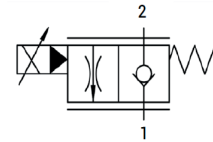
(4) Electric voltage and solenoid coils (see table 5):

0000: no coil
012C coil for V12DC
024C coil for V24DC

(5) Options for coil connection:

No designation: standard connection ISO4400/DIN 43650/A
AMP: AMP Junior
C: flying leads

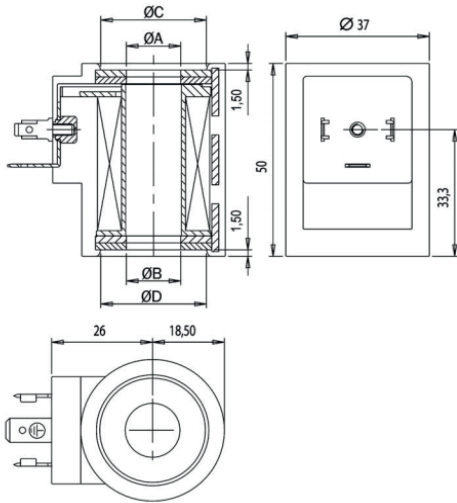
(6) Design number (progressive) of the valve.



3 TECHNICAL DATA

Nominal flow	30 l/min	Electric characters: Valve type PFC-34-03-* are operated by solenoid that are energized from a D.C. voltage supply: V 12 DC = 012C V 24 DC = 024C With an appropriate electrical driver in order to control the input current at the valve
Maximum rec. flow rate	30 l/min	
Maximum nominal pressure	25 MPa (250 bar)	
Optimal dither control	250 Hz	
Valve Hysteresis	<5 %	
Protection	IP 67	
Duty cycle	100%	
Installation and dimension	(see 5)	
Valve Body	Steel	
Mass	0,150 kg	
Note: pressure in T line influences valve performances		

4 COILS DIMENSIONS



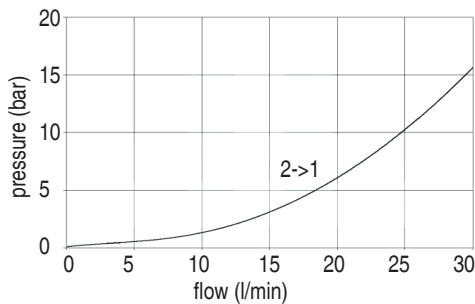
	DIN	FL	AMP
ØA	16,1	16,1	16,1
ØB	16,1	16,1	16,1
ØC	20	20	20
ØD	20	20	20

5 COILS TYPE C38 (Ø 16 mm - 26 w: 35 VA)

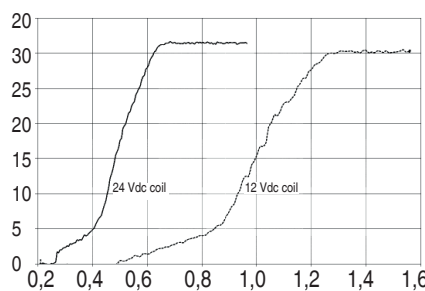
Coils ISO/DIN	voltage DC/RAC	nominal current (A)	resistance 20 C ()	nominal power (W)	insulation class
C38-012C	V 12 DC	1,55	7,7	18,6	F
C38-024C	V 24 DC	0,8	31	19	

6 TYPICAL DIAGRAMS

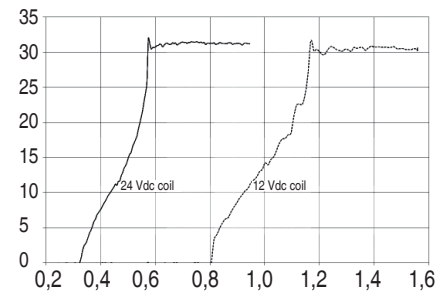
p - Q Chart



p - I Chart
Δp = 15 bar

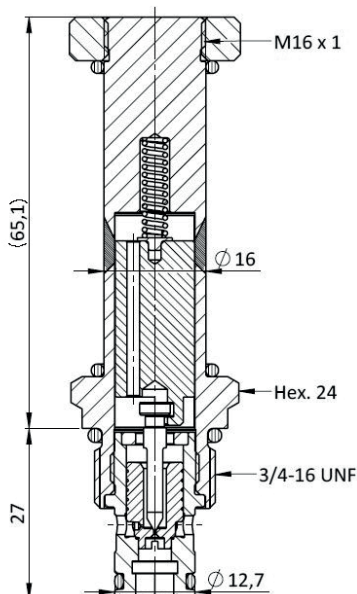


p - I Chart
Δp = 250 bar



Note: The performance chart illustrates flow handling capacity 2 to 1(energized with max current @24Vdc). p/Q curves are recorded at TOil = 40°C and 46 cSt.

7 INSTALLATION DIMENSION



8 HYDRAULIC FLUIDS

Seals and materials used on standard valves PFC-34-03-* are fully compatible with hydraulics fluids of mineral base, upgraded with antifoaming and anti oxidizing agents. The hydraulic fluid must be kept clean and filtered to ISO 4406 class 19/17/14, or better, and used in a recommended viscosity range from 10 cSt to 60 cSt.