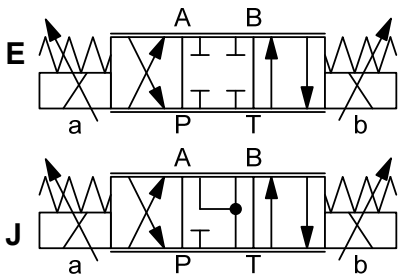
HYDAC INTERNATIONAL

4/3-Proportional Solenoid Valve direct acting

Subplate to ISO4401

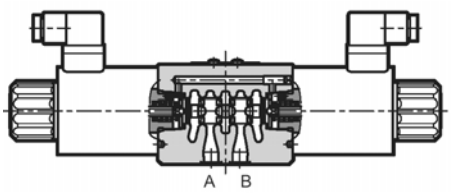
P4WE 10

SYMBOL



up to 90 l/min
up to 320 bar

FUNCTION



The P4WE 10 is a direct acting solenoid valve which combines the directional control with the velocity control of the consumer.
The controlled nominal flow is proportional to the electrical input signal at the coil.
Analogue to his size the coil creates a force and moves the piston against the spring. Herewith the corresponding cross section diameters are opened which determines the flow rate in dependence of the pressure differential.
For the electrical control of the valve there are electronic modules available (see brochure 5.249.2.0 PEM-XD).

FEATURES

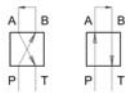
- High flow rate due to optimized casted housing
- Small hysteresis by super finish of moving parts
- Long life cycle times by armature switching under oil
- Minimal wear by hardened and ground valve piston
- Simple exchangeability by international standardized hole pattern to ISO 4401
- Electronic control by PEM-XD see brochure 5.249.2.0

SPECIFICATIONS

Operating pressure:	ports P,A,B max. 320 bar port T max. 210 bar
Nominal flow:	max. 90 l/min
Hysteresis:	(in % of Qmax): < 6 %
Repeat accuracy:	(in % of Qmax) < +/- 1,5 %
Switch-on time:	(0-100%) 50 ms
Switch-off time:	(100-0%) 70 ms
Media operating temp.range:	-20°C up to +80°C
Ambient temperature range:	-20°C up to +50°C
Hydraulic fluid:	Hydraulic fluid to DIN 51524 part 1 / 2
Viscosity range:	10 mm^2/s up to 400 mm^2/s
Filtration:	Class 18/16/13 up to 19/17/14 according to ISO4406
Supply voltage:	DC voltage
Nominal current:	2,60 A at 12V DC 1,60 A at 24V DC
Resistance at 20°C:	3,40 Ohm at 12V DC 8,65 Ohm at 24V DC
Coil duty rating:	100% (continuous)
Electromagnetic compatibility: (EMC)	Emissions to EN 50081-1 compatibility to EN 50082-2 to Norm 89/336 CEE
IP rating:	IP65
Installation:	no orientation restrictions
Hint:	Vent system and valve before setting in motion
Hole pattern:	ISO4401-05-04-0-05
Weight:	5,9 kg

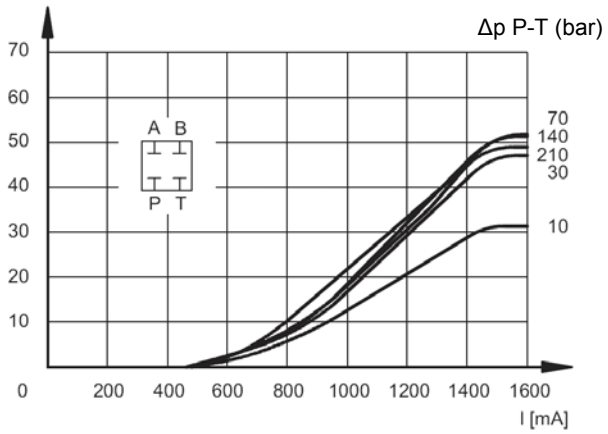
PERFORMANCE

measured at ν= 33 mm²/s and T_{oil} = 46° C (The related Δp is measured between lines P and T of the valve)



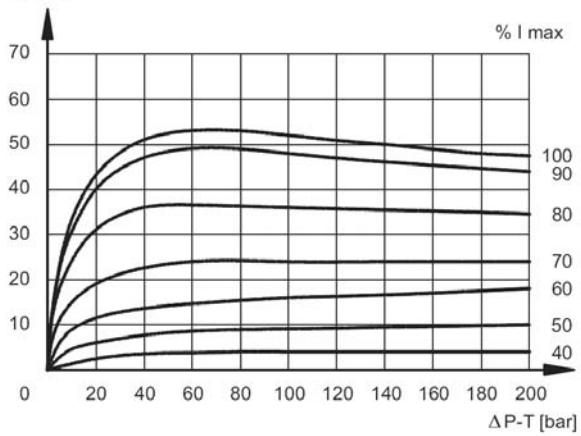
Q [l/min]

Δp P-T (bar)



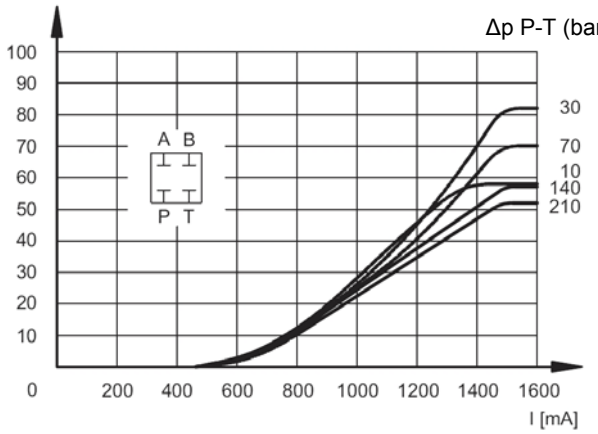
E30

Q [l/min]



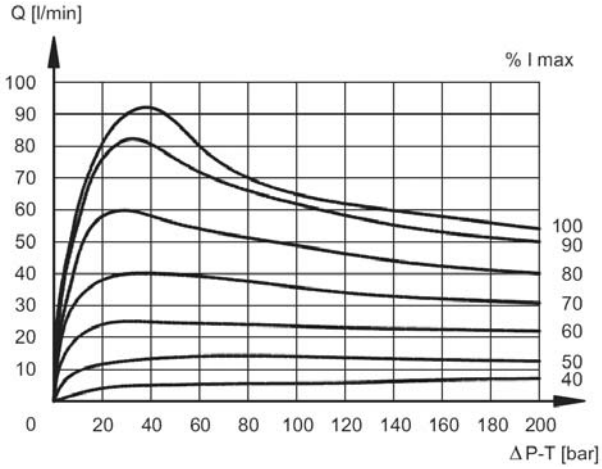
Q [l/min]

Δp P-T (bar)



E60

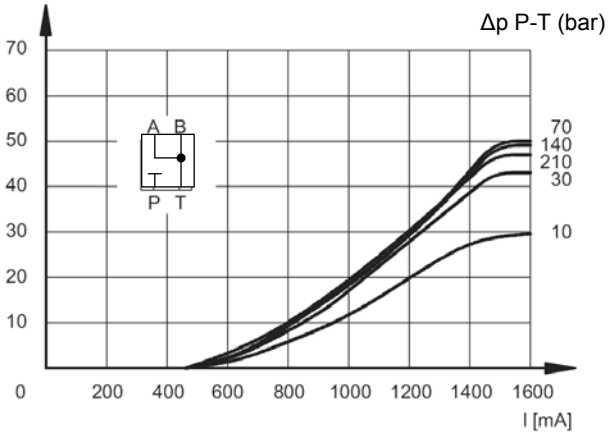
Q [l/min]



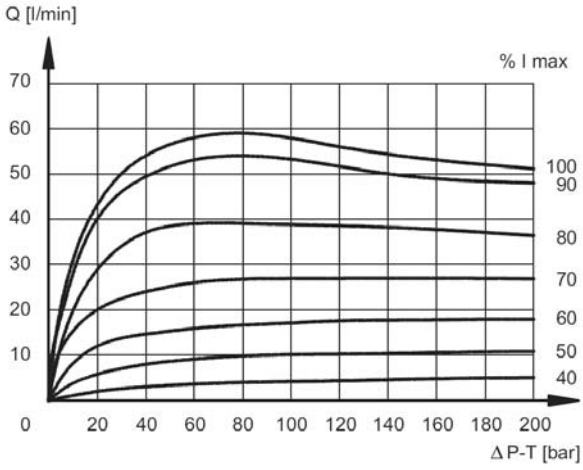
J30

Q [l/min]

Δp P-T (bar)



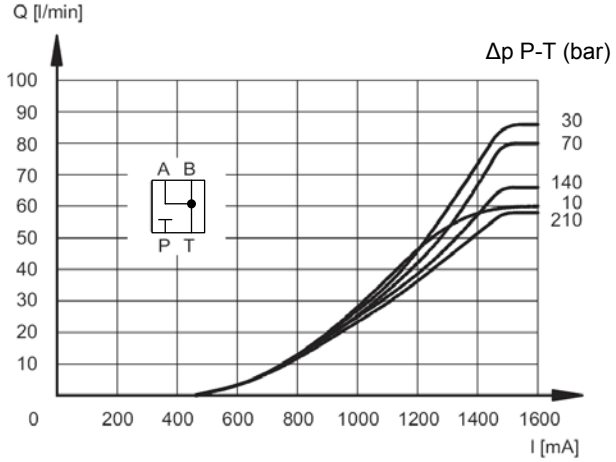
Q [l/min]



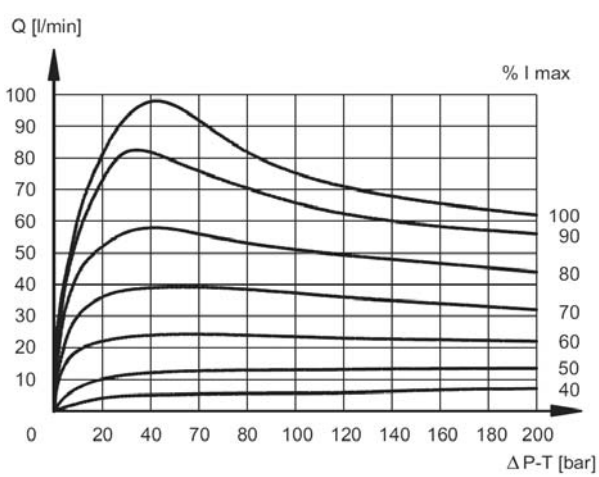
J60

Q [l/min]

Δp P-T (bar)



Q [l/min]



Standard models	Part No.
P4WE 10 E30 D01-24PG/V	6078958
P4WE 10 E60 D01-24PG/V	6078960
P4WE 10 J30 D01-24PG/V	6078962
P4WE 10 J60 D01-24PG/V	6078964

Other types on request

MODEL CODE

P4WE10 E 30 D01- 24PG /V

Name
Proportional solenoid valve
Subplate mounting

Nominal size
10

Symbol
E
J

Nominal flow
30 = 30 l/min
60 = 60 l/min (At Δp=10 bar P-T)

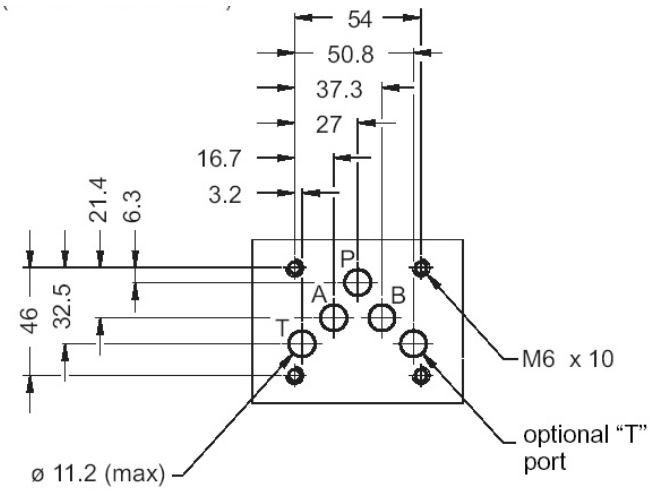
Type
D01 = standard type with manual override

Nominal voltage
12= 12 V DC
24= 24 V DC

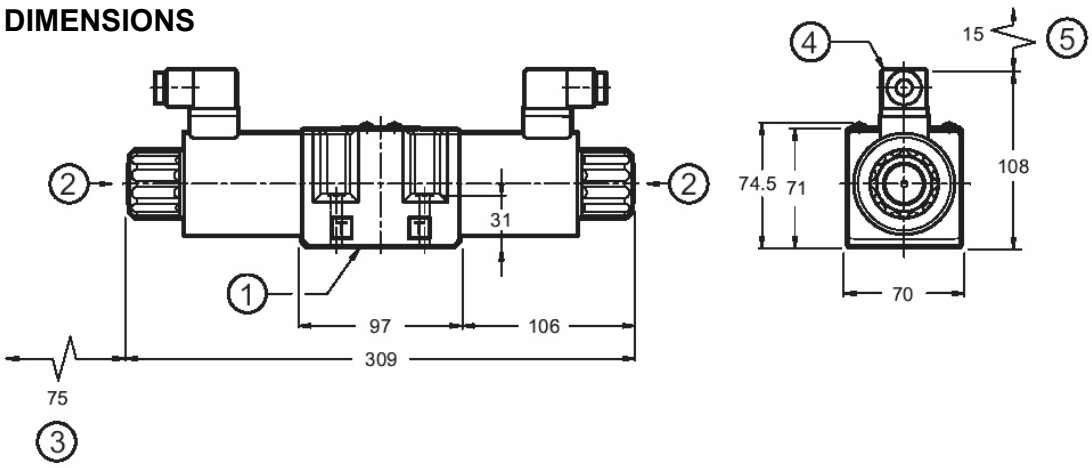
Coil connector
PG= DIN plug to EN175301-803

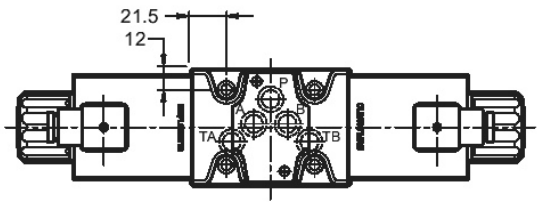
Seal material
V= FPM (Standard)
N= NBR (optional)

Hole pattern to ISO4401 05-04-0-05



DIMENSIONS





1) Mounting plate with O-rings 4x 12,42 x 1,78

2) Manual override

3) Free space for mounting the coil

4) DIN plug to EN175301-803

5) Free space for mounting the plug

Fastening screws: 4x M6 x 40 10.9, Torque 8 Nm +0,5 Nm

All dimensions in mm. Fastening elements are not in the scope of delivery.

Annotation
The technical information in this brochure are relating to the operating conditions and applications.
At deviant applications and/or operating conditions please contact the technical dept.
Technical information are subject to technical modifications.

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