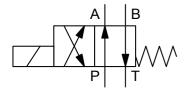


ACINTERNATIONAL



4/2- directional- spool valve Solenoid-operated, direct acting 4 WE 10 D

SYMBOL



up to 120 I/min up to 320 bar

FUNCTION

HYDAC 4/2 directional spool valves in the series 4WE 10 D are directional valves for oil- hydraulic systems, which serve to open and close flow paths. In the deenergised mode the control spool is held in the rest position by the return spring. The actuation of the control spool occurs via an oil- immersed solenoid. The solenoid pushes the control spool from is rest position to is final position. This opens the required flow paths according to the symbol. When the solenoid is deenergised, the control spool is pushed back to the rest position by the return spring. A manual override permits the valve to be switched without energizing the solenoid.

FEATURES

- Direct-acting, solenoid-operated valve NW 10
- Economical and reliable due to simple design
- Oil- immersed solenoid armature for long life and low noise operation
- Solenoid coils can be replaced with no possibility of oil leakage
- Interface to DIN 24340 Form A6, ISO 4401
- Manual override

SPECIFICATIONS

port A,B,P: pmax= 320 bar Operating pressure: port T: pmax= 210 bar

Nominal Flow: max. 120 l/min

Media operating temp. range: min. -20°C up to max. +80°C Ambient temperature range: min. -20°C up to max. +55°C

hydraulic oil to DIN 51524 part1 and 2 Fluids: Viscosity range: 10 mm²/s up to 500 mm²/s is recommended Class 20/18/15 according to Filtration:

ISO 4406 or cleaner

15.000/h Max. switching frequency:

 $MTTF_d$: 150 years

Installation: no orientation restrictions

Manual override: up to approx. 50 bar tank pressure possible

Standard FKM Seal materials:

Weight: 4,3 kg

Electrics

Type of voltage: DC voltage Voltage tolerance:

Nominal power: 42W (12V / 2,9A) or 48W (24V / 2,0A) Switching time: Switch-on time (coil): 80ms up to 120ms Switch-off time (spring): 70ms up to110ms

Switch-on time (coil with rectifier):

90 ms up to 130 ms

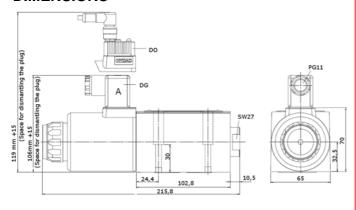
Switch-off time (spring):160ms up to 200ms

Coil duty rating: Electrical connection: plug to DIN 43650

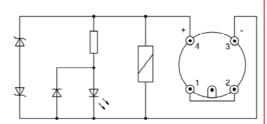
IP rating: IP 65 to EN 60529; DIN 40050 provided

the connector is fitted correctly

DIMENSIONS

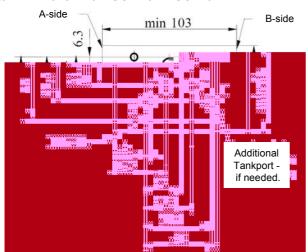


M12 coil Electric wiring



INTERFACE

to DIN 24340-A10 / ISO 4401 / ISO4401

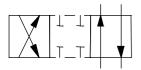


Mounting screws: M6 x 40 DIN 912-10.9

Torque: 10 + 1 Nm

Female connector and mounting screws (4 pcs.) must be ordered separately.

Crossover



HYDAC Fluidtechnik GmbH Justus-von-Liebig-Str. 5 66280 Sulzbach / Saar

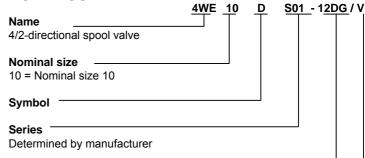
66280 Sulzbach / Saar Tel.: 06897 / 509 -0 Fax: 06897 / 509 -598 Email: flutec@hydac.com

NOTE

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

MODEL CODE



Nominal voltage

12 = 12 Volt DC voltage

24 = 24 Volt DC voltage

96 and 205 Volt DC voltage on request (only type DG)

DG: DIN plug to EN 175301-803

Seal material

V = FKM (Standard)

N = NBR

| Supply voltage +/- 10% | Nominal voltage of the DC-coil | Nominal power of the DC-coil |
|---|--------------------------------|------------------------------|
| 110 V – 50/60 Hz | 96 V | 42 W |
| 230 V – 50/60 Hz | 205 V | 42 W |
| by using a female connector with integrated rectifier | | |

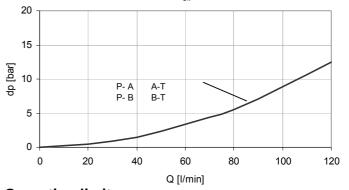
Standard models

| Name | Part No. |
|----------------------|----------|
| 4WE 10 D S01-12DG /V | 6063149 |
| 4WE 10 D S01–24DG /V | 6063155 |

other models on request

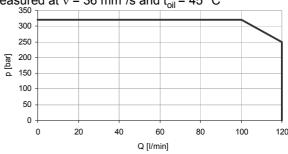
Pressure drop

Measured at $v = 36 \text{ mm}^2/\text{s}$ and $t_{oil} = 45 \,^{\circ}\text{C}$



Operating limits

Measured at $v = 36 \text{ mm}^2\text{/s}$ and $t_{oil} = 45 \text{ °C}$



The operating limits were determined using coils at operating temperature and 10% under voltage. The operating limits given are for applications with two flow directions. For flow in only one direction, the operating limits can be lower.

For operation with G96/G205 coils max. permitted flow rate shown in the graph must be reduced by 10%. The switch-on times will increase.