Rexroth
Bosch Group

3/2 Directional valve with solenoid actuation

RE 58 007/06.03 1/4
replaces: 03.96

Type FTWE 2 K

F 96006

Size 2
Series 3X
Operating pressure max. 100 bar
Volume flow max. 2 L/min

Content analysis

Characteristics

- Directly actuated directional spool valve with solenoid actuation
- Screw-in cartridge
- Minimised installation dimensions
- Wet pin DC solenoid
- Electrical connections:
  Plug, 2 pin, type “Junior Timer” (AMP) or flexable lead with plug
- Hand override
- Designed for use in vehicles and mobile machines
- Can be supplied for use on 12 V or 24 V supplies

⚠ **Attention:**

- For mains power operation, the valve must be supplied via an isolating transformer with separate windings

Ordering Code

FTWE	2	K	C	3X/100	A			V	*

Directional valve, to a non-standardised design, electrically actuated

Size 2 **= 2**

Screw-in cartridge **= K**

Switching characterisics (others on request) **= C**

Series 30 to 39 **= 3X**
(30 to 39: unchanged instalation and connection dimensions)

Nominal pressure, max. 100 bar **= 100**

Wet pin solenoid **= A**

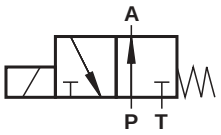
Nominal voltage 12 V **= G12**
Nominal voltage 24 V **= G24**

Electrical connections

Flexable lead with plug type SS 2P (ITT-Cannon), with hand override **= C2**
Plug, 2 pin type “Junior Timer” (AMP) 2 pin plug [1] **= C4**

[1] The hand override can only be used after the plug has been removed!

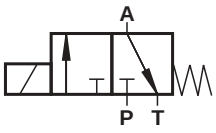
Further details in clear text e. g. special designs:
– FTWE 2 KU3X/…
Ports P and T interchanged when compared to the sectional drawing

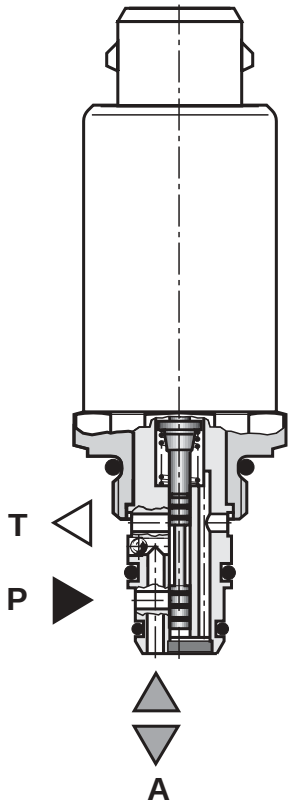


(further special designs on request; special installationdrawings are required for all special designs)

V = FKM seals, for suitable fluids see technical data on page 3

Symbol, Section





Technical Data (For applications outside these parameters, please consult us !)

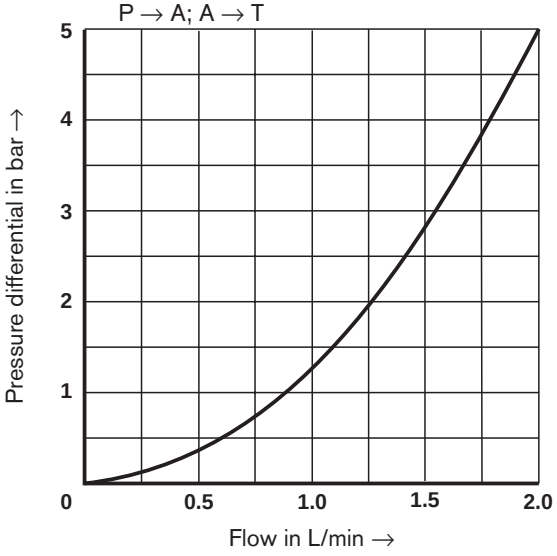
General				
Installation position			optional	
Ambient temperature range		°C	– 30 to + 80	
Solenoid surface protection			to DIN 50 961-Fe/Zn 8C	
Salt spay/mist test to DIN 50 021		hours	72	
Weight		kg	approx. 0.19	
Hydraulic				
Nominal pressure	– Ports P, A	bar	100 (static), higher inlet pressures on request	
	– Port T	bar	30 (static)	
Flow rate at $\Delta p = 5$ bar		L/min	2	
Maximum leakage flow at $\Delta p = 100$ bar, valid for $\nu = 11$ mm²/s at $\vartheta = 80$ °C		cm³/min	≤ 65	
Pressure fluid			Mineral oil to DIN 51 524 ATF Dexron II Fiat Tutela Multi F	
Pressure fluid - temperature range		°C	– 30 to + 80	
Degree of fluid contamination			Maximum permissable degree of contamination of the fluid is to NAS 1638 class 9. We, therefore, recommend a filter with a minimum retention rate of $\beta_{10} \geq 75$.	
Electrical				
Type of supply			DC	
Nominal voltage		V	12	24
Power requirement at 20 °C		W	14.4	14.4
Coil resistance R_{20}		ohms	10	40
Duty cycle		%	100	
Switching time	– t_{on}	ms	≥ 20	
	– t_{off}	ms	≥ 30	
Insulation to DIN 40 050	– Solenoid		IP 6K5	
part 9	– Electrical connection		IP 6K5	
Switching frequency		Hz	5	
Service life			$5 \cdot 10^6$ operations	
Possible switching amplifiers in the plug housing (must be ordered separately)			FTE 0010… to RE 58 010 FTE 0014… to RE 58 014 FTE 0017… to RE 58 017	

Characteristic curves (measured at $\nu = 27$ mm²/s at $\vartheta = 50$ °C)

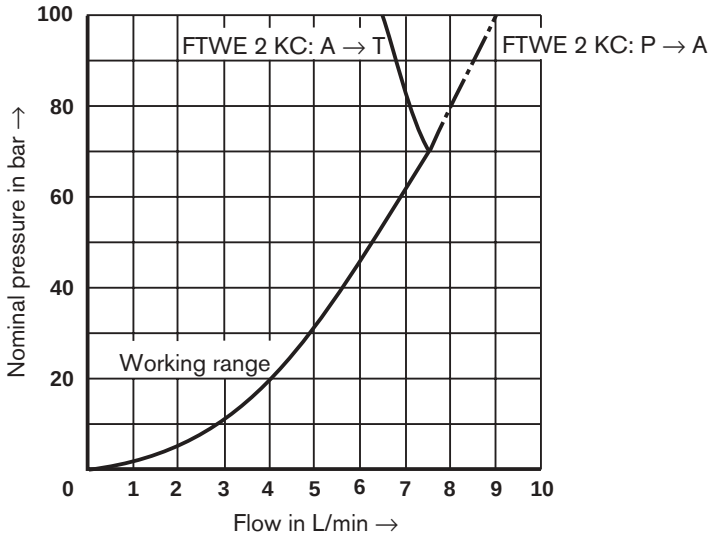
Δp-q_v characteristic curve

q_v = min. value

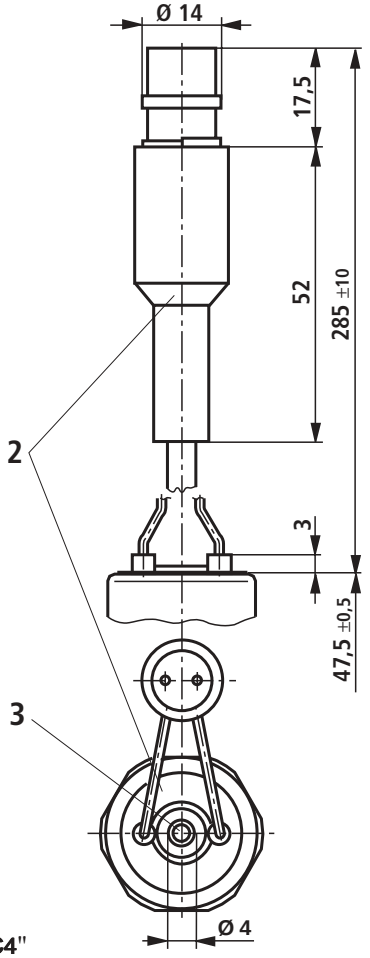
P → A; A → T

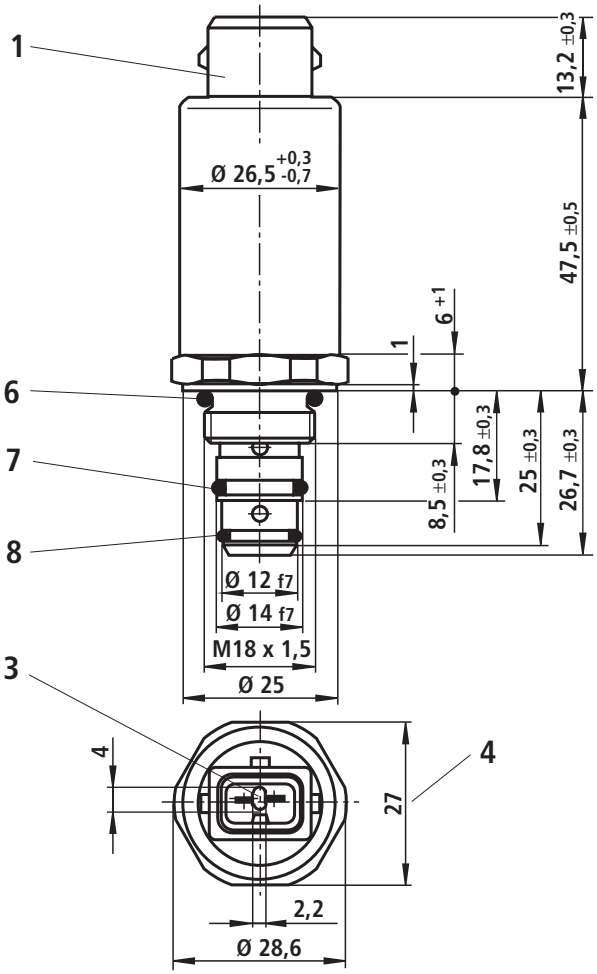


Performance limits



Unit Dimensions (Dimensions in mm)





1 Model "**C4**"
2 pin plug
type “Junior timer” (AMP)

2 Model "**C2**"
flexable lead (AWG 18) with
protective conduit (colour black)
and 2 pin plug
type SS 2P (ITT-Cannon)
with cap connector

3 Hand override

4 Spanner size 27 A/F,
Tightening torque
$M_A = 10$ Nm + 5 Nm

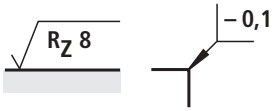
5 Depth of fit

6 O-ring 15 x 2

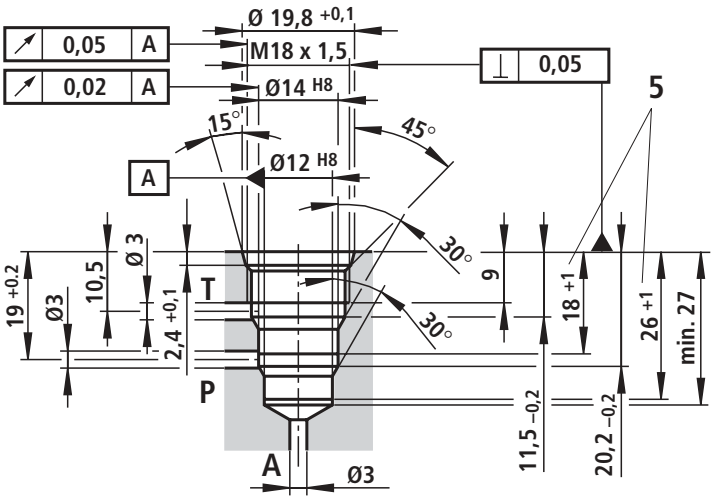
7 O-ring 10.82 x 1.78

8 O-ring 9 x 1.5

Required surface finish in fit areas and chamfers



Installation bore



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