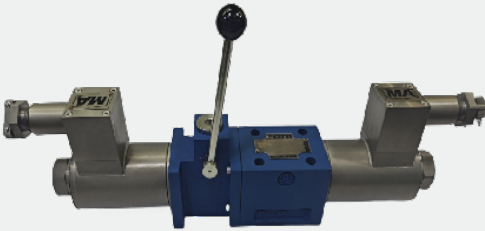


# Solenoid Operated Directional Valve with Emergency Handle



Model: 4WEM6(10).../.../FB

- ◆ Size 6 to 10
- ◆ Maximum working pressure 350 bar
- ◆ Maximum working flow rate 120 L/min

## Contents

Function description, sectional drawing	2
Models and specifications	2
Technical parameters	3
Functional symbols	3
Component size	4-5

## Features

- The opening, closing and direction of the flow controlled by the solenoid and manual
- Wet-pin solenoid with detachable coil
- The solenoid can rotate 90°
- Subplate mounting

## Function description, sectional drawing

The WEMM type directional valve is a directional spool valve operated by solenoid and operating handle. It controls the opening, closing and flow direction of liquid flow.

It is mainly composed of a valve body (1), one or two solenoids (2), a valve spool (3), a reset spring (4) and a manual control device.

Solenoid operation:

When there is no power, the valve spool (3) is in the neutral or original position under the action of the return spring. When the force of the solenoid (2) acts on the valve spool (3), it is pushed from the rest position to the terminal position. In this way, the pressure oil is conducted from P to A and B to T, or from P to B and from A to T. After the solenoid (2) is powered off, the return spring (4) returns the valve spool (3) to its original position.

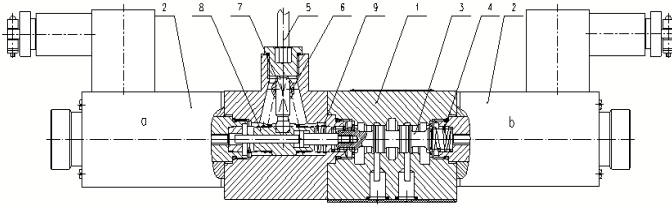
Auxiliary handle operation:

When the solenoid is not energized, the valve spool (3) can be moved by operating the auxiliary handle.

Turn the auxiliary handle (5) to the right, so that the operating force passes through the rotating shaft (6).

The ball valve core (7) and the guide sleeve (8) act on the valve spool (3), causing it to move to the left.

When the auxiliary handle (5) When returning to the zero position, the valve spool (3) returns to the original position under the action of the return spring (9).



Model 4WEM10J...31B/

## Models and specifications

WEM		B	C					*
3 way	=3							sealing material No code= NBR seals V= FKM seals (consult for other seals)
4 way	=4							
with auxiliary handle solenoid slidevalve	=WEM							No code= without plug-in throttle plug B08= throttle hole diameter 0.8mm B10= throttle hole diameter 1.0mm B12= throttle hole diameter 1.2mm
size 6	=6							
size 10	=10							FB ExplosionprotectiongradeExd Mb FB1 ExplosionprotectiongradeExd CT4Gb
valve spool function								
size 6 design serial number	=61							Z4= standard plug N9= with hidden fault check button
size 10 design serial number	=31							
BEIJING HUADE	=B							
wet type solenoid with detachable coil	=C							
DC 12V	=G12							
DC 24V	=G24							
DC 28V	=G28							
AC 220V, 50HZ or 60HZ	=W220							
built-in rectifier for AC voltage 220V	=W220R							

## Technical parameters

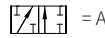
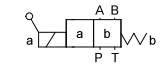
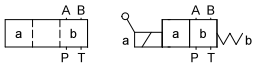
Working pressure	Mpa	A, B, PO to 35
T port pressure	Mpa	to 16 (AC) to 21 (DC)
Medium		Mineral hydraulic oil or phosphate ester wave pressure oil
Viscosity range	mm <sup>2</sup> /s	2.5 to 500
Temperature range	°C	-30 to +80

Note: For type A and type B functions, if the working pressure exceeds the allowable pressure of T chamber, T must be used without oil chamber.

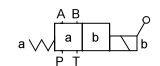
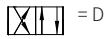
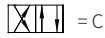
Note: For the characteristic curve and operating limit, please refer to the WE solenoid directional valve standard sample.

## Functional symbols

Transition function Spool valve function



(T port serves as drain port)



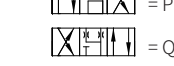
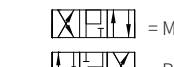
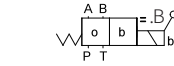
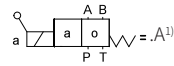
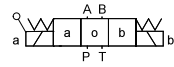
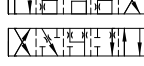
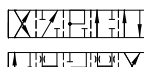
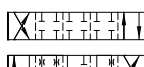
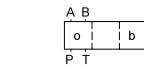
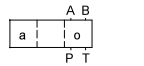
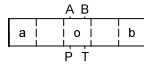
(T port serves as drain port)

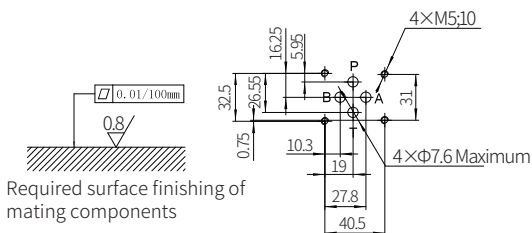
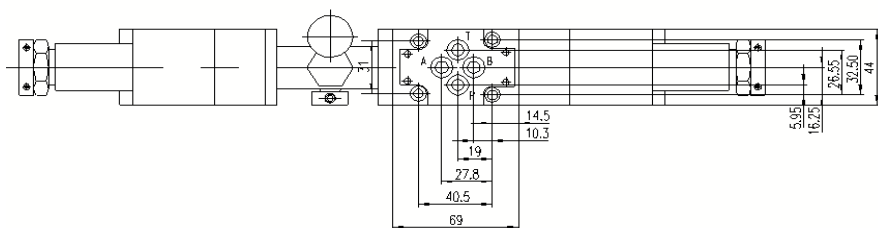
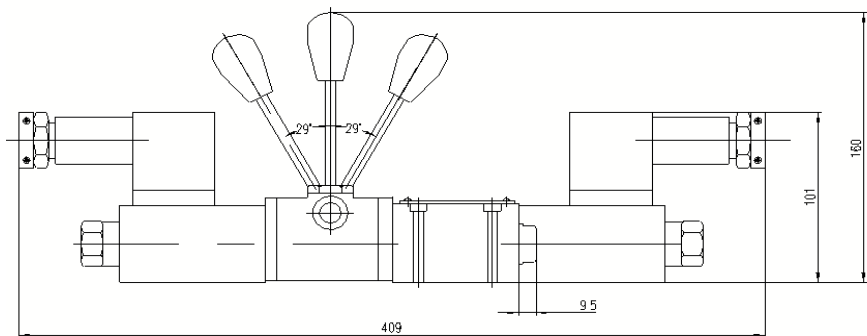
1) For example: .

The spool function symbol EA indicates that the coil is on side A

Note: Functions G,T,F,P are only used for Size 10

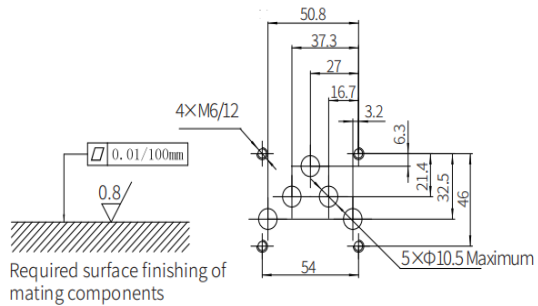
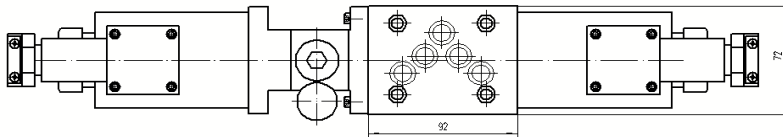
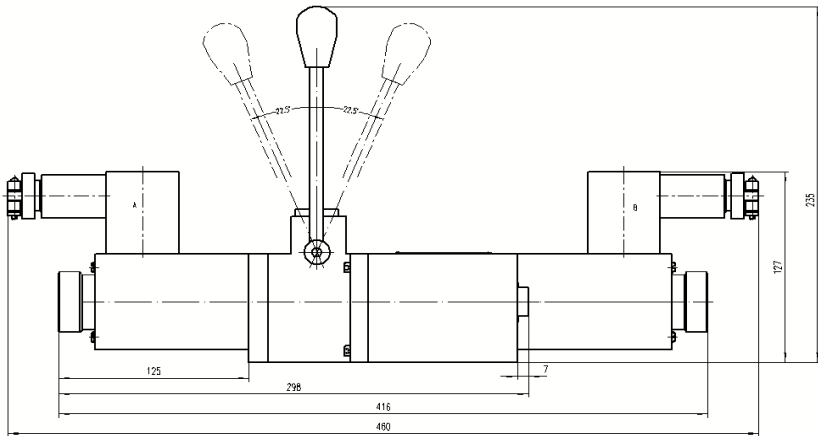
Transition function Spool valve function





- 1 Dimensions of three-position valve (waterproof type)
- 2 Dimensions of three-position valve
- 3 Dimensions of two-position valve
- 4 Dimensions of two-position valve (waterproof type)
- 5 O-ring 9.25x1.78 (for oil ports P, A, B, T)
- 6 Two-position valve with screw plug
- 7 Hidden emergency button
- 8 Deutsch plug
- 9 Solenoids
- 10 Space required to remove plug
- 11 Three-position valve switching position
- 12 Two-position valve switching position

Valve fixing screw  
M5x50-10.9 grade GB/T70.1-2000  
Tightening torque  $M_A=7.8\text{Nm}$   
It must be ordered separately  
if connection subplate is needed.  
Subplate model:  
G341/01 (G1/4"); G341/02 (M14x1.5)  
G342/01 (G3/8"); G342/02 (M18x1.5)  
G502/01 (G1/2"); G502/02 (M22x1.5)



- 1 Dimensions of three-position valve
- 2 Dimensions of two-position valve
- 3 Hidden emergency button
- 4 O-ring 12x2 (for oil ports P, A, B, T)
- 5 Solenoids
- 6 Name plate
- 7 Deutsch plug
- 8 Space required to remove plug
- 9 Two-position valve switching position
- 10 Three-position valve switching position

Valve fixing screw  
M6x40-10.9 grade GB/T70.1-2000  
Tightening torque  $M_A=13.7\text{Nm}$

It must be ordered separately  
if connection subplate is needed.

Subplate model:

G66/01 (G3/8") ; G66/02 (M18x1.5)  
G67/01 (G1/2") ; G67/02 (M22x1.5)  
G534/01 (G3/4") ; G534/02 (M27x2)