



# 4/3, 4/2 and 3/2 directional valve with wet-pin AC or DC solenoid

2.10

## Type WE5...

Size 5  
Up to 250bar  
Up to 14L/min



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### Features

- Directional spool valve, direct operated by solenoid is the standard version
- Wet pin AC or DC solenoid
- Sub-plate mounting

#### Max. flow (L/min) →

Spool symbol	Pressure rating (bar)		
	50	100	250
A, B, C, N, E, F, H, J, L, M, Q, R, U, W	14	14	12
G	10	10	9

## Function and configuration

Type WE directional valves are wet pin AC or DC solenoid operated directional spool valves. They control the start, stop and direction of flow.

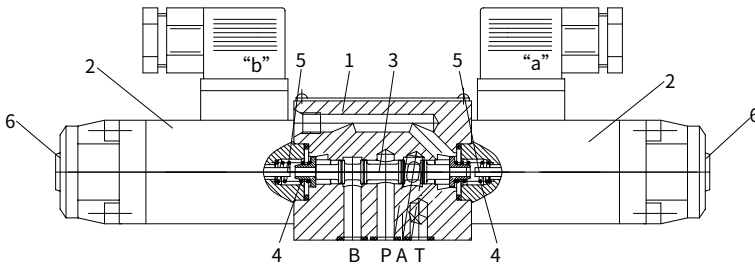
The directional valves mainly consist of housing (1), one or two solenoids (2), the control spool (3), one or two return springs (4) .

When solenoid is de-energised, the control spool (3) is held by the return springs in the central position or initial position (except for impulse spool). The control spool is controlled by the wet pin solenoid (2). In order to ensure trouble-free functioning, care should be taken to ensure that the pressure chamber of the solenoid is filled with oil.

The control spool (3) is moved to the expected position by solenoid (2) and pushing rod (5), and this gives free-flow from P to A and B to T or P to B and A to T.

When solenoid (2) is de-energised, the control spool (3) is pushed to the initial position by the return spring (4).

The solenoids may also control the control spool (3) by an optional override button (6) under the de-energised condition.

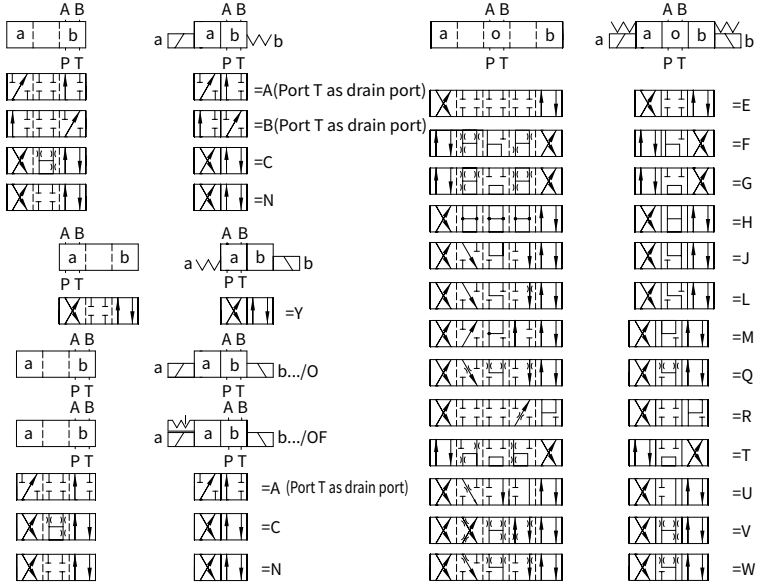


## Ordering code

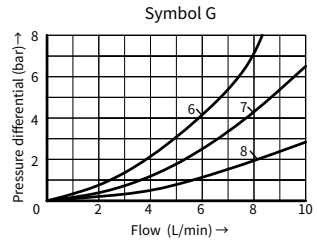
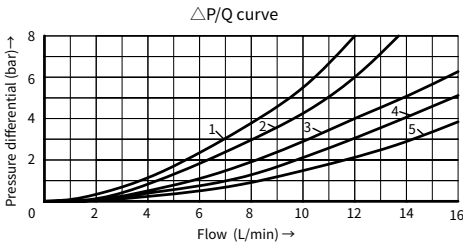
WE	5	6.0	/	A	N	*
3 ways (For spool A and B) 4 ways	= 3 = 4					Further details in clear text
Directional valve with wet pin solenoids						No code = NBR seals V = FKM seals
Nominal size 5	=5					Z4= Electrical plug without lamp (Not suit rectification AC) Z5L= Electrical plug with lamp
Symbols e.g. C, E etc.					N =	With fault inspection button
Series 6.0	= 6.0				G24 = 24V DC W110-50 = 110V AC 50 Hz W220-50 = 220V AC 50 Hz W110R = Plug rectification 110V W220R = Plug rectification 220V	Other voltage see next page technical data
spring return Without spring return Without spring return , but with detent (only suitable for 2-way valves with 2 solenoids)	= no code = O = OF					
Wet pin solenoid	= A					

**Note:** If AC electric source is used, the "rectification AC" is recommended.

# Symbols



## Characteristic curves (Measured at $\vartheta_{oil} = 40^\circ\text{C} \pm 5^\circ\text{C}$ , using HLP46)



- 1 Symbol B: P → B, P → A
- 2 Symbol B: P → A, P → B
- 3 Except symbol B and R, all the others symbol: A → T
- 4 Except symbol B and R, all the others symbol: B → T
- 5 Except symbol B and R, all the others symbol: P → A, P → B, A → T
- 6 Symbol G: P → A, B → T
- 7 Symbol G: P → T, P → B
- 8 Symbol G: A → T

## Technical data

Fixing position		Optional	
Ambient temperature range		°C	-30 to +50 (NBR seal)
			-20 to +50 (FKM seal)
Weight	Vavle	kg	1.4
	Sub-plate(G115/01A)	kg	0.8
Max.operating pressure	Port A,B,P	bar	250
	Port T	bar	60, when the operating pressure exceed the permission value, port T must be used as drain port for spool symbol A and B
Max. flow-rate		L/min	14
Flow cross section (switching neutral position)	Type Q	mm <sup>2</sup>	for symbol Q 6% of nominal cross section
	Type W	mm <sup>2</sup>	for symbol W 3% of nominal cross section
Fluid		Mineral oil suitable for NBR and FKM seal	
		Phosphate ester for FKM seal	
Fluid temperature range		°C	-30 to +80 (NBR seal)
			-20 to +80 (FKM seal)
Viscosity range		mm <sup>2</sup> /s	2.8 to 500
Degree of contamination		Maximum permissible degree of fluid contamination: Class 9. NAS 1638 or 20/18/15, ISO4406	

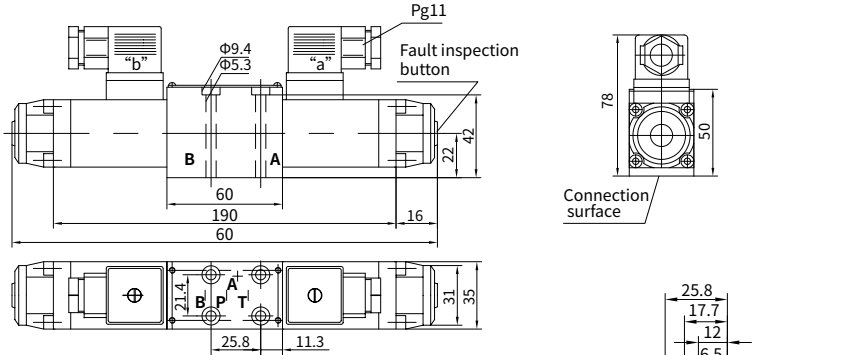
## Electrical data

Type of voltage		DC	AC 50Hz
Usable voltage		V	12,24,48,96; 110,205,220
permissible voltage(deviation)		%	+10~ -15
Input power		W	26
Current		VA	-
Impact current		VA	46
Duty		Continuous working	
Switched time	Open	ms	40
	Closed	ms	25
Switched frequency		times/h	30
Preventive grade according to DIN 40050		to 15000	
Max. coils temperature		°C	to 7200
		IP65	
		+150	

**Caution:** with electrical connections the protective conductor (PE  $\perp$ ) must be connected according to the relevant regulations.

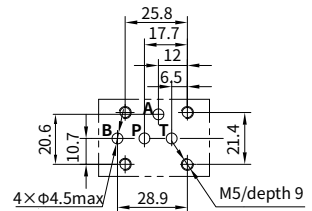
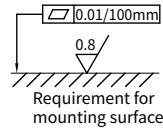
## Unit dimensions

(Dimensions in mm)



### Spool symbol E, F, G, H, J, L, M, Q, R, U, W are controlled by double-ended solenoids

- 1 Except reduction the dimension of one solenoid for 2-position, the others is the same as the 3-position valve.
- 2 O-ring 7×1.5
- 3 Valve mounting screws: M5×50 GB/T 70.1-10.9, Tightening torque,  $M_s=9\text{Nm}$  must be ordered separately.

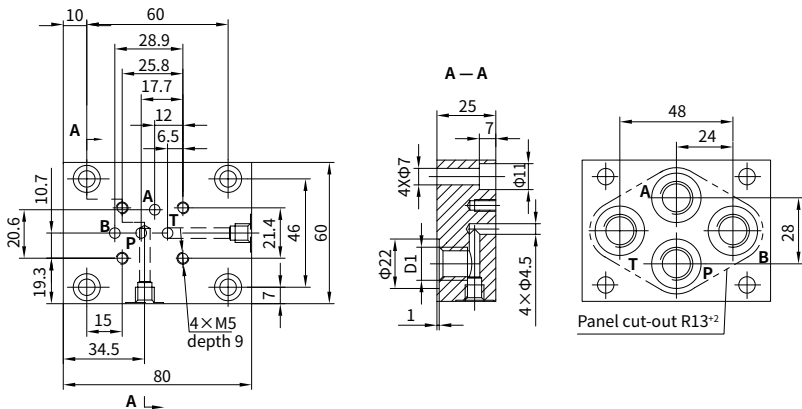


**It must be ordered separately if connection plate is needed.**

**Type:**  
G115/01A(G1/4), G115/02A(M14×1.5)

## Unit dimensions:connection sub-plate

(Dimensions in mm)



Type	D1	Valve fixing screws	Weight(kg)
G115/01A	G1/4	M5×50 GB/T70.1-10.9	0.7
G115/02A	M14×1.5	M5×50 GB/T70.1-10.9	0.7

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