



4/3- and 4/2- way Directional Control Valves
Model: 4DE10-LP with Wet Pin AC or DC Solenoids

ENGINEERING 1/4

Size 10 (D 05)

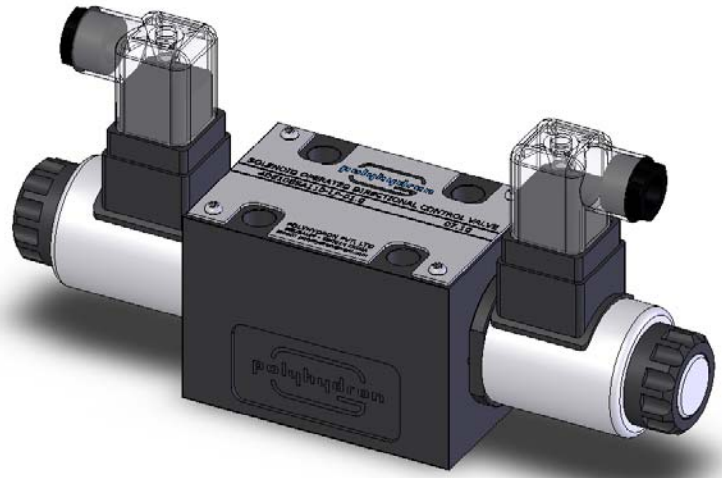
210 bar

100lpm

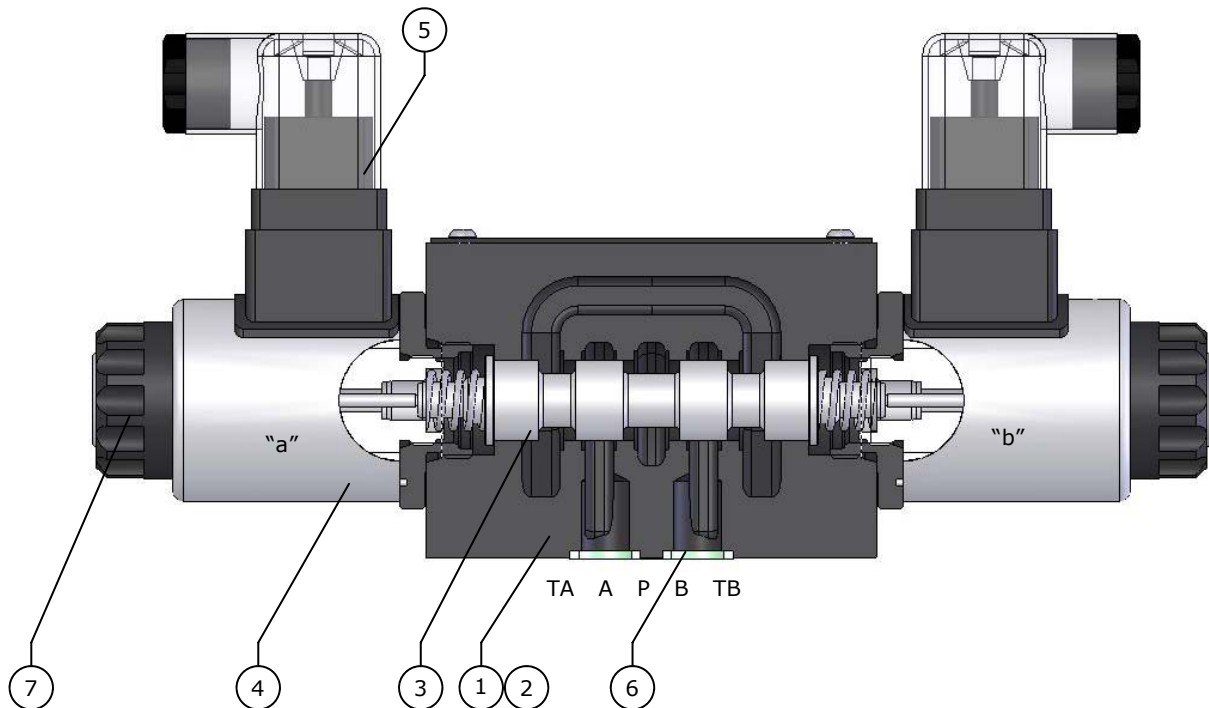
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Description

4-port, spool type, solenoid operated, directional control valves with wet armature AC or DC coils.



Features



1. Five chamber body and spool design. Requires minimal power for operation.
2. Conforms to ISO4401-5, NFPA T3.5.1M R1 and ANSI B93-7 D 05 interface.
3. Available in standard, interchangeable spool configurations.
4. Removable wet-armature AC and DC solenoids for quick replacement and conversions. Moulded solenoid coils to protect against moisture and ingress of dust.
5. Individual solenoid plug-in connectors with indicator lights to ISO 4400 and DIN 43650.
6. Special R-rings for high extrusion resistance. Increased stability under high dynamic condition.
7. Override for operation of valve without electrical power.

*Note on solenoid identification:
Solenoid "a" is close to Port "A" and Solenoid "b" is close to Port "B" for a direct operated valve.*



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Technical data

General

Weight		
Valve with 1 solenoid	kg	3.5
Valve with 2 solenoids	kg	4.2

Hydraulic

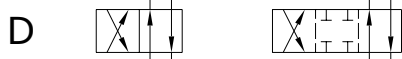
Nominal Pressure		
Ports P, A and B	bar	210
Port T	bar	175
Maximum Flow	lpm	100
Hydraulic Fluid	Mineral Oil	
Fluid Temperature		
NBR	°C	-30 to 80°C
FKM	°C	-20 to 80°C
Maximum degree of fluid contamination	Class 19/16 according to ISO 4406 Filter $\beta_{25} \geq 75$	

Electrical

Power Requirement	W	30
Duty Cycle	Continuous	
Shifting Time		
ON	ms	60
OFF	ms	30
Insulation	IP 65	

Spool Types

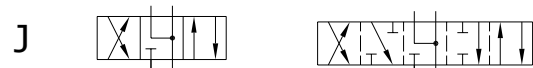
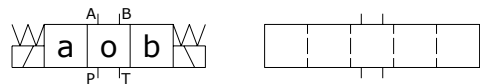
4/2 Way Valve with "0" and "a" positions



4/2 Way Valve with "0" and "b" positions



4/3 Way Valve





4/3- and 4/2- way Directional Control Valves
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ENGINEERING 3/4

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Ordering Code

4 DE 10 E S A220 A V -LP -01

4 Service Ports

Directional Control, Electrically Operated

ISO size 5, NFPA/ANSI D 05 interface

Spool type (Refer Spool Chart)

Spring Return	S
Without spring return	O

Design Series (Subject to Change)
01 to 09 externally interchangeable

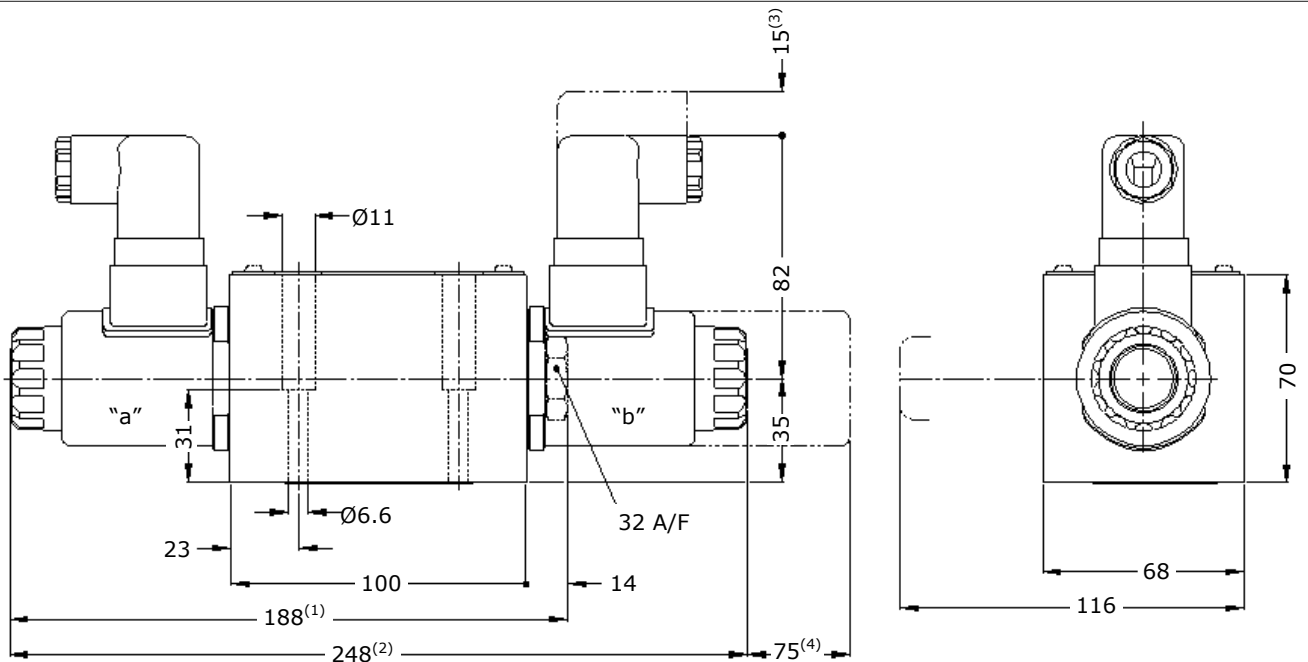
Low Power Series

Seals	
Omit	Nitrile (NBR)
V	Fluorocarbon (FKM)

Omit	
A	"o" and "a" positions only
B	"o" and "b" positions only

Coil Voltage			
12V DC	D12	110V AC, 50-60Hz	A110
24V DC	D24	220V AC, 50-60Hz	A220

Installation

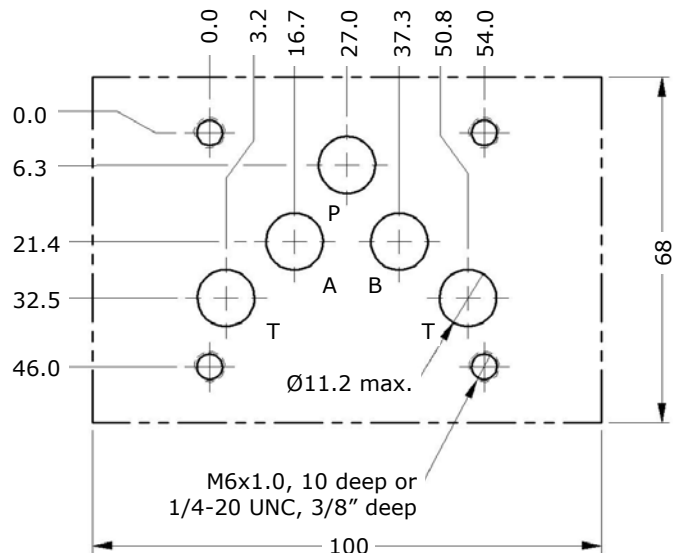
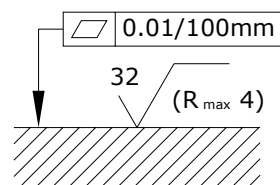


Note:

- (1) Length of valve with 1 solenoid
- (2) Length of valve with 2 solenoids
- (3) Space required to remove plug-in connector
- (4) Space required to remove solenoid coil

Valve Mounting Bolts:

M6 x 40 mm or 1/4-20 UNC x 1.1/2"
Tightening Torque 15.5 Nm
Mounting Hardware not included in scope of supply





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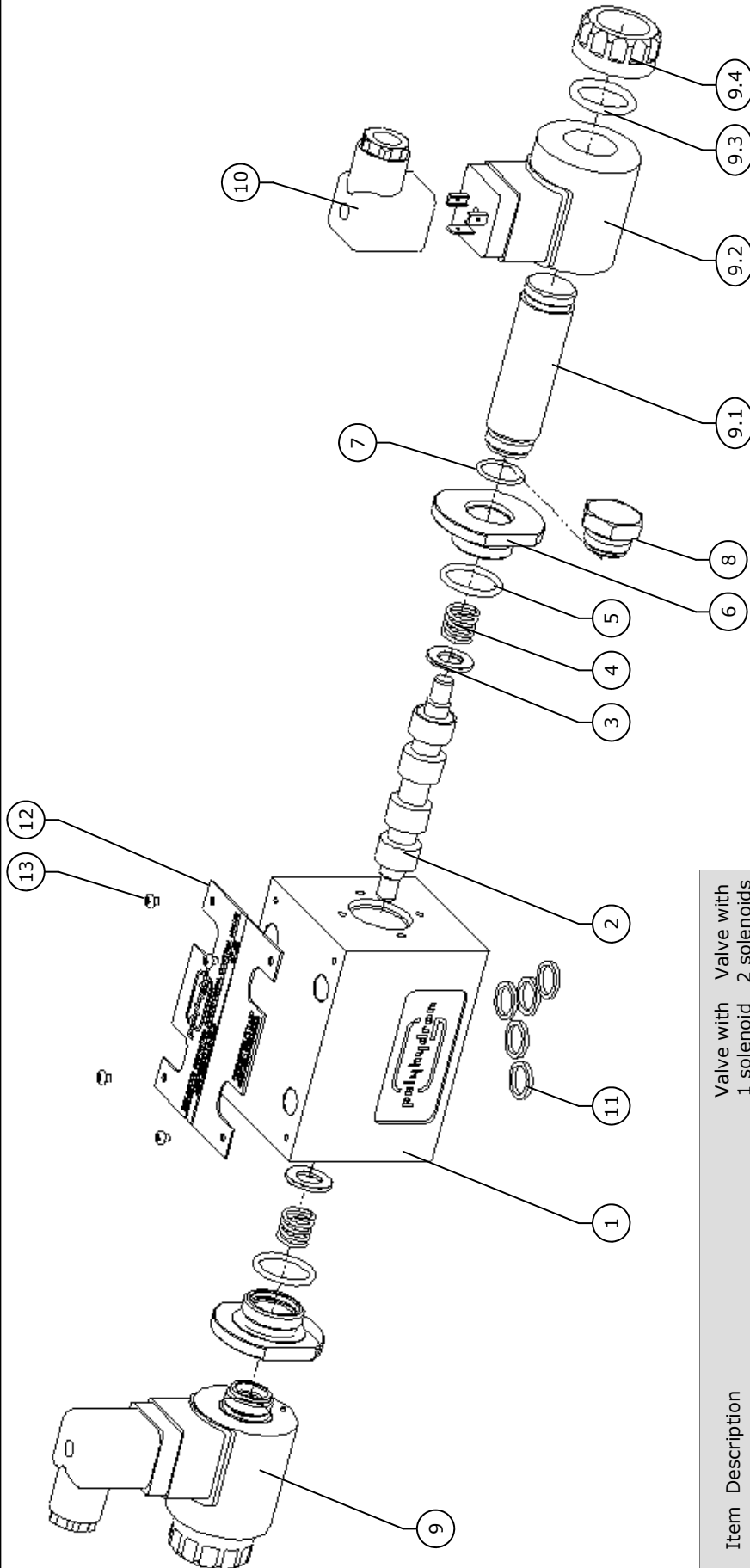
100lpm

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4/4

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Spares



Item Description	Valve with 1 solenoid	Valve with 2 solenoids
1 Valve Body	1	1
2 Spool	1	1
3 Spring Pad	2	2
4 Spring	2	2
* 5 O-ring 21.9 x 2.62	2	2
6 Adapter	2	2
* 7 O-ring 17.2 x 1.78	2	2
8 Plug	1	0
9 Solenoid Assembly	1	2
9.1 Pole Tube		
* 9.2 Coil		
9.3 O-ring 21.8 x 3.53		
9.4 Cap		

Item Description	Valve with 1 solenoid	Valve with 2 solenoids
* 10 Plug-in Connector	1	2
11 R-ring (Alternately use O-ring 12 x 2.0)	5	5
12 Label	1	1
13 Screw M3	4	4

* Recommended Spares