

# **Itahydraulic**

**Power Technology**



## *High Performance, Single Stage, Solenoid Operated Spool Valves*

*Direct Acting Directional Valves  
WE6/WE10 Style Valves  
4-way 2/3-position, and 3-way 2-position  
Valves*

## NG6/D03 and NG10/D05 Directional Control Valve

- NG6/NG10 Subplate Mounted Directional Valves
- Operating Pressures 5,000 psi for P-A-B
- Tank Pressures up to 2,300 psi
- NG6/D03 Flows up 21 gpm
- NG10/D05 Flows up to 32 gpm



4	WE	10	J	4X	/	C	W110	N9	DAL										
---	----	----	---	----	---	---	------	----	-----	--	--	--	--	--	--	--	--	--	--

### Flow Paths

3 service ports = 3  
4 service ports = 4

### Size

Size NG6 = 6  
ISO 4401-03-02-0-05, NFPA - D03

Size NG10 = 10  
ISO 4401-05-04-0-05, NFPA - D05

### Spool Options

Spool e.g. C, E, EA, EB,H, J, etc.<sup>1)</sup>  
See Spool Symbols for options

### Series<sup>2)</sup>

#### NG6

Series 60 to 69 = 6X

#### NG10

Series 30 to 39 (DIN conn.) = 3X

Series 40 to 49 (wire housing conn.) = 4X

### De-Energized Condition

Spring return = No code

Without spring return = O

Detented; no spring return = OF

### Solenoid Type

High performance solenoid  
wet pin (oil-immersed) with removable coil

Size NG6 = E

Size NG10 = C

### Coil Voltage

12 V DC = G12

24 V DC = G24

96 V DC = G96

196 V DC = G196

110/120 V AC 50/60 Hz = W110

220/240 V AC 50/60 Hz = W220

96/196 V DC solenoid with built-in rectifier in  
angled plug, for connection to 110 V/220 V AC,  
frequency-independent  
(available with RZ55 DIN Connector) = W110R  
= W220R

### Mounting Face Alterations

No code = No locating hole  
(standard)

/60 = With locating hole

/62 = With locating hole & pin

### Seals

No code = BR seals (standard)

V = FKM seals

### Port Restrictions

No code = Without orifice insert (standard)

B08 = Orifice Ø 0.031 (0.8 mm)

B10 = Orifice Ø 0.039 (1.0 mm)

B12 = Orifice Ø 0.047 (1.2 mm)

Applicable if flow exceeds performance limit of  
valve. Location designated by preceding alpha  
code. (B- in P port, H- in A port, R- in B port, N- A&B  
port, X- in T port).

### Electrical Connection Types

#### Direct Solenoid Connections (DIN 24340 form A)

K4<sup>3)</sup> = Without angled plug but with cap

Z45 = Angled plug

Z45L = Angled plug with light

Z55L = Large angled plug with light

RZ55L = Large angled plug with rectifier & light

Z55L1 = Plug w/ light & Zener surge suppression

#### Central Solenoid Connections Wired Housing

DA = Wire housing with cable gland

DAL = Wire housing with cable gland & lights

### Solenoid Override

N9 = With protected manual override (standard)

N = Covered manual override, with rubber boot

No code = Without manual override

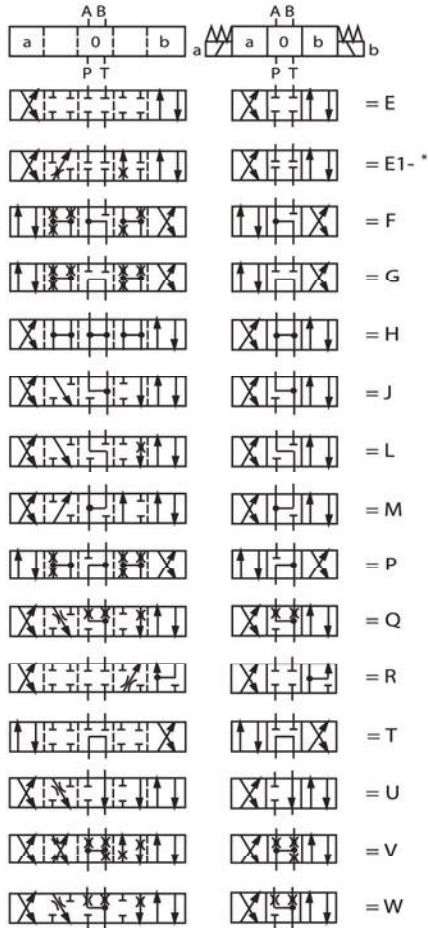
<sup>1)</sup> See spool configurations on following page

<sup>2)</sup> Series externally interchangeable within the same decade (ie: 30-39)

## Symbols for Directional Control Valves

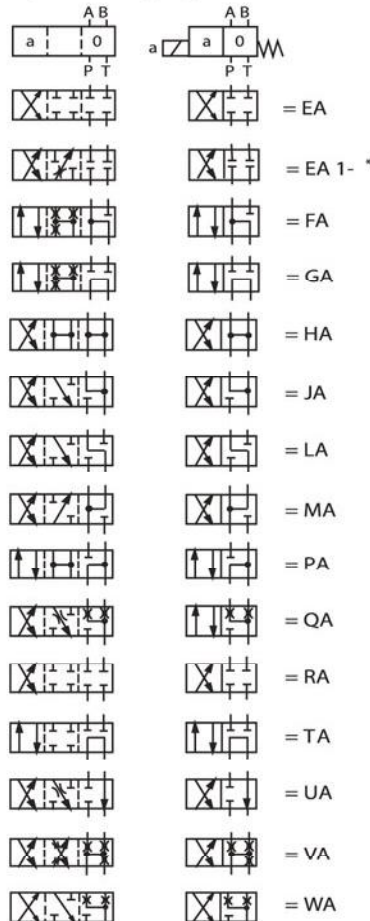
### 4 Way Valves; 2 and 3 Position

#### Double Solenoid 3-Position

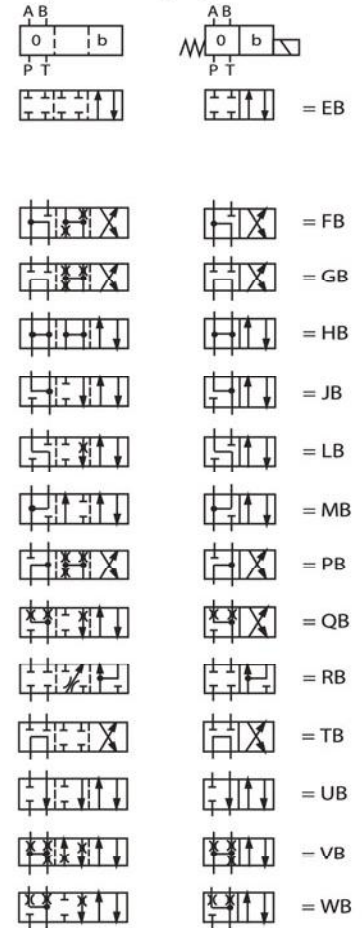


#### Single Solenoid 2-Position

##### Operator "A" Spring Center

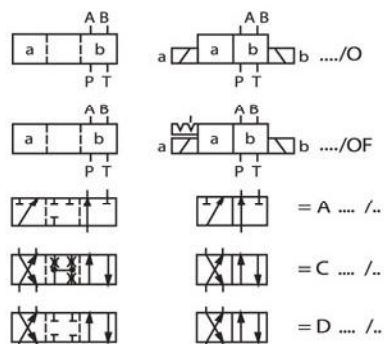


##### Operator "B" Spring Center



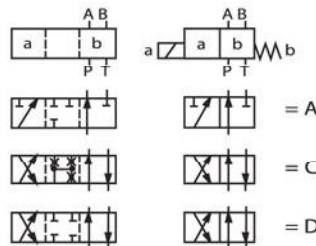
### 2 Position – 3 and 4 Way Valves

#### Double Solenoid

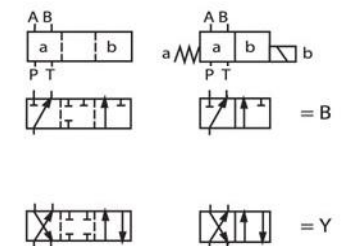


#### Single Solenoid

##### Operator "A" Spring Offset



##### Operator "B" Spring Offset





## Additional Parts

### NG6 (D03) PARTS

PART NUMBER	DESCRIPTION
<b>SEAL KITS</b>	
86175	4WE6 SEAL KIT BUNA
86176	4WE6 SEAL KIT VITON
<b>DIN COILS</b>	
86137	COIL D03 DIN 4WE6 12 VDC
06130	COIL D03 DIN 4WE6 24 VDC
86245	COIL D03 DIN 4WE6 110R/(G96) VDC
86246	COIL D03 DIN 4WE6 220R/(G196) VDC
86140	COIL D03 DIN 4WE6 110 VAC
86139	COIL D03 DIN 4WE6 220 VAC
<b>WIRE HOUSING COILS</b>	
86144	COIL D03 4WE6 12 VDC WIRED "DAL"
86145	COIL D03 4WE6 24 VDC WIRED "DAL"
86159	COIL D03 4WE6 110 VAC WIRE "DAL"
86235	COIL D03 4WE6 220 VAC WIRED "DAL"
<b>AC/DC CORE TUBES</b>	
86140-1	D03 AC CORE TUBE 4WE6 W/KNOB
86138-1	D03 DC CORE TUBE 4WE6 W/KNOB



### NG10 (D05) PARTS

PART NUMBER	DESCRIPTION
<b>SEAL KITS</b>	
86178	4WE10 SEAL KIT BUNA
86179	4WE10 SEAL KIT VITON
<b>DIN COILS</b>	
86122	COIL D05 DIN 4WE10 12 VDC
86142	COIL D05 DIN 4WE10 24 VDC
86243	COIL D05 DIN 4WE10 W110R/(G96) VDC
86244	COIL D05 DIN 4WE10 W220R/(G196) VDC
86143	COIL D05 DIN 4WE10 110 VAC
86234	COIL D05 DIN 4WE10 220 VAC
<b>COILS - FOR WIRED HOUSINGS</b>	
86151	COIL D05 4WE10 12 VDC WIRE "DAL"
86150	COIL D05 4WE10 24 VDC WIRE "DAL"
86154	COIL D05 4WE10 110 VAC WIRE "DAL"
86234	COIL D05 4WE10 220 VAC WIRE "DAL"

### ELECTRICAL DIN CONNECTORS

PART NUMBER	DESCRIPTION
86186	DIN CONNECTOR 24VDC VDR SURGE SUPPRESSOR
86189	DIN CONNECTOR 24V AC/DC RECTIFIER + VDR SUPPRESSOR
86147	DIN CONNECTOR 12/24 VDC W/LIGHT
86141	DIN CONNECTOR 110/120 VAC W/LIGHT
86241	DIN CONNECTOR W/RECTIFIER 110/120 VAC to 96 VDC
86242	DIN CONNECTOR W/RECTIFIER 220/240 VAC to 196 VDC