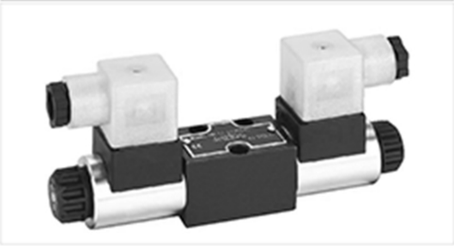
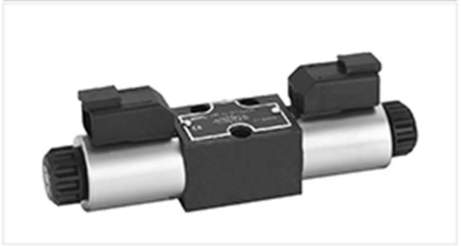
4WE3 Type 61 Series Solenoid Directional Valves

Product Series

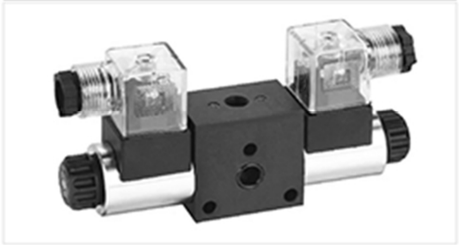
4WE 3**61/D24 L



4WE 3**61/D24 F



4WE 3YY 61/D24



Ordering Code

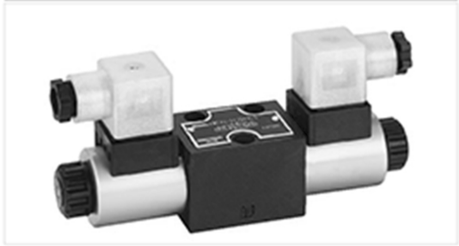
4	WE	3	E	61 /		D24	H	

- Main Ports = 3
- Main Ports = 4
- Solenoid Directional Valves
- Size : 3 = 3 Size
- Spool Symbols
- 61 series (with three holes install)
- O=without spring return
  OF=Without spring return with detent.
  (only suit two position valve with two solenoids)
- D12=DC12V
  D24=DC24V
- H: DIN43650 Type Plug
  L: DIN43650 Type Plug with Lamp
  F: German standard plug, Deutsch. protection degree IP69K
  A : AMP Type plug , protection degree Ip66
  D : with two wires
- No Code = NBR Seals
  V = FKM Seals

4WE4 Type 61 Series Solenoid Directional Valves

Product Series

4WE 4**61/D24 LS

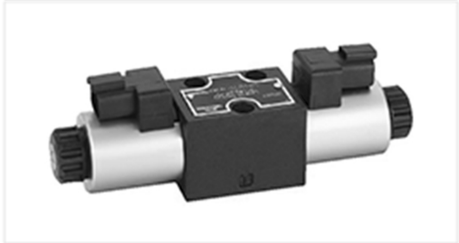


4WE 4**61/D24 LM

4WE 4**61/D24 AS

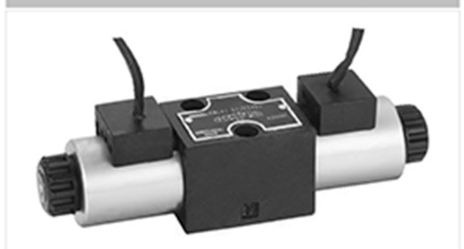
4WE 4**61/D24 AM

4WE 4**61/D24 FS



4WE 4**61/D24 FM

4WE 4**61/D24 DS



4WE4 Type 61 Series Solenoid Directional Valves

Ordering Code

4	WE	4	E	61		D24	H		S

Main Ports = 3
Main Ports = 4

Solenoid Directional Valves

Size
4= size 4

Coil shell type :
S: Silver–white metal color
M: black square type shell

No Code = NBR Seals
V = FKM Seals

H: DIN43650 Type Plug
L: DIN43650 Type Plug with Lamp
F: German standard plug, Deutsch. Protection degree IP69K
A : AMP Type plug , protection degree Ip66
D : with two wires

D12=DC12V
D24=DC24V

O= without spring return
OF : Without spring return with detent.
(only suit two position valve with two solenoids)

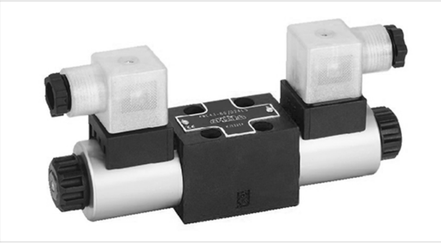
Spool Symbols

61 series (with three holes install)

4WE4 Type 60 Series Solenoid Directional Valves

Product Series

4WE 4**60/D24 LS

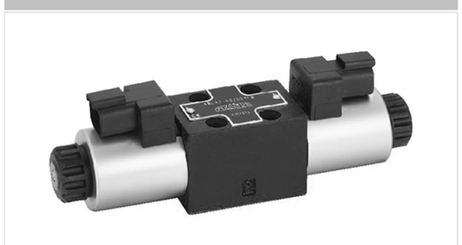


4WE 4**60/D24 LM

4WE 4**60/D24 AS

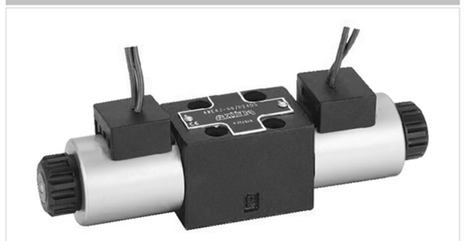
4WE 4**60/D24 AM

4WE 4**60/D24 FS



4WE 4**60/D24 FM

4WE 4**60/D24 DS



4WE4 Type 60 Series Solenoid Directional Valves

Ordering Code

4	WE	4	E	60	/		D24	H		S

Main Ports = 3
Main Ports = 4

Solenoid Directional Valves

Size
4=4Size

Coil shell type :
S: Silver–white metal color
M: black square type shell

No Code = NBR Seals
V = FKM Seals

H: DIN43650 Type Plug
L: DIN43650 Type Plug with Lamp
F: German standard plug, Deutsch. protection degree IP69K
A : AMP Type plug , protection degree Ip66
D : with two wires

D12=DC12V
D24=DC24V

O= without spring return
OF : Without spring return with detent.
(only suit two position valve with two solenoids)

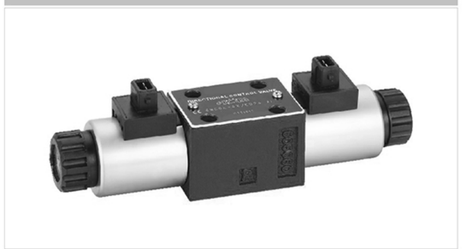
Spool Symbols

60 series (with four holes install)

4WE6 Series Solenoid Directional Valves

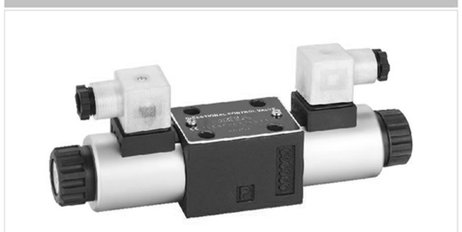
Product Series

4WE 6**6X/ED24 AL

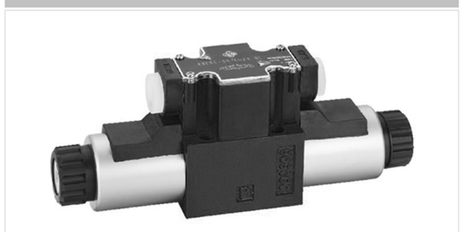


4WE 6**6X/EA220 LL

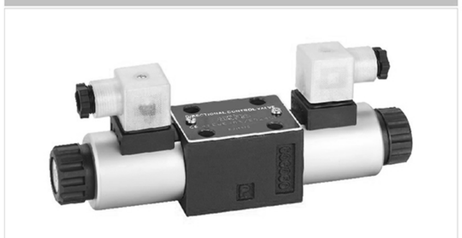
4WE 6**6X/ED24 LL



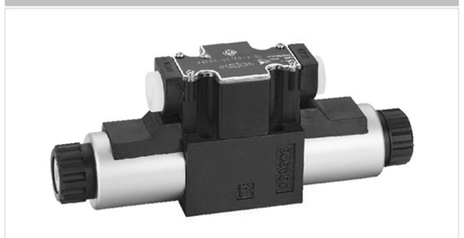
4WE 6**6X/ED24 BL



4WE 6**6X/ER220 LL

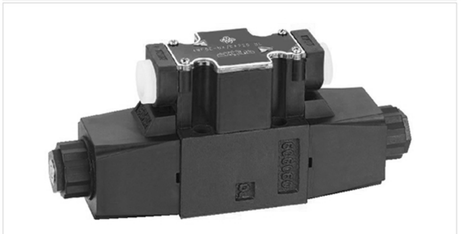


4WE 6**6X/ER220 BL



4WE 6**6X/ED24 FL

4WE 6**6X/EA220 BL

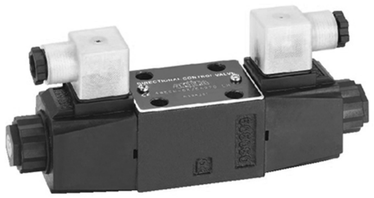


4WE6 Series Solenoid Directional Valves

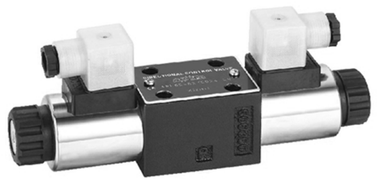
Product Series

4WE 6**6X/ED24 AH

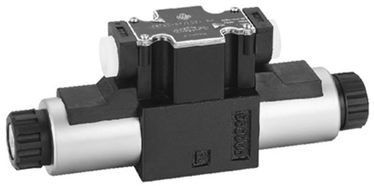
4WE 6**6X/EA220 LH



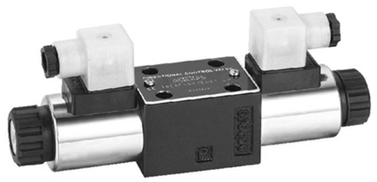
4WE 6**6X/ED24 LH



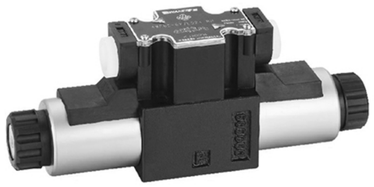
4WE 6**6X/ED24 BH



4WE 6**6X/ER220 LH

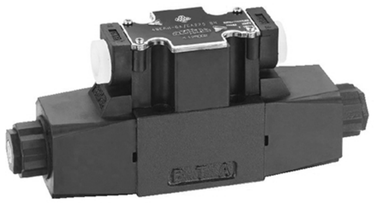


4WE 6**6X/ER220 BH



4WE 6**6X/ED24 FH

4WE 6**6X/EA220 BH



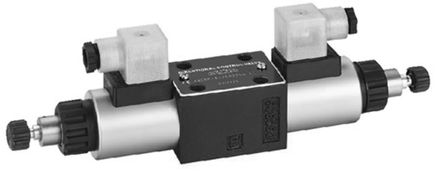
4WE6 Series solenoid Directional Valves with self–locking emergency push rod

Product Series

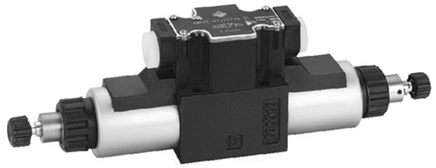
4WE 6**6X/ED24 NP AL

4WE 6**6X/ED24 NP FL

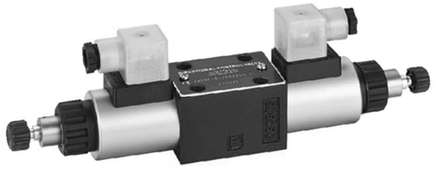
4WE 6**6X/ED24 NP LL



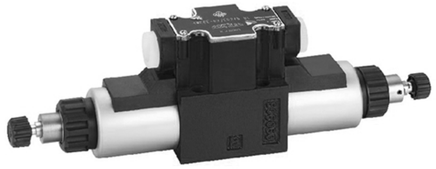
4WE 6**6X/ED24 NP BL



4WE 6**6X/ER220 NP LL



4WE 6**6X/ER220 NP BL



4WE6 Series Solenoid Directional Valves

Ordering Code

4	WE	6	E	6X/		E	D24	N	L			L

Main Ports = 3
Main Ports = 4

solenoid directional valves

Size
Size =6

Spool Symbols

Series 60–90 = 6X
Series 60–90 = 6X

no code = with spring return

O = without spring return

OF= Without spring return with detent.

connect with solenoid thread =E

DC12V=D12 DC24V=D24
AC110V–50HZ= A110–50 AC220V–50HZ= A220–50
RAC110V= R110 RAC220V=R220

NP= with self–locking emergency push rod
N = with manual override

H: DIN43650 Type Plug
L: DIN43650 Type Plug with Lamp
F: German standard plug, Deutsch. protection degree IP69K
A : AMP Type plug , protection degree Ip66
D : with double leads
B : with terminal box

no code = without locating bore
with locating bore B08= ϕ 0.8mm
with locating bore B10= ϕ 1.0mm
with locating bore B12= ϕ 1.2mm

No Code = NBR Seals
V = FKM Seals

block print :
H: Black color
L: Blue color

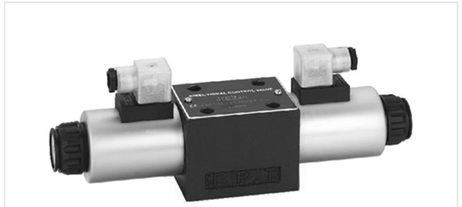
4WE10 Series Solenoid Directional Valves

Product Series

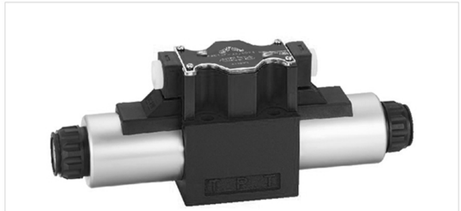
4WE 10**3X/CD24 AL

4WE 10**3X/CA220 LL

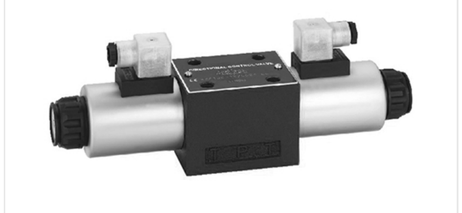
4WE 10**3X/CD24 LL



4WE 10**3X/CD24 BL

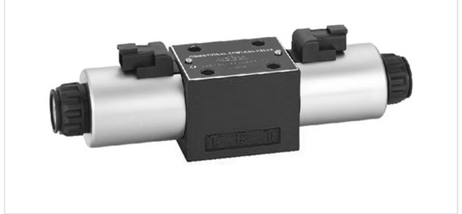


4WE 10**3X/CR220 LL



4WE 10**3X/CR220 BL

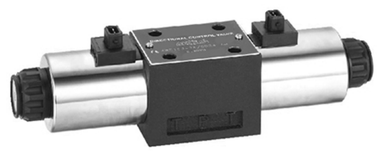
4WE 10**3X/CD24 FL



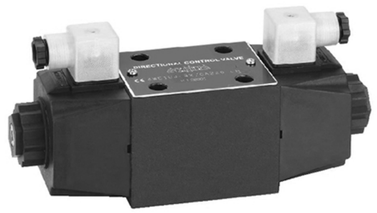
4WE 10**3X/CA220 BL

Product Series

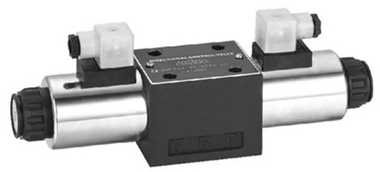
4WE 10**3X/CD24 AH



4WE 10**3X/CA220 LH

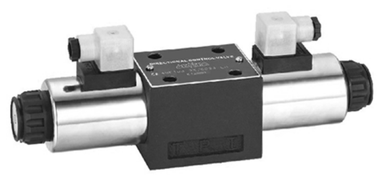


4WE 10**3X/CD24 LH



4WE 10**3X/CD24 BH

4WE 10**3X/CR220 LH



4WE 10**3X/CR220 BH

4WE 10**3X/CD24 FH

4WE 10**3X/CA220 BH

PIONEER FLURD POWER

4WE10 Series Solenoid Directional Valves

Ordering Code

4	WE	10	E	3X /		C	D24		L			L

Main Ports = 3
Main Ports = 4

Solenoid Directional Valves

Size
Size =10

Spool Symbols :

Series 30–39 = 3X
(30–39: no change of the installation and connection size)

No code = with spring return
O = without spring return
Of= without spring return with detent.

Connect With Solenoid Thread = C

DC12V=D12 DC24V=D24
AC110V–50HZ= A110–50 AC220V–50HZ= A220–50
RAC110V= R110 RAC220V=R220

NP= with self–locking emergency push rod
N= with manual override

H: DIN43650 Type Plug
L: DIN43650 Type Plug with Lamp
F: German standard plug, Deutsch. protection degree IP69K
A : AMP Type plug , protection degree Ip66
D : with two wires
B : with terminal box

no code = without locating bore
with locating bore B08= ϕ0.8mm
with locating bore B10= ϕ1.0mm
with locating bore B12= ϕ1.2mm

No Code = NBR Seals
V = FKM Seals

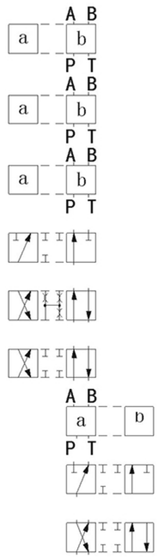
block print :
H: Black color
L: Blue color

directional Valves

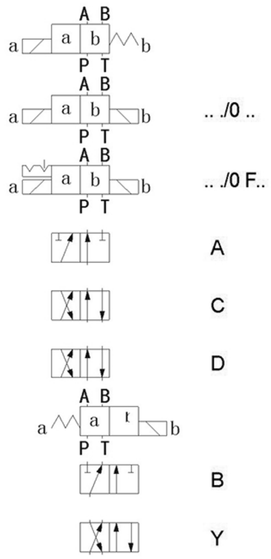
WE Series Solenoid Directional Valves

Spool Symbols

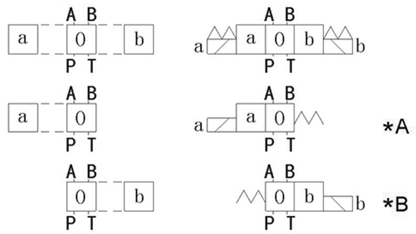
Transition spool



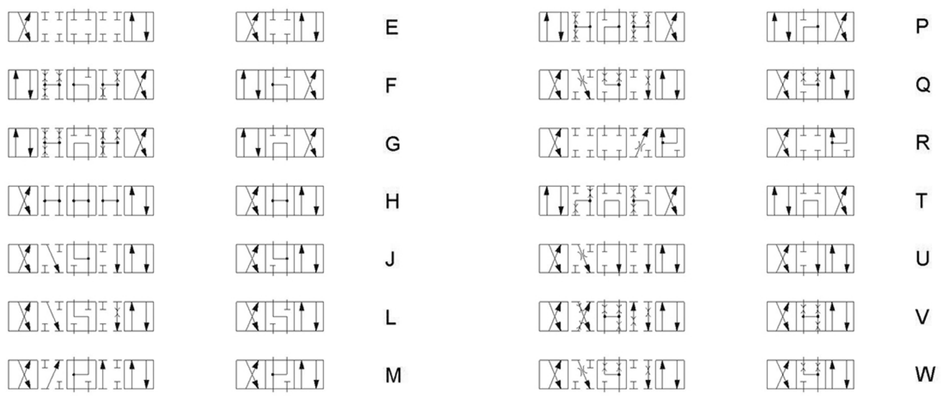
slide valve spool



Transition spool slide valve spool

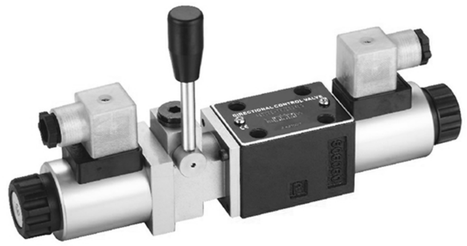


Spool Symbol With Core A Or B, Then Code Have To Be Xa Or Xb ,
For Example : Spool E With Core Position A , Then Code Will Be Ea .



WMME Series solenoid directional valve with emergency handle

Product Series



product features:

1.This valve can work even in the case of power failure.
2.There are two different circuit for your choosing according to the install requirement.
3.When the valve operated by electrical , the handle will stay in the original location, the handle will not effect any valve performance.
4.It can be used as the pilot valve of hydraulic control directional valve.
5.The mounting surface is same as din24340 a type and we series.

Ordering Code

*	WMME	6	*	1X	E	*	*	*	*	*

Main Ports = 3
Main Ports = 4

Solenoid directional valve with emergency handle

Size
Size =6
Size =10

Spool Symbols

Series 10–19 = 1X
(10–19: no change of the installation and connection size)

connect with solenoid thread = C

DC24V =D24
RAC220V =R220
AC220V =A220

No Code = Handle Is Placed In A Vertical Position
MO = Handle level set

No Code = NBR Seals
V = FKM Seals

no code = without locating bore
with locating bore B08=ϕ0.8mm
with locating bore B10=ϕ1.0mm
with locating bore B12=ϕ1.2mm
with locating bore B15=ϕ1.5mm
with locating bore B20=ϕ2.0mm
with locating bore B25=ϕ2.5mm
with locating bore B30=ϕ3.0mm

H: DIN43650 Type Plug
L: DIN43650 Type Plug with Lamp
F: German standard plug, Deutsch. Protection degree IP69K
A : AMP Type plug , protection degree Ip66
D : with two wires

remark: Spool Symbols
two position valve : take ref WE series two position valve
three position valve: take ref WE series three position valve

technical parameters: take ref WE series
performance characteristics: take ref WE series

WEHD series low power high speed valves

Product Series

product features:

1. The solenoid power loss is 1/5 of a common valve
2. The directional change is very fast , time is 1/3 of a common valve.
3. Time of directional switching is very steady, even the flow and oil temp change.
4. Solenoid coil temp rising is low which is lower than 40 degree.
5. The mounting surface is same as DIN24340 A type and WE series.
6. Spool Circuit type is exactly same as WE series valve.

Ordering Code

*	WEHD	6	*	1X /	E	*	* /	*	*	*

Main Ports = 3
(FunctionA.A9. B,B9)
Main Ports = 3

low power high speed valve

size:
6=size 6
10= size 10

Spool Symbols

Series 10–19 = 1X
(10–19: no change of the installation and connection size)

connect with solenoid thread

DC24V =D24

AC220V =A220

with emergency handle =N

No Code = NBR Seals
V = FKM Seals

A throttle preload device (l/min)

B25: 7≤Q〈10	B45: 25≤Q〈30
B30: 10≤Q〈15	B50: 30≤Q〈35
B35: 15≤Q〈20	B55: 35≤Q〈40
B40: 20≤Q〈25	B60: 40≤Q〈45

Q=pump displacement * speed

H: DIN43650 Type Plug
L: DIN43650 Type Plug with Lamp
F: German standard plug, Deutsch. Protection degree IP69K
A : AMP Type plug , protection degree Ip66
D : with two wires

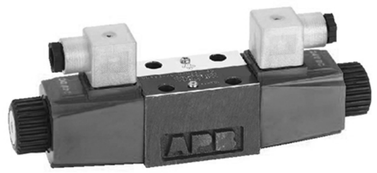
Using operation

The operation principle is similar like hydraulic control directional valve . toward spool C.F.G.H.P.V, we had install throttle preload device on the dominate valve, customers can choice the throttle preload device according to flow .
If the improper choice of preloading device , it may lead the dominate valve can't change direction. Higher flow will lead the high pressure and effect the flow capacity of dominate valve.

DG4V Series Solenoid Directional Valves

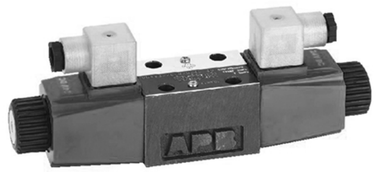
Product Series

DG4V3**MD24 L 40



DG4V3**MD24 L 60

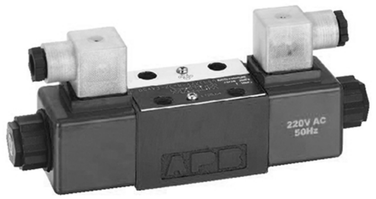
DG4V3**MR220 L 40



DG4V3**MR220 L 60

DG4V3**MA220 L 40

DG4V3**MA220 L 60



DG4V3**MD24 A 60

DG4V3**MD24 F 60

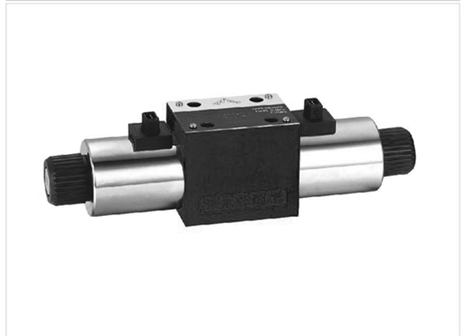
Product Series

DG4V5**MD24 L 20

DG4V5**MA220 L 20

DG4V5**MR220 L 20

DG4V5**MD24 A 20



PIONEER FLURD POWER

DG4V Series Solenoid Directional Valves

directional Valves

Ordering Code

DG4V	3	2C	M	D24	L	40

design Number

H: DIN43650 Type Plug
L: DIN43650 Type Plug with Lamp
F: German standard plug, Deutsch. Protection degree IP69K
A : AMP Type plug , protection degree Ip66
D : with two wires
B : with terminal box

D24=DC24V D12=DC12V
A110 A220=AC11V/50HZ AC220V/50HZ
R220=RAC110V 220V

Electrical options and features

slide valve spool

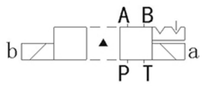
Terminal Size :
3= NG6
5= NG10

Series code :
D = directional valves
G = soleplate / integrated package installation
4= solenoid control
V= rated voltage 35MPa

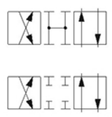
Dg4v Solenoid Directional Valve

Spool Symbols

double solenoid valve
two position with detent



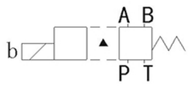
DG4 V-3 /5- *N



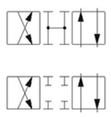
0

2

single solenoid valve
solenoid in chamber A



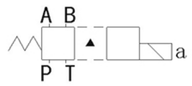
DG4 V-3 /5- *A



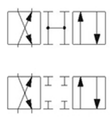
0

2

single solenoid valve
solenoid in chamber B



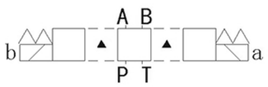
DG 4V 3 /5- *AL



0

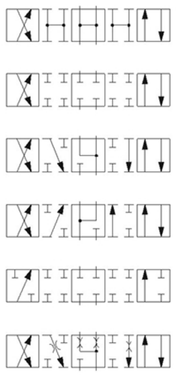
2

double solenoids valve
spring centring



☆▲only instantaneous situation

DG4 V-3 /5- *C



0

2

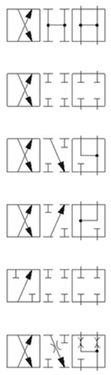
6

7

22

34

DG4 V-3 /5- * B/F



0

2

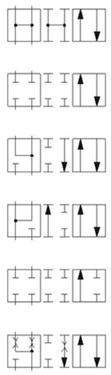
6

7

22

34

DG4 V-3 /5- *BL/FL



0

2

6

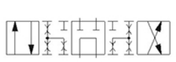
7

22

34

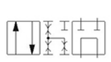
☆ "8 Isthespecialspool

DG4 V-3 /5- 8C



8

DG4 V-3 /5- 8BL



8

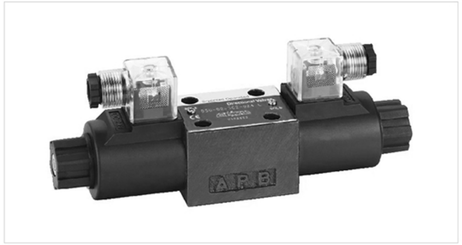
DG 4V 3 /5- 8B

8

DSG Series Solenoid Directional Valves

Product Series

DSG02**D24 L



DSG02**D24 B

DSG02**R220 L

DSG02**R220 B

DSG02**A220 L

DSG02**A220 B

DSG02**D24 NPL

DSG02**D24 NPB

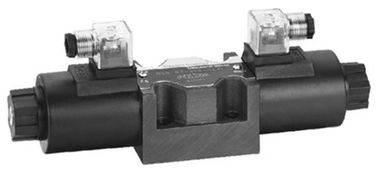
方向阀

Product Series

DSG03**D24 L

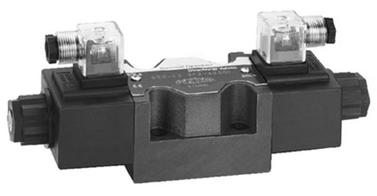
DSG03**D24 B

DSG03**R220 L

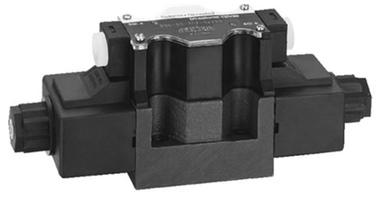


DSG03**R220 B

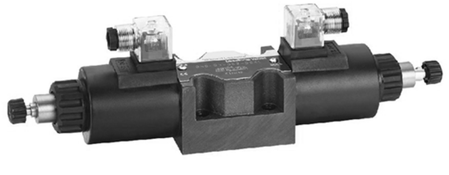
DSG03**A220 L



DSG03**A220 B



DSG03**D24 NPL



DSG03**D24 NPB

Directional Valves

Ordering Code

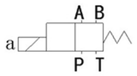
DS	G	02	3C2	D24		L

- DS: solenoid directional Valves
- G: subplate mounting
- 02: Size
  02=NG6
  03=NG10
- 3C2: spool symbol
- D24: D12=DC12V D24=DC24V
  A110-50=AC110V-50HZ A220-50=AC220V-50HZ
  R110=RAC110V R220=RAC220V
- (blank): NP=with self-locking emergency push rod
  N= with manual override
- L: H=with DIN 43650 connector
  L= DIN 43650 connector with lamp
  B = terminal box type

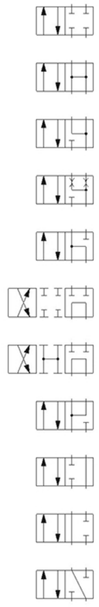
DSG series solenoid Directional valves

Spool Symbols

single solenoid valve spring return

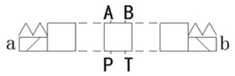


2B * BL

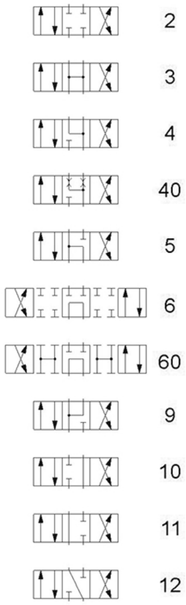


2 3 4 40 5 6 60 9 10 11 12

double solenoids valve with three position , spring centring

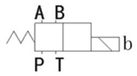


3C*

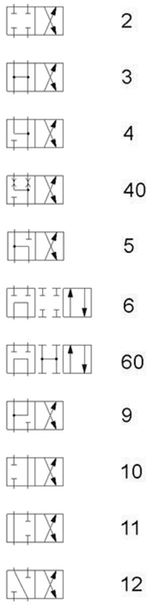


2 3 4 40 5 6 60 9 10 11 12

single solenoid valve with spring return

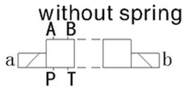


2B * B

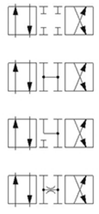


2 3 4 40 5 6 60 9 10 11 12

Two position without spring

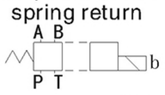


2N *

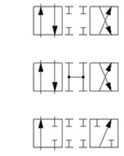


2 3 4 7

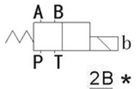
two position with spring return



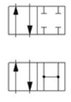
2B *



2 3 8

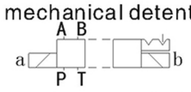


2B * A



2 3

two position with mechanical detent

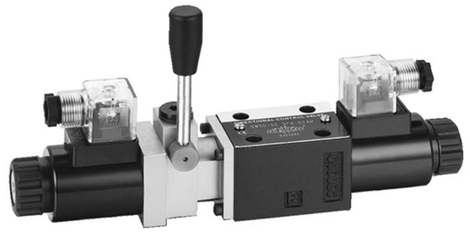


2D *

2

DMSG Series solenoid directional valve with emergency handle

Product Series



product features:

1.this valve can work even in the case of power failure.
2.There are two different circuit for your choosing according to the install requirement.
3.When the valve operated by electrical , the handle will stay in the original location, the handle will not effect any valve performance.
4.It can be used as the pilot valve of hydraulic control directional valve.
5.The mounting surface is same as DIN24340 A type and WE series.

Ordering Code

DMSG — 02 * 1X / E * * * *

Solenoid directional valve with emergency handle

Size
02=size6
03=size10

Spool Symbols

Series 10–19 = 1X
(10–19 : no change of the installation and connection size)

connect with solenoid thread

D24 =DC24V
R220 =RAC220V
A220 =AC220V

no code= handle is placed in a vertical position
MO= Handle level set

No Code = NBR Seals
V = FKM Seals

H: DIN43650 Type Plug
L: DIN43650 Type Plug with Lamp
F: German standard plug, Deutsch. Protection degree IP69K
A : AMP Type plug , protection degree Ip66
D : with two wires

remark: Spool Symbols
take ref DSG series

technical parameters: take ref WE series
performance characteristics: take ref WE series

Product Series

WSH01**D24 L

WSH01**D24 A

WSH01**D24 F

PIONEER FLURD POWER
WSH Series solenoid directional valves

Directional Valves

Product Series

WSH02**D24 L

WSH02**D24 B

WSH02**R220 L

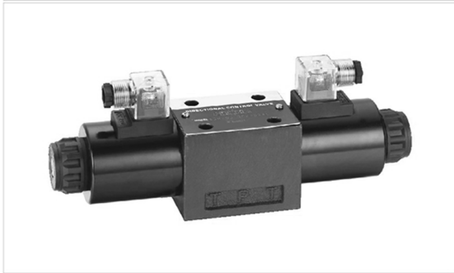
WSH02**R220 B

WSH02**A220 L

WSH02**A220 B

Product Series

WSH03**D24 L

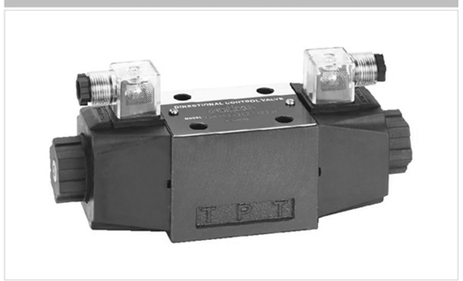


WSH03**D24 B

WSH03**R220 L

WSH03**R220 B

WSH03**A220 L



WSH03**A220 B

PIONEER FLURD POWER

WSH Series Solenoid Directional Valves

Directional Valves

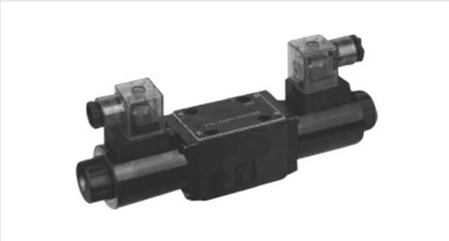
Ordering Code

WS	H	02	3C2	31.5	D24	L

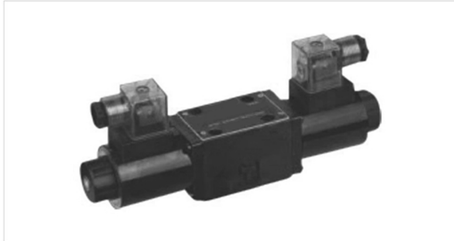
- WS: Solenoid directional valves
- H: subplate type
- 02: Size
  01=NG4
  02=NG6
  03=NG10
- 3C2: spool symbol:take reference of the DSG spools
- 31.5: max work pressure 31.5 Mpa
- D24: D12=DC12V D24=DC24V
  A110-50=AC110V-50HZ A220-50=AC220V-50HZ
  R110=RAC110V R220=RAC220V
- L: H: DIN43650 Type Plug
  L: DIN43650 Type Plug with Lamp
  F: German standard plug, Deutsch. protection degree IP69K
  D : with two wires

Product Series

34E**H6B



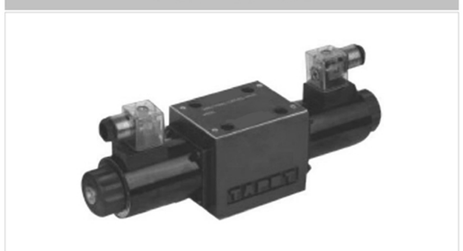
34E**H6B



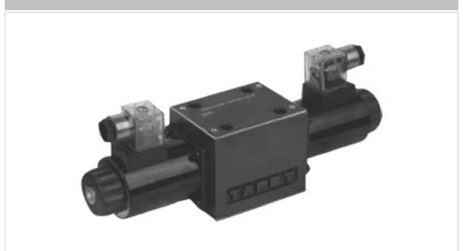
34E**H6L

34E**H6L

34E**H10B



34E**H10B



34E**H10L

34E**H10L

Ordering Code

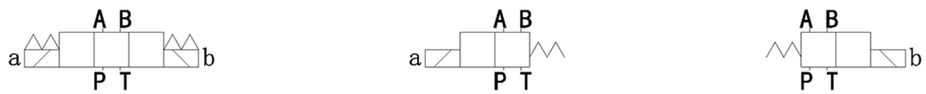
3	4	E	O	H	6	B			

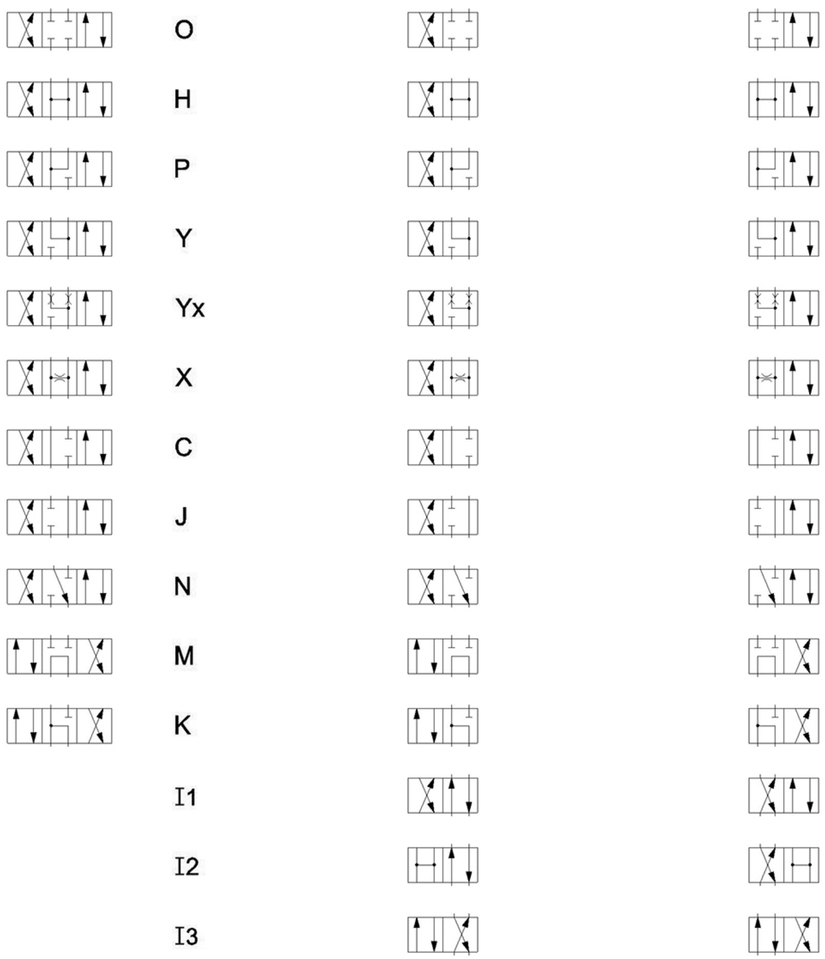
- Anti–mounted solenoid =LH
- damper type
  single damper = Z
  double dampers = ZZ
- Spring
  spring reset or centring = T
  no spring= no code
- connection way of the solenoid
  subplate connection = B
  thread connection = L
- Size
  Size 6= NG 6
  size 10= Ng10
- pressure 31.5 MPa = H
- Slide valve symbols
- E = D C
  B=RAC
- chamber way
  two way = 2
  four way = 4
- valve bore working position
  two position = 2
  three position = 3

B(L)*H Series Solenoid Directional Valves

Spool Symbols

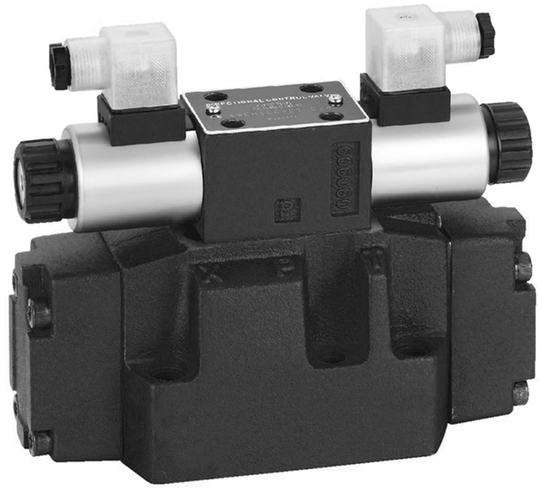
three position , spring centring	Two position , standard solenoid type	Two position , Anti–mounted solenoid type

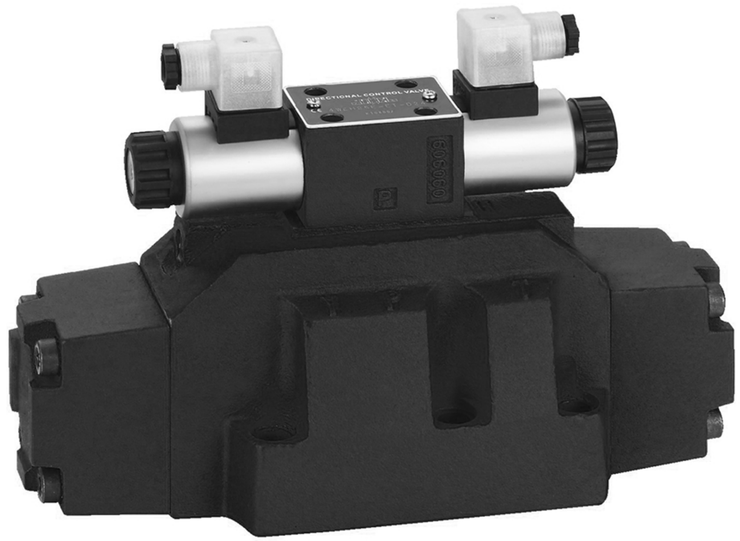




O
H
P
Y
Yx
X
C
J
N
M
K
I1
I2
I3

WEH Series Hydraulic Control Directional Valves





Ordering Code

4WEH 10 E 6X/ 6A D24 L

working pressure
no code = 28 Mpa

H = 35 Mpa

size :
10=10 10= NG10
16=16 16= NG 16
25=25 25= NG25
32=32 32= NG 32

no code = with spring return or centring
H = with hydraulic return or centring

take reference the spool of slide valves

series 60–69= 6X

when pilot valve is two solenoids two position valve
pilot valve is with hydraulic reset
O= without spring return
OF= without spring return with detent

pilot control valve
standard solenoid valve = 6A
high capability solenoid valve = 6E

D12 D24=DC12V DC24V
A110 A220=AC110V/50HZ AC220V/50HZ
R110 R220=RAC110V RAC220V

Notes:

No code =
mineral substance
hydraulic oil
V= phosphate ester
hydraulic oil

No code =
without pressure
reducing valve
D1= with pressure
reducing valve
(reducing rate 1:0.66)

No code = without
pre–load valve
P0.45 = with pre–load valve
P=0.45 Mpa

No code = without insert damper
B08= damper 0.8mm
B10= damper 1.0mm
B12= damper 1.2mm
B15= damper 1.5mm

H= with DIN 43650 connector
L= DIN 43650 connector with lamp

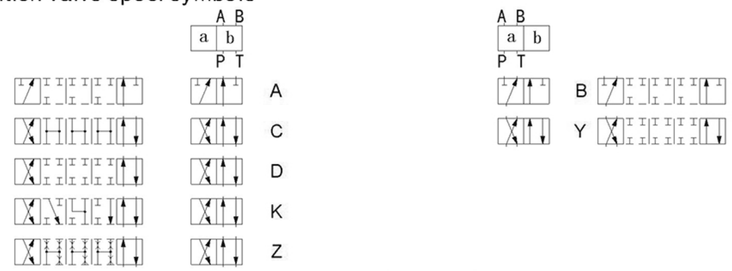
no code = without switching time adjustment
S= switching time adjustment as meter–in control
S2=switching time adjustment as mter–out control

no code = external pilot oil supply , external pilot oil drain
E= internal pilot oil supply , external pilot oil drain
ET= internal pilot oil supply , internal pilot oil drain
T= external pilot oil supply , internal pilot oil drain
3 position not suit for E and ET

no code = without manual override
N= with manual override

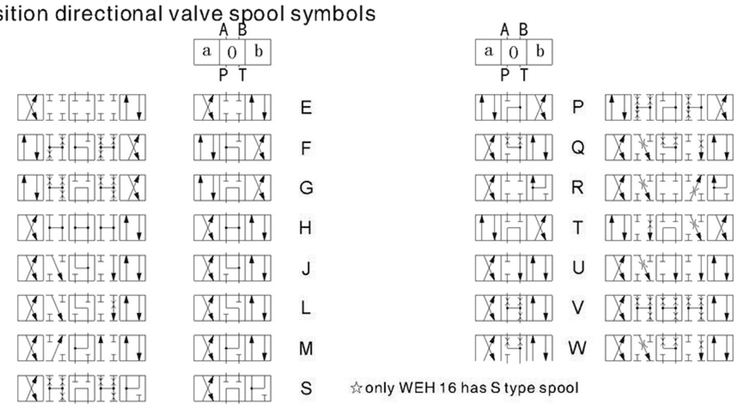
3 position valve spool symbols

2 position valve spool symbols



Spool	Form	hydraulic drive WH	electric–hydraulic drive WEH	Spool	Form	hydraulic drive WH	electric–hydraulic drive WEH
A, C, D, K, Z	../..			B, Y	../..		
	..H../..				..H../..		
	..H../O						
	..H/OF						

3 position directional valve spool symbols

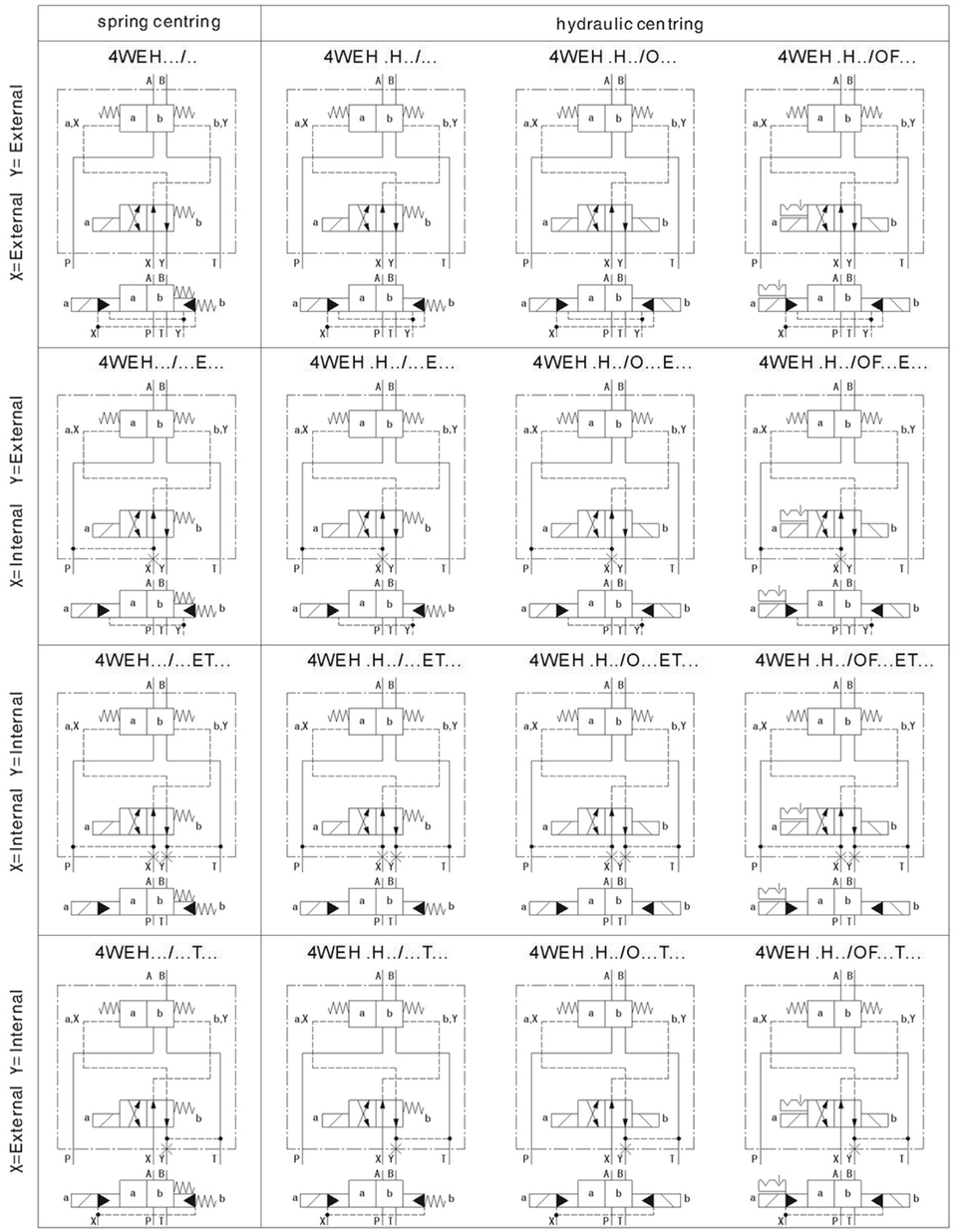


☆only WEH 16 has S type spool

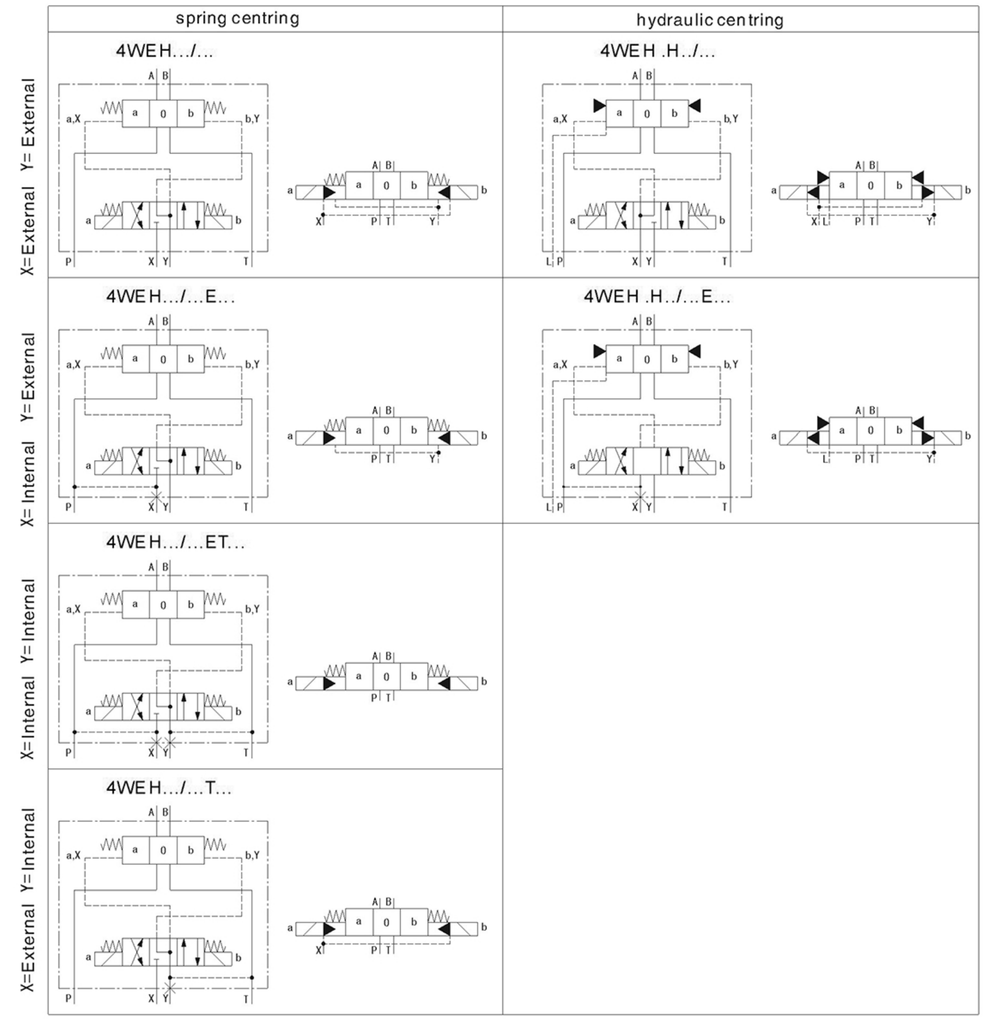
core spool	Dire–ction	valve core rese	hydraulic drive WH	electric–hydraulic drive WEH	Dire–ction	valve core rese	hydraulic drive WH	electric–hydraulic drive WEH
E,F, G,H, J,L, M,Q, R,S, T,U, V,W		../..				.H../..		
		.A				H.A		
		.B				H.B		

X type spool with single solenoid A/B , then series NO . is XA / XB
For example : E spool , sol A , then series NO. is EA .

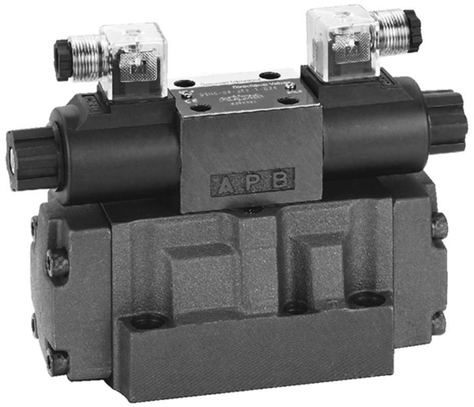
two position directional valve spool symbols

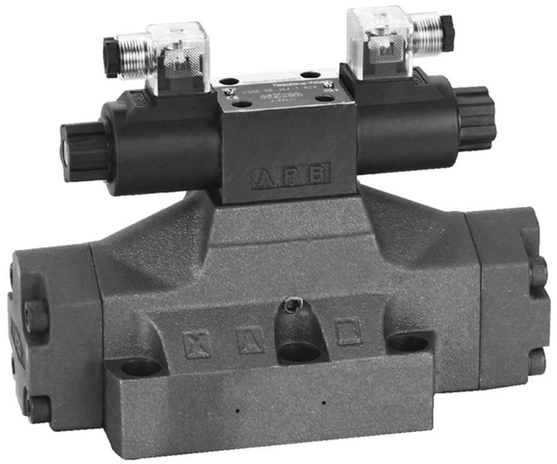


3 position directional valve spool symbols



Product Series





DSHG Series Electric–hydraulic
Control Directional Valves

Directional Valves

Ordering Code

DSH	G	04	3C2			D24	L		

K= With knob
blank = without knob

stroke adjustment AB : both sides
A: A side
B : B side

H= with DIN 43650 connector
L= DIN 43650 connector with lamp
B= with terminal box

D12 D24=DC12V DC24V
A110 A220=AC110V/50HZ 220V/50HZ
R110 R220=RAC110V RAC220V

drain connection
blank : external drain
T: internal drain

pilot connection
none: internal pilot
E : external pilot

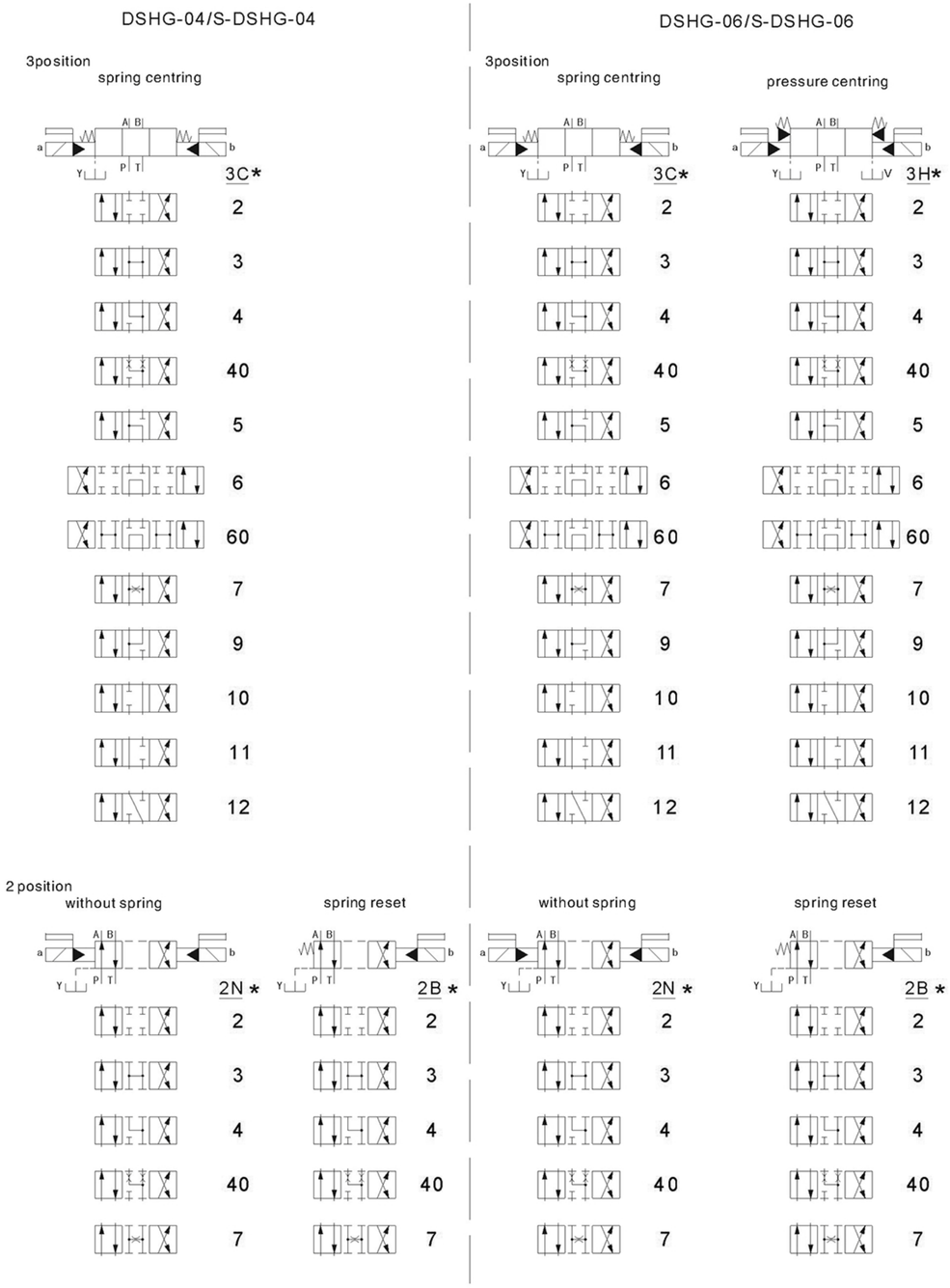
slide valve spool

Size :
04=NG16 06=NG25 10=NG32

mounting way : subplate installation

electric–hydraulic directional valves

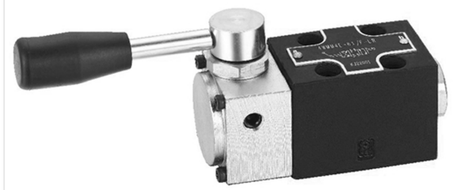
Spool Symbols



Product Series

4WMM 4**70/F

4WMM4**70/F LR



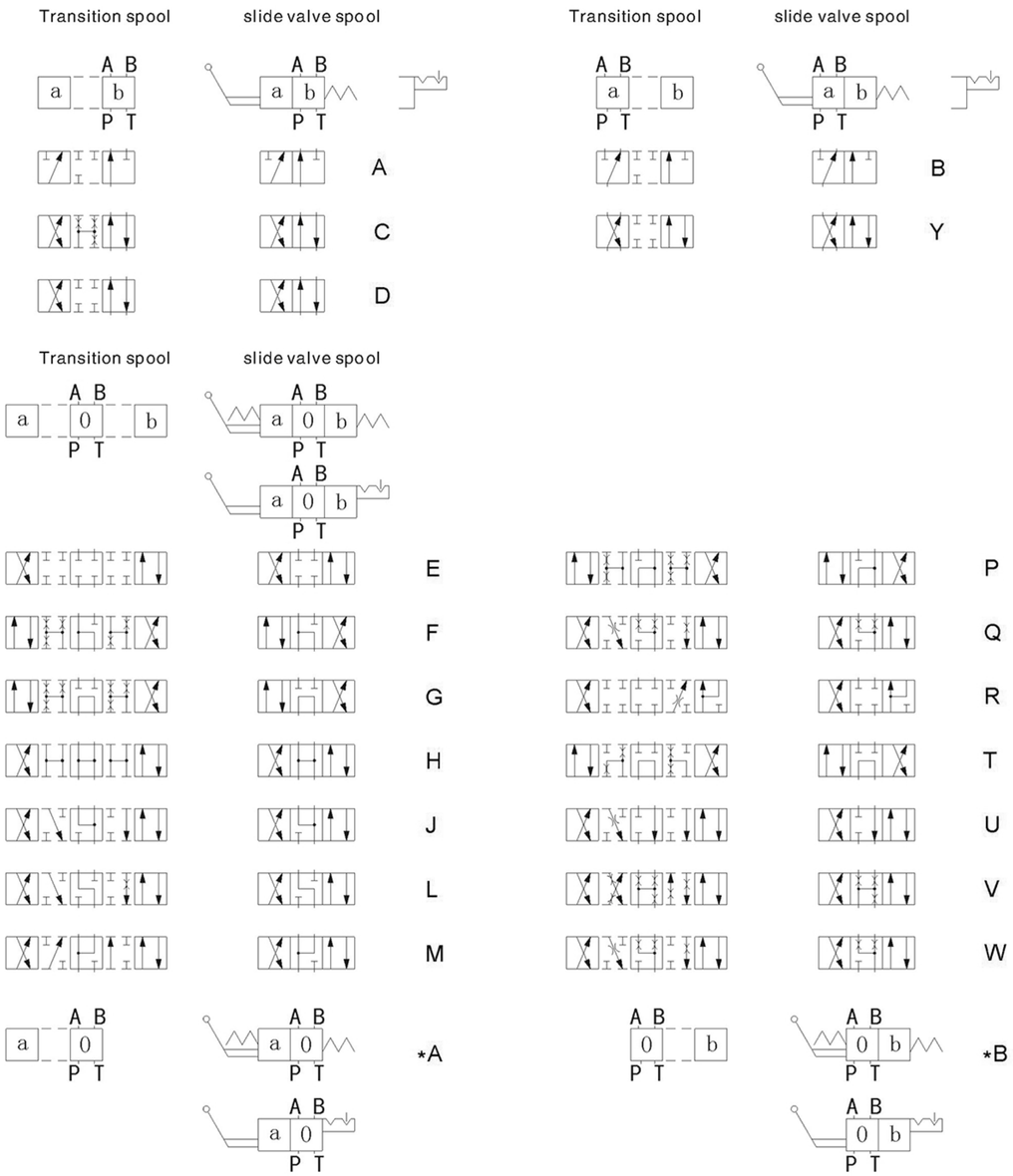
4WMM 6**70/F

4WMM 6**70/F LR

4WMM 10**70/F

4WMM 10**70/F LR

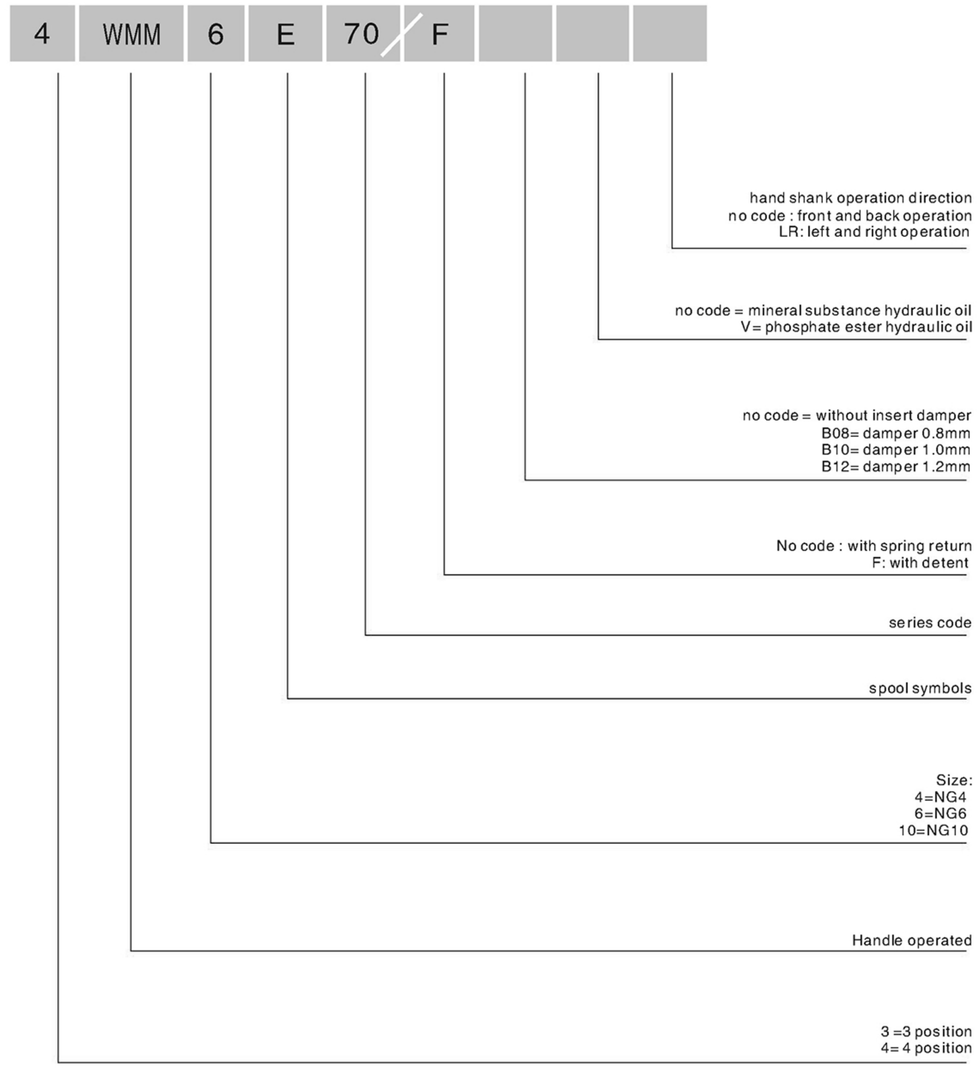
Spool Symbols



PIONEER FLURD POWER
WMM Series 70 Manually Operated Directional Valves

Directional Valves

Ordering Code



DMG-70 Type Manually Operated Directional Valves

Product Series

DMG 005**

DMG 005**LR

DMG 02**

DMG 02**LR

DMG 03**

DMG 03**LR

Ordering Code

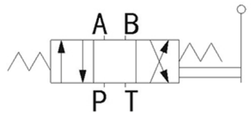
DM	G	02	3C2	W		70

- 70: series code
- Hand shank operation direction
  no code : front and back operation
  LR: left and right operation
- W: O: Steel ball position
  W: spring reset
- 3C2: spool symbols
- 02: 005=NG4
  02= NG6
  03= NG10
- G: Subplate installation
- DM: manually operated directional valves

DMG-70 Series Manually Operated Directional Valves

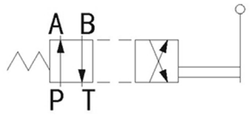
hydraulic symbols

3 position with spring centring



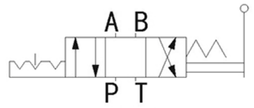
3C*

2 position with spring centring



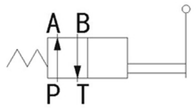
2B*

without spring with mechanical position

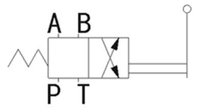


3D*

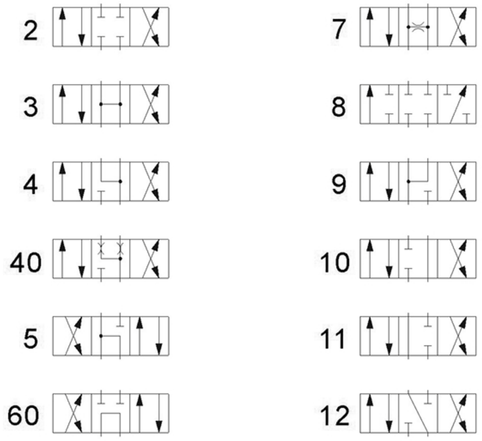
2 position spring return with 3 position extension



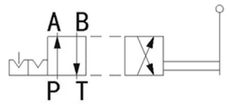
2B*A



2B*B

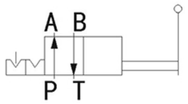


Without spring with mechanical position

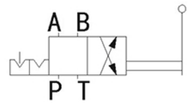


2D*

2 position without spring with 3 position extension , mechanical position



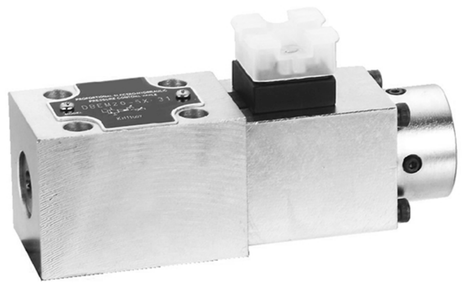
2D*A



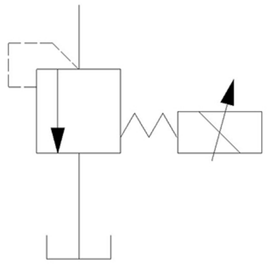
2D*B

DBET Series Proportional Control Valves

Product Series



hydraulic symbols



Ordering Code

DBET	X		/D24		N	H	

proportional control valves

installation hole = X
accord with Is044010302094

max pressure degree
5 mpa = 5
8 mpa= 8
18 mpa= 18
25 mpa= 25
31.5 mpa=31.5

amplifier supply voltage
D24=24VDC

solenoid type (current)
8=max current 0.8A
15= max current 1.5 A

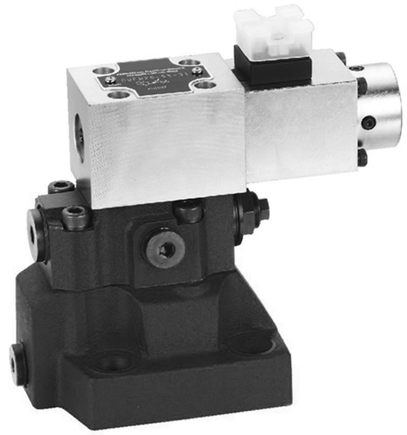
N= Manually override

Electric connection
H= DIN 43650 connector

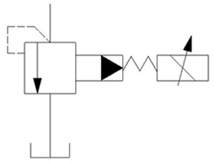
V=FKM Seals
M= NBR Seals
suit mineral substance hydraulic oil

DBE(M) Series Electric-hydraulic Proportional Relief Valves

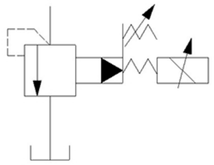
Product Series



hydraulic symbols



DBE



DBEM

Ordering Code

DBE		E	10	5X	/31	Y	D24	

Proportional relief valves

without maximum pressure relief function = no code
with maximum pressure relief function = M

no code = for external control electronics
E= with integrated electronics

Size
size 10= 10
size 20=20
size 30=32

component series 50 to 59 = 5X
(50 to 59: unchanged installation and connection dimensions)

Pressure stage
up to 5mpa = 5
up to 10 mpa= 10
up to 20 mpa = 20
up to 31 mpa = 31
up to 35 mpa = 35

External pilot oil drain = Y
unloading port X , external pilot oil drain = XY

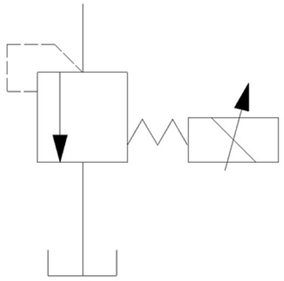
Supply voltage of electronics
D24=24VDC

seal material
M=NBR Seals
suitable for mineral oil
V= FKM Seals

KBCG-3 Series Proportional Control Valves

Product Series

hydraulic symbols



Ordering Code

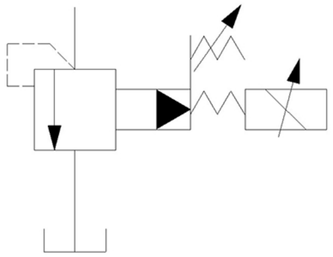
KC	G	3					1

- KC: proportional control
  KBC=with internal amplifier
  KC=without internal amplifier
- G: installation type
  G= subplate mounting
- 3: mounting side 3 : ISO4401
- Pressure adjustment scope :
  4: 0.2-4Mpa 10: 0.3-10 Mpa
  16: 0.4-16Mpa 25: 0.5-25 Mpa
  35: 0.5--35 Mpa
- Coil connection way
  U : ISO 41400/ DIN 43650 connector (without plug)
  U1 : ISO 41400/ DIN 43650 connector (with plug)
  U2: ISO 41400/ DIN 43650 connector(with ACYO-1 amplifier
  ADE : with ADE terminal box type amplifier
- Rated data of coil (A * Ohm)
  G: 3.5×1.65 GP: 3.0×2.0
  H: 1.6×7.3 HA: 0.94×22
- rated voltage of amplifier
  L: suitable to DC 24V
  H: suitable to DC 12V
- 1: design code

KCG-6/8 KBCG-6/8 Series Electric-hydraulic Proportional Relief Valves

Product Series

hydraulic symbols



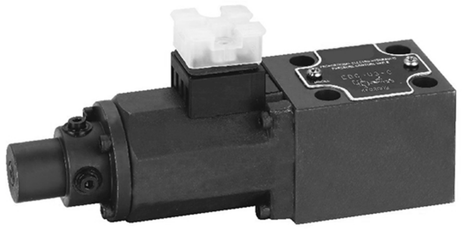
Ordering Code

KC	G							10

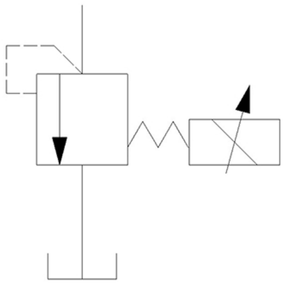
- KC: electric-hydraulic proportional relief valve (KBC with internal amplifier)
- G: mounting way
  G = subplate mounting
- mounting surface ISO6264
  6: AR-06-2-A
  8: AS-08-2-A
- pressure adjustment scope
  4: 0.2-4Mpa 10: 0.3-10 Mpa
  16: 0.4-16Mpa 25: 0.5-25 Mpa
  35: 0.5--35 Mpa
- manually and electronics pilot control internal oil drain to chamber T
  1: manually and electronics pilot control oil drain to side oil chamber
  2: manually pilot control oil drain to chamber T , electronics pilot control oil drain to side chamber
- electric control : 1. +/-10V control the signal
  2: 420mA control the signal
- Electronics connection
  U1: ISO connector
  U2 : ADF jack type amplifier
- Rated coil
  L: 24VDC amplifier
- 10: design code

EDG Series Proportional Control Valves

Product Series



hydraulic symbols



Ordering Code

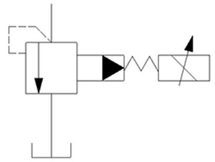
ED	G	01	H	10

- 10 — design code
- H — pressure adjustment scope
  B: 0.5–7.0MPa
  C:1.0–16MPa
  H:1.2–25MPa
- 01 — Specification:01
- G — mounting way
  G= subplate mounting
- ED — proportional control valves

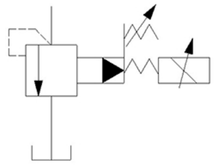
EBG Series Proportional Valves

Product Series

hydraulic symbols



EBG*T



EBG*

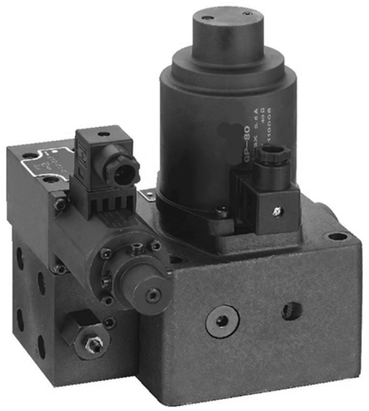
Ordering Code

EB	G	03	C	T	D24	10

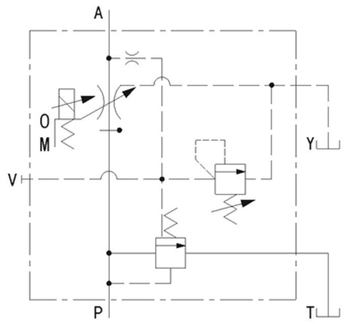
- 10 — design code
- D24 — rated voltage
  D24= DC24V
  D12=DC12V
- T — no code : with safety valve
  T= without safety valve
- C — pressure adjustment scope (MPa)
  B:7 C:16 H:25
- 03 — Size : 03,06,10
- G — Mounting type
  G = subplate mounting
- EB — electric–hydraulic proportional relief valves

EFBG Series Electric-hydraulic ProportionalPressure Control Valves

Product Series



hydraulic symbols



This valve only supply to the electronics with lowest pressure and energy conservation valves
This valve can keep the pump side pressure always greater than 0.6-0.9MPa, so can save the energy.

Ordering Code

EFB	G	03	125	C	10

- 10: design code
- C: proportional pilot control relief valve pressure adjustment scope C: 1.4-14MPa H: 1.4-21MPa
- 125: max adjustment flow 125:125 L / min 250:250 L / min 500:500 L / min
- 03: Size : 03 06 10
- G: Mounting way G = subplate mounting
- EFB: electric-hydraulic control proportional pressure control valves

ADF Plug Type Digital Proportional Amplifier

Product Series

Remark:
Can directly install on proportional valve, the plug type meet the requirement DIN EN 175301-803, protection degree : Ip65

Feature:
Amplifier had the function of splash proof , so it can be used under different environment. You can install it without any tools and freely set the related data which can be matched with different item and resistance proportional valve.

Ordering Code

ADF	11	A	01	D2	3	40

- 11: plug type mounting
- A: ITEM NO.:
- A: connection terminal A / Cable output B
- 01: single solenoid 01
- D2: Voltage=24VDC D2
- 3: Rated input: 0-+10VDC 3
- 40: series code

Example

proportional solenoid	ratedvoltage(V)	resistance(ohm)	max current (mA)
Rexroth type	24V	19.5	800
	12V	4.5	1500
Yuken type	12V	10-13	800
Vickers type	12V	7.5	1600

Technical data

Voltage	24VDC
rated voltage	0... + 10VDC
input impedance	≥100Kohm
Signal	200Hz
no load loss	0.3W
Current	0-1600mA (Suit to different proportional valve)
Min current	0-600mA 可调
Max current	1600mA 可调

ADE Series Digital Type Proportional Amplifier

Product Series

Electrical technology parameters

supply voltage	0~10VDC
supply resistance	≥100Kohm
output voltage	10VDC output voltage 2mA
Frequency	200Hz
no load loss	0.3W
max current	1600mA
min current	0--600mA

Ordering Code

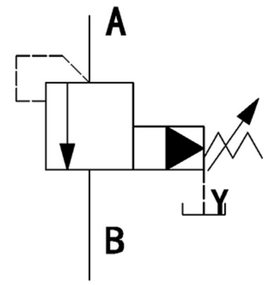
ADE	11	A	01	D24	3	40

- design code
- supply voltage 3 : 0 – 10VDC
- rated voltage D24 = 24VDC
- Control electric transmitting 01= single solenoid 02= double solenoid
- connection terminal
- item Number
- lead rail mounting

DB*K series pilot control relief valve

Product Series

Spool Symbols



REMARK:
Plug–in type
Four type of pressure scope
Four adjustment type
With knob
adjusting bolt with protective cover
Lock knob with scale
Lock with scale
Can directly plug into block

Ordering Code

DB		K		L4X/		Y	

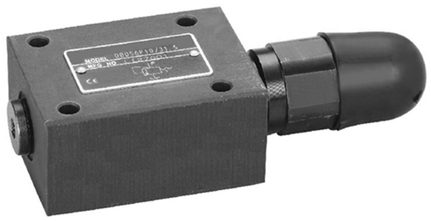
- relief valve =DB
- SIZE 6=6 / SIZE10=10
- PLUG–IN TYPE =K
- With knob=1 / Adjusting bolt with protective cover=2 / Lock knob with scale=3 / Lock with scale=7
- L4X= L40~L49 series (L40~L49 unchanged installation and connection dimensions)
- 5= pressure can adjust to 5MPA / 10= pressure can adjust to 10 MPA / 20= pressure can adjust to 20MPA / 31.5= pressure can adjust to 31.5MPA
- Y: internal supply external drain
- no code= NBR Seals / V= FKM Seals

Notes for selecting items:

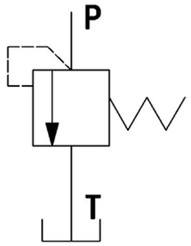
This pilot relief valve can start with lower pressure and with big flow , but internal leakage will be more than DBD series. If the whole hydraulic system don't have high requirement toward the start pressure but should with low leakage , you'd better select DBD series .

DBD Series Direct Pressure Relief Valves

Product Series



Spool Symbols



remark:
3 type of connection way
Plug-in type
Thread connection
Subplate mounting
7 types pressure level
2.5,5,10,20,31.5,40and 63MPA available
3 adjustment type
Adjusting bolt with protect cover
With handle
Handle with lock

Ordering Code

DBD ☐ ☐ ☐ 10 / ☐ / ☐ ☐

Direct pressure relief valve

Adjusting bolt with protect cover=S
With handle =H
Handle with lock =A

	connection way		G	K	P
Size	G1/4	M14×1.5	6	6	6
	G3/8	M18×1.5	8	–	–
	G1/2	M22×1.5	10	10	10
	G3/4	M27×2	15	–	–
	G1	M33×2	20	20	20
	G1 ¼	M42×2	25	–	–
	G1 ½	M48×2	30	30	30

Connection mode
plug-in type =K
thread connection =G
subplate mounting =P

no code = NBR Seals
V= FKM Seals

Thread type:
No code= british type
2= metric type

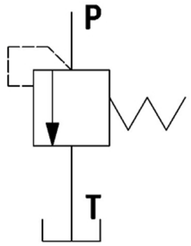
Size	10	6、8、15和20	25和30
Pressure degree (pressure can adjust to	2.5= 2.5MPa 5= 5MPa 10= 10MPa 20= 20MPa 31.5= 31.5MPa 40= 40MPa 63= 63MPa	2.5= 2.5MPa 5= 5MPa 10= 10MPa 20= 20MPa 31.5= 31.5MPa 40= 40MPa	2.5= 2.5MPa 5= 5MPa 10= 10MPa 20= 20MPa 31.5= 31.5MPa

10= 10 series
(10~19 series, unchanged installation and connection dimensions)

DG Series Direct Pressure Relief Valve

Product Series

Spool Symbols



remark:
1.DG-01 valve is used as far-distance control, it connected with the control chamber and can control double pressure and triplicate pressure.
2.DG-02 valve is used as the pressure adjustment of small flow valve or regard as safety valve.

Ordering Code

D G 01 -1 -30

Series code : 30: standard type
31:low-pressure type

Adjustment scope
1:*~70 bar
2:35~140 bar
3:70~250 bar

Terminal size:
01=NG3
02=NG6

Mounting way:
G:subplate mounting
T: pipe installation

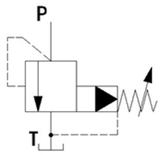
Direct pressure relief valve

Product Series

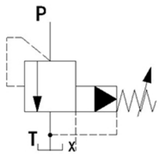
Ramark: DB/DBW type pressure valve is the pilot relief valve , they can be used to limit DB or DBW or unload the system pressure .

Spool Symbols

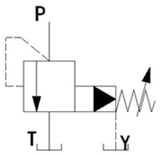
DB ...-...



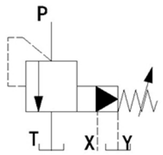
DB ...X...



DB ...Y...

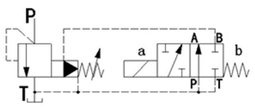


DB ...XY...



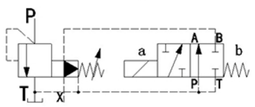
DBW ...-...

normally closed



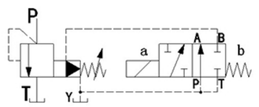
DBW ...X...

normally closed



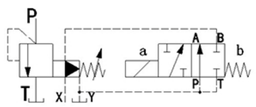
DBW ...Y...

normally closed

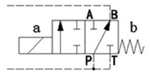


DBW ...XY...

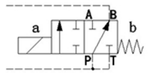
normally closed



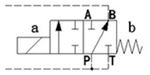
normally open



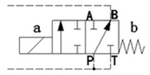
normally open



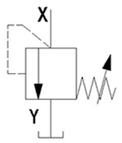
normally open



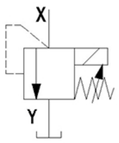
normally open



DB$^{C}_{T}$...-...



DBW$^{C}_{T}$...-...



Product Series

DB W 10 A 1 5X 10 X D24 L

without solenoid = no code
with solenoid = W

Pilot control relief valve = no code
pilot control valve = C
(without core plug–in components , \ without mark of size)
with core plug–in components
pilot control valve = C
(mark the size NG10 or NG 30)
long–distance pressure adjustment valve(without marking size) = T

Size	mounting type	
	Subplate mounting	Thread connection
	Marking	
10	=10	=10
15	=20	=15
20		=20
25		=25
32	=30	=32

normally closed = A
normally open = B

subplate mounting = no code
thread connection = G

with knob = 1
adjusting bolt with shield = 2
locked knob with scale = 3
knob with scale = 7

series 50–59= 5X

additional mark

No code = mineral hydraulic oil
V= phosphonolipid hydraulic oil

no code = british thread
2= metric thread

R12= solenoid valve orifice diameter 1.2mm

H : with DIN 43650 connector
L: DIN 43650 connector with lamp

N = manually override

D12 D24= DC12V 24V
A110 A220=AC110V/50HZ 220V/50HZ
R110 R220=RAC110V 220V

No code = without transit time delay
S= with transit time delay (only DBW type)

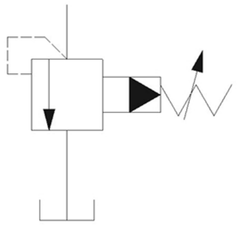
no code : internal supply , internal drain
X= external supply , internal drain
Y= internal supply , external drain
XY= external supply , external drain

5= up to 5 mpa
10= up to 10 mpa
20 = up to 20 mpa
31.5= up to 31.5 mpa
35= up to 35 mpa

SBG Series Low Noise Pilot Control Relief Valves

Product Series

Spool Symbols



Remark
1. Low noise design can ensure the stability
2. Protect the pump and dominate valve in case of exceed the rated voltage , as well as keep whole hydraulic system working under the rated pressure .
3.Use the far-distance control to actualize the far-distance control and unloading control .

Ordering Code

SB	G	06	2		30

Series code
30= standard type
32= low pressure type

knob adjustment position
blank : left side (standard)
R: right side

Adjustment scope
1:*~70 bar
2:35~140 bar
3:70~250 bar

Size :
03= NG10
06=NG20
10=NG30

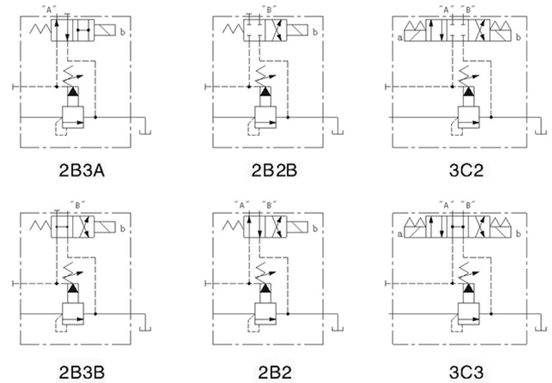
Mounting type
G= subplate mounting

low-noise pilot control relief valve

SBSG Series Low-noise Solenoid Control Relief Valves

Product Series

Spool Symbols



Remark
1. Low noise design can ensure the stability
2.under the electronics control which can ensurepump and hydraulic system unloading or keep rated pressure .
3. Combine the remote valve , can actualize the 2-3 degree pressure control .

Ordering Code

SBS	G	03	2B3A	2	L	D24	L	30

design code
30= standard type
32= low pressure type

H= with DIN 43650 connector
L= DIN 43650 connector with lamp
B = with terminal box

low-noise solenoid control relief valve

Mounting type
G= subplate mounting

size :
03= NG10
06= NG20
10=NG32

Coil voltage
D12 24=DC12V 24V
A110 220=AC110V 220V
R110 220=RAC110V 220V

oil drain type
2B3A:normally closed
2B3B:normally open to unload
2B2B:two-stage B type
2B2:two-stage type
3C2:three-stage type
3C3:two-stage plug normally open unloading

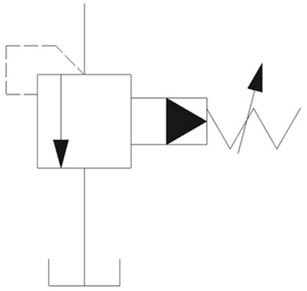
Adjustment scope
L = left side (standard type)
R= right side (customization)

adjustment scope
1: *~700bar
2:35~140bar
3:70~250bar

BG(RV) Series Pilot Control Relief Valves

Product Series

Spool Symbols



Remark

1.Protect the pump and dominate valve in case of exceed the rated voltage , as well as keep whole hydraulic system working under the rated pressure .
2.Use the far-distance control to actualize the far-distance control and unloading control .
3.With the pilot control design which can ensure big flow and low noise .

Ordering Code

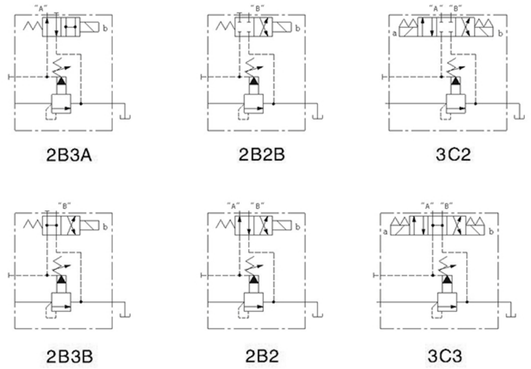
B(RV)	G	03	2	30

- 30: Series code
  - 30 : standard type
  - 32: low pressure type
- 2: pressure adjustment scope
  - 1: *~700bar
  - 2:35~140bar
  - 3:70~250bar
- 03: Size :
  - 03= NG10
  - 06=NG20
  - 10=NG30
- G: mounting type
  - G:subplate mounting
  - T: tubular mounting
- B(RV): Pilot control relief valve

BSG(SRV) Series Solenoid Control Relief Valves

Product Series

Spool Symbols



Remark

Combination of relief and solenoid valves , can use the electronics signal to unload the pump ,also can use the pilot relief valve to control the whole system under double-three stage pressure .

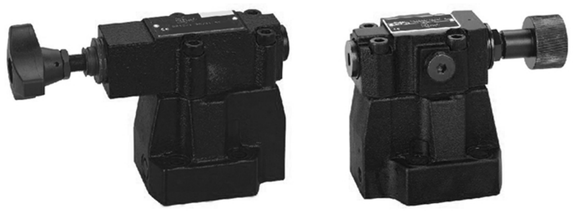
Ordering Code

BS(SRV)	G	03	2B3A	2	D24	L

- BS(SRV): solenoid control relief valves
- G: Mounting type
  - G= subplate mounting
- 03: Size
  - 03=NG10
  - 06=NG20
  - 10=NG32
- 2B3A: Oil drain type
  - 2B3A: normally closed
  - 2B3B: normally open to unload
  - 2B2B: two-stage B type
  - 2B2: two-stage type
  - 3C2: three-stage type
  - 3C3:two-stage plug normally open unloading
- 2: pressure adjustment scope
  - 1: *~700bar
  - 2:35~140bar
  - 3:70~250bar
- D24: Coil voltage
  - D12 24=DC12V 24V
  - A110 220=AC110V 220V
  - R110 220=RAC110V 220V
- L:
  - H : DIN 43650 connector
  - L : DIN 43650 connector with lamp
  - B : with terminal box

DZ Series Pilot Operate Sequencing Valves

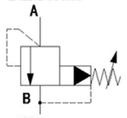
Product Series



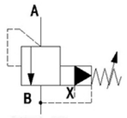
Remark:
Subplate mounting
Mounting surface according to DIN24340 D type AND 5781
Used as block installation
Four type of pressure scope
Four adjustment type
With knob
Adjusting bolt with protect cover
Locking-knob with scale
Knob with scale
Can select check valve

Spool Symbols

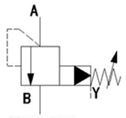
DZ...M
DZC...M



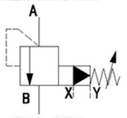
DZ...XM



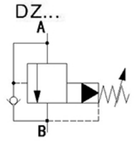
DZ...YM



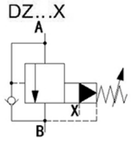
DZ...XYM
DZC...XYM



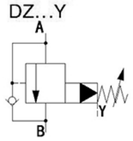
DZ...



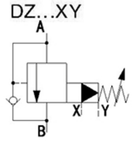
DZ...X



DZ...Y



DZ...XY



Ordering Code

DZ ___ + ___ - L50/ ___ ___ ___ ___

Pilot operated sequencing valve = no code
Pilot valve(without plug-in and terminal size marking) =C
Pilot valve (with plug-in and marking Ng30) =G

10=NG10
25=NG20
32=NG30

Regulating element
With knob =1
Adjusting bolt with protect cover=2
Locking-knob with scale =3
Knob with scale =7

no code = NBR Seals
V= FKM Seals

No code= with check valve
M= without check valve

Oil control
No code= internal supply and internal drain
X=external supply and internal drain
Y=internal supply and external drain
XY=external supply and external drain

5= pressure can reach to 5MPA
10= pressure can reach to 10MPA
20= pressure can reach to 20MPA
31.5= pressure can reach to 31.5MPA

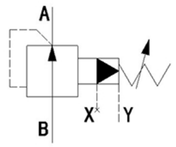
30= 30 series
L50= L50 series
(L50 is new series which can instead of 30 series)

Pressure valve

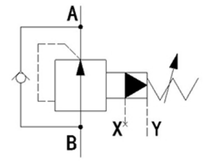
DR Series Pilot Operated Reducing Valves

Product Series

Spool Symbols



DR...Y type



DR...type

Remark:
Subplate mounting
Mounting surface according to DIN24340 D type AND 5781
Used as block installation
Thread connection
Five type of pressure scope

Four adjustment type
With knob
Adjusting bolt with protect cover
Locking-knob with scale
Knob with scale
Can select check valve(only suit to subplate mounting)

Ordering Code

DR ___ ___ ___ - L50/ ___ Y ___ / ___ ___

No code=pilot operated reducing valves
C=pilot valve without plug-in(no size marking)
C=pilot valve with plug-in (with size marking 30)

Size	connection way	
	subplate mounting	thread mounting
10	=10	=10
15		=15
20	=20	=20
25		=25
32	=30	=30

subplate mounting =-
thread mounting =G

Regulating element
With knob =4
Adjusting bolt with protect cover =5
Locking-knob with scale =6
Knob with scale =7

no code = NBR Seals
V= FKM Seals

Only suit to chamber X1 and Y1 of thread connecting and subplate mounting valve
no code= british thread
2= metric thread

No code=with check valve
M= without check valve

Y= Control oil effluent

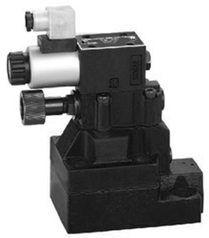
5= pressure can reach to 5MPA
10= pressure can reach to 10MPA
20= pressure can reach to 20MPA
31.5= pressure can reach to 31.5MPA
35= pressure can reach to 35MPA

30= 30 series
L50= L50 series
(L50 is new series which can instead of 30 series)

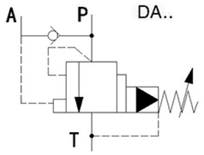
Pressure valve

DA/DAW Series Pilot Operated Unloading Valves

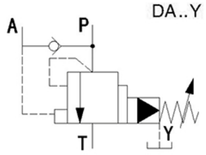
Product Series



Spool Symbols

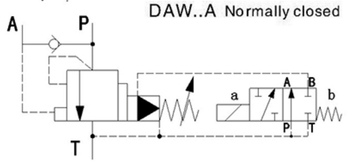


DA..

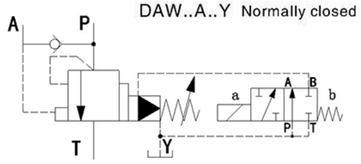


DA..Y

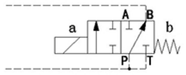
DAW..A Normally closed



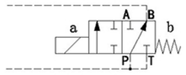
DAW..A..Y Normally closed



DAW..B Normally open



DAW..B..Y Normally open



Ordering Code

DA ___ ___ ___ + ___ + L50/ ___ + ___ / ___ ___ ___ ___

No code= without solenoid valve
W= with solenoid valve

No code=pilot operated valves
C=pilot valve without plug-in (no size marking)
C=pilot valve with plug-in (with size marking 30)

10= NG10
25= NG20
32= NG30

DAW (toward DAW valve)
normally closed =A
normally open =B

Regulating element
With knob =1
Adjusting bolt with protect cover=2
Locking-knob with scale =3
Knob with scale =7

30= 30 series
L50= L50 series
(L50 is new series which can instead of 30 series)

no code = NBR Seals
V= FKM Seals

Toward DAW valve
H: DIN43650 connector
L: DIN43650 connector (with lamp)

Toward DAW valve
N= Fault check button

Toward DAW valve
D12 D24= DC12V DC24V
A110 A220= AC110V AC220V
R110 R220=RAC110V RAC220V

Toward DAW valve
6E= high-performance solenoid directional valve

No code= internal drain
Y= external drain

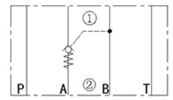
Pressure change(P-A)
10= center scope 10%
17= center scope 17%

5= pressure adjustment scope 0-5MPA
10= pressure adjustment scope5-10MPA
20= pressure adjustment scope10-20MPA
31.5=pressure adjustment scope20-31.5MPA

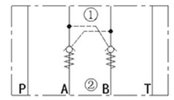
Z2S Series Modular Type Hydraulic Control Check Valve

Product Series

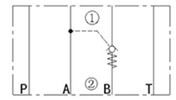
Spool Symbols



Z2S-A

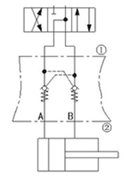


Z2S



Z2S -B

☆ ①=Valve side
②=subplate side



Circuit diagram

Remark
Z2S check valve is the modular type hydraulic control check valve ,
it using to close one or more chamber oil , no leakage ,with good stability.

Ordering Code

Z2S 10 ___ ___ ___ ___

modular hydraulic control check valve

size
6=NG6
10=NG10
16=NG16
22=NG22

no code = both chamber A and B has check valve
A= chamber A with the check valve
B= chamber B with the check valve

with detail description

no code = NBR Seals
V= FKM Seals

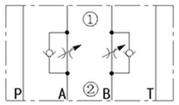
10 NG10 Series NO.
30 NG 16.22 Series NO.
40 NG6 Series NO.
10-19 structure and dimension is same
30- 39 structure and dimension is same
40- 49 structure and dimension is same

Z2FS Series Modular Check Valve

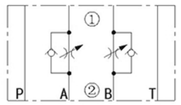
Product Series

Spool Symbols

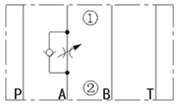
☆ ①=Valve side
②=subplate side



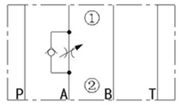
Z2FS input throttle



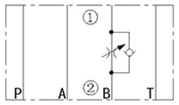
Z2FS output throttle



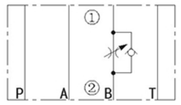
Z2FS-A input throttle



Z2FS-A output throttle



Z2FS-B input throttle



Z2FS-B output throttle

Remark
Z2FS type modular check valve , it control the flow through the way to change fracture surface .

Ordering Code

Z2FS	10		3X /			

modular type check valve

size
6=NG6
10=NG10
16=NG16
22=NG22

chamber A,B with throttle =blank
chamber A with throttle =A
chamber B with throttle =B

3X = Series 3X
30–39 structure and dimension same

input throttle = S
output throttle= S2
change the input and output throttle only have to rotated the valve 180 degrees

no code = NBR Seals
V= FKM Seals

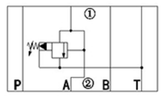
additional remark:

ZDB/Z2DB Modular Type Relief Valve

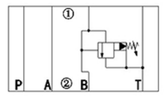
Product Series

Spool Symbols

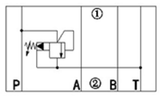
ZDB6VA



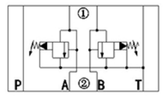
ZDB6VB



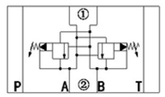
ZDB6VP



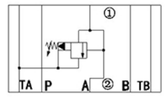
Z2DB6VC



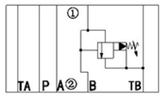
Z2DB6VD



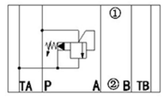
ZDB10VA



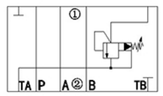
ZDB10VB



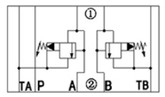
ZDB10VP



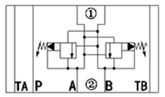
Type ZDB10VT



TypeZDB10VC



Type ZDB10VD



☆ ①=Valve side
②=subplate side

Ordering Code

Z		DB	10			L40 /		

Modular type=Z

Just applicaple VC and VD
with 2 piug in relief valve

Pilot relief valve=DB

Size 6=NG6 10=NG10

Relief function from to
A→TA =VA
P→TA =VP
TB1→TA2 ONLY NG10 available=VT
B→TB =VB
A→TA and B→TB =VC
A→B and B→A =VD

no code = NBR Seals
V= FKM Seals

5= pressure can adjust to 5Mpa
10= pressure can adjust to10Mpa
20= pressure can adjust to20Mpa
31.5=pressure can adjust to31.50Mpa

L40 =L40
40–49 structure and dimension same

With knob =1
Adjusting bolt with protect cover =2
Locking–knob with scale =3
Knob with scale =7

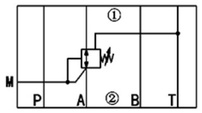
ZDR Series Modular Reducing Valve

Product Series

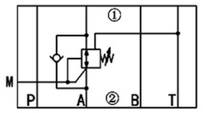
Remark:
Modular type
Mounting surface according to
DIN24340 D type AND ISO4401
Four type of pressure scope
Three adjustment type
With knob
Adjusting bolt with protect cover
Locking-knob with scale
Can connector pressure gage
Can select check valve

Spool Symbols

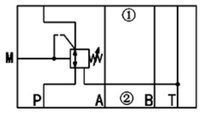
ZDR6DA···YM



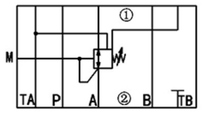
ZDR6DA···Y



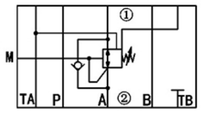
ZDR6DP···YM



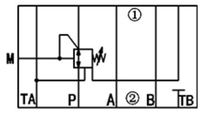
ZDR10DA···YM



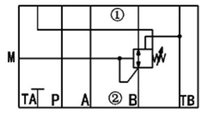
ZDR10DA···Y



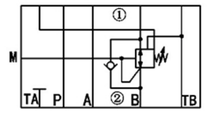
ZDR10DP···YM



ZDR10DB···YM



ZDR10DB···Y



型号说明

☆ ①=Valve side
②=subplate side

Z	DR	6	D			L40		Y		

Modular type=Z

Reducing valve =DR

Size 6=NG6 10=NG10

direct operation=D

Pressure reducing at chamber A2=A
Pressure reducing at chamber B2=B
Pressure reducing at chamber P1=P

With knob =1
Adjusting bolt with protect cover=2
Knob with locking =3

30 series NG6=30
40 series NG10=40

no code = NBR Seals
V= FKM Seals

No code= with check valve
(only DA and DB10 available)
M=without check valve

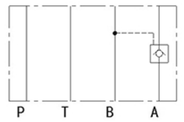
Y= oil internal supply external drain

2.5= max pressure2.5Mpa
7.5=max pressure 7.5Mpa
15= max pressure 15Mpa
21= max pressure 21Mpa

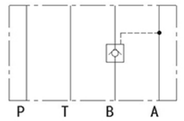
MPCV Series Modular Type Hydraulic Control Check Valve

Product Series

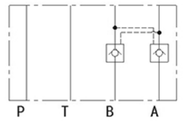
Spool Symbols



MPCV-A



MPCV-B



MPCV-W

Ordering Code

MPCV	02	W	20

design NO:

function bore
A= bore A
B= bore B
W= A & B bore

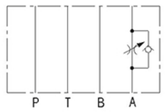
Size
02= NG6
03= NG10

modular type hydraulic control check valve

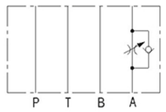
MTCV Series Modular Type Hydraulic Control Check Valve

Product Series

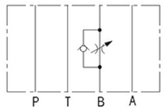
Spool Symbols



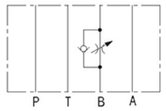
MTCV-A



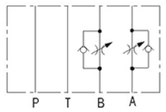
MTCV-AI



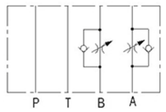
MTCV-B



MTCV-BI



MTCV-W



MTCV-WI

Ordering Code

MTCV	02	W	K		20

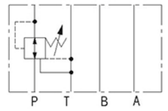
- design code
- control type
  - blank : output throttle
  - I: input throttle
- Adjustment type
  - blank : no knob (customization)
  - K: with plastic knob (standard)
- function bore
  - A= bore A
  - B= bore B
  - W= A & B bore
- Size
  - 02= NG6
  - 03= NG10
- modular type check valve

Modular valve

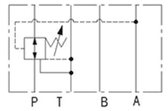
MBRV Series Modular Pressure Reducing Valves

Product Series

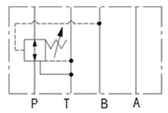
Spool Symbols



MBRV-P



MBRV-A



MBRV-B

Ordering Code

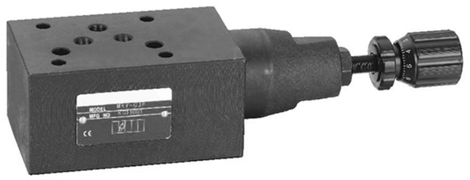
MBRV	02	P	K	0	20

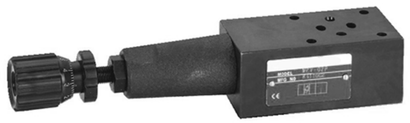
- design code
- pressure adjustment scope
  - 0:1.5~35bar
  - 1: 8~70bar
  - 2:35~140bar
  - 3:70~250bar
- Adjustment type
  - blank : no knob (customization)
  - K: with plastic knob (standard)
- Function bore
  - bore P
  - bore A
  - bore B
- Size
  - 02= NG6
  - 03= NG10
- modular type pressure reducing valve

Modular valve

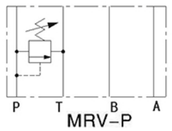
MRV Series Modular Type Relief Valves

Product Series

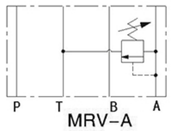




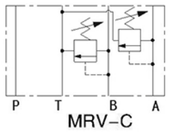
Spool Symbols



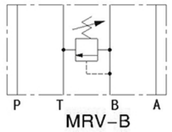
MRV-P



MRV-A



MRV-C



MRV-B

Ordering Code

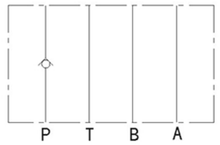
MRV	02	P	K	2	20

- 20: design code
- 2: pressure adjustment scope
  - 1: 8~70bar
  - 2:35~140bar
  - 3:70~250bar
- K: Adjustment type
  - blank : no knob (customization)
  - K: with plastic knob (standard)
- P: function bore
  - P:P hole A:A hole B:B hole
  - A & B series connection
- 02: Size
  - 02= NG6
  - 03= NG10
- MRV: modular relief valves

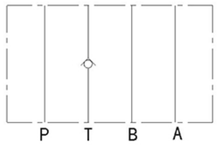
MCV Series Modular Type Check Valves

Product Series

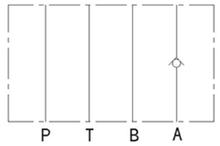
Spool Symbols



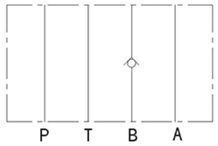
MC-P



MC-T



MC-A



MC-B

Ordering Code

MC	02	P	50	20

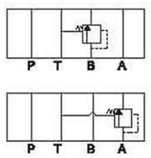
- 20: design code
- 50: open pressure
  - 05:0.35bar
  - 50:3.5bar
- P: Function bore
  - P:bore P
  - A:bore A
  - B: bore B
  - T:bore T
- 02: Size
  - 02= NG6
  - 03= NG10
- MC: modular check valves

MSV叠加式顺序阀 Modular sequence valves

■选购指南 How to order

MSV	03	P	2
系列编号 Series number	称呼口径Valve size 02 03 04 06	动作型式 Action from A: A port (L) B: B port (R)	压力调整范围 Pressure adj.range 1: 7-70 2: 35-140 3: 70-210

油压记号 Symbol



■规格说明 Specification

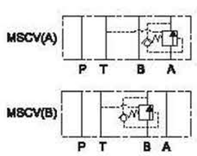
型号 Model	额定压力 Rated pressure (kgf/cm²)	压力调整范围 Pressure adjusting range (kg/cm²)	最大流量 Max. flow (L/min)	重量 Weight (kg)
MSV-02A MSV-02B	250	1: 8-70 2: 10-140 3: 35-250	02:40	1.4
MSV-03A MSV-03B			03:80	4.2
MSV-04A MSV-04B			04:200	7.2
MSV-06A MSV-06B			06:300	12.9

MSCV叠加式抗衡阀 Modular counter balance valves

■选购指南 How to order

MSCV	03	P	2
系列号 Series	称呼口径Valve size 02 03 04 06	动作型式 Action form A: A port (L) B: B port (R)	压力调整范围 Pressure adj.range 1: 7-70 2: 35-140 3: 7-210 4:100-350

油压记号 Symbol

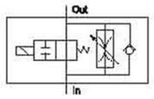


■规格说明 Specification

型号 Model	额定压力(kgf/cm²) Rated pressure	压力调整范围 (kg/cm²) Pressure adjusting range	最大流量 (L/min) Max. flow	重量(kg) Weight
MSCV-02A MSCV-02B	250	1: 8-70 2: 20-250	02:40	1.4
MSCV-03A MSCV-03B			03:80	4.2
MSCV-04A MSCV-04B			04:200	7.2
MSCV-06A MSCV-06B			06:300	12.9

FSC电磁流量阀(压力补偿式) Solenoid flow control valves (pressure compensated)

■符号 Symbols

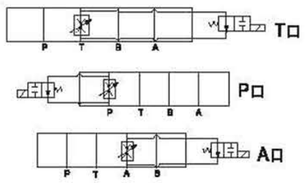


■规格说明 Specification

型号 Model	流量调整范围 Flow adjusting range (L/min)	最高使用压力 Max.operated pressure (kg/cm²)	自由流量 Free flow L/min	接头口径 Connection size	重量 Weight (kg)
FSC-G02-1-※	0.01～1	100	20-40	PT1/4	1.92
FSC-G02-2-※	0.01～2				
FSC-G02-4-※	0.01～4				
FSC-G03-2-※	0.01～2	100	30-60	PT3/8	2.62
FSC-G03-4-※	0.01～4				
FSC-G03-8-※	0.01～8				

MFST叠加式电磁流量阀 (压力补偿式) Modular solenoid flow valves (pressure compensated)

符号 Symbols

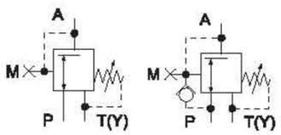


■规格说明 Specification

型号 Model	流量调整范围 Flow adjusting range (L/min)	最高使用压力 Max.operated pressure (kg/cm²)	自由流量 Free flow (L/min)	接头口径 Connection size	重量 Weight (kg)
MFST-02-2-※	0.01～2	70-140	20-30	PT1/4	2.22
MFST-02-4-※	0.01～4				
MFST-02-6-※	0.01～6				
MFST-03-2-※	0.01～2	70-140	30-60	PT3/8	3.55
MFST-03-4-※	0.01～4				
MFST-03-8-※	0.01～8				
MFST-03-12-※	0.01～12				

DR6DP型5X直动式减压阀 Pressure reducing valves, direct operated

符号 Symbol

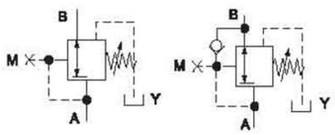


■ 选购指南 How to order

DR6DP	-	L5X	-	-	-	Y	-	*
系列号 Series	调整元件 旋钮=1 Rotary knob 带护罩的调节螺栓=2 Sleeve with hexagon and protective cap 带刻度有锁旋钮=3 Lockable rotary knob with scable 带刻度旋钮=7 Rotary knob with scable	系列 50至59=L5X (50至59:外形互换) Un-changed Installa-tion and connec-tion di-mensions	最高次级压力 Max.pressure 2.5MPa=2.5 7.5MPa=7.5 15MPa=15 21MPa=21 31.5MPa=31.5	Y=控制油内部供给 控制油外部泄油 Pilot oil supply internal pilot oil drain external	无标记=带单向阀 None=With check valve M=不带单向阀 Without check valve	无标记=英制螺纹 None=British 2=公制螺纹 Metric	无代号=丁腈橡胶密封， None=NBR 适用于矿物油 Suitable for min-eral oil (HL,HLP) 按DIN 51524 V=氟橡胶密封， V=FKM 适用于磷酸脂油液(HFD-R) Suitable for pho-spate ester	其它细节用文字说明 Further detail In clear text

DR10DP型4X直动式减压阀 Pressure reducing valves, direct operated

符号 Symbol

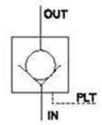


■ 选购指南 How to order

DR10DP	-	L4X	-	-	-	Y	-	*
系列号 Series	调整元件 旋钮=1 Rotary knob 带护罩的调节螺栓=2 Sleeve with hexagon and protective cap 带刻度有锁旋钮=3 Lockable rotary knob with scable 带刻度旋钮=7 Rotary knob with scable	系列 40至49=L4X (40至49:外形互换) Un-changed installation and con-nection dimen-sions	最高次级压力 Max.pres-sure 2.5MPa=2.5 7.5MPa=7.5 15MPa=15 21MPa=21	Y=控制油内部供给 控制油外部泄油 Pilot oil supply internal pilot oil drain external	无标记=带单向阀 None=Check valve M=不带单向阀 Without check valve	无标记=英制螺纹 None=British 2=公制螺纹 Metric	无代号=丁腈橡胶密封， None=NBR 适用于矿物油 Suitable for min-eral oil (HL,HLP) 按DIN 51524 V=氟橡胶密封， V=FKM 适用于磷酸脂油液(HFD-R) Suitable for phospate ester	其它细节用文字说明 Further detail in clear text

CPDT、CPDG液控单向阀 Pilot operated check valves

符号 Symbol



■ 选购指南 How to order

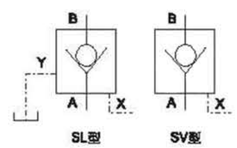
CPD	G	06	05	E
系列号 Series CP标准型 Stan-dard CPD 液控单向阀 Pilot operated check valves	安装型式Mounting G: 板式安装 Sub-plate mounting T: 管式安装 Threaded connections	规格 Valve size 03: 3/8" 06: 3/4" 10: 1 1/4"	开启压力 Cracking pressure A1: 0.4 A2: 3.5	E: 外泄/outer drain 无标记：内泄/inner drain

■ 规格说明 Specification

型号 Model		额定流量 Rated flow (L/min)	最高使用压力 Max.operated pressure (kgf/cm²)	开启压力 Opening pressure (kgf/cm²)	重量 Weight (kg)	
管式 Thread type	板式 Sub-plate type				T	G
CPDT-03	CPDG-03	50	250	A1: 0.4 A2: 3.5	3.4	4.5
CPDT-06	CPDG-06	125	250		6.2	7.0
CPDT-10	CPDG-10	300	250		11.6	12.0

SV/SL液控单向阀 Pilot and check valves

符号 Symbol



■ 选购指南 How to order

SV/SL	P	10	A	1	2	V	*
系列号 Series SV: 内泄 Inner drain SL: 外泄 Outer drain	板式连接: P Sub-plate 管式连接: G Thread	通径 Size G: 10, 15, 20, 25, 30 P: 10, 20, 30	A: 先导型 Pilot type B: 直动型 Direct type	开启压力 Opening pressure 1=0.3MPa 2=0.5MPa 3=0.8V	无标记 = 英制 None=British 2=公制Metric	无标记 = 丁腈橡胶 None=NBR V=氟橡胶 V=FKM	其它细节用文字说明 Further detail in clear text

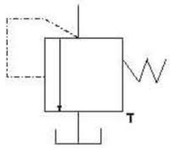
DBD型直动溢流阀 Pressure relief valves, direct operated

■选购指南 How to order

DBD	-	G					-
系列号 Series	带保护罩的调节螺栓=S Grub screw with hexagon and protectiove cap 调节手柄=H Rotary knob 带锁的调节手柄(保用于通径6.8和10)=A Lockable rotary knob(size 6.8 and 10)	连接方式 Connection		G	K	P	连接方式 Connection 插装式=K Cartridge 螺纹连接=G Thread 板式安装=P Sub-plate
		通径 Size	G1/4	M14×1.5	6	6	6
			G3/8	M18×1.5	8	-	-
			G1/2	M22×1.5	10	10	10
			G3/4	M27×2	15	-	-
			G1	M33×2	20	20	20
			G1 1/4	M42×2	25	-	-
			G1 1/2	M48×2	30	30	30

10	G				-	-	*
系列数10=10系列(10~19系列内部结构和连接尺寸相同) Unchanged Installation and connection dimensions	压力级 Pressure degree	NG 10	NG 6-20	NG 25-30	英制=无标记 None=British 2=公制 Metric	工作介质 Working medium 无代号=矿物油 None=Mineral oil V=磷酸酯油 V=Phosphate-ester	其它细节用文字说明 Further detail in clear text
		2.5MPa 5MPa 10MPa 20MPa 31.5MPa 40MPa 63MPa	2.5MPa 5MPa 10MPa 20MPa 31.5MPa 40MPa	2.5MPa 5MPa 10MPa 20MPa 31.5MPa			

符号 Symbol

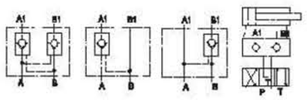


Z2S型叠加式液控单向阀 Modular pilot operated check valves

■选购指南 How to order

Z2S	-	-		-	-
系列号 Series	通径 Size 6=6 10=10 16=16 22=22	无标记=A, B两腔有单向阀 None=Port A,B with check valve A=A腔有单向阀 Port A with check valve B=B腔有单向阀 Port B with check valve		10 10通径系列号Size 30 16,22通径系列号 Size 40 6通径系列号 Size 10~19 系列内部结构及连接尺寸相同 30~39 40~49 Unchanged installation and connection dimensions	无代号=矿物油 None=Mineral oil V=磷酸酯油 Phosphate-ester

符号 Symbol



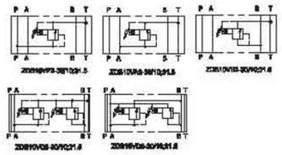
Z1S型叠加式单向阀 Modular check valves

■选购指南 How to order

Z1S	-	-	-	-	-	-	*
系列号 Series	通径 Size 6=6 10=10		1=开启压力0.05MPa Opening pressure 2=开启压力0.3MPa Opening pressure 3=开启压力0.5MPa Opening pressure	30=30系列(金属密封型) Metal seal (30-39安装和连接尺寸不变) Unchanged Installation and connection dimensions	无代号=丁腈橡胶密封 None=NBR V=氟橡胶密封 FPM		其它细节用文字说明 Further detail in clear text

ZDB10/Z2DB10型叠加式溢流阀 Modular relief valves

符号 Symbol

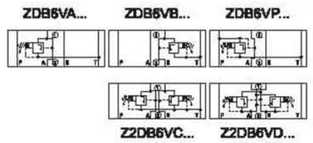


■规格说明 Specification

流量 Flow (L/min)	100
工作压力 Working pressure (MPa)	31.5
设定压力 Setting pressure (MPa)	10或31.5
液压油 Hydraulic oil	矿物油、磷酸酯Mineral oil, Phospate ester
油温范围 Temperature range (℃)	-20...+80
粘度 Viscosity (mm^2/s)	10~380
重量 Weight ZDB 10...(kg)	2.4
Z2DB 10...(kg)	2.6

ZDB6/Z2DB6型叠加式溢流阀 Modular relief valves

符号 Symbol



■规格说明 Specification

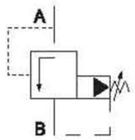
流量 Flow (L/min)	60
工作压力 Working pressure (MPa)	31.5
设定压力 Setting pressure (MPa)	10或31.5
液压油 Hydraulic oil	矿物油、磷酸酯 Mineral oil, Phospate ester
油温范围 Temperature range (℃)	-20...+80
粘度 Viscosity (mm^2/s)	10~380
重量 Weight ZDB 6...(kg)	1.0
Z2DB 6...(kg)	1.2

BT、BG先导式溢流阀 Pilot operated relief valve

■选购指南 How to order

B	G	-06	B
系列号 Series	连接型式 Type of connection G: 板式Sub-plate type T: 管式Threaded type	通径 Valve size 03: 3/8" 04: 1/2" 06: 3/4" 10: 1 1/4"	压力调整范围 Pressure adj.range B: 10-70kgf/cm^2 C: 35-140kgf/cm^2 H: 70-250kgf/cm^2

符号 Symbol



■规格说明 Specification

型号 Model		最高使用压力 Max.operated pressure (kgf/cm^2)	压力调整范围 Pressure adjusting range (kg/cm^2)	额定流量 Rated flow (L/min)	重量 Weight (kg)	
板式 Sub-plate type	管式 Thread type				板式 Sub-plate type	管式 Thread type
BG-03	BT-04	250	B: 10-70	100	5.0	2.4
BG-06	BT-06		C: 35-140	200	6.0	4.0
BG-10	BT-10		H: 70-250	400	8.7	7.0