

# DN04 Modular Pilot Check Valve

## Technical specification



|                                |   |
|--------------------------------|---|
| DN                             | 4   |
| Max. working pressure (MPa)    | 31.5  |
| Max. Flow (L/min)              | 30  |
| Working fluid                  | Mineral oil; phosphate-ester  |
| Fluid temp. (°C)               | -20~70  |
| Viscosity (mm <sup>2</sup> /s) | 2.8~500   |
| Opening pressure (MPa)         | a 0.2    b 0.4  |
| Cleanliness                    | The maximum allowable cleanliness of the oil should be according to 9th degree of Standard NAS1638. It is suggested that the minimum filter rating should be $\beta_{10} \geq 75$ . |

## Model description

HYAM2CP - \* - \* / \* 10 \*

Dn04 Modular pilot check valve

Remarks

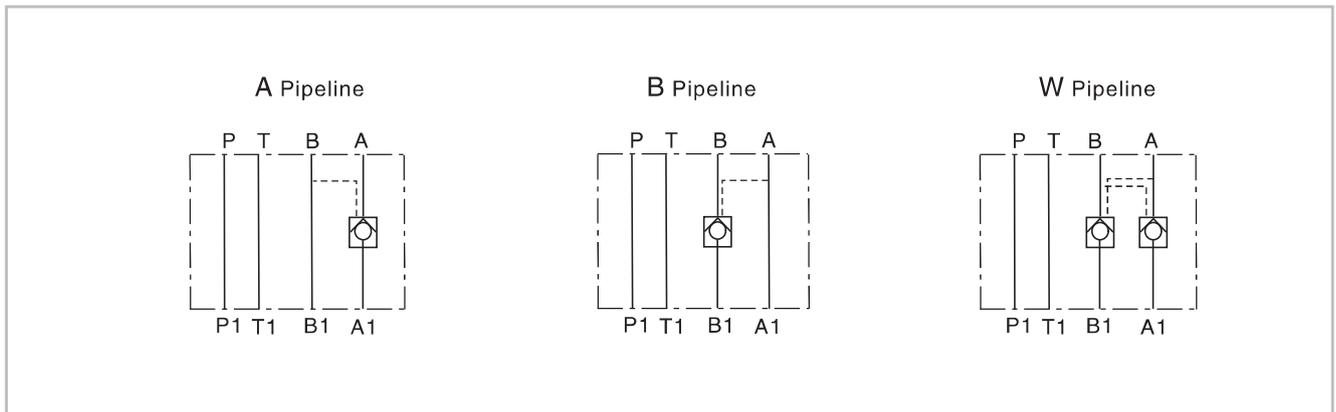
Serial number

Seal material  
Omit NBR Seals  
V FPM Seals

A A Pipeline  
B B Pipeline  
W AB Pipeline

Opening pressure  
a 0.2MPa  
b 0.4MPa

## Code symbol





# DN04 Solenoid Valve

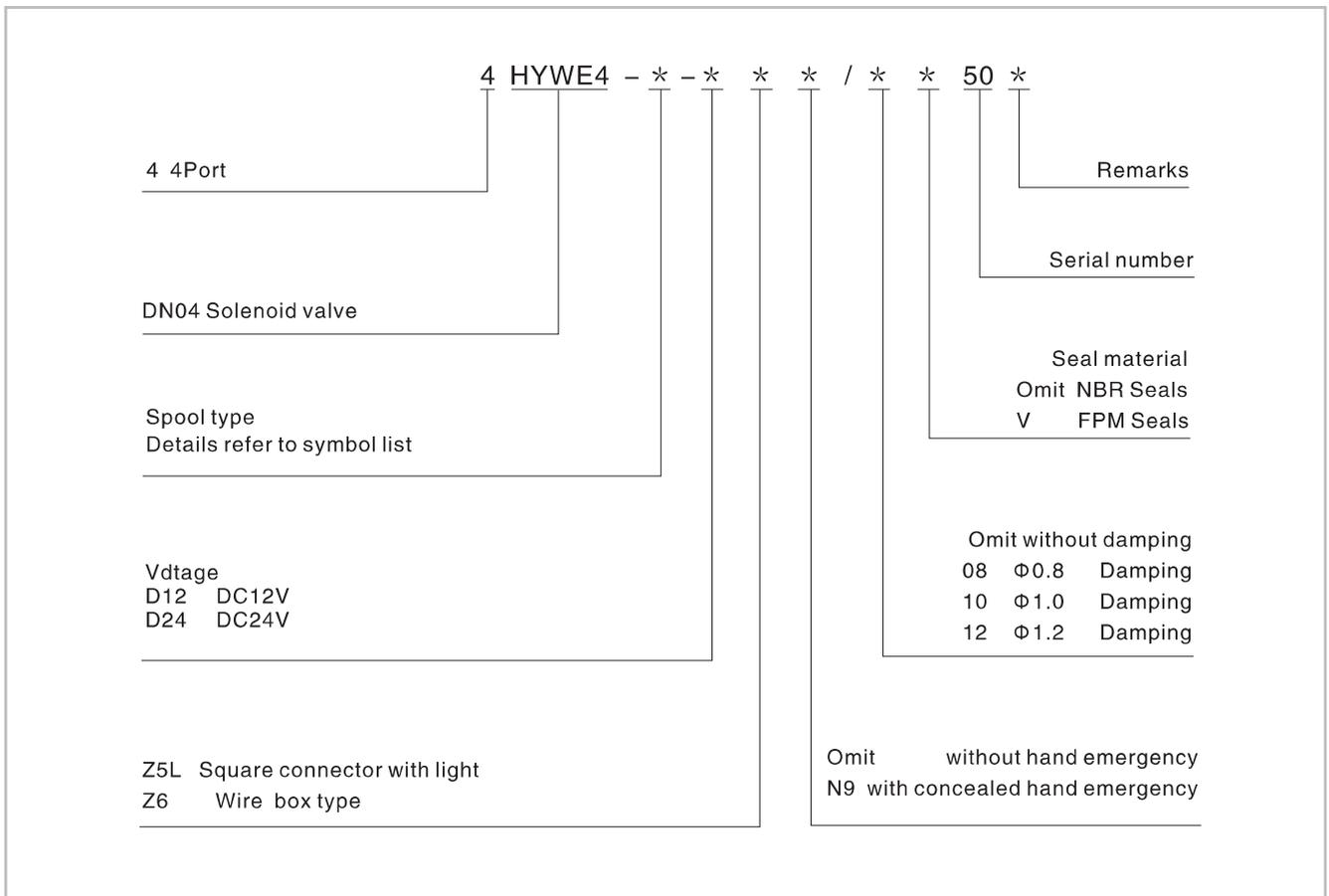
## Technical specification



|                                |   |       |
|--------------------------------|---|-------|
| Specification                  | 04  |       |
| Max. working pressure (MPa)    | Port P, A, B  | 25    |
|                                | Port T  | 10    |
| Max. Flow (L/min)              | 25  |       |
| Working fluid                  | Mineral oil; phosphate-ester  |       |
| Fluid temp. (°C)               | -20~70  |       |
| Viscosity (mm <sup>2</sup> /s) | 2.8~100   |       |
| Working voltage (V)            | DC 12   | DC 24 |
|                                | IP55  |       |
| Cleanliness                    | The maximum allowable cleanliness of the oil should be according to 9th degree of Standard NAS1638. It is suggested that the minimum filter rating should be $\beta_{10} \geq 75$ . |       |

Solenoid valve is controlled by the solenoid to move the spool, so as to control the oil flow direction. It could be used in hydraulic system directly, control the oil on/off; also could be used as pilot valve, to control other valves.

## Model description



# DN04 Solenoid Valve

## Code symbol

Spring return

|     |  |      |  |       |  |      |  |
|-----|--|------|--|-------|--|------|--|
| 3C2 |  | 2B2B |  | 2B2BL |  | 2B2  |  |
| 3C3 |  | 2B3B |  | 2B3BL |  | 2B3  |  |
| 3C4 |  | 2B4B |  | 2B4BL |  | 2B2L |  |
| 3C6 |  | 2B6B |  | 2B6BL |  | 2B3L |  |

F.2.2

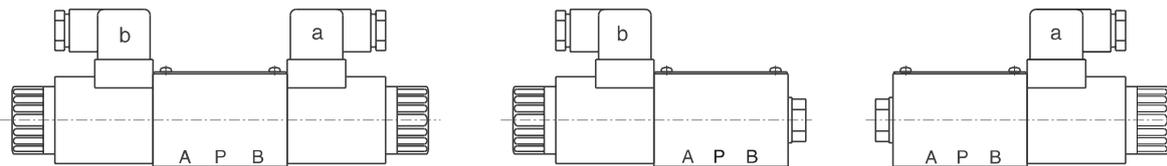
With detent

|  |     |
|--|-----|
|  | 2D2 |
|  | 2D3 |

No spring return and no detent mechanical positioning

|  |     |
|--|-----|
|  | 2N2 |
|  | 2N3 |

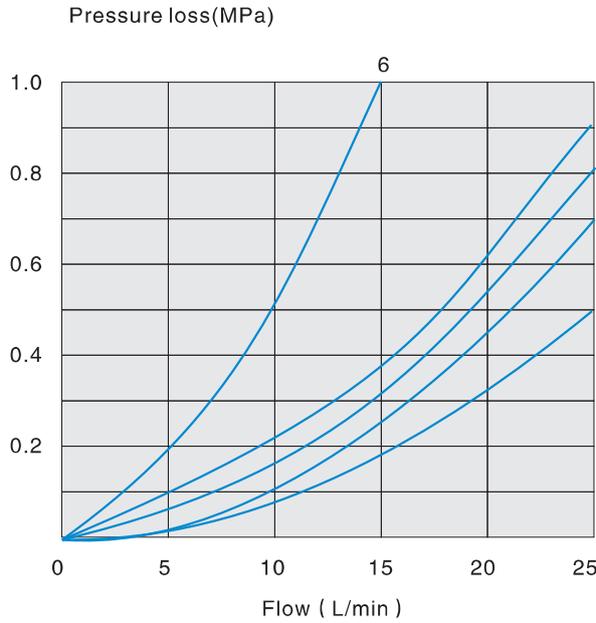
## Name of solenoid



1. a When movement a, P→A B→T
2. b When movement b, P→B A→T
3. Oil flow in the opposite direction with the above-mentioned movement for 3C5, 3C6symbol Valve.

# DN04 Solenoid Valve

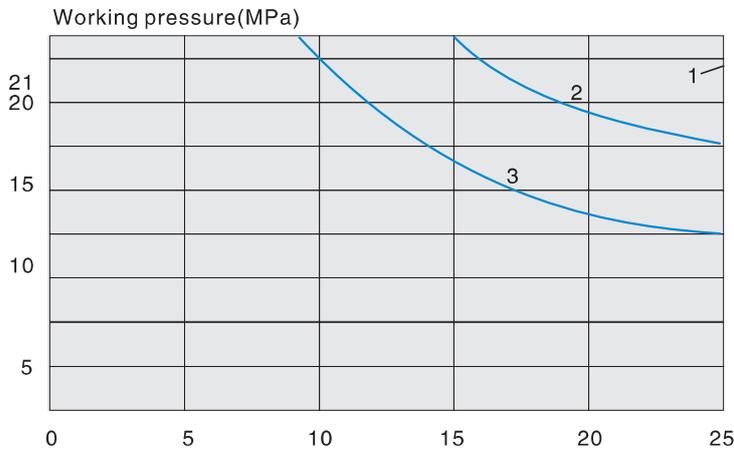
**Specification** Performance curve ( Measured at  $v=41\text{mm}^2/\text{s}$  and  $t=50^\circ\text{C}$  )



| Function code | Direction |     |     |     |     |
|---------------|-----------|-----|-----|-----|-----|
|               | P→A       | P→B | A→T | B→T | P→T |
| 2B2 2B2L      | 5         | 5   | 4   | 4   | -   |
| 3C2           | 4         | 4   | 3   | 3   | -   |
| 3C6           | 3         | 3   | 4   | 4   | 6   |
| 3C3           | 1         | 1   | 1   | 1   | -   |
| 3C4           | 5         | 5   | 3   | 3   | -   |

## Specification Working limits

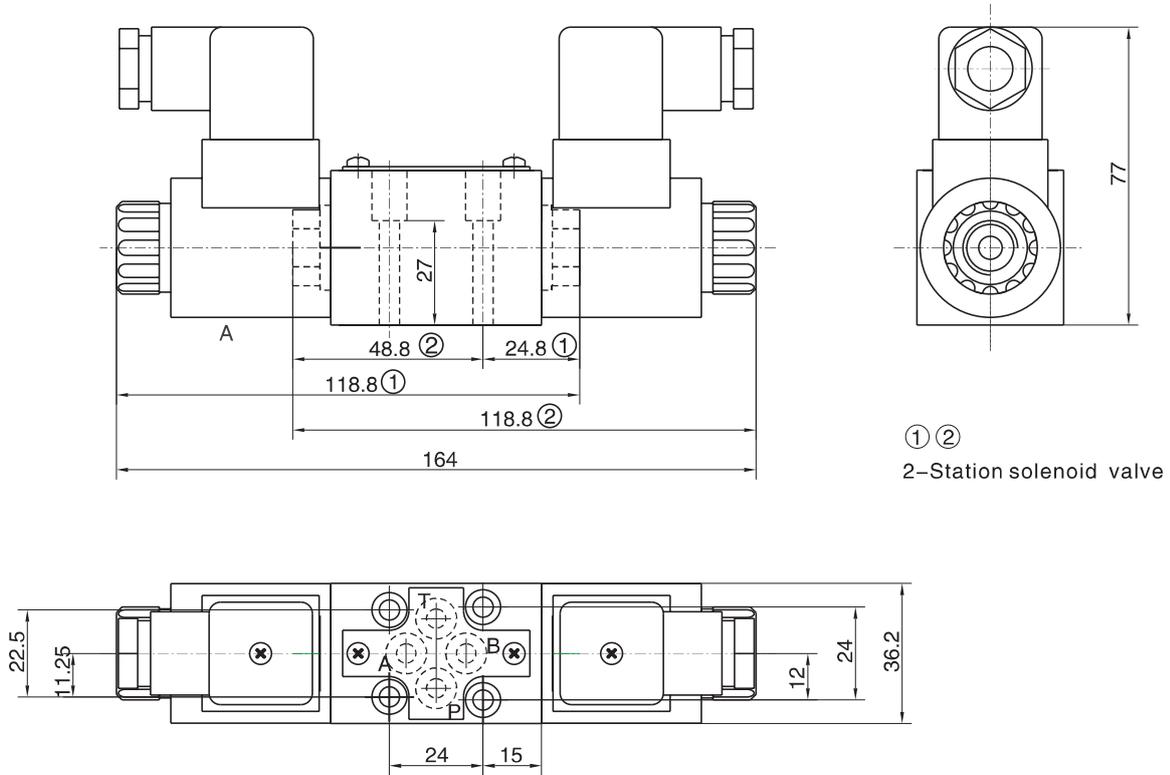
With regard to the four-way valve, the normal flow data as shown is get from the regular use of two directions of the flow (e.g. P to A, and simultaneous return flow from B to T). See tables. If only one flow direction is needed, for example: When a four port valve which is closed up port A or port B, used as a three-way valve, the Maximum flow may be very small in the serious condition.  
(The working limits for directional valves have determined by using solenoids at their operating temperature, 10% under voltage and with no pre-loading of the tank)



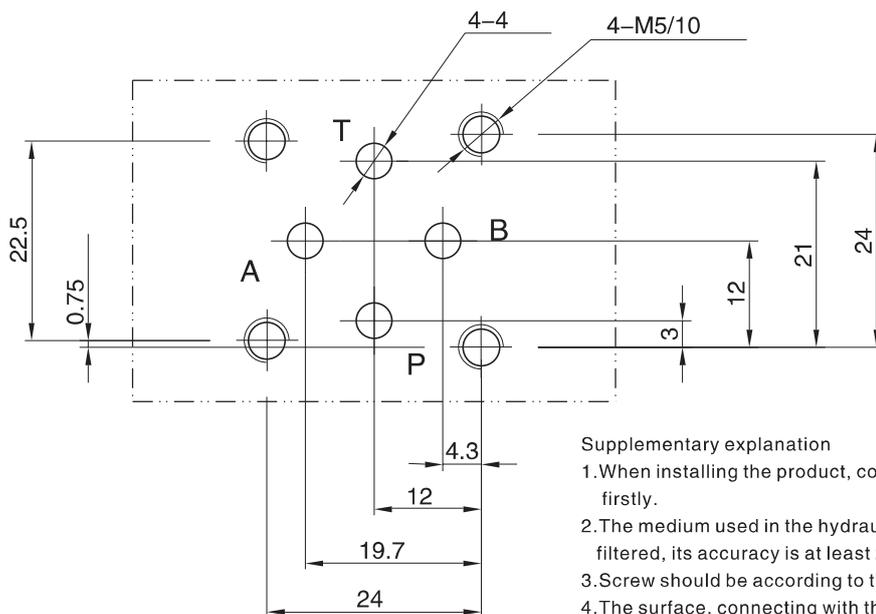
| Cunoe | Spool            |
|-------|------------------|
| 1     | 2B2 2D2 2N2 2B2L |
| 2     | 3C2 3C4          |
| 3     | 3C6              |

# DN04 Solenoid Valve

## External dimensions



## Size of subplate



### Supplementary explanation

1. When installing the product, considering horizontal position firstly.
2. The medium used in the hydraulic system must be filtered, its accuracy is at least  $20 \mu\text{m}$ .
3. Screw should be according to the parameters in catalogue.
4. The surface, connecting with the valve, should be Ra0.8 roughness, and 0.01/100mm flatness.

# Modular Relief Valve

## Technical specification

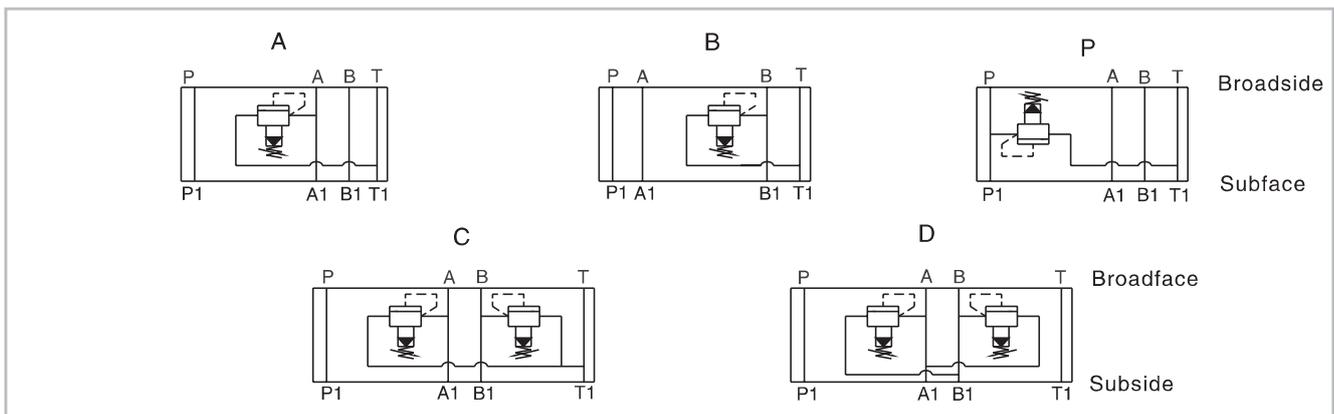


| Specification                  | 02   | 03  |
|--------------------------------|--|-----|
| Max working pressure (MPa)     | 31.5   |     |
| Max F (L/min)                  | 60   | 100 |
| Working fluid                  | Mineral hydraulic oil; phosphate ester hydraulic oil         |     |
| Fluid temp.(°C)                | -20~70   |     |
| Viscosity (Mm <sup>2</sup> /s) | 10~800   |     |
| Working voltage (MPa)          | 5, 10, 20, 31.5  |     |
| Cleanliness                    | NAS1638 Class 9, recommended filtration precision Min β ≥75. |     |

## Ordering code

| Modular relief valve |               | Remark                            |   |
|----------------------|---------------|-----------------------------------|---|
| Size                 | DY - *        | Serial number                     | * |
| 02 DN 6              |               | Seal material                     |   |
| 03 DN 10             |               | omit NBR                          |   |
|                      |               | V FPM                             |   |
| Relief method        | * - * - * / * | 1 handle                          |   |
| P P→T                |               | 2 with hexagon and protective cap |   |
| A A→T                |               |                                   |   |
| B B→T                |               |                                   |   |
| C A→T, B→T           |               |                                   |   |
| D A→B, B→A           |               |                                   |   |
|                      |               | Pressure range                    |   |
|                      |               | 5 upto 5MPa                       |   |
|                      |               | 10 upto 10MPa                     |   |
|                      |               | 20 upto 20MPa                     |   |
|                      |               | 31.5 upto 31.5MPa                 |   |

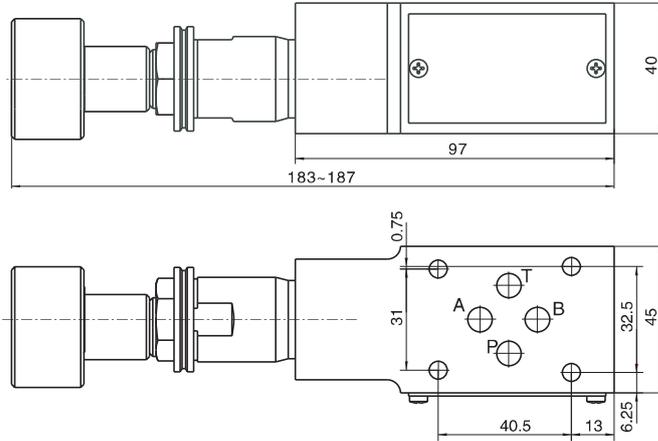
## Hydraulic symbol



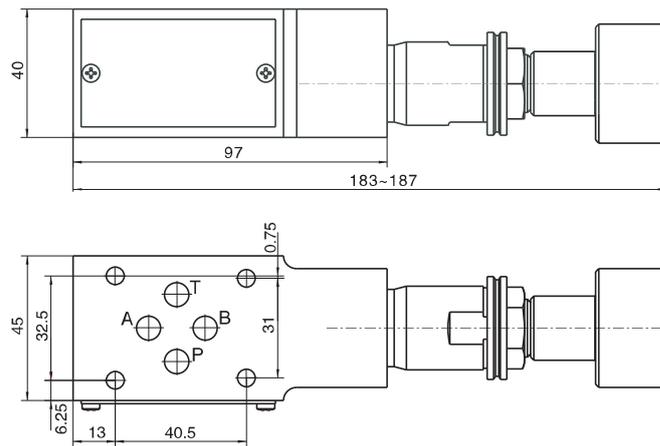
# Modular Relief Valve

## External dimensions

DY-02A



DY-02B,P



DY-02C, D

