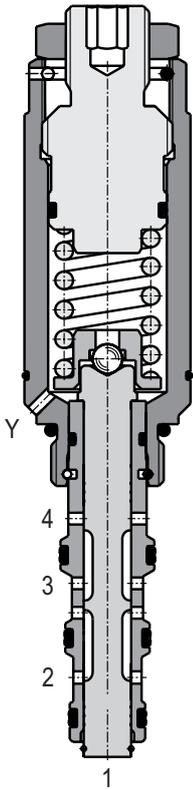


**SD6H-AY4**

3/4-16 UNF •  $Q_{max}$  30 l/min (8 GPM) •  $p_{max}$  350 bar (5100 PSI)



**Technical Features**

- > 3-way hydraulically operated screw-in cartridge valve
- > Two basic spool types
- > Two pressure ranges for pressure setting
- > Adjustable pressure needed for changeover of spool position
- > External drainage of spring chamber – stable setting
- > The surface of the valve body and the adjusting screw are zinc-coated for 240 h protection acc. to ISO 9227

**Functional Description**

The valve is intended to a distribution of working hydraulic fluid with the help of spool moving in the steel bush by pressure acting on the front surface of spool (1). The pressure needed for the changeover of the spool position is set by spring compression with the help of adjusting screw. The point transfer of spring force to the front surface of spool by means of a hardened steel ball eliminates the effect of radial forces and protects the spool against jamming in the bush. Two basic spool connections are available. In the interposition of spool all three ports (2, 3, 4) are connected to each other (2D26) or mutually separated (2D29). The fluid from the spring chamber is unloaded through the external drain outlet (Y) and cannot influence the set pressure value.



The spool is fully shifted within the control pressure (1) increase range 3 bars above the cracking pressure value. When moving the spool back to its initial position due the spring force after the control pressure drop, a hysteresis must be taken into account.

| Model Code | 2D26 |  | 2D29 |  |
|------------|------|--|------|--|
| Symbol     |      |  |      |  |

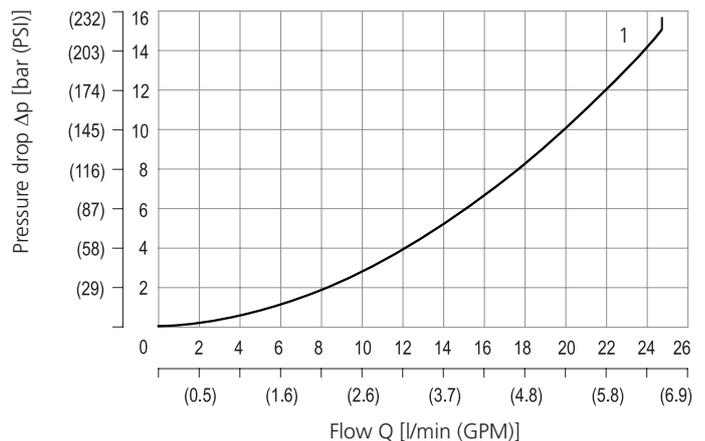
**Technical Data**

| Valve size / Cartridge cavity              |                                 | 3/4-16 UNF-2A / AY4                                     |                       |
|--|---------------------------------|---|-----------------------|
| Max. flow                                  | l/min (GPM)                     | 30 (7.9)  |                       |
| Max. operating pressure                    | bar (PSI)                       | 350 (5100)  |                       |
| Max. pressure in the spring space (Y)      | bar (PSI)                       | 30 (435)  |                       |
| Max. internal leakage in the direction 4→1 | cm <sup>3</sup> /min            | ≤ 35 p <sub>r</sub> i 250 bar (v=32 mm <sup>2</sup> /s) |                       |
| Fluid temperature range (NBR)              | °C (°F)                         | -30 ... 100 (-22 ... 212)                               |                       |
| Fluid temperature range (FPM)              | °C (°F)                         | -20 ... 120 (-4 ... 248)                                |                       |
| Fluid viscosity range                      | mm <sup>2</sup> s <sup>-1</sup> | 10 ... 500  |                       |
| Pressure for changeover of spool position  |                                 | 6   | 13                    |
|  | bar (PSI)                       | 10 - 60 (145 - 870)                                     | 35 - 130 (510 - 1890) |
| Pressure drop                              |                                 | see Δp - Q Characteristics                              |                       |
| Weight                                     |                                 | 2D26  | 2D29                  |
|  | kg (lbs)                        | 0.30 (0.66)   | 0.40 (0.88)           |
|  | Datasheet                       | Type  |                       |
| General information                        | HA 0060                         | Products and operating conditions                       |                       |
| Cavity details / Form tools                | HA 0019                         | SMT-AY4*  |                       |
| Spare parts                                | HA 8010                         |   |                       |

**Characteristics** measured at v = 32 mm<sup>2</sup>/s (156 SUS)

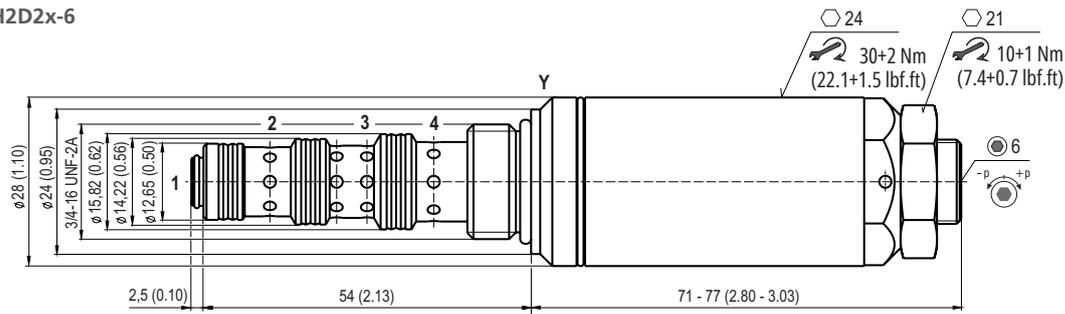
**Pressure drop related to flow rate**

|   | Model | Connection |
|---|-------|------------|
| 1 | 2D26  | 2→3        |
| 1 | 2D26  | 3→4        |
| 1 | 2D29  | 2→3        |
| 1 | 2D29  | 3→4        |

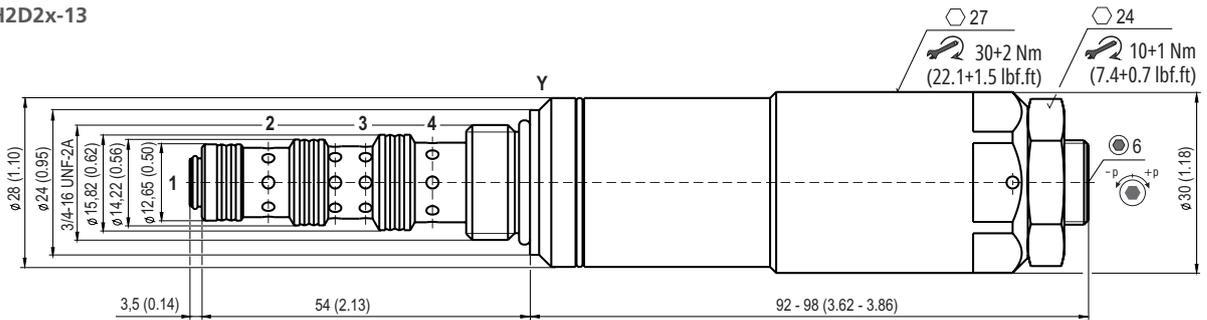


**Dimensions** in millimeters (in)

**SD6H-AY4/H2D2x-6**



**SD6H-AY4/H2D2x-13**



**Ordering Code**

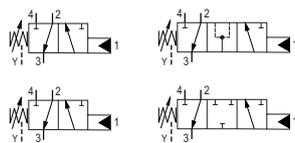
**SD6H - AY4 / H**  -  **S**  - **A**

**3/2 Hydraulically operated directional control valve screw-in cartridge design**

**Valve cavity**  
3/4-16 UNF-2B

**Model**  
High performance

**Functional symbol**



**Surface treatment**  
zinc-coated (ZnCr-3), ISO 9227 (240 h)

**No designation**  
V

**Seals**  
NBR  
FPM (Viton)

**Adjustment option**  
allen key (hex. 6)

**Range of adjustable pressure for changeover of spool position**  
6 10 - 60 bar (145 - 870 PSI)  
13 35 - 130 bar (510 - 1890 PSI)