

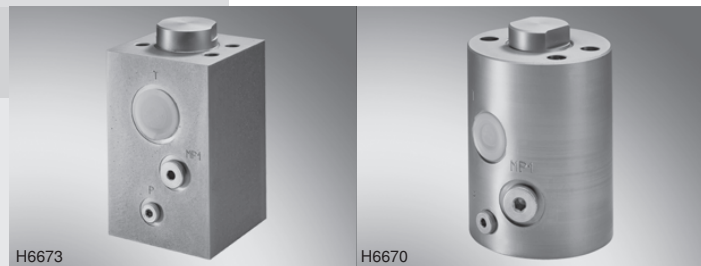
# Pump pre-load valve for the SYDFE control system

**RE 29255/01.12**  
Replaces: 06.10

1/4

## Type SYDZ 0001

Series 1X  
Maximum operating pressure 350 bar



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## Features

SYDZ 0001 pump pre-load valves are used when the flow from A10VSO variable displacement pumps with a SYDFE control must be controllable at operating pressures lower than 12 bar and only internal pilot oil is available for adjustment.

SYDZ 0001 pump pre-load valves are provided with an integrated pre-load and maximum pressure relief feature.

**Note:** The pressure relief feature will be set according to the ordering code (see page 2) and cannot be adjusted

The valve is mounted directly onto the SAE pressure port of the A10VSO variable displacement pump (see RE 92711 and RE 92714).

## Further information on the SYDFE control system

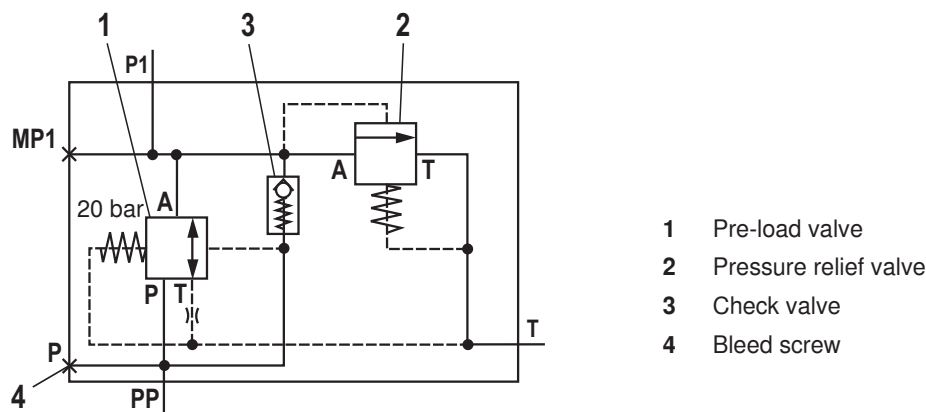
| Type                            | Data sheet |
|---------------------------------|------------|
| SYDFE1-2X, SYDFEE-2X, SYDFEC-2X | 30030      |
| SYDFEn-2X                       | 62240      |
| SYDFE1-3X, SYDFEE-3X, SYDFEC-3X | 30630      |
| SYDFEn-3X                       | 62241      |

Functional description

The pre-load function is only effective within the pressure range of up to 20 bar. If the operating pressure in port P1 exceeds 30 bar, the pre-load valve (1) is fully open. In order to limit the maximum pressure, a factory-preset pressure relief valve (2) is integrated into the pre-load valve (see ordering details). In addition, an integrated check valve (3) allows the pressure to be controlled in the range < 20 bar.

**Note:**  
The pressure relief function is purely a safety function and is not suitable for continuous use!  
The system must be bled during commissioning.

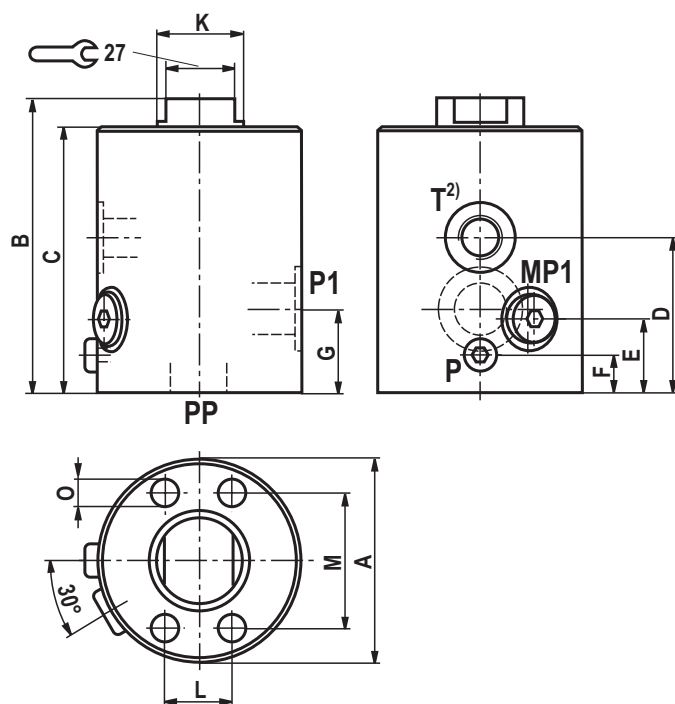
Symbol



Ordering code (only for separate order of the pre-load valve)

|                                                                                 |  |      |  |                                                           |                  |
|---------------------------------------------------------------------------------|--|------|--|-----------------------------------------------------------|------------------|
| SYDZ 0001                                                                       |  | 1X/  |  | M                                                         | *                |
| Pump pre-load valve for the SYDFE closed loop control system                    |  |      |  | Further details in clear text                             |                  |
| Series 10 to 19<br>(10 to 19: unchanged installation and connection dimensions) |  | = 1X |  | M = Seals suitable for mineral oil (HL, HLP) to DIN 51524 |                  |
| Pressure limitation 200 bar                                                     |  |      |  | <b>Pump type and nominal size</b>                         |                  |
| Pressure limitation 250 bar                                                     |  |      |  | V028 =                                                    | A10VSO NS18/28   |
| Pressure limitation 300 bar                                                     |  |      |  | V045 =                                                    | A10VSO NS45      |
|                                                                                 |  |      |  | V071 =                                                    | A10VSO NS71      |
|                                                                                 |  |      |  | V140 =                                                    | A10VSO NS100/140 |

## Unit dimensions NS18, 28 and 45 (dimensions in mm)



| NS              | 18/28                  | 45                   |
|-----------------|------------------------|----------------------|
| A               | Ø75                    | Ø80                  |
| B               | 115                    | 115                  |
| C               | 104                    | 104                  |
| D               | 60,5                   | 60,5                 |
| E               | 30                     | 29                   |
| F               | 14                     | 15                   |
| G               | 30                     | 33                   |
| K               | Ø34                    | Ø34                  |
| L               | 22,2                   | 26,2                 |
| M               | 47,6                   | 52,4                 |
| O               | 4 x Ø10,5              | 4 x Ø10,5            |
| PP              | SAE 3/4" <sup>1)</sup> | SAE 1" <sup>1)</sup> |
| P1              | G1/2                   | G3/4                 |
| P               | G1/8                   | G1/8                 |
| MP1             | G1/4                   | G1/4                 |
| T <sup>2)</sup> | G3/8                   | G3/8                 |

Not included within the scope of supply:

### Valve mounting screws

for NS18, 28 and 45:

4 hexagon socket head cap screws

ISO4762-M10X120-10.9-fZn-240h-L,

friction coefficient :  $\mu_{\text{total}} = 0.09$  to  $0.14$  to VDA 235-101,

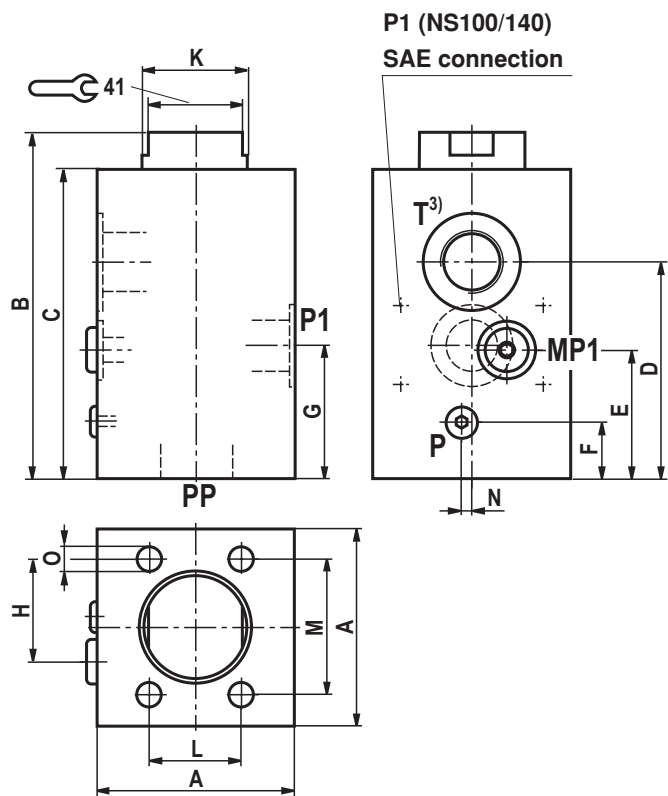
tightening torque  $M_A = 50$  Nm,

material no. **R913000074**

<sup>1)</sup> to DIN ISO 6162-1

<sup>2)</sup> The pipework must be of type **L** (light series).

Unit dimensions NS71, 100 and 140 (dimensions in mm)



| NS              | 71                       | 100/140                  |
|-----------------|--------------------------|--------------------------|
| A               | 85                       | 85                       |
| B               | 150                      | 147                      |
| C               | 134                      | 131                      |
| D               | 94                       | 91                       |
| E               | 55                       | 52                       |
| F               | 24                       | 24                       |
| G               | 56                       | 56,5                     |
| H               | 44                       | 48                       |
| K               | Ø45                      | Ø45                      |
| L               | 30,2                     | 31,8                     |
| M               | 58,7                     | 66,7                     |
| N               | 4,5                      | 4,5                      |
| O               | 4 x Ø10,5                | 4 x Ø15                  |
| PP              | SAE 1 1/4" <sup>1)</sup> | SAE 1 1/4" <sup>2)</sup> |
| P1              | G1                       | SAE 1 1/4" <sup>2)</sup> |
| P               | G1/8                     | G1/8                     |
| MP1             | G1/4                     | G1/4                     |
| T <sup>3)</sup> | G3/4                     | G3/4                     |

Not included within the scope of supply:

Valve mounting screws

for NS71:

4 hexagon socket head cap screws  
ISO4762-M10X150-10.9-flZn-240h-L,  
friction coefficient :  $\mu_{total} = 0.09$  to  $0.14$  to VDA 235-101,  
tightening torque  $M_A = 55$  Nm,  
material no. **R913000071**

for NS100 and 140:

4 hexagon socket head cap screws  
ISO4762-M14X150-10.9-flZn-240h-L,  
friction coefficient :  $\mu_{total} = 0.09$  to  $0.14$  to VDA 235-101,  
tightening torque  $M_A = 100$  Nm,  
material no. **R913000073**

<sup>1)</sup> to DIN ISO 6162-1

<sup>2)</sup> to DIN ISO 6162-2

<sup>3)</sup> The pipework must be of type **L** (light series).