Pump pre-load valve for the SYDFE control system

RE 29255/01.12
Replaces: 06.10

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

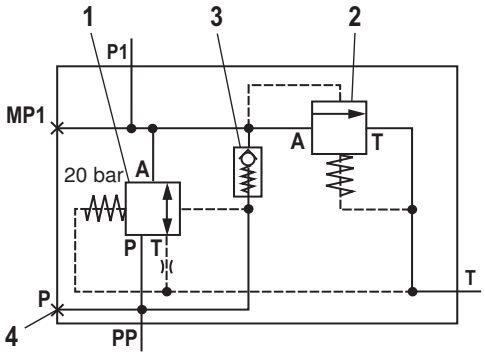
The pre-load function is only effective within the pressure range of up to 20 bar. If the operating pressure in port P1 exceeds 30 bar, the pre-load valve (1) is fully open. In order to limit the maximum pressure, a factory-preset pressure relief valve (2) is integrated into the pre-load valve (see ordering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



1 Pre-load valve
2 Pressure relief valve
3 Check valve
4 Bleed screw

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

Series 10 to 19 (10 to 19: unchanged installation and connection dimensions) = 1X

Pressure limitation 200 bar = 200
Pressure limitation 250 bar = 250
Pressure limitation 300 bar = 300

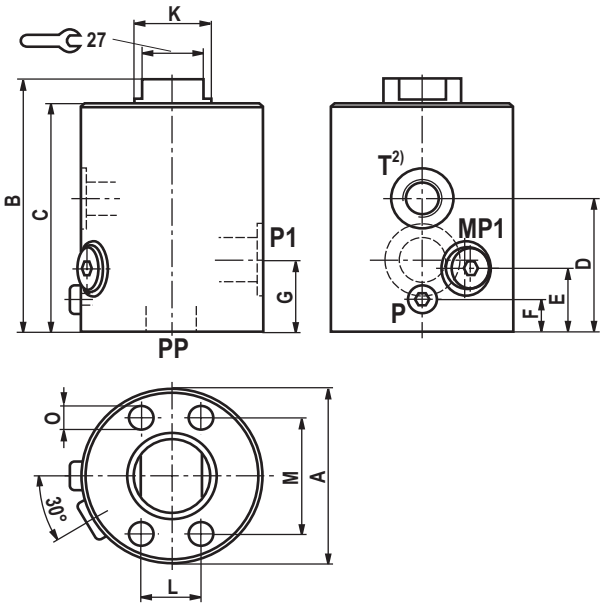
Further details in clear text

M = Seals suitable for mineral oil (HL, HLP) to DIN 51524

Pump type and nominal size

V028 = A10VSO NS18/28
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“ 1)	SAE 1“ 1)
P1	G1/2	G3/4
P	G1/8	G1/8
MP1	G1/4	G1/4
T 2)	G3/8	G3/8

Not included within the scope of supply:

Valve mounting screws

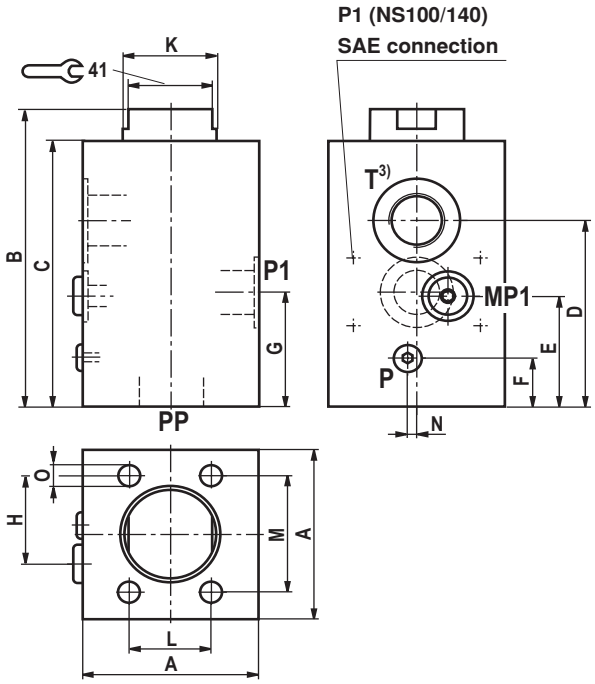
for NS18, 28 and 45:

4 hexagon socket head cap screws
ISO4762-M10X120-10.9-flZn-240h-L,
friction coefficient : μ_{total} = 0.09 to 0.14 to VDA 235-101,
tightening torque M_A = 50 Nm,
material no. **R913000074**

1) to DIN ISO 6162-1

2) 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“ 1)	SAE 1 1/4“ 2)
P1	G1	SAE 1 1/4“ 2)
P	G1/8	G1/8
MP1	G1/4	G1/4
T 3)	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 : μ_{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 : μ_{total} = 0.09 to 0.14 to VDA 235-101,
tightening torque M_A = 100 Nm,
material no. **R913000073**

1) to DIN ISO 6162-1

2) to DIN ISO 6162-2

3) The pipework must be of type **L** (light series).