

## D-30.12

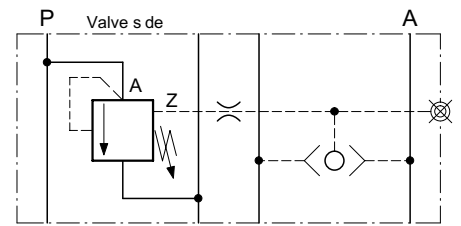
- Interface to ISO 4401 / E OP R35H size 03 NFPA D03 / DIN 24 340 A6
- Hydrostat spring adjustable from 7 ... 15 bar
- With integral damping orifice in Z line
- With integral shuttle valve between A and B
- Good corrosion protection, stainless steel adjusting screw
- Option: with LS signal port on the mounting interface

### Stacked Hydrostat, ISO size 3 Bypass Function, Direct Acting

Series SDWDP -2D ...  
30 l/min, 315 bar

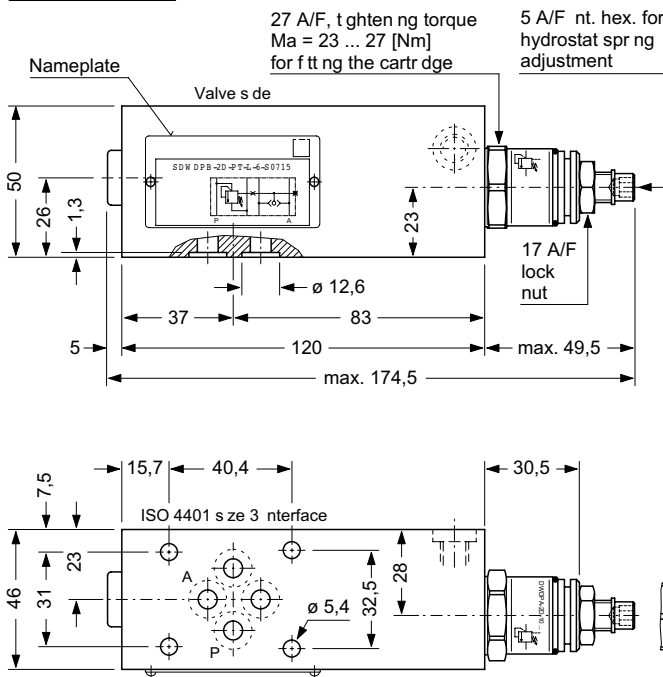


#### SYMBOLS



SDWDP -2D-P -L-6 ...

#### DIMENSIONS



#### DESCRIPTION

Series SDWDP ...-6 stack valves have a P-to-A hydrostat function and are applied as bypass hydrostats, adjustable from 7 ... 15 bar, in hydraulic circuits.

The adjustment feature permits on-site optimisation of the system without the need to replace components which have different flow ranges (e.g. proportional valves).

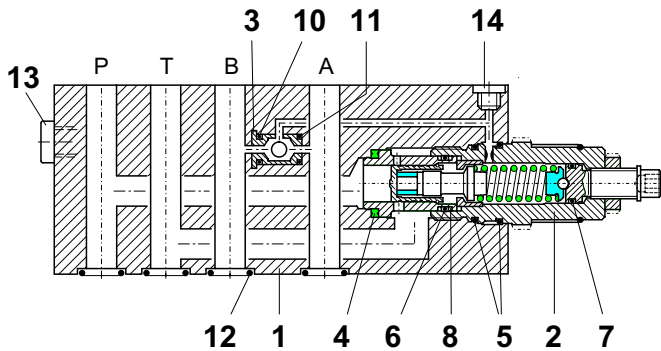
The orifice which is essential to ensure oscillation-free operation is already incorporated in the Z port of the cartridge.

The integral shuttle valve signals the higher of the load pressures in A or back to the hydrostat, which in turn maintains the pressure in P at a level which is higher still by the amount of the hydrostat spring setting.

In conjunction with an orifice or proportional valve located in the downstream P-to-A or P-to-B lines, the overall result produces the benefits of a 3-way flow control function (see the application example on page 3).

## SCHEMATIC SECTION

showing the relevant ports



## INSTALLATION AND SERVICING

**MUST BE CARRIED OUT WITH CARE, AND BY QUALIFIED PERSONNEL ONLY.**

At installation, be sure to mount the valve with the correct faces contacting the adjacent units and with all interface connections lining up properly.

When changing seals, the new seals should be thoroughly oiled or greased before fitting them to the valve.

Use the correct tightening torques when fitting the cartridge.

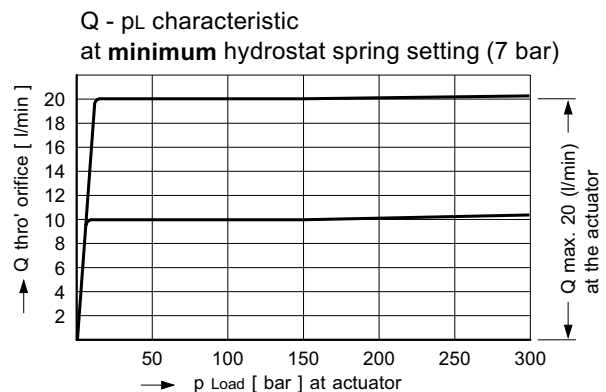
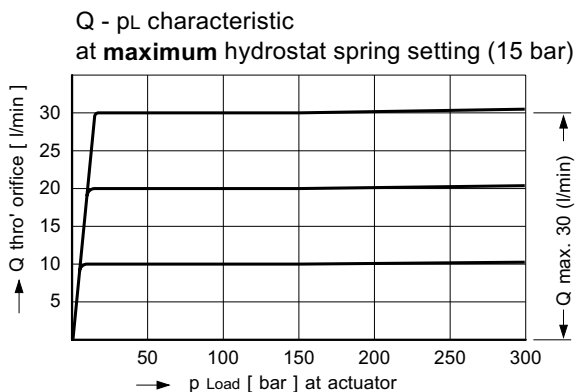
**NOTE** - before removing the cartridge, fully decompress the hydrostat spring by turning back the adjusting screw. If the hydrostat spring is compressed while the cartridge is removed, the cartridge neck will be pushed out of the cartridge head.

## MAIN CHARACTERISTICS

Type	stacking bypass hydrostat
Design	direct acting, sliding spool type
Mounting method	stack mounting
Size	ISO 4401 size 03 interface nominal 6 mm
Mass	1,95 kg
Mounting attitude	unrestricted
Flow direction	see symbol
Operating pressure	... 315 bar in P, A, B and T

Hydrostat spring	adjustable 7 ... 15 bar
Fluids	hydraulic oils HL and HLP to DIN 51 524 other fluids by arrangement
Min. fluid cleanliness	18/14 to ISO 4406 / CETOP RP70H 8 ... 9 to NAS 1638
Fluid temperature range	-20° ... +60° C
Viscosity range	10 ... 300 cSt
Flow rate Q max.	... 30 l/min
Flow rate Q max. attainable at the actuator	... 30 l/min with spring $\Delta p = 15$ bar ... 20 l/min with spring $\Delta p = 7$ bar

## PERFORMANCE DATA Oil viscosity 33 cSt



## COMPONENTS / SERVICE PARTS

lt.	Qty.	Description	
			*) = part of seal kit no. DS-267 ▲ = available as service part
1	1	Stacking body 50 x 46 x 120 type L-06	
2	1	Hydrostat cartridge type DWDPA-2D-10 ...	
3	1	Shuttle valve type RW-2,5	
	1	Seal kit no. DS-267, comprising *):	
4	1*)	Seal $\varnothing$ 22,1 / 16,5 x 2,5	
5	2*)	O-ring no. 020 $\varnothing$ 21,95 x 1,78 N90	
6	1*)	O-ring $\varnothing$ 14,00 x 2,00 N90	
7	1*)	O-ring no. 012 $\varnothing$ 9,25 x 1,78 N90	
8	2*)	Backup ring $\varnothing$ 18 / 15,2 x 1,2	
9			
10	1*)	O-ring $\varnothing$ 5,50 x 1,50 N90	
11	1*)	O-ring $\varnothing$ 4,00 x 1,50 N90	
12	4*)	O-ring no. 012 $\varnothing$ 9,25 x 1,78 N90	
13	1*)	Plug screw G 1/4" ED VSTI	
14	1*)	Plug screw G 1/8" ED VSTI	

### TO ORDER SERVICE PARTS, STATE:

- complete unit model code from the nameplate, including the design number
- data sheet number, including issue date
- part item number from above list
- part description from above list
- quantity required

## MODEL CODE KEY

Ex.

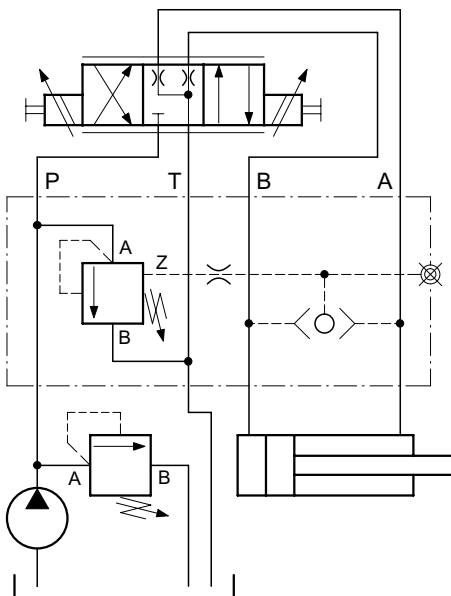
S D W D P B - 2 D - PT - L - 6 - S 0715 - 1

S	= stacking valve	
D	= pressure function	
W	= hydrostat	
D	= direct acting	
P	= with cartridge valve	
A ... Q	= standard model per relevant data sheet	}
Z ... R	= special features by arrangement	
2	= pressure control type 2	
D	= cavity type DD	
PT	= function from P to T	
L	= stacking body, code L	
6	= ISO 4401 size 3 interface, nominal 6 mm	
S	= with hex. skt. screw adjuster ( standard )	}
H	= with hand knob adjuster	
Z	= with lockable hand knob adjuster type Z4	
0715	= hydrostat spring 7 ... 15 bar (stepless adjustment)	
(blank)	= Nitrile seals ( standard )	}
V	= Viton seals	
S	= special seals by arrangement	
1 ... 9	= design number (omit when ordering new units)	

## RELATED DATA SHEETS

- i - 31      DIN 24 340 A6 interface
- D - 28.12    Hydrostat cartridge, series DWDP A-2D-10 ...
- R - 32      Shuttle valve, series RW-2,5

## APPLICATION EXAMPLE

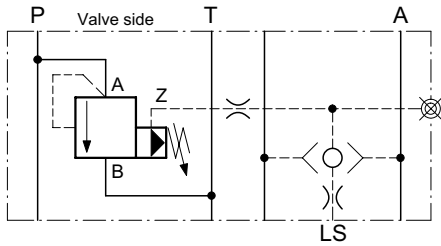


When combined with a downstream orifice or proportional valve, the bypass hydrostat provides a three-way flow control function, with its associated benefits.

These are:

- the maximum pressure in P is equal to the varying load pressure in A or B - whichever is the greater - plus the setting of the hydrostat spring. This means that any surplus oil is spilled off to tank at just above the load pressure, rather than at the main relief valve setting.
- the flow rate set by the orifice remains constant even as the load pressure fluctuates up or down
- if the control line Z is vented when the flow control orifice is closed, the hydrostat will unload the main flow circuit to tank.

Option with LS signal port



Function:

With this option it is possible to use the manifold block to signal the highest of the various load pressures in one or more stacking assemblies back to port Z of the hydrostat, thus avoiding the use of external pipework.