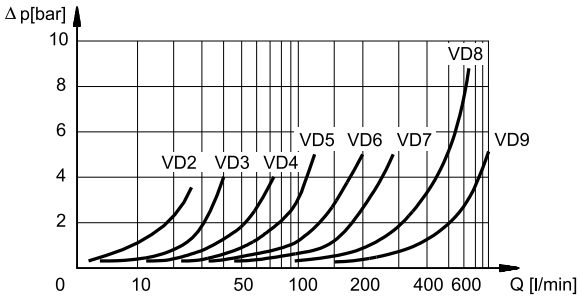
VD*-W*
CHECK VALVES
SERIES 30

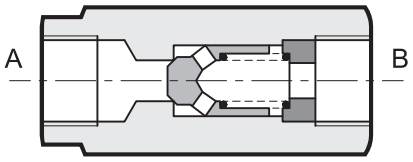
p max **400** bar
Q max (see table of performances)

PRESSURE DROPS Δp-Q



– Add the cracking pressure to the values shown in the diagram.
– Curves measured using mineral oil with viscosity of 36 cSt at 50°C.

OPERATING PRINCIPLE



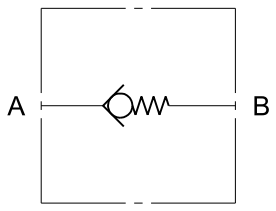
— VD*-W* valves are check valves with threaded “BSP” ports for mounting in-line on hydraulic lines.
— They allow the flow to pass freely in one direction, blocking it in the opposite direction.
— In rest conditions, the valve poppet is kept closed by a spring. The poppet opens when the pressure in the intake line “A” exceeds the set value of the spring, added to any pressure in the outlet line “B”.
— Available in eight sizes for flow rates of up to 850 l/min and with five different cracking pressures.

PERFORMANCES

Valve	BSP port dimension	Maximum flow rate [l/min]	Mass [kg]	Max operating pressure [bar]
VD2-W*	1/4”	25	0,17	400
VD3-W*	3/8”	40	0,26	
VD4-W*	1/2”	75	0,41	
VD5-W*	3/4”	125	0,6	
VD6-W*	1”	200	1,2	320
VD7-W*	1 ¼”	280	1,8	
VD8-W*	1 ½”	650	3,2	
VD9-W*	2”	850	4,8	

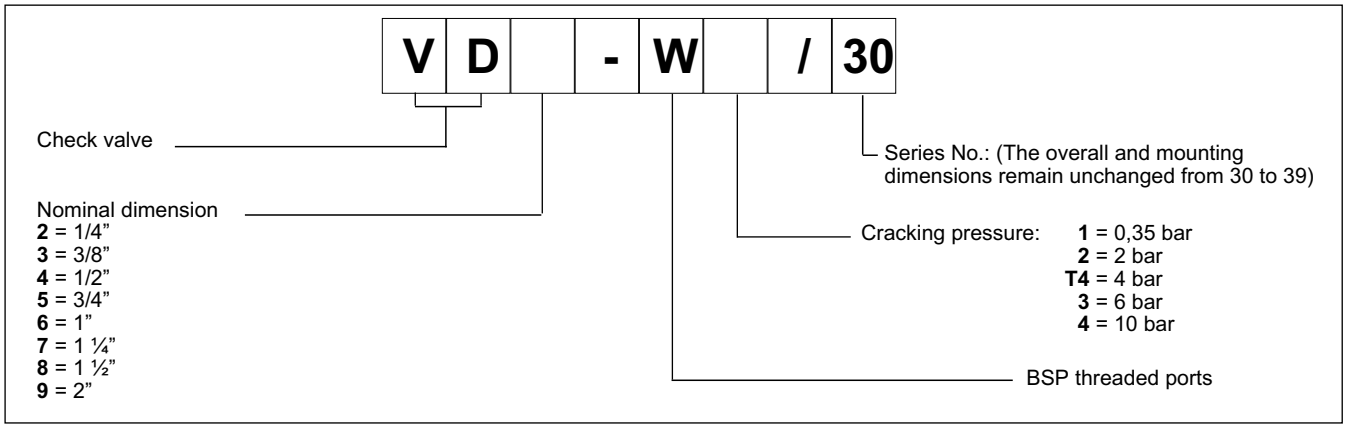
Ambient temperature range	°C	-20 / +60
Fluid temperature range	°C	-20 / +80
Fluid viscosity range	cSt	10 ÷ 400
Fluid contamination degree	cSt	25
Recommended viscosity	acc. to ISO 4406:1999 class 20/18/15	

HYDRAULIC SYMBOL



VD*-W*
SERIES 30

1 - IDENTIFICATION CODE

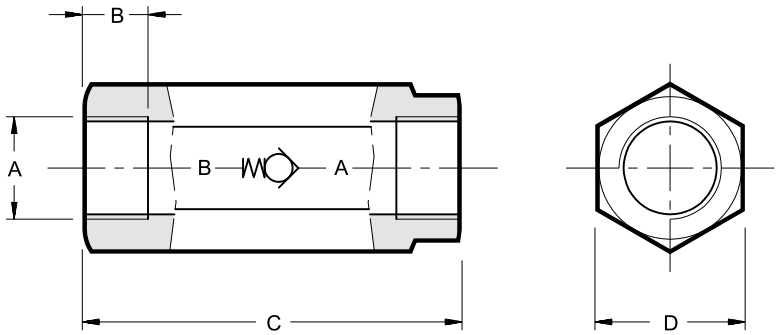


2 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4.
Using fluids at temperatures higher than 80 °C causes a faster degradation of the fluid and of the seals characteristics.
The fluid must be preserved in its physical and chemical characteristics.

3 - OVERALL AND MOUNTING DIMENSIONS

dimensions in mm



Valve	A BSP	B	C	D
VD2-W*	1/4”	12,5	63	22
VD3-W*	3/8”	12,5	69	27
VD4-W*	1/2”	15,5	80,5	32
VD5-W*	3/4”	17	99,5	36
VD6-W*	1”	20	117	46
VD7-W*	1 ¼”	22	134,5	55
VD8-W*	1 ½”	24	159	65
VD9-W*	2”	31	198	75