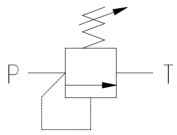
PRESSURE RELIEF VALVE - CARTRIDGE

Direct Operated | Cartridge | 315 bar

Specification/ Technical Data

Working Pressure	50…315 bar
Size	NG 6…NG 30
Max Flow	300 LPM
Type	Screw-in Cartridge
Adjustment	Screw or Knob
Min Settable Pressure	10% of range
Body Material	Carbon Steel
Media	Mineral Oil
Oil Temperature Range	+10 to 60°C
Oil Viscosity	ISO VG 46-100
Oil Cleanliness (ISO 4406)	20/18 /15
Orientation	Any
Weight (approx.)	0.5 - 2.2 Kg



FDBD type valves are direct-operated pressure relief or pressure limiting valves used in hydraulic systems for limiting and/or controlling maximum system pressure. These valves are essential to prevent damages due to over pressurisation of the system.

The valves use a spring loaded ball or poppet that prevents oil flow through it. When the system pressure exceeds the value set by the spring force, the ball/ poppet begins to lift off its seat thereby allowing some oil to flow through it. This pressure is termed as cracking pressure. Any decrease is the pressure again lowers the ball/ poppet into its seat preventing oil flow.

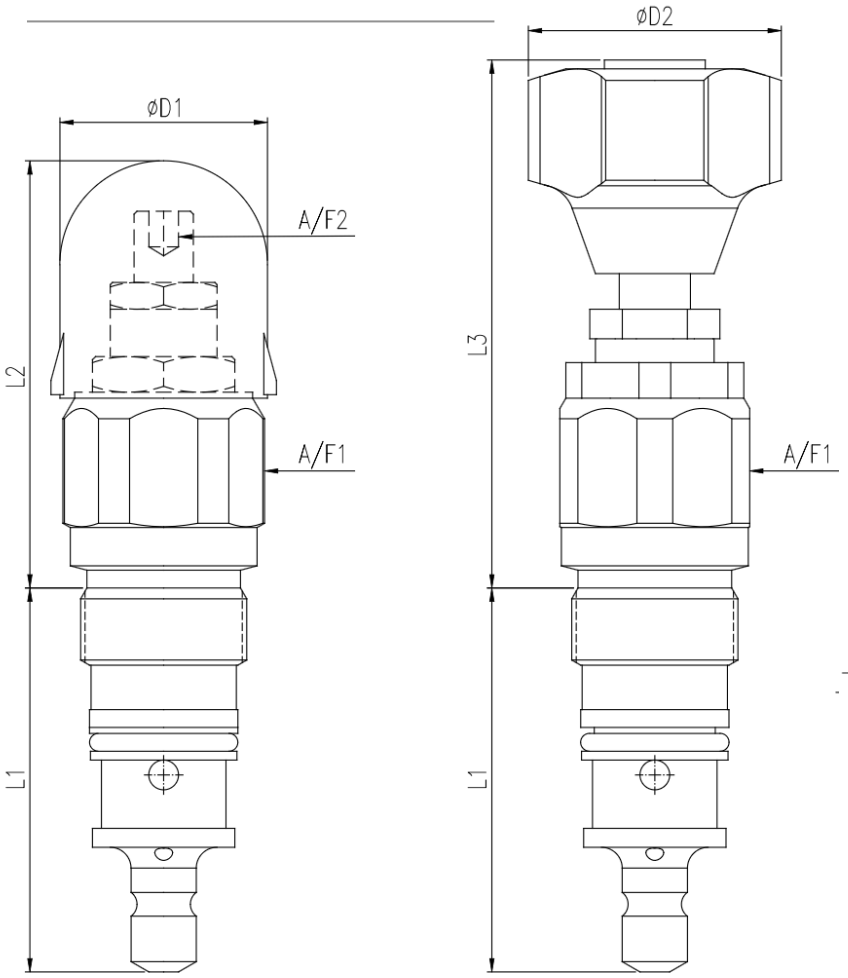
When the valve opens, hydraulic fluid is allowed to flow from the high-pressure inlet (P) to the lower-pressure outlet (T). By releasing excess fluid, the valve maintains the system pressure at or below the set value. The greater the flow, more the ball/ poppet lifts, creating a larger path for the fluid and preventing further pressure increase.

The back pressure in the lower pressure outlet port adds directly to the set pressure of the valve. This means that the actual system pressure at which the valve opens will be the sum of the spring setting and the pressure in the outlet line.

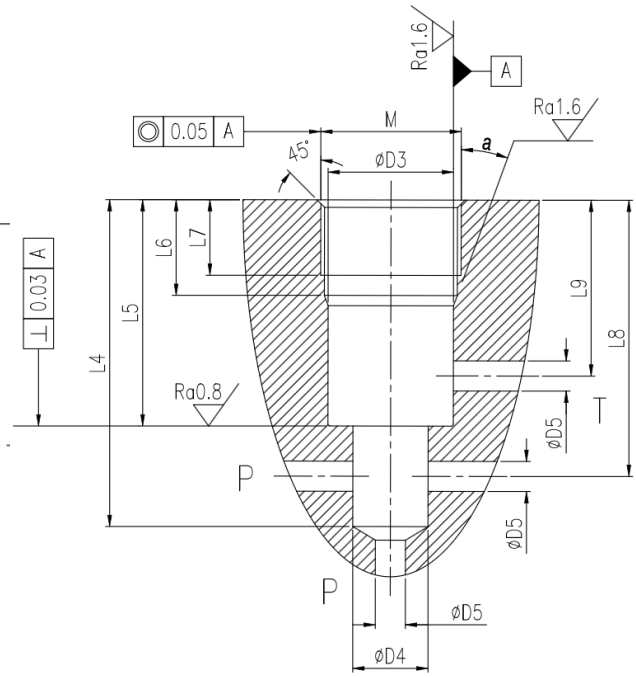
Ordering Information

Basic Code	Relief Valve	FDBD
Size	NG 06/ 10/ 20/ 30	06…30
Adjustment	Screw (S)/ Knob (H)	S/ H
Relief Pressure	50/100/200/315 bar	50…315
Version		1x

Cartridge Dimensions



Cavity Details



Size	A/F1	A/F2	M	øD1	øD2	øD3	øD4	øD5	a	Torque	Weight
NG 06	30	6	M28 x 1.5	34	60	25 H9	15	6	15°	100 Nm	0.5 Kg
NG 10	36	6	M35 x 1.5	38	60	32 H9	19	10	15°	150 Nm	1.0 Kg
NG 20	46	6	M45 x 1.5	48	60	40 H9	24	20	20°	300 Nm	1.6 Kg
NG 30	60	8	M60 x 2.0	63	60	55 H9	39	30	20°	500 Nm	2.2 Kg

Size	L1	L2	L3	L4	L5	L6	L7	L8	L9
NG 06	64	65	72	65	45	19	15	56.5	36
NG 10	77	80	80	80	52	23	18	67.5	42
NG 20	106	110	90	110	70	27	21	91.5	55
NG 30	131	130	100	140	84	29	23	113.5	63

All dimensions in mm

Spare List

SealKit - FDBD06	SSVFDBD061x
SealKit - FDBD10	SSVFDBD101x
SealKit - FDBD20	SSVFDBD201x
SealKit - FDBD30	SSVFDBD301x

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