



A Polyhydron Group Company

DIRECT ACTING PRESSURE RELIEF VALVE Model : DPR

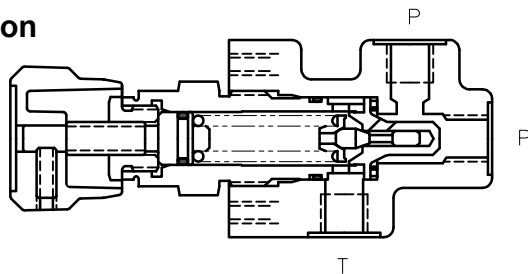
Ref. No. D 04896
Release: 01 / 2026
ENGINEERING - 1 of 5

Description

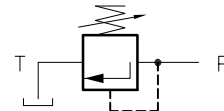
- Direct acting valve.
- Guided poppet design.
- Cushion arrangement for greater stability and noise control.
- Three sizes - 06, 10 and 20.
- Three mounting style - Threaded cartridge.
Threaded port body.
Subplate Type (Factory std. and ISO std.)
- Six pressure ranges - Up to 25, 50, 100, 200, 315 & 400.
700 bar. (In size of 06 only.)
- Two options for pressure adjustment - With set screw and lock nut.
With hand Knob.



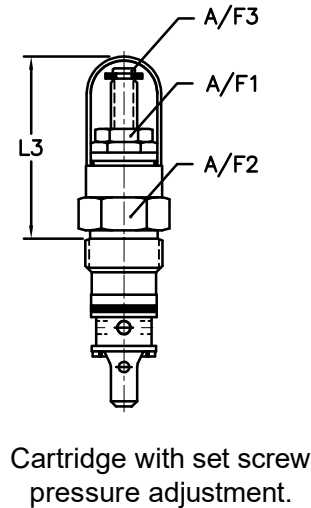
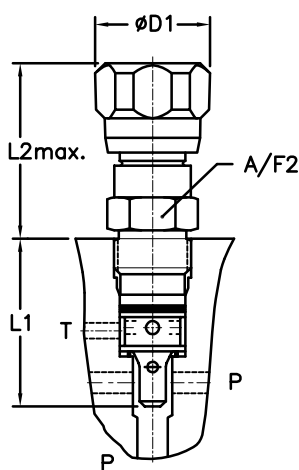
Section



Hydraulic Symbol

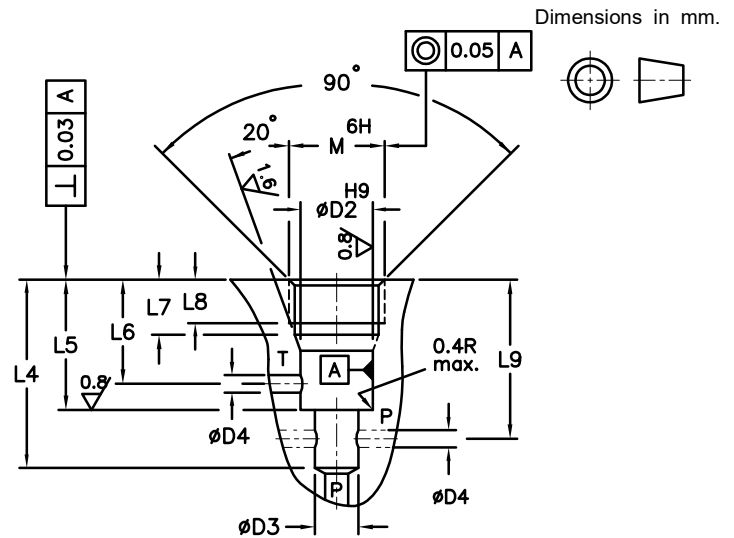


Unit dimensions



Cartridge with set screw pressure adjustment.

Cartridge with hand knob for pressure adjustment.



Cartridge cavity machining details.

Size	Mass kg	A/F1	A/F2	A/F3	6H M	ØD1	6H ØD2	ØD3	ØD4	L1	L2	L3	±0.5 L4	±0.2 L5	±0.2 L6	±0.2 L7	L8	L9	Tightening torque Nm
06	0.45	19	30	4	M28 x 1.5	43	25	15	6	64	64	65	65	45	35	19	15	55	120
10	0.9	19	36	5	M35 x 1.5	48	32	19	10	77	82	80	80	52	41	23	18	69	140
20	1.6	19	46	5	M45 x 1.5	60	40	24	20	103	85	79	110	70	54	27	21	92	170

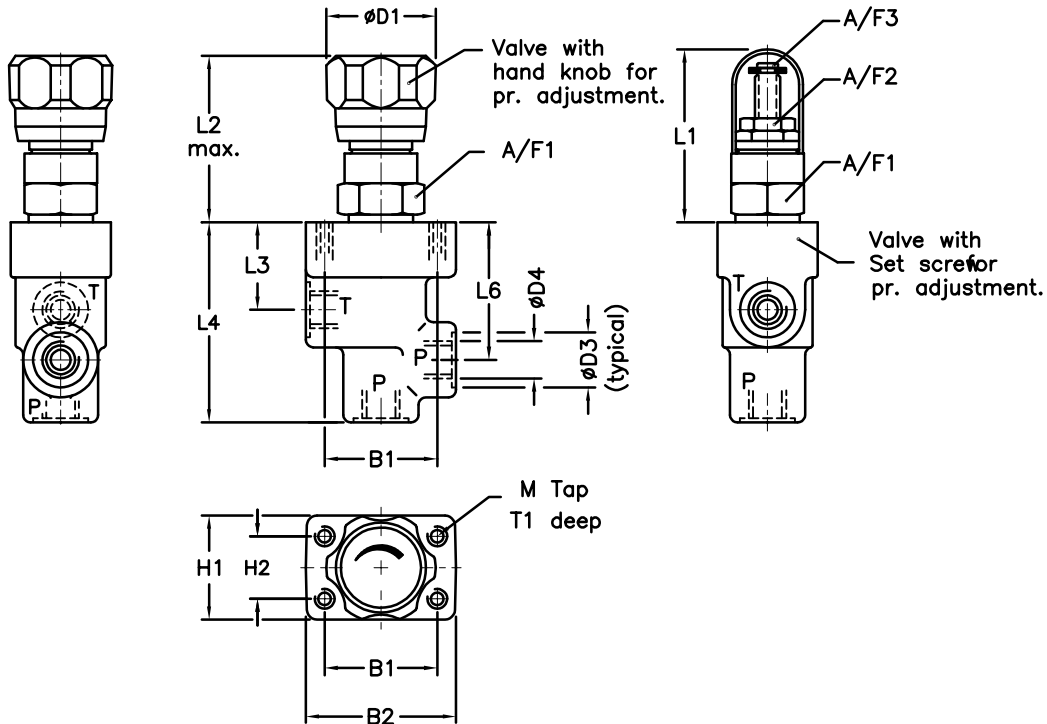
polyhydron pvt. ltd.

78-80, Machhe Industrial Estate,
Machhe, Belgaum - 590 014. INDIA.

Phone : +91-(0)831- 2411001
E-mail : sales@polyhydron.com
Website : www.polyhydron.com

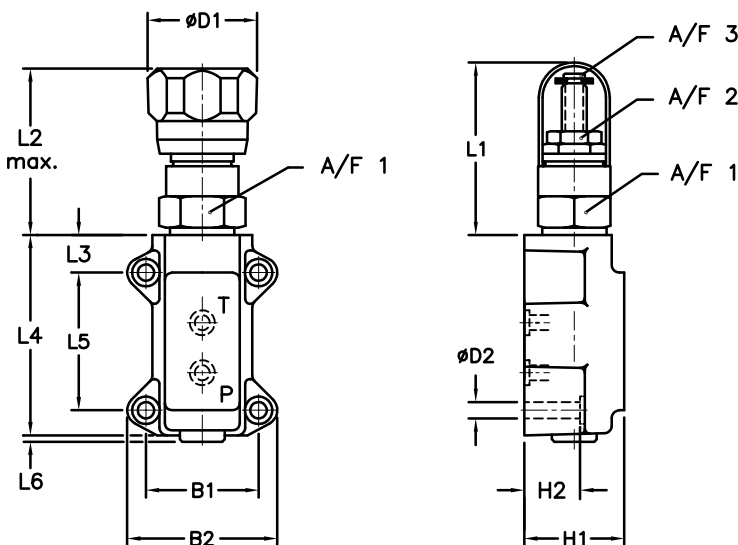


Threaded port body

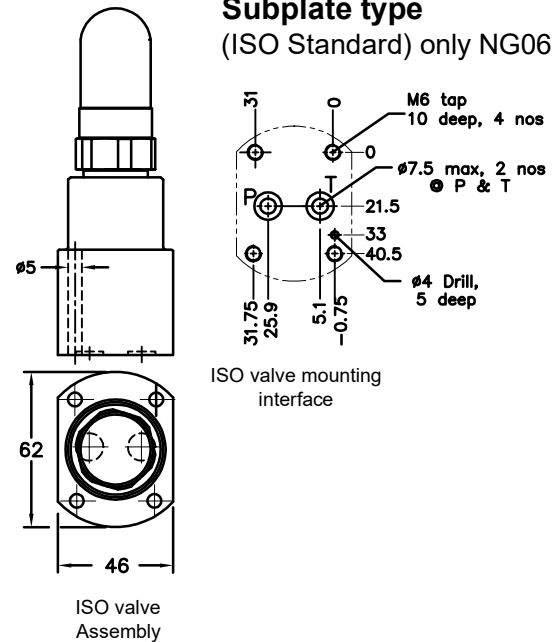


Size	Mass kg	B1	B2	ØD1	ØD2	ØD4	M	A/F1	A/F2	A/F3	L1	L2	L3	L4	L6	H1	H2	T1
06	1.2	45	60	43	22	G1/4	M6	30	19	4	65	64	35	80	55	40	25	11
10	2.8	60	80	48	30	G1/2	M8	36	19	5	80	82	42	100	69	60	40	15
20	6.2	70	95	60	44	G1	M8	46	19	5	78.5	85	54	135	85	70	50	15

Subplate type
(Factory Standard)



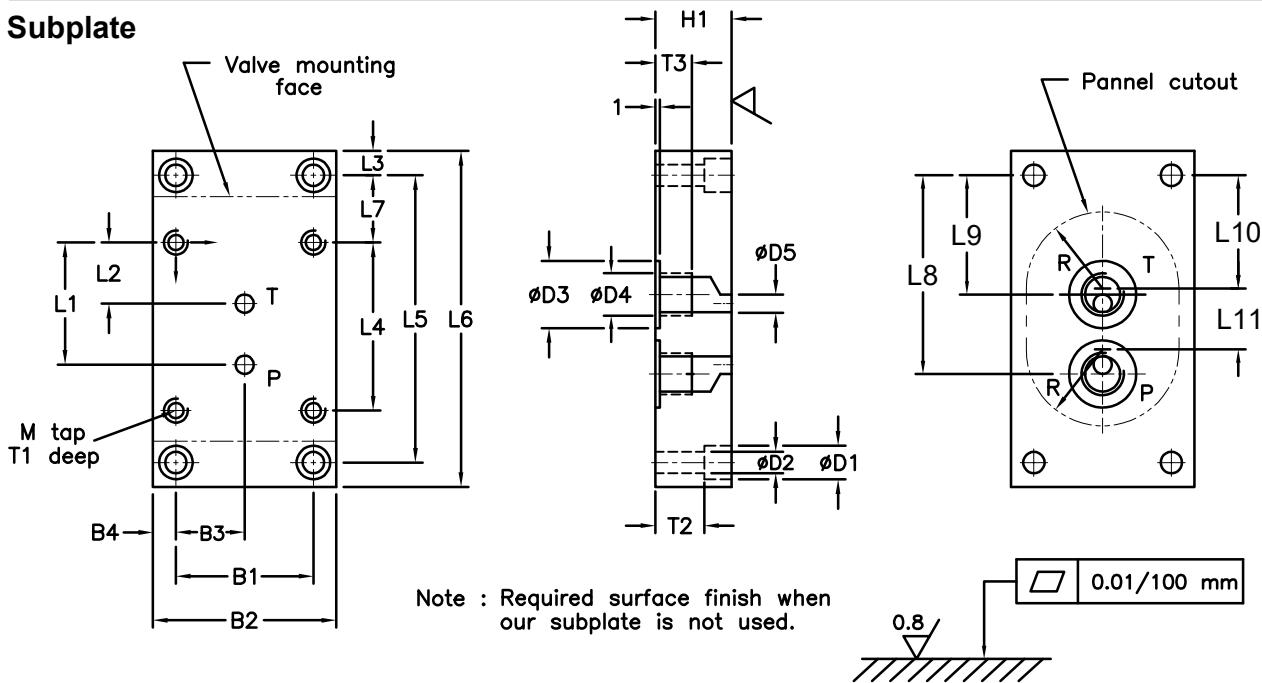
Subplate type
(ISO Standard) only NG06



Size	Mass kg	B1	B2	ØD1	ØD2	A/F1	A/F2	A/F3	L1	L2	L3	L4	L5	L6	H1	H2	T1
06	1.1	45	60	43	6.6	30	19	4	65	64	15	80	55	04	40	21	11
10	2.4	60	80	48	9	36	19	5	80	82	20	100	70	05	55	28	15
20	8	70	100	60	9	46	19	5	78.5	85	20	135	100	05	70	70	15



Subplate



Size	Size	Mass	B1	B2	B3	B4	M	ØD1	ØD2	ØD3	ØD4	ØD5	H1	L1	L2	L3	L4	L5
06	1NSR03G02	1.2	45	60	22.5	7.5	M6	11	7	22	G1/4	06	35	40	20	08	55	94
10	1NSR05G03	2.4	60	80	30	10	M8	11	7	25	G3/8	10	42	45	21	10	70	115
10	1NSR05G04	2.4	60	80	30	10	M8	11	7	30	G1/2	10	42	45	21	10	70	115
20	1NSR07G08	5.3	70	100	35	15	M8	17.5	11.5	44	G1	20	54	65	34	15	100	140

Size	Size	L6	L7	L8	L9	L10	L11	T1	T2	T3	R	Valve mounting screws S.H.C.S.			Tightning Torque			
06	1NSR03G02	1.2	45	60	22.5	7.5	M6	11	7	22	G1/4	06	35	25	20	08	55	94
10	1NSR05G03	2.4	60	80	30	10	M8	11	7	25	G3/8	10	42	30	21	10	70	115
10	1NSR05G04	2.4	60	80	30	10	M8	11	7	30	G1/2	10	42	30	21	10	70	115
20	1NSR07G08	5.3	70	100	35	15	M8	17.5	11.5	44	G1	20	54	40	34	15	100	140

Technical specification

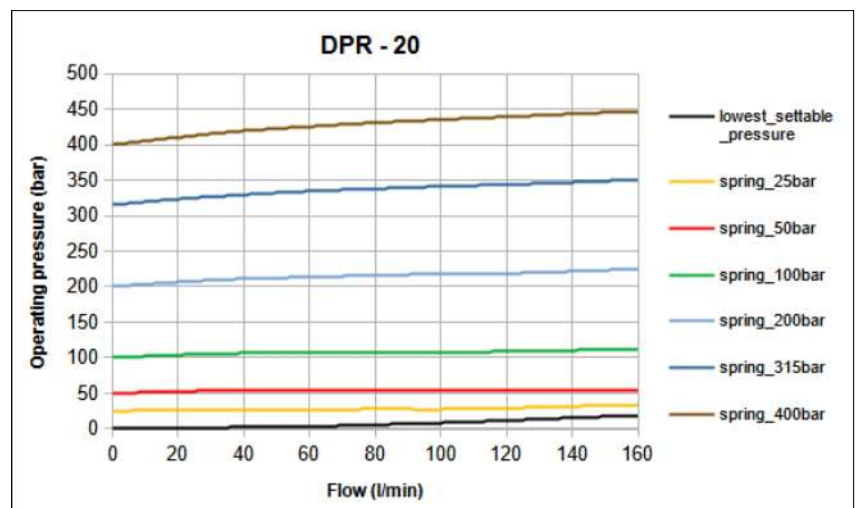
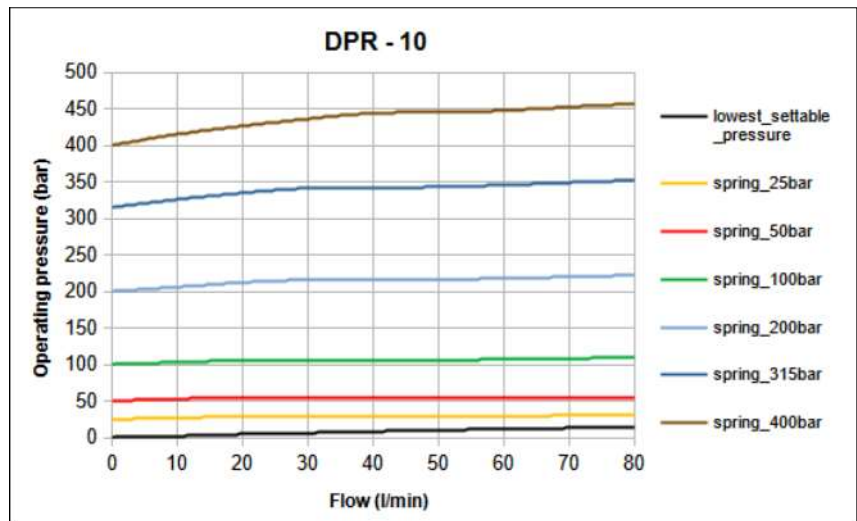
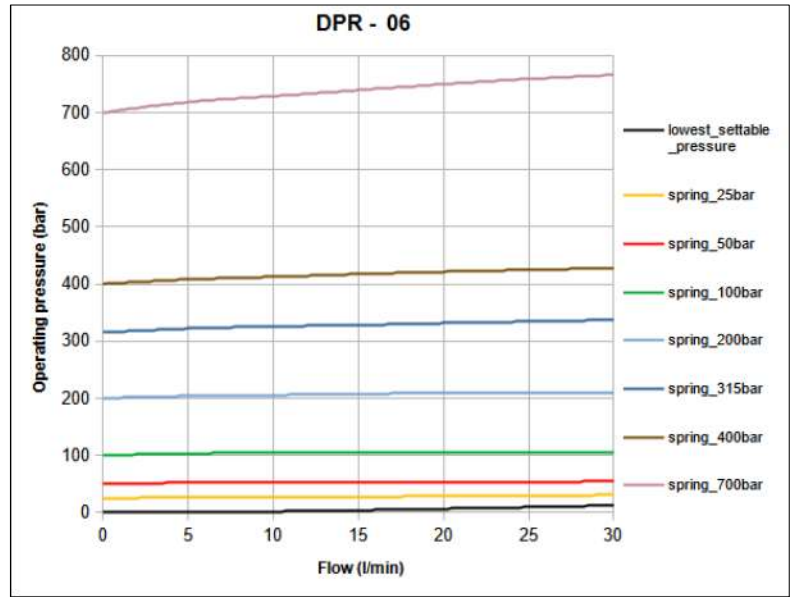
Construction	-	Direct acting, Poppet type.
Mounting style	-	Threaded Cartridge, Threaded Port body or Subplate type (Factory Std. & ISO Std.)
Interface	-	Factory standard Note : Subplate mounting valves having interface as per ISO 6264-03-04 and 6264-06-09 are also available on request. Please ask for details
Mounting position	-	Optional.
Flow direction	-	From P to T
Operating pressure for port	-	400 bar (Std model)
for port P	-	700 bar max (for Model DPR06*700-11 only)
for port T	-	315 bar
Pressure setting range	-	Upto 25, 50, 100, 200, 315, 400 and 700 bar max.
Hydraulic medium	-	Mineral Oil
Viscosity range	-	10 Cst. to 380 Cst
Fluid temperature range	-	-20°C to + 70°C
Fluid cleanliness requirement	-	As per ISO 16/13 or better.
Mass	-	Refer individual table.



Characteristic Curves:

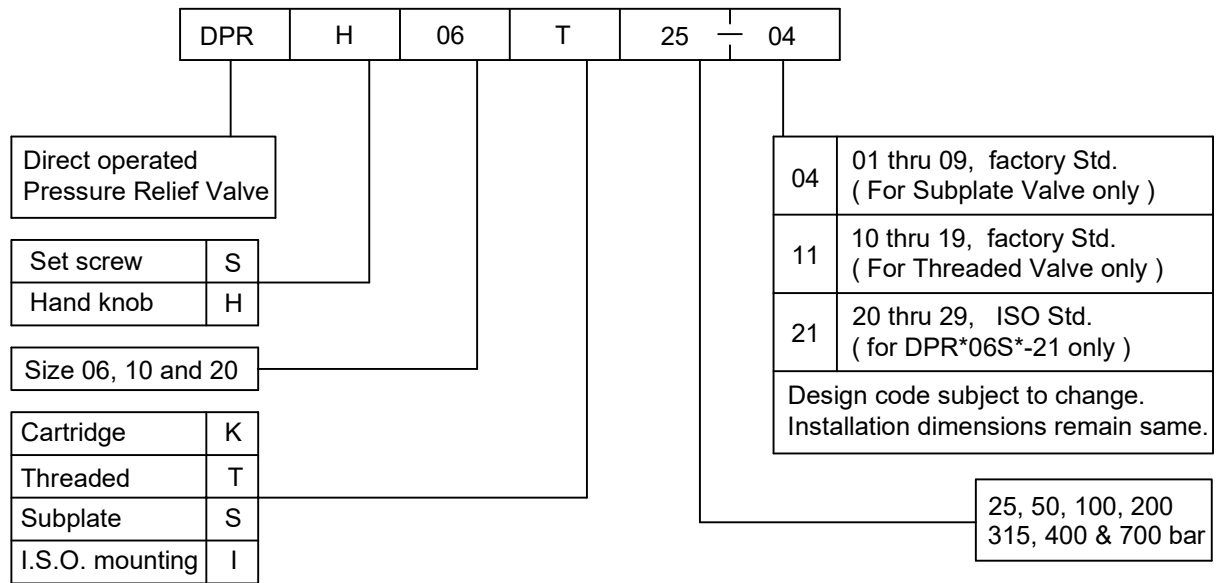
Conditions considered:

- These curves relates only with Cartridge.
- Oil used VG46.
- Temperature ($30 \pm 5^\circ\text{C}$).
- Output pressure Zero.





Ordering code



Note : Subplate to be ordered seperately

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Due to continuous improvement in the design of the product, the actual product supplied may look different than shown above.
For critical applications, please ask for certified installation drawing.