

## HYCR10-28 (Relief Valve Bi-directional)

### Description

A cartridge-style direct-acting bi-directional relief valve.

### Operation

The valve is a direct-acting, dual cross-over relief valve in a single cartridge format.

When pressure at either port exceeds the nominal setting value, flow will be transmitted

to the opposite port. Back pressure at either port will affect the nominal setting of the opposite port on a 1 : 1 basis.

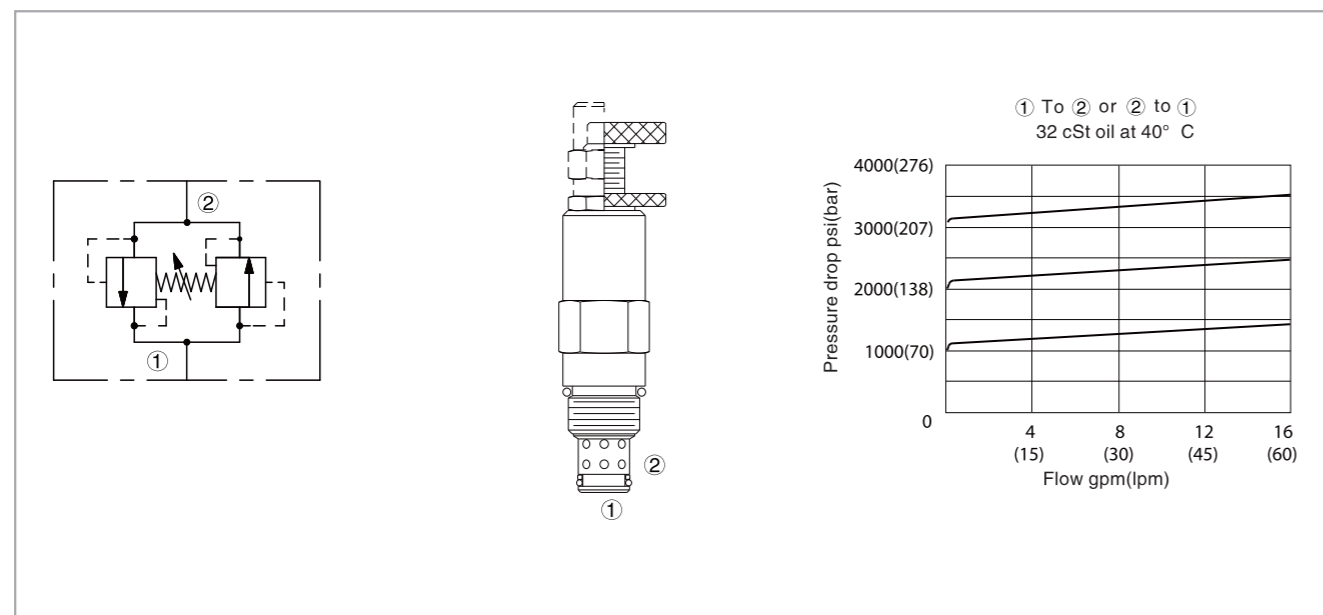
For correlation purposes, pre-set value will be measured at port ② .Pressure at port ①

will not exceed ±150 psi from the port ② value.

### Specifications

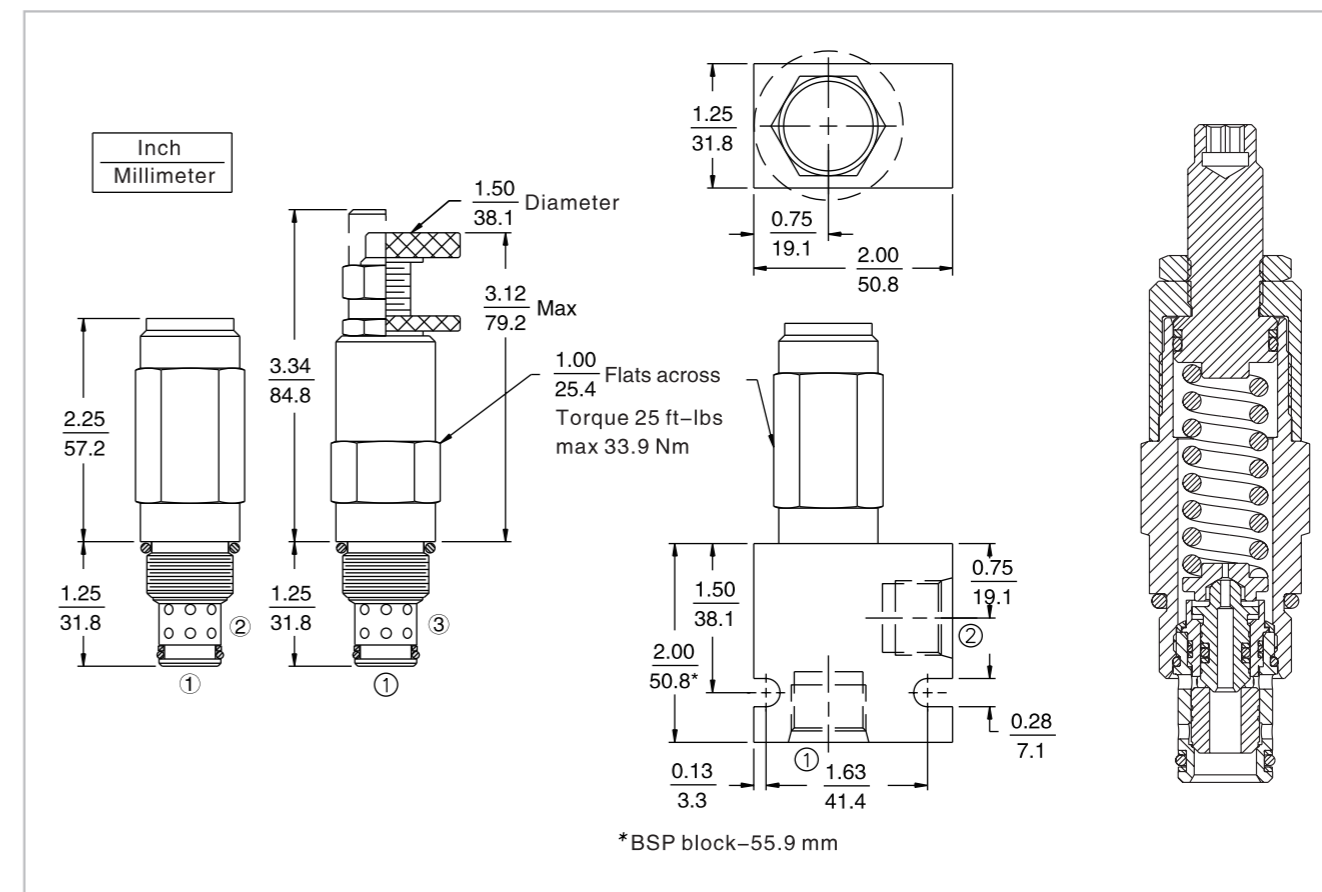
Operating pressure:	240 Bar
Standard spring ranges:	Pressure is set at port ② , 14 to 210 bar
Reseat pressure:	90% Of crack pressure (crack pressure at 0.95 lpm /0.25 gpm)
Maximum difference for crack pressure in both directions:	10.5 Bar(150 psi)
Flow:	See performance chart
Internal leakage:	When reseal to 85% of crack pressure:33 ml/min
Temperature:	(-40°C To +120°C) with NBR material seals
Fluids:	Mineral-based fluids with viscosities of 7.4 to 420 cSt.
Cavity:	HY10-2,see page H.1.3
Body material:	6061-T6 Aluminum alloy rated to 207 bar, steel & ductile iron rated to 350 bar

### Code symbol , profile and pressure drop vs.flow



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### External dimensions



### Material science and order model

Cartridge: weight: 0.22 kg ( 0.50 lb);  
Steel, the working face is duratected  
Surface zinc-plated;  
NBR material sealing and TEF material  
check ring (standard), high-strength  
performance aluminum knob with  
anodic oxidation  
Block: weight :0.16 kg (0.35 lb);  
High-strength performance  
aluminum alloy with anodic oxidation;  
#6061 T6;  
Rated pressure up to 240 bar (3500 psi);  
See 8.010.1. Also available with ductile cast  
iron and steel material;  
Size might be different, please consult factory.  
Note: orifice disc may not be used with this product.

HYCR10-28		Adjustment option		Setting in bar	
1/4 In. hex allen head	A	(Blank)	For adjustable, or specify, for example:		
1-1/2 In. dia. alum. knob	B	M25	25 Bar		
Option A w/cover cap	C	M100	100 Bar		
Factory preset non-adjustment	F	(Blank)	For adjustable, or specify, for example:		
Factory preset hidden adjustment	H	9.0	900 Psi		
Option C w/lockwire holes	L	23.5	2350 Psi		
Porting		Seals		Spring range	
Cartridge only	0	N	Buna N ( std. )	24	14 To 168 bar (200 To 2400 psi)
SAE 6	6T	V	Fluorocarbon	30	160 To 210 bar (2300 To 3000 psi)
SAE 8	8T				
3/8 Inch BSP*	3B				
1/2 Inch BSP*	4B				

† Adjustable valves will be preset to approx. 50% of spring max. potential.