HYRV10–28 (Pilot Operated Relief Valve)

Description

A cartridge–style pilot–operated poppet –type relief valve.

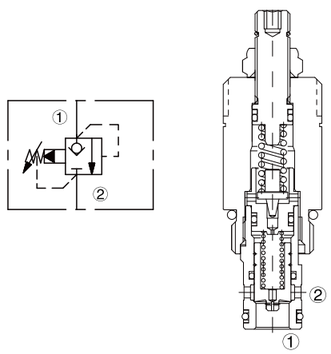
Operation

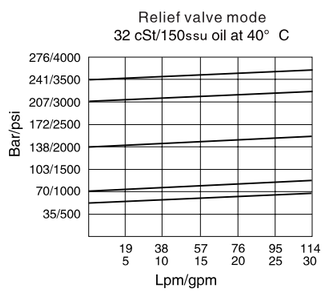
The valve prevents flow from ① to ② until pressure at ① exceeds the set crack pressure and opens the pilot section. The pilot flow creates a pressure differential across the poppet which causes the valve to open allowing flow from ① to ② protecting the circuit from over pressurization.

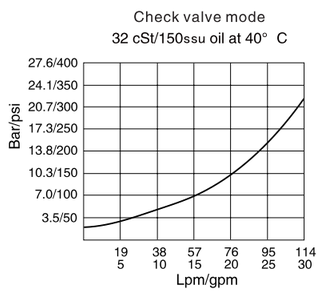
Specifications

Operating pressure:	240 Bar
Flow:	7.6～113.6lpm（2～30 gpm）
Internal leakage:	Max 80% of nominal setting,maximum internal leakage is 0.5 ml/min(10 drops/min)
Reseat pressure:	90% Of crack pressure (crack pressure at 7.6 lpm /2 gpm)
Pressure rise：	At 240Bar（3500psi）： 0.15 Bar/lpm（8 psi/gpm）
Response time：	RV to CV at 250 bar/53 lpm (3500 psi/14 gpm),response is 0.6 seconds.
Opening pressure of check valve：	2.1 Bar（30psi）
Response time of check valve：	CV to RV at 250 bar/53 lpm(3500 psi/14 gpm),response is 0.3 seconds.
Temperature:	(–54℃ To +135℃) with NBR material seals
Fluids:	Mineral–based fluids with viscosities of 7.4 to 420 cSt.
Cavity:	HY10–2,see page G.1.3
Body material:	Steel & ductile iron rated to 350 bar

Code symbol 、profile and pressure drop vs.flow







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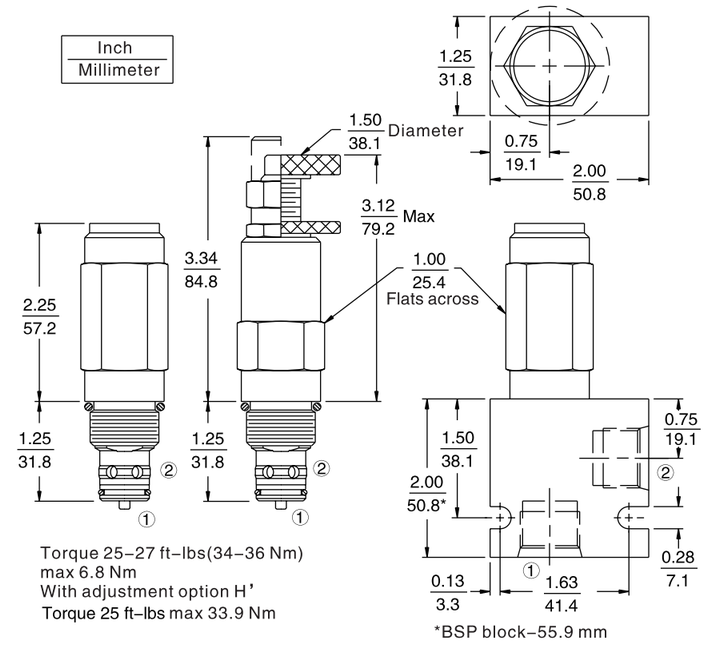
External dimensions



Material science and order model

Cartridge: weight：0.25 kg（0.55 lb);
Steel,the working face is duratected
Surcace zine–plated;
NBR material sealing and check ring (standard);
Aluminum knob with anodicoxidation.
Pressure over 240 bar (3500 psi), recommended use polyurethane material sealing and fluorocarbon material check ring;

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.

HYRV10–28 - - - - /

Adjustment option
1/4 In.hex allen head A
1–1/2 In.dia.alum.knob B
Option A w/cover cap C
Factory preset non– adjustment F
Factory preset hidden adjustment H
Option C w/lockwire holes L

Porting
Cartridge only 0
SAE 6 6T
SAE 8 8T
3/8 Inch BSP* 3B
1/2 Inch BSP* 4B
BSP body:U.K.Mfr.only

Seals
Pressure on P only
N Buna N（std.）
V Fluorocarbon

Setting in bar †
Blank For adjustable,or specify,for example:
M 52 52 Bar（Min.）
M100 100 Bar
Setting in psi †
Blank For adjustable,or specify,for example:
7.5 750 Psi（min.）
23.5 2350 Psi

Spring range
35 51.7 To 241.4 bar (750 To 3500 psi)

† Adjustabel valves will be preset toapprox.50% of spring max.potential; or 21 bar.