HYVAIR

INDUSTRIAL FLUID POWER COMPONENTS
AND SYSTEMS

POR20 SERIES

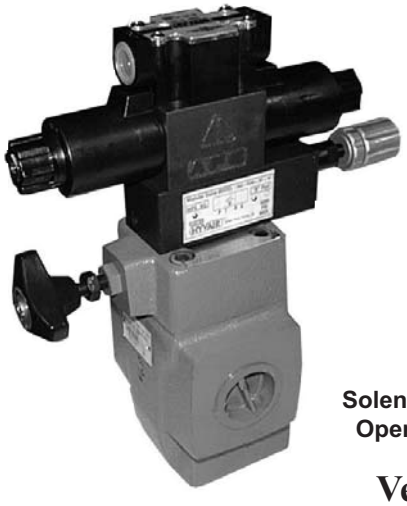
Pilot Operated Relief Valves

POR20-12FP-1K

POR20-20FP-3K

31341 Friendship Drive, Magnolia, TX 77355 • Tel.: 281-259-7768 Fax: 281-259-7249 • www.hyvair.com

POR20 Series
Pilot Operated Relief Valves

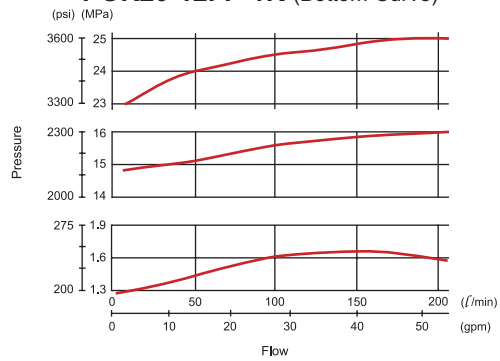


Solenoid Controlled Pilot Operated Relief Valves

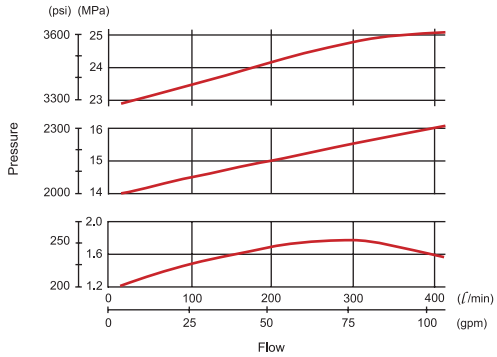
Specifications

1. 3/4" & 1-1/4" NPT ports (#12 SAE available in T type)
2. **Maximum Flow**: 3/4" = 50 gpm, 1-1/4" = 100 gpm
3. **Mimimum Flow**: 3/4" = 2.0 gpm, 1-1/4" = 4 gpm
4. 3K pressure standard (1000-3500 psi)
5. 1K pressure range available (350-1000 psi)
6. Recommended for petroleum based fluids- ISO VG32-68
7. Recommended filtration- 10 micron
8. Cold starts: 250 SUS maximum viscosity
9. **Maximum Temperature**: 180°F, (82.2°C) or minimum fluid viscosity of 80 SUS
10. All models can be vented for remote control. Specify suffix "D03" for integral solenoid control of relief valve.

3/4" POR20-12FP-3K
POR20-12FP-1K (Bottom Curve)



1-1/4" POR20-20FP-3K
POR20-20FP-1K (Bottom Curve)

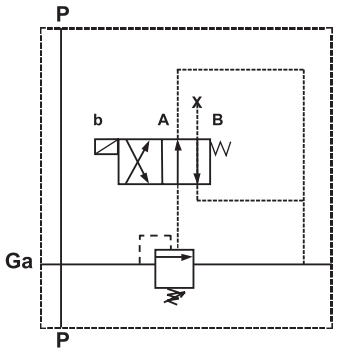


Vent Circuits

All POR20 relief valves may vented to obtain remote pressure control (use direct acting remote relief see DR2 series pg. 50). Use small diameter line when plumbing the remote relief as short in length as possible to prevent chattering.

Below are common circuits used with the option D03 solenoid operated relief valves. Many other circuits are possible.

The valves to complete the circuits are sold separately from the relief valves.



Normally Vented- Energize for Pressure

Also shown:
D03S-1A-115A-35 Solenoid Valve
When the "a" coil is energized, the main relief valve will rise to set point on the valve

Use D03S-1AR-115A-35 for energize to vent

(above p/n's for 115 VAC)

POR20-$^{12}_{20}$ FP-$^{3}_{1}$ K-D03

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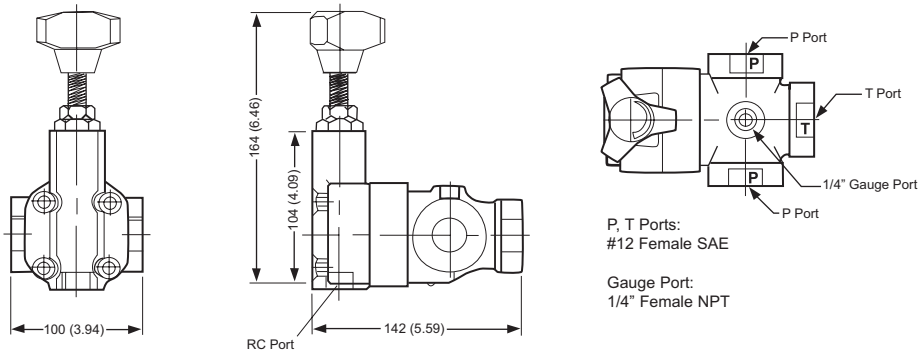
Dimensional Data

POR20-12FS-3K (T style)
#12 SAE Relief Valve

Units: mm/ (Inch)



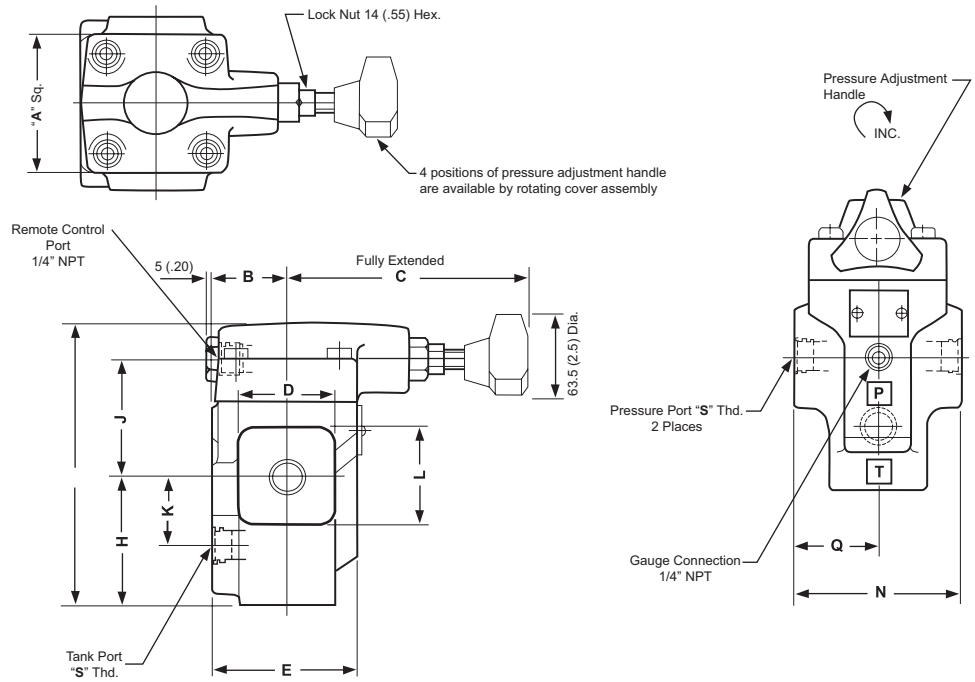
P, T Ports:
#12 Female SAE

Gauge Port:
1/4" Female NPT

POR20-12FP 3/4" NPT

POR20-20FP 1-1/4" NPT (Below)

Units: mm/ (Inch)



Model	A	B	C	D	E	F	H	J	K	L	N	Q	S
POR20-12FP	80 (3.15)	48 (1.91)	129 (5.08)	58.5 (2.3)	88 (3.46)	154 (6.04)	68 (2.68)	66.5(2.62)	39.4(1.55)	72.5(2.85)	90 (3.54)	45 (1.77)	3/4" NPT
POR20-20FP	86 (3.39)	48 (1.91)	186 (7.32)	82 (3.23)	98 (3.86)	185 (7.28)	89.5(3.52)	77.5(3.05)	51 (2.0)	86 (3.86)	126 (4.96)	63 (2.48)	1-1/4" NPT

Ordering Information

POR20 - 12 - FP - 3K

POR20 Series
Pilot Operated Relief Valve

Size
12 = 3/4"
20 = 1-1/4"

Connection
FP = Female Pipe
FS = Female SAE (3/4" only)

Function
1K = Adj. 350-1000 psi
3K = Adj. 1000-3500 psi (standard)