

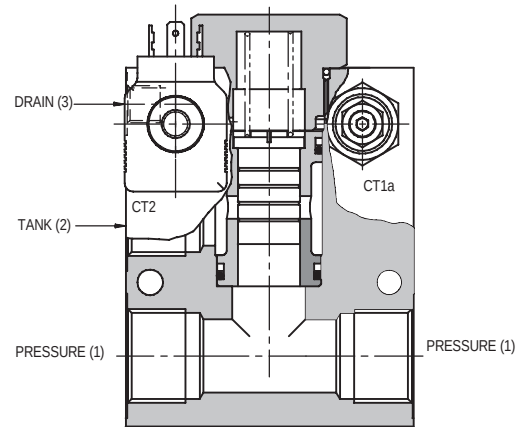
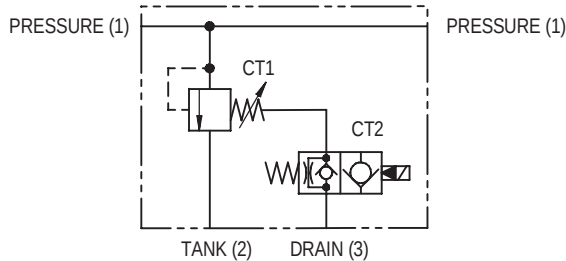


7VR SERIES VENTABLE RELIEF VALVE

PILOT OPERATED

7VR350

SLIDING SPOOL TYPE



APPLICATION

For use in circuits which require relief protection and a solenoid vent feature for unloading and dumping system flow to tank. The external vent port can be referenced to either a remote pilot section for two pressure systems, or to an external directional valve to allow manual pressure unload.

OPERATION

The valve consists of a pilot relief cartridge, a two-way normally closed or normally open solenoid and a honed assembly. The main section spool spring chamber is referenced to tank, pilot flow across the main section spool causes a pressure imbalance and the spool shifts open allowing inlet flow to tank.

SOLENOID VENTING

The solenoid vent feature allows system flow to be dumped to tank at a minimum pressure drop. When normally closed solenoid is energised, pilot flow is bypassed around the relief pilot section to tank and the main section spool is vented fully open dumping inlet flow at low pressure (see curve). If normally open solenoid is used, the main spool shifts open and continuously dumps inlet flow to tank until the solenoid is energised. When the solenoid is energised, it closes and prevents pilot flow causing the main section spool to close.

RELIEF VALVE

When used as a conventional relief valve, the solenoid is closed. When inlet pressure exceeds the valve setting, the main section spool opens allowing relief flow to tank.

FEATURES

Combined functions simplify circuit. High capacity for relieving or unloading. Hardened and ground working parts for long life.

SPECIFICATIONS

Figures based on: Oil Temp = 40°C Viscosity = 40 cSt

Rated Flow	350 litres/min (92 US GPM)
Max Setting	210 bar (3000 psi)
Cartridge Material	Working parts hardened and ground steel. External surfaces zinc plated
Body Material	Standard aluminium (up to 210 bar*) Add Suffix '377' for steel option
Mounting Position	Unrestricted
Weight	2.80 kg (6.2 lbs)
Seal Kit Number	SK1154 (Nitrile) SK1154V (Viton)
Recommended Filtration Level	BS5540/4 Class 18/13 (25 micron nominal)
Operating Temp	-20°C to +90°C (Standard seals)
Leakage	100 millilitres/min @ 210 bar
Nominal Viscosity Range	5 to 500 cSt

*For applications above 210 bar please consult our technical department or use the steel body option.

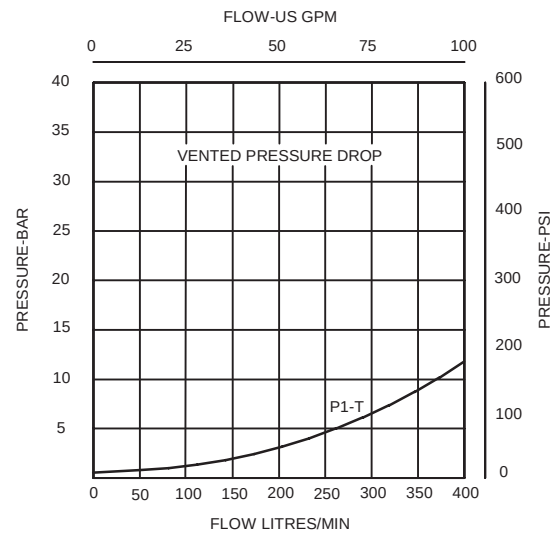
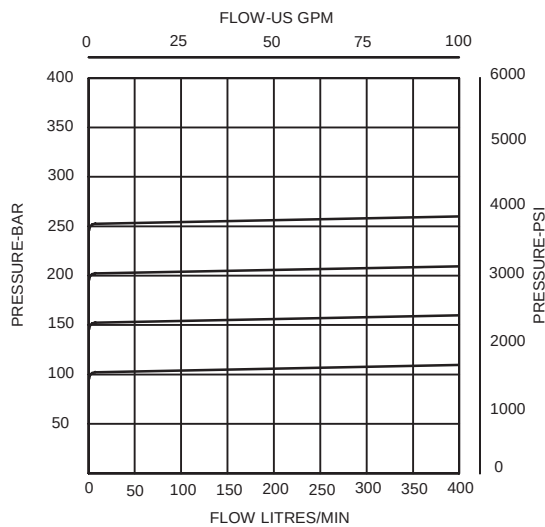
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PRESSURE DROP



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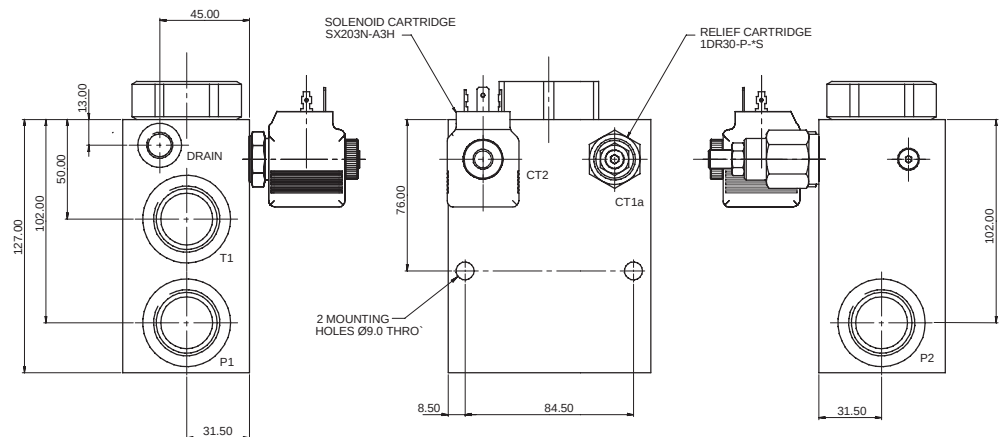
COMPLETE VALVE 1" PORTS

BASIC CODE: 7VR350

Sub assembly part numbers

BSP, aluminium

1" BXP 24050-8W-S



Where measurements are critical request certified drawings

ORDERING CODE EXAMPLE

7VR350 P 8W 20 1 H 24 S

Basic Code

7VR350

Adjustment Means

P = Leakproof Screw Adjustment

G = Tamperproof Cap

(See page 2-102 for dimensions)

Port Sizes - Bodied Valves Only

8W = 1" BSP

Pressure Range @ 14 l/min

10 = 7-100 bar. Std setting 70 bar

20 = 35-210 bar. Std setting 100 bar

Std setting made at 14 litres/min

Solenoid Configuration

1 = Normally open

2 = Normally closed

Seals

S = Nitrile (For use with most industrial hydraulic oils)

SV = Viton (For high temperature and most special fluid applications)

Coil Voltage

12 = 12VDC

24 = 24VDC

110 = 110VAC 50 Hz

220 = 220VAC 50 Hz

Other voltages available on request

Coil Termination

H = ISO4400 / DIN43650

F = Flying Leads DC only

DM = Deutsch Moulded

Other terminals available on request

We reserve the right to change specifications without notice