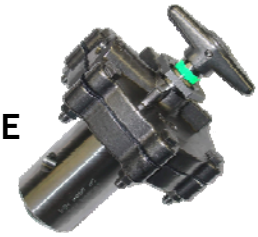
Hydraulic Interface Valve

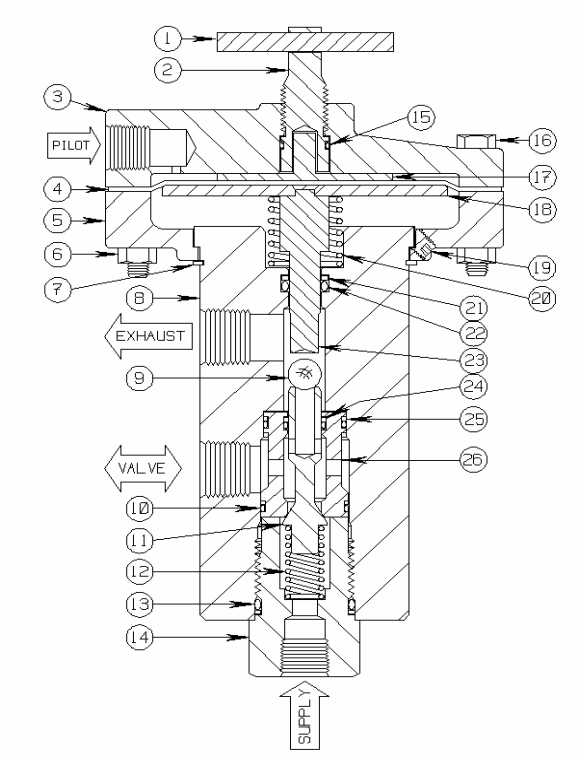
Diaphragm (150 PSI Max)

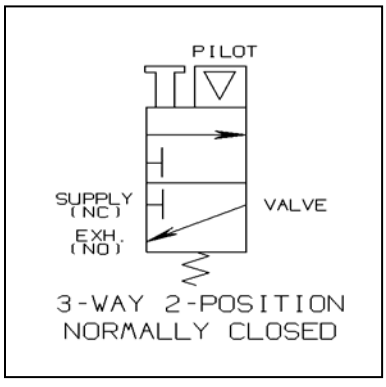
3-WAY NC, 1/4" X 3/8" FNPT, .218 ORIFICE, 6,000 PSI, MANUAL OVERRIDE

Model 20HM52 Pneumatic Pilot, MODEL 20HM212 Hydraulic Pilot



Conforms to the SEP category of the European Pressure Equipment Directive Issue No. 97/23/EC





The **20HM52** is a two position, three-way normally closed, Pilot Supply pressure operated, **high flow** hydraulic control valve assembly. It is designed to establish high pressure hydraulic fluid output automatically with each application of relatively low Pilot Supply pressure. A loss of operating Pilot Supply pressure will block the hydraulic Supply (inlet) port and exhaust the accumulated operating pressure within the high pressure receiving control circuit.

Hydraulic Interfaces are used to control the open/close operating sequence of Surface Controlled Sub Surface Safety Valves (SCSSV) or Surface Safety Valves (SSV).

The model 20HM52 can be provided with an optional manual Override Handle (shown) to establish internal hydraulic Supply to Valve flow, without the application of Pilot Supply pressure. This feature allows the SCSSV or SSV to be opened for normal start-up operation or for maintenance/testing purposes.

PARTS LIST:

1. Cross Pin
2. Override Plunger
3. Upper Housing
4. Diaphragm *
5. Lower Housing
6. Hex Nut *
7. Spiral Ring *
8. Valve Body
9. Ball *
10. O Ring & Back Up *
11. Valve Seat *
12. Spring *
13. O Ring & Back Up *
14. 1/4 NPT Retainer
15. O Ring *
16. Hex Head Bolt *
17. Diaphragm Protector
18. Pressure Plate
19. Socket Set Screw *
20. Spring *
21. Back Up Ring *
22. O Ring *
23. Valve Plunger
24. O Ring & Back Up *
25. O Ring & Back Up *
26. Valve Spool *

* Indicates parts included in a Repair Kit

1420 Lakeside Parkway
Suite 109
Flower Mound, Texas 75028

Tel: +1 (972) 446 8250
Fax: +1 (972) 446 8642
http://www.sigma-valves.com

Sigma Model Number 20HM52, 20HM212

3-WAY NC, 1/4" X 3/8" FNPT, .218 ORIFICE, 6,000 PSI W/MANUAL OVERRIDE

Product Specifications

Flow Control Application: Normally Closed

Control Function: Three-Way (Block & Bleed)

Pressure Rating Body (Control Ports): 6,000 PSI maximum (413 Bar)

Seal Material: Viton

Operator (Pilot Cap): Diaphragm Assembly 150 PSI (10.34 Bar) maximum, 30 PSI (2.06 Bar) minimum

Instrument Supply Media for Operator (Pilot Cap): Pneumatic, 20HM212 Hydraulic

Pilot Port Rotation (Orientation) Capability: Full Turning Radius of 360°

Manual Override Handle: Rotating Screw Type

Connection Size (Body): 1/4-18 Female N.P.T. Pilot and Supply, 3/8-18 Female N.P.T. Valve, Exhaust

Wetted Component Material (Metal)**:** 316 Stainless Steel and 17-4PH SS

Panel Mount: No **Mounting Bracket Available:** 20H26 Bracket

Pilot Supply Operating Ratio: 50 to 1

Orifice: .218 Diameter **Cv Factor:** .63

Weight: 9.5 Lbs.

Operating Temperature: -20° F to +250° F (-29° C to +121° C)

Overall Dimensions: 8 Height x 4-5/8 Pilot Head Diameter (20.32 cm Height x 11.75 cm PHD)

Pressure Equipment Directive (PED): This product conforms to the SEP Category of the European P.E.D.

Installation and Maintenance Instructions:
This hydraulic interface valve may be mounted using a mounting bracket or may be suspended by the plumbing or tubing runs to the individual ports as labeled in the attached drawing. Sigma recommends the use of appropriate thread sealant for each port connection.

Shelf Position Port Status

Pilot	Pilot Supply Inlet (Pneumatic On/Off Operating Pressure)
Supply	Inlet (Instrument Supply Pressure) Closed to Valve Port
Valve	Outlet Pressure to Receiving Control Circuit (Open to Exhaust Port)
Exhaust	Hydraulic Fluid Return to Reservoir

Repair Kit Information
Repair Kits contain all of the Seals and other components typically replaced when repairing the assembly. In order to maintain optimum operating control function.