

# Hydraulic Interface Valve

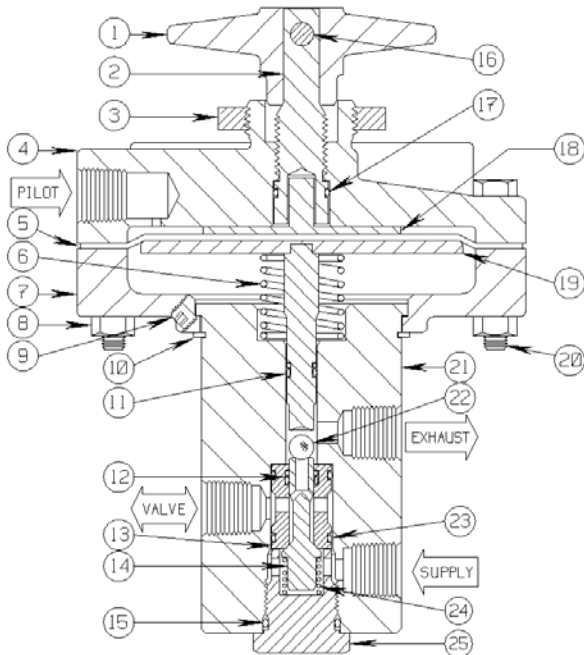
## Diaphragm (150 PSI Max)

3-WAY NC, 1/4" FNPT, .125 ORIFICE, 10,000 PSI W/MANUAL OVERRIDE  
PANEL MOUNT

Model 20HM104, Model 20HM105 H2S Service



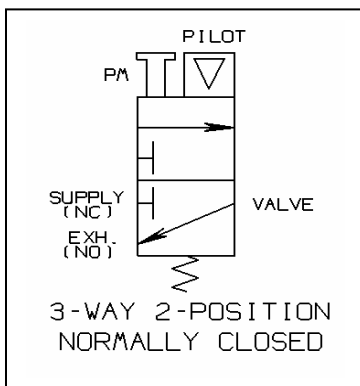
Conforms to the SEP category of the European Pressure Equipment Directive  
Issue No. 97/23/EC



The **20HM104** is a two position, three-way normally closed, Pilot operated, hydraulic flow control valve assembly. It is designed to establish high-pressure hydraulic fluid output, automatically with each application of Pilot Supply pressure.

A loss of Pilot Supply pressure will block the hydraulic inlet (Supply) port and exhaust the downstream pressure in the outlet (Valve) control circuit. Hydraulic Interface Valves are generally used to control the open/close operating sequence of Surface Controlled Sub-Surface Safety Valves (SCSSV) or Surface Safety Valves (SSV).

The model 20HM104 is provided with a manual Override Handle (shown) to open hydraulic supply to the valve port, without the application of Pilot Supply pressure. This feature allows the SCSSV or SSV to be opened for normal start-up operation or for testing purposes.



### PARTS LIST:

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

\* Indicates parts included in a Repair Kit

**Sigma Model Number 20HM104**  
**3-WAY NC, 1/4" FNPT, .125 ORIFICE, 10,000 PSI W/MANUAL OVERRIDE**  
**PANEL MOUNT**

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**Product Specifications**

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**Flow Control Application:** Normally Closed, Block before Bleed

**Control Function:** Three-Way (Block before Bleed)

**Weight:** 7 Lbs.

**Body Pressure Rating (Control Ports):** 10,000 PSI maximum (690 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

**Pilot Port Rotation (Orientation) Capability:** 360 degrees of position

**Manual Override Handle:** Rotating Screw Type (Green indicator band visible in normal placement)

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

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

**Panel Mount:** Yes

**Panel Hole Cutout Size Required:** 1-1/8 Diameter

**Pilot Supply Operating Ratio:** 100 to 1

**Orifice:** .125 Diameter

**Cv Factor:** .20

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

**Overall Dimensions:** 6-1/2 Height x 4-5/8 Pilot Head Diameter (16.51 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:**

Remove the Cross Pin (#16), Override Handle (#1), and Panel Nut (#3). Place neck of Upper Housing (#4) through the panel face hole. Replace the Panel Nut, Handle, and Cross Pin. Sigma recommends the use of appropriate thread sealant for each port connection.