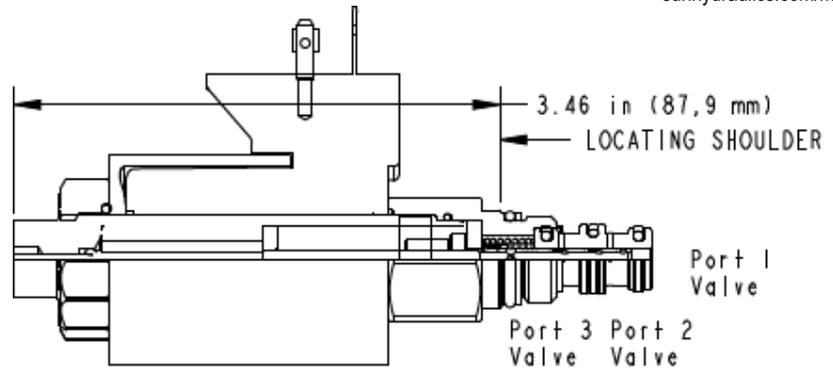


M-Control, H-Spool

**CONFIGURATION**

|                              |                            |
|------------------------------|----------------------------|
| <b>M</b> Control             | Manual Override (Standard) |
| <b>H</b> Spool Configuration | Normally Open              |
| <b>N</b> Seal Material       | Buna-N                     |
| <b>224</b> Coil              | DIN 43650-Form A, 24 VDC   |



This solenoid-operated 3-way, 2-position cartridge is a direct-acting, balanced spool pilot valve used to pilot other full-flow valves. The valve is normally open between port 1 and port 2 or port 1 and port 3 and all flow paths are bidirectional.

This valve is designed to be used with 740 and 747 Series coils.

**TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

|                                           |                          |
|-------------------------------------------|--------------------------|
| Maximum Operating Pressure                | 5000 psi                 |
| Maximum Valve Leakage at 110 SUS (24 cSt) | 10 drops/min.@5000 psi   |
| Manual Override Force Requirement         | 10 lbs/1000 psi @ Port 1 |
| Manual Override Stroke                    | .10 in.                  |
| Response Time - Typical                   | 50 ms                    |
| Switching Frequency                       | 15,000 max. cycles/hr    |
| Seal kit - Cartridge                      | Buna: 990009007          |
| Seal kit - Cartridge                      | Polyurethane: 990009002  |
| Seal kit - Cartridge                      | Viton: 990009006         |

**NOTES**

- Please verify cartridge clearance requirements when choosing a Sun manifold. Different valve controls and coils require different clearances.
- An additional 2.00 inches (50,8 mm) beyond the valve extension is needed for coil installation and removal.

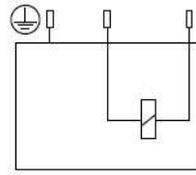
**CONFIGURATION OPTIONS**
**Model Code Example: DBAFMHN224**

| <b>CONTROL</b>                               | <b>(M)</b> | <b>SPOOL CONFIGURATION</b> | <b>(H)</b> | <b>SEAL MATERIAL</b> | <b>(N)</b> | <b>COIL *</b>                       | <b>(224)</b> |
|----------------------------------------------|------------|----------------------------|------------|----------------------|------------|-------------------------------------|--------------|
| <b>M</b> Manual Override (Standard)          |            | <b>H</b> Normally Open     |            | <b>N</b> Buna-N      |            | <b>224</b> DIN 43650-Form A, 24 VDC |              |
| <b>D</b> Twist/Lock (Dual) Manual Override   |            | <b>C</b> Normally Closed   |            | <b>E</b> EPDM        |            | No coil                             |              |
| <b>L</b> Twist/Lock (Detent) Manual Override |            |                            |            | <b>V</b> Viton       |            |                                     |              |
| <b>T</b> Twist (Momentary) Manual Override   |            |                            |            |                      |            |                                     |              |
| <b>X</b> No Manual Override                  |            |                            |            |                      |            |                                     |              |

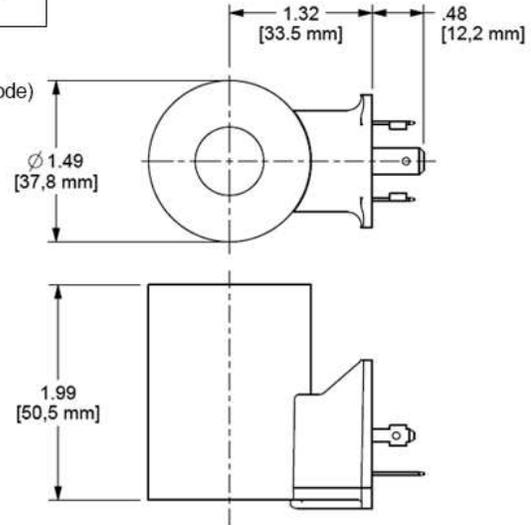
\* Additional coil options are available



**CONFIGURATION**



DC COIL  
(without TVS Diode)



**TECHNICAL DATA**

|                                             |                                                          |
|---------------------------------------------|----------------------------------------------------------|
| Operating Temperature Range                 | -40 to 230 °F                                            |
| Arc Suppression (TVS)                       | None                                                     |
| Power Consumption (cold) - at rated voltage | 25 Watts                                                 |
| Maximum Ambient Temperature                 | 122 °F                                                   |
| Voltage/Frequency                           | 24 VDC                                                   |
| Operating Voltage Range                     | +10%/-15%                                                |
| Duty Cycle Rating                           | 100 %                                                    |
| Connector                                   | ISO4400 - EN/DIN175301-803, Form A (ISO/DIN 43650) 3-pin |
| Coil Nut Torque                             | 4.5 lbf in.                                              |

**USED WITH**

|           |           |           |           |           |           |        |        |      |           |
|-----------|-----------|-----------|-----------|-----------|-----------|--------|--------|------|-----------|
| DBAF      | DFBF      | DFBG      | DLDF      | DMBF      | DNBF      | DTAF   | DTBF   | DTDF | DWDF      |
| FPBF      | FPBG      | FPBI      | FPBJ      | FPBU      | RVCK      | RVCL   | RVCM   | RVCN | 991711300 |
| 991711600 | 991712300 | 991712600 | 991713030 | 991713060 | 991740001 | XMD-01 | XMD-02 |      |           |