Specifications
83 Series Valve

Fluids:
   Compressed air or inert gases

Lubrication:
   Not required. If used, select a medium aniline point lubricant (between 180° and 210°F)

Safe Operating Temperature Range:
   0°F to 120°F (-18°C to 50°C)

Pressure Range:
   Main Valve:                     Vacuum to 120 PSI (External pilot)
                                 20 to 120 PSI (Internal pilot)
                                 35 to 120 PSI (Internal pilot and memory spring)
                                 30 to 120 PSI (3 Position)

   External pilot:                20 to 120 PSI
                                 35 to 120 PSI (Memory spring)
                                 30 to 120 PSI (3 Position)

   Single remote air:             Same as above
                                 35 to 60 PSI (Remote pilot signal - This signal is independent of the main
                                 valve or pilot valve pressure)

   Double Remote:                 20 to 120 PSI

   Note: Ext. pilot or double remote signal pressure must be equal to or greater than main valve pressure

Flow:
   Cv = 1.5 (2 Position)
   Cv = 1.1 (3 Position)
MAC 83 Series
How to Order 83 Series

83A - X X X - XX-XXXX-XXX

Pilot Valve Model Numbering

<table>
<thead>
<tr>
<th>Spool Type</th>
<th>Pilot Air Options</th>
<th>Base Port Size and Thread Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Base Only</td>
<td>0 Valve Only</td>
</tr>
<tr>
<td>C</td>
<td>Sgl. Oper. Dual Press.</td>
<td>B 3/8 NPTF</td>
</tr>
<tr>
<td>D</td>
<td>Dbl. Oper. Dual Press.</td>
<td>C 1/4 BSPPL</td>
</tr>
<tr>
<td>E</td>
<td>3 Pos. Closed Center</td>
<td>D 3/8 BSPPL</td>
</tr>
<tr>
<td>F</td>
<td>3 Pos. Open Center</td>
<td>E 1/4 BSPTR</td>
</tr>
<tr>
<td>M</td>
<td>Sgl. Oper. Sgl. Press. w/ memory spring</td>
<td>Bottom Cyl. Ports</td>
</tr>
<tr>
<td>N</td>
<td>Sgl. Oper. Dual Press. w/ memory spring</td>
<td>G 1/4&quot; NPTF</td>
</tr>
</tbody>
</table>

Supply from #5 port

Ext. Pilot from 14 End

Ext. Pilot from 12 End
How to Order Pilot Valve Options For 83 Series (Sgl. Operators)
(Partial Listing)

**DM-D XX X - X XX**

**Voltage**
- JA 110/50, 120/60 (2.9W)
- JB 220/50, 240/60 (2.9W)
- JC 24/60 (2.9W)
- FB 24 VDC (1.8W)
- DA 24 VDC (5.4W)
- DF 24 VDC (12.7W)

**Wire Length**
- A 18”
- B 24”
- J* 6”

* For use with "J" & "K" type connectors

**Manual Operator**
- 1 Recessed Non-Locking Operator
- 2 Recessed Locking Operator

**Electrical Connection**
- KA Square Connector
- KD Square Connector with Light
- JB Rectangular Connector
- JD Rectangular Connector with Light
- BA Flying Leads

**DM-G XX X - X XX**

**Voltage**
- DC 24 VDC (1.8W)
- DD 24 VDC (2.5W)
- DF 24 VDC (4.0W)

**Wire Length**
- A 18”
- B 24”
- C 36”

**Manual Operator**
- 1 Recessed Non-Locking Operator
- 2 Recessed Locking Operator

**Electrical Connection**
- BA Flying Leads
- RA Mini JAC Solenoid Plug-In
- RB Mini JAC Solenoid Plug-In with LED
- TA JST Solenoid Plug-In
- TB JST Solenoid Plug-In w/ LED

**DM-R XX X - X XX**

**Voltage**
- DC 24 VDC (1.8W)
- DD 24 VDC (2.5W)
- DF 24 VDC (4.0W)
- DJ 12 VDC (1.8W)
- DK 12 VDC (2.5W)
- DM 12 VDC (4.0W)

**Wire Length**
- A 18”
- B 24”
- C 36”

**Manual Operator**
- 1 Recessed Non-Locking Operator
- 2 Recessed Locking Operator
- 3 Extended Non Locking Operator

**Electrical Connection**
- BA Flying Leads
- RA Mini JAC Solenoid Plug-In
- RB Mini JAC Solenoid Plug-In with LED
- TA JST Solenoid Plug-In
- TB JST Solenoid Plug-In w/ LED

**DM-RA1 X (For Single Remote Air Operator)**

**Pilot Port Size and Thread Type**
- 1 1/8" NPTF
- 4 1/8" BSPP
- 5 1/8" BSPRT
### How to Order Pilot Valve Options For 83 Series (Dbl. Operators)

#### Partial Listing

**TM-D XX X - X XX**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Wire Length</th>
<th>Manual Operator</th>
<th>Electrical Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA 110/50, 120/60</td>
<td>A 18&quot;</td>
<td>1 Recessed Non-Locking Operator</td>
<td>KA Square Connector</td>
</tr>
<tr>
<td>AB 220/50, 240/60</td>
<td>B 24&quot;</td>
<td>2 Recessed Locking Operator</td>
<td>KD Square Connector with Light</td>
</tr>
<tr>
<td>AC 24/60</td>
<td>J* 6&quot;</td>
<td></td>
<td>JB Rectangular Connector</td>
</tr>
<tr>
<td>FB 24 VDC (1.8W)</td>
<td>* For use with &quot;J&quot; &amp; &quot;K&quot; type connectors</td>
<td></td>
<td>JD Rectangular Connector with Light</td>
</tr>
<tr>
<td>DA 24 VDC (5.4W)</td>
<td></td>
<td></td>
<td>BA Flying Leads</td>
</tr>
<tr>
<td>DF 24 VDC (12.7W)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**RM-R XX X - X XX**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Wire Length</th>
<th>Manual Operator</th>
<th>Electrical Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA 24 VDC (0.5w)</td>
<td>0&quot; No lead wire</td>
<td>0 No Operator</td>
<td>BA Flying Leads</td>
</tr>
<tr>
<td>DB 24 VDC (1.0w)</td>
<td>A 18&quot;</td>
<td>1 Recessed Non-Locking Operator</td>
<td>BB Flying Leads w/ LED</td>
</tr>
<tr>
<td>DC 24 VDC (1.8W)</td>
<td>B 24&quot;</td>
<td></td>
<td>BC Flying Leads w/ MOV</td>
</tr>
<tr>
<td>DD 24 VDC (2.5W)</td>
<td>C 36&quot;</td>
<td>2 Recessed Locking Operator</td>
<td>BD Flying Leads w/ LED and MOV</td>
</tr>
<tr>
<td>DE 24 VDC (3.0w)</td>
<td>D 48&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DF 24 VDC (4.0W)</td>
<td>E 72&quot;</td>
<td>3 Extended Non Locking Operator</td>
<td>RA Mini JAC Solenoid Plug-In</td>
</tr>
<tr>
<td>DG 12 VDC (0.5w)</td>
<td>F 96&quot;</td>
<td></td>
<td>RB Mini JAC Solenoid Plug-In with LED</td>
</tr>
<tr>
<td>DH 12 VDC (1.0w)</td>
<td>G 120&quot;</td>
<td></td>
<td>RC Mini JAC Solenoid Plug-In with MOV</td>
</tr>
<tr>
<td>DJ 12 VDC (1.8W)</td>
<td>H 144&quot;</td>
<td></td>
<td>RD Mini JAC Solenoid Plug-In with LED and MOV</td>
</tr>
<tr>
<td>DK 12 VDC (2.5W)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DL 12 VDC (3.0w)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DM 12 VDC (4.0W)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not available for flying leads connector*
How to Order 83 Series Double Remote Air

83A - X X X - RA

Spool Type
0 Base Only
B Dbl. Oper. Sgl. Press
D Dbl. Oper. Dual Press.
E 3 Pos. Closed Center
F 3 Pos. Open Center
G 3 Pos. Dual Press., Press. Center

External Pilot
F Remote Air

Base Port Size and Thread Type
0 Valve Only

Side Cyl Ports
A 1/4" NPTF
B 3/8" NPTF
C 1/4" BSPPL
D 3/8" BSPPL
E 1/4" BSPTTR
F 3/8" BSPTTR

Bottom Cyl. Ports.
G 1/4" NPTF
H 1/4" BSPPL
J 1/4" BSPTTR
How to Order 83 Series
EBM Circuit Bar

EBM83A - XX X X X - XX - 9

- Spacing: 00 25.4 mm
- Configuration:
  - A: Side Cylinder Port
  - B: Bottom Cylinder Port
  - C*: Regulator w/ Bottom Cyl. Ports
- *Regulator must be ordered separately
- Style:
  - A: Standard Int. Pilot
  - B: Standard Common Ext. Pilot
- Port Size:
  - A: 1/8" NPTF
  - B: 1/4" NPTF
  - C: 1/4" Tube Fitting w/ NPTF Commons
  - D: 1/8" BSPP
  - E: 1/4" BSPP
  - F: 1/4" Tube Fitting w/ BSPP Commons
  - G: 1/8" BSPT
  - H: 1/4" BSPT
  - J: 1/4" Tube Fitting w/ BSPT Commons

Valves, Cover Plates Assembled to Manifold
Number of Stations

Common Through Ports are 3/8"

How to Order Regulator
PR92C - X X X X - 9

- Configuration: 0 Regulator Only
- Adjust Method:
  - Manual Adjust w/ Screwdriver Slot
  - Air Pilot Adjust
  - Manual Adjust w/ Knob
  - Manual Adjust w/ Screwdriver Slot w/ Lock Nut
  - Regulator Only
- Gages:
  - A: Gage port only (plugged)
  - B*: Gage w/ face perpendicular to manual operator
  - C*: Gage w/ face parallel to manual operator
- Pressure Range:
  - A: 0 to 120 PSI
  - B: 0 to 80 PSI
  - C: 0 to 30 PSI

Note: Air Pilot Adjust only available with option "A" (0 to 120 PSI)
83 Series Individual Base
1/4" Side Ports (shown w/ RM3 Pilots)
83 Series EBM Circuit Bar (non plug-in)
83 Series Individual Base
3/8" Side Ports
(shown w/ RM3 Pilots)
83 Series Single Solenoid
3/8" Side Ports
with RM Pilot
83 Series Single Solenoid
3/8" Side Ports
with GM Pilot