Technical features

Medium:
Compressed dry air, oil free filtered to 5 μm.

Operation:
Air piloted spool valve with integrated electronic pressure control

Output (nominal) pressure:
- Standard units: 0 ... 2 bar, (0 ... 30 psi); 0 ... 4 bar, (0 ... 60 psi); 0 ... 6 bar, (0 ... 90 psi); 0 ... 8 bar, (0 ... 120 psi); 0 ... 10 bar (0 ... 150 psi)
- Vacuum units: -1 ... 1 bar (-15 ... 15 psi)

Supply pressure:
Minimum 2 bar (29 psi) above maximum output required.
Standard units: 12 bar max. (174 psi)
Vacuum units: 6 bar max. (90 psi)

Air Supply sensitivity:
Better than 0,75% span output change per bar supply pressure change

Flow:
- Standard units up to 1400 N l/min (see characteristic curves)
- Vacuum units up to 300 N l/min

Air consumption:
< 5 N l/min

Ambient/Media temperature:
0 ... +60°C (+32 ... 122°F)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F)

Temperature Sensitivity:
Typically better than 0,03% span/°C

Degree of protection:
IP65 in normal operation
[exhaust and baffle protected from water ingress at temperatures <+5°C (+41°F)]

Linearly:
< 1%

Hysteresis and deadband:
< 1%

Response Time:
< 80 ms (from 10 ... 90% of output pressure into a 0,1 litre load).

Vibration & shock immunity:
< 3% span
0,75 m/s², 5 ... 150Hz, 1 m/s², 5 ... 150Hz

Weight:
0,55 kg

Materials:
Body: Aluminium
Lid: Zinc die cast,
Front cover: Grivory
End cap: PA

Maintenance:
No maintenance required
Calibration:
Gain, Span, Zero

Electrical details

Electromagnetic compatibility:
Conforms to EC requirements
EN 50081-2 (1994) and EN 50082-2 (1995)

Electrical input signal:
4 ... 20 mA or 0 ... 10 V factory set

Electrical power input:
24 V d.c. ±25%, power consumption < 1 W

Output pressure feedback signal:
0 ... 10 V full range, <±1% Accuracy

Connections:
M12x1, 5-pin
VP50
3 way proportional pressure control valve

Standard proportional valves
Option selector

<table>
<thead>
<tr>
<th>Output pressure</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 ... 2 bar/30 psi</td>
<td>02</td>
</tr>
<tr>
<td>0 ... 4 bar/60 psi</td>
<td>04</td>
</tr>
<tr>
<td>0 ... 6 bar/90 psi</td>
<td>06</td>
</tr>
<tr>
<td>0 ... 8 bar/120 psi</td>
<td>08</td>
</tr>
<tr>
<td>0 ... 10 bar/150 psi</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit for pressure</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>bar</td>
<td>B</td>
</tr>
<tr>
<td>psi</td>
<td>P</td>
</tr>
</tbody>
</table>

Vacuum proportional valves
- 1 ... 1 bar (-15 ... 15 psi)
Option selector

<table>
<thead>
<tr>
<th>Absolute pressure range</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 ... 2 bar/30 psi</td>
<td>02</td>
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Connecting plugs
Elbow connector M12 x 1

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0250081

Manifold mount assembly to ISO 2 sub base
Single manifold

Page 4
ZZSMX0

O-rings, flat seal and screws are included

Electrical connector pin looking into the end of the instrument

<table>
<thead>
<tr>
<th>Pin-No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+24 V d.c. supply</td>
</tr>
<tr>
<td>2</td>
<td>0 ... 10 V feedback</td>
</tr>
<tr>
<td>3</td>
<td>Control signal (+VE)</td>
</tr>
<tr>
<td>4</td>
<td>Common (supply signal and feedback return)</td>
</tr>
<tr>
<td>5</td>
<td>Chassis</td>
</tr>
</tbody>
</table>

Characteristic curves (standard units)

For options not shown and any specific requirements please contact the Norgren technical department via: www.norgren.com/ws
Basic dimensions

VP50 with manifold surface

Dimensions in mm
Projection/First angle
VP50
3 way proportional pressure control valve

Manifold mount assembly to ISO 2 sub base
included all seals and screws

1. Two screws M4 x 50 mm deep to mount the VP50 onto the manifold
2. Four screws M6x16 mm deep to mount the manifold onto the ISO subbase

Connector
Model: 0250081

Connector, 90°
M12 x 1, 5 pin, female,
5 m cable length, A coded

Warning
These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »Technical features/data«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.