Assembly and Connecting Instructions

Pressure Transmitters Series DMP and DMK

General
Please read this manual carefully prior to assembly and operation of the pressure transmitter. Handle the devices carefully – they are sensitive measuring devices.

The devices may only be installed, used and serviced by people are familiar with this manual, as well as the valid regulations for work safety and accident prevention.

For technical data of transmitter look actual data sheet.

Assembly

General Notes
- Do not use force when installing the devices.
- Tighten the cable screws by hand as the material is usually plastic.
- Send in the device for recalibration every 12 months, if it is subjected to greater demands.

Special Notes
- In hydraulic systems, place the pressure transmitter such that the pressure connection points downward. (Ventilation)
- If using in steam systems, include a cooling line.
- Please note that for very low pressure areas, a strong suction effect on the pressure transmitter can lead to a deviation of the characteristic curve.
Mechanical connections

**Mechanical Installation**

*With connections to DIN 3852, also flush*
- Check to ensure that the O-Ring fits properly in the groove (O-Ring is supplied with device)
- Ensure that the surface on which the seal is to be placed is perfectly clean.
- Screw the pressure transmitter by hand into the thread, and tighten without using excessive force. This achieves complete sealing action.
- Tighten the pressure transmitter with a wrench (max. torque 50 Nm).

*With connections to EN 837 (previously DIN 16288, Manometer connection)*
- Use a copper gasket corresponding to the diameter of the thread (gasket is not supplied)
- Ensure that the surface is clean on the gasket and gasket-facing surface and in the thread.
- Screw and tighten the pressure transmitter by hand into the thread.
- Tighten the pressure transmitter with a wrench (max. torque 50 Nm).
Electrical connection

Pin configuration

<table>
<thead>
<tr>
<th>DIN 43650</th>
<th>M 12x1 (4-pin)</th>
<th>Binder 723 (5-pin)</th>
<th>Binder 723 (7-pin)</th>
<th>Buccaneer (4-pin)</th>
<th>Cable colour (DIN 47100)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2-wire-system</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply +</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Supply −</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Ground</td>
<td>ground pin</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>3-wire-system</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply +</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>white</td>
</tr>
<tr>
<td>Supply −</td>
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<td>2</td>
<td>4</td>
<td>2</td>
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</tr>
<tr>
<td>Signal +</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>green</td>
</tr>
<tr>
<td>Ground</td>
<td>ground pin</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>cable shield</td>
</tr>
</tbody>
</table>
Wirings diagrams

The supply $V_S$ stand on the type label of transmitter and must be abided.

2-wire-system (current)

3-wire-system (current)

3-wire-system (voltage)

Maintenance

The devices require no maintenance.

On contamination of the pressure sensor clean the pressure connection regularly, independently of the medium and degree of contamination. Use a non-aggressive cleaning solution for this purpose.

Important! Never touch the membrane of the stainless steel sensors!!! Special care must be taken with flush-mounted sensors as well as with devices having process connectors (Type designations ending with "P"; i.e. DMP 331 P).

Ex-Note

Attention: For safe operation of the pressure measuring devices according to regulation in exterior areas, two manuals are required:

This Assembly and Connection Manual specifically for "Submersible Sensors, Series DMP and DMK" as well as the Manual "Installation in Ex-area". Both are valid only when used together!!!

CE-Note

The devices listed in this manual are in accordance with the EMC-standard 89/336/EWG including its amendments, as well as the norms EN 50081-2/1993, EN 55011/3/1991, EN 50082-2/3/1995.

BD SENSORS has acquired certification that the requirements of DIN EN ISO 9001:2000 have been fulfilled.