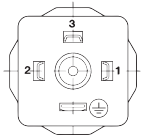
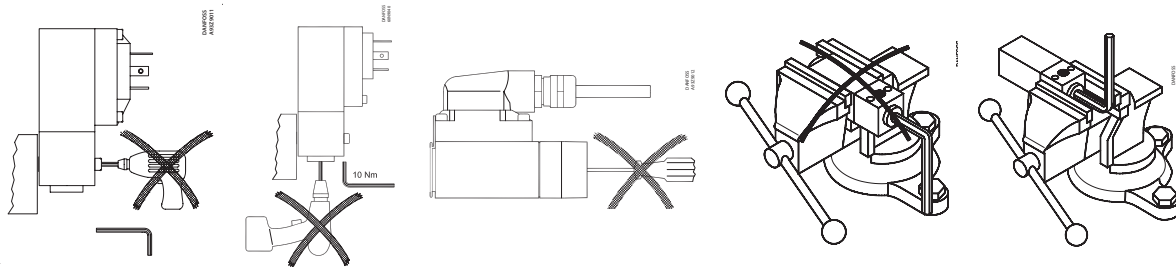
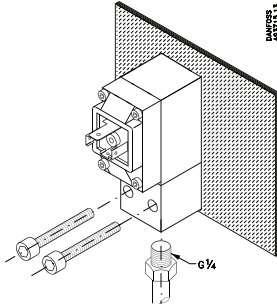
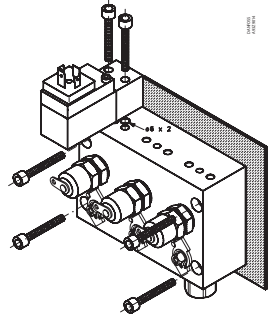
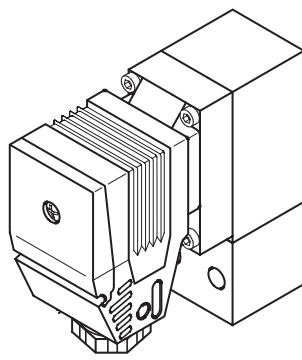
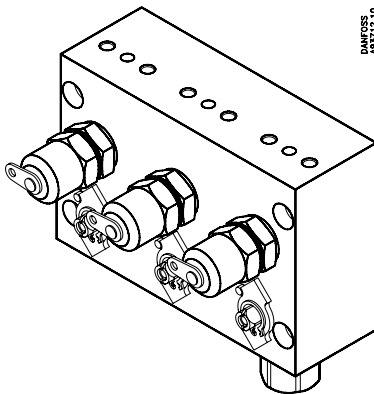


## Installation guide

### Pressure transmitters

### MBS 5100, MBS 5103, MBS 5150, MBS 5153

|                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 060R9349                                                                            | <div><br/></div> <div><p>Elektrisk tilslutning:<br/>Electrical connection:<br/>Elektrischer Anschluss:<br/>Raccordement électrique:<br/>Conexión eléctrica:<br/>ConneSSIONe elettrica:</p></div> <div><p>Se produktskilt<br/>See product label<br/>Siehe Produktschild<br/>Voir étiquette du produit<br/>Ver la pegatina en el producto<br/>Vedi etichetta sulla confezione</p></div> |                                                                                                                                   |
|                                                                                     | <div></div> <div><p>EN 175301-803</p></div> <div><p>Forbundet til kapsling<br/>Connected to enclosure<br/>Anschluss an das Gehäuse<br/>Connecté au boîtier<br/>Conectado a la caja<br/>Collegato al corpo</p></div>                                                                                |                                                                                                                                   |
|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                   |
|  | <p>Gevind/Thread/Gewinde/Filetage/Rosca/Filettato Flange/Flange/Flansch/Bride/Brida/Flangiato</p>                                                                                                                                                                                                                                                                                                                                                                    |                                               |
|                                                                                     | <p>MBS 5100/5103,<br/>MBS 5150/5153</p>  <p>DANFOSS<br/>80Z798</p>                                                                                                                                                                                                                                                                                                                                                                                                   | <p>MBV 5000</p>  <p>DANFOSS<br/>80B71010</p> |
|  | <p>Normal</p> <p>ATEX Zone 2</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p>-40 – 85 °C</p> <p>-20 – 85 °C</p>                                                                                             |

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                   |                                        |                                   |                      |                       |                                     |                |               |        |           |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------|-----------------------------------|----------------------|-----------------------|-------------------------------------|----------------|---------------|--------|-----------|
| <br><br>                                          | <p><b>Australian approvals:</b><br/>According to N1297.</p> <p><b>American and Canadian approvals:</b></p> <ol style="list-style-type: none"> <li>Automatic electrical controls acc. to UL 60730-1 and part 2-6 / CAN/CSA E60730 and part 2-6, file E31024.</li> <li>Equipment for process measurement and control acc. to UL 61010-1 / CSA C22.2 No. 61010-12, file E494625.</li> <li>Nonincendive electrical equipment for use in Class I, Div. 2, Groups A, B, C, and D, hazardous locations in acc. To UL 121201 / C22.2 No. CSA-213, file E227388 and E510763. Combinations of equipment in systems are subject to investigation by the local Authority Having Jurisdiction at the time of installation. These components are to be installed within a suitable tool-secured enclosure in end application.</li> </ol> <p><b>WARNING - EXPLOSION HAZARD</b> – Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous.</p> <ol style="list-style-type: none"> <li>The MWP (max. working pressure) in the range from 1 to 600 bar depending on sensor range. Refer to product label (E494625).</li> <li>Evaluated for pollution Degree 3.</li> <li>Altitude up to 8,000 m.</li> <li>Max. R.H. 95% non-condensing.</li> <li>Overvoltage category I.</li> <li>Powered by class 2 supply.</li> </ol> <table border="1"> <tr> <td>Type</td><td>MBS 5100, MBS 5103, MBS 5150, MBS 5153</td></tr> <tr> <td>Max. ambient temperature/(T-code)</td><td>85 °C to 135 °C (T4)</td></tr> <tr> <td>Electrical connectors</td><td>For UL approved see overview page 1</td></tr> <tr> <td>Voltage supply</td><td>+9 to 32 V DC</td></tr> <tr> <td>Output</td><td>4 - 20 mA</td></tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Type                                              | MBS 5100, MBS 5103, MBS 5150, MBS 5153 | Max. ambient temperature/(T-code) | 85 °C to 135 °C (T4) | Electrical connectors | For UL approved see overview page 1 | Voltage supply | +9 to 32 V DC | Output | 4 - 20 mA |
| Type                                              | MBS 5100, MBS 5103, MBS 5150, MBS 5153                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                   |                                        |                                   |                      |                       |                                     |                |               |        |           |
| Max. ambient temperature/(T-code)                 | 85 °C to 135 °C (T4)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                   |                                        |                                   |                      |                       |                                     |                |               |        |           |
| Electrical connectors                             | For UL approved see overview page 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                   |                                        |                                   |                      |                       |                                     |                |               |        |           |
| Voltage supply                                    | +9 to 32 V DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                   |                                        |                                   |                      |                       |                                     |                |               |        |           |
| Output                                            | 4 - 20 mA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                   |                                        |                                   |                      |                       |                                     |                |               |        |           |
|                                                   | <p><b>ATEX ZONE 2</b></p> <table border="1"> <tr> <td>   II 3G<br/> Ex ec IIA T3 Gc<br/> -20 °C &lt; Ta &lt; + 55 °C </td><td> EN60079-0; EN60079-7 </td></tr> </table> <p><b>Applicable in ATEX Zone 2 with medias classified as IIA in accordance to EN 60079-20-1:</b></p> <p>Alle elektriske tilslutninger skal udføres iht. ATEX Zone 2 regulativet - samt EN 60079-14.<br/> All electrical connections must comply with the ATEX requirements for Zone 2 - and EN 60079-14.<br/> Alle elektrischen Anschlüsse müssen gemäß ATEX Zone2 Regeln und EN 60079-14 durchgeführt werden.<br/> Tous les raccordements électriques doivent être effectués conformément aux règles ATEX zone 2 et EN 60079-14.<br/> Todas las conexiones eléctricas deben ser realizadas de acuerdo a los requerimientos de la normativa ATEX zona 2 y EN 60079-14.<br/> Tutti i collegamenti elettrici devono essere eseguiti secondo le normative ATEX Zone e EN 60079-14.</p> <p>Ved anvendelser i ATEX Zone 2 områder ved temperaturer &lt;10 °C skal kabel og stik beskyttes mod slag.<br/> When used in ATEX Zone2 areas at temperatures &lt;10 °C the cable and plug must be protected against impact.<br/> Wenn in ATEX Zone 2 bei Temperaturen &lt;10 °C verwendet werden, müssen die Kabel und Stecker gegen Stöße geschützt werden.<br/> Lorsqu'ils sont utilisés en zone 2 ATEX à des températures &lt;10 °C, le câble et le connecteur doivent être protégés contre les chocs.<br/> Cuando se usa en áreas ATEX Zona 2, a temperaturas &lt;10 °C, el cable y conector deben protegerse contra impactos.<br/> Per l'uso in ATEX Zona 2 a temperature &lt;10 °C, il cavo ed il connettore devono essere protetti contro gli urti.</p> <p>Stikket må ikke fjernes, når transmitteren er tilsluttet.<br/> Plug must not be removed when sensor is energized.<br/> Stecker darf nicht entfernt werden, wenn der sensor aktiviert ist.<br/> Le connecteur ne doit pas être retiré lorsque le capteur est encore sous tension.<br/> El conector no debe retirarse cuando el sensor esté activado.<br/> Il connettore elettrico non deve essere scollegato quando il sensore è in funzione.</p> <p>Kablet må ikke udsættes for nogen mekaniske skader, korrosion, vibration, varme eller UV stråling.<br/> Cable must neither be exposed for any mechanical damage, corrosion, vibration, heat nor UV radiation.<br/> Kabel müssen weder auf mechanische Beschädigungen, Korrosion, Vibration, Hitze noch UV-Strahlung ausgesetzt werden.<br/> Le câble ne doit être exposé à aucun dommage mécaniques, à la corrosion, aux vibrations, à la chaleur ou aux radiations UV.<br/> El cable no deber estar expuesto a ningún tipo de radiación, daños mecánicos, corrosión, vibraciones, calor ó UV.<br/> Il cavo non deve essere esposto a danni meccanici, corrosione, vibrazioni, fonti di calore o raggi UV.</p> | II 3G<br>Ex ec IIA T3 Gc<br>-20 °C < Ta < + 55 °C | EN60079-0; EN60079-7                   |                                   |                      |                       |                                     |                |               |        |           |
| II 3G<br>Ex ec IIA T3 Gc<br>-20 °C < Ta < + 55 °C | EN60079-0; EN60079-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                   |                                        |                                   |                      |                       |                                     |                |               |        |           |