PRESSURE FILTER, change-over
Series DA 1005  NPS 4"  CLASS 300 PSI

1. Type index:

1.1. Complete filter: (ordering example)


1) Connection for the potential equalisation at inlet and outlet, only for application in the explosive area.

Position I: Filter 1 in operation
Position II: Filter 2 in operation

Changes of measures and design are subject to alteration!

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2. **Accessories:**
- SAE-counter flanges, see sheet-no. 1652
- adapter for ANSI-connection B16.5 CLASS 300 PSI, see sheet-no. 1658
- measure- and bleeder-connections, see sheet-no. 1650
- drain- and bleeder connection, see sheet-no. 1659

3. **Spare parts:**

<table>
<thead>
<tr>
<th>item</th>
<th>qty.</th>
<th>designation</th>
<th>dimension</th>
<th>article-no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>filter element</td>
<td>01NR 1000</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>change over UKK</td>
<td>4”</td>
<td></td>
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<tr>
<td>3</td>
<td>1</td>
<td>O-ring</td>
<td>90 x 4</td>
<td>306941 (NBR) 307031 (FPM)</td>
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<tr>
<td>4</td>
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<td>62 x 4</td>
<td>308045 (NBR) 311472 (FPM)</td>
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<td>5</td>
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<td>308045 (NBR) 311472 (FPM)</td>
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<tr>
<td>6</td>
<td>4</td>
<td>O-ring</td>
<td>200 x 4</td>
<td>334555 (NBR) 334554 (FPM)</td>
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<tr>
<td>7</td>
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<td>O-ring</td>
<td>185 x 6</td>
<td>335381 (NBR) 335206 (FPM)</td>
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<tr>
<td>8</td>
<td>12</td>
<td>screw plug</td>
<td>NPT ½</td>
<td>307766</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>screw plug</td>
<td>BSPP ¼</td>
<td>305003</td>
</tr>
<tr>
<td>10</td>
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<td>clogging indicator, visual</td>
<td>AOR or AOC</td>
<td>see sheet-no. 1606</td>
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<td>clogging indicator, visual-electrical</td>
<td>OP</td>
<td>see sheet-no. 1628</td>
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<tr>
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<td>OE</td>
<td>see sheet-no. 1628</td>
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<td>AE</td>
<td>see sheet-no. 1609</td>
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<tr>
<td>14</td>
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<td>clogging sensor, electronical</td>
<td>VS1</td>
<td>see sheet-no. 1607</td>
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<tr>
<td>15</td>
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<td>clogging sensor, electronical</td>
<td>VS2</td>
<td>see sheet-no. 1608</td>
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<td>16</td>
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<td>O-ring</td>
<td>15 x 1,5</td>
<td>315367 (NBR) 315427 (FPM)</td>
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<td>O-ring</td>
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<td>18</td>
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<td>O-ring</td>
<td>14 x 2</td>
<td>304342 (NBR) 304722 (FPM)</td>
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<tr>
<td>19</td>
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<td>screw plug</td>
<td>BSPP ¼</td>
<td>305003</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>pressure balance valve</td>
<td>3/8”</td>
<td>305000</td>
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</tbody>
</table>

4. **Description:**
Pressure filters, change-over series DA 1005 are suitable for operating pressure up to 580 PSI. Pressure peaks can be absorbed with a sufficient margin of safety. Change-over ball valve which, integrated in the middle of the housing, makes it possible to switch from the dirty filter-side to the clean filter-side without interrupting operation.

The filter element consists of star-shaped pleated filter material which is supported on the inside by a perforated core tube and is bonded to the end caps with a high-quality adhesive. The flow direction is from outside to the inside. These filters can be installed as suction filters.

For cleaning (see special leaflet 21070-4) the mesh element respectively to change the glass fiber element remove the cover and take out the element.

Filter finer than 40 µm should use throw-over ball valve which, over series DA 1005 are suitable for operating pressure up to 580 PSI.

Internormen Product Line filter elements as fine as 5 µm. Filter elements as fine as 5 µm are available; finer filter elements on request.

Internormen Product Line filter elements are known as elements with a high intrinsic stability and an excellent filtration capability, a high pressure- and temperature resistance as well as a high dirt-containing capacity and a long service life.

Internormen Product Line filter are suitable for all petroleum based fluids, HW-emulsions, most synthetic hydraulic fluids and lubrication oils.

Filter elements are tested according to the following ISO standards:
- ISO 2942 Verification of fabrication integrity
- ISO 2943 Verification of material compatibility with fluids
- ISO 3968 Verification of collapse/burst resistance
- ISO 16889 Verification of pressure drop versus flow characteristics
- ISO 9868 Evaluation of pressure drop versus flow characteristics
- ISO 16889 Multi-pass method for evaluating filtration performance

5. **Technical data:**
- temperature ranges:
  - calculation temperature (pressure vessel): +14°F to +212°F
  - medium temperature: +14°F to +176°F
  - ambient temperature: -40°F to +140°F
  - survival temperature: -40°F to +212°F (short-time)
- operating medium: mineral oil, other media on request
- max. operating pressure: 580 PSI
- test pressure acc. to PED 97/23/EC: 1.43 x operating pressure = 827 PSI
- test pressure acc. to ASME VIII Div. 1: 1.3 x operating pressure = 754 PSI
- test pressure acc. to API 614, Chapter 1: 1.5 x operating pressure = 870 PSI
- housing material: SAE-flange connection 3000 PSI steel
- sealing material: Nitrile (NBR) or Viton (FPM), other materials on request
- installation position: vertical
- bleeder connection: NPT ½” and SAE ½” 3000 PSI
- drain connection: NPT ½” and SAE ½” 3000 PSI
- drain connection clean side: NPT ½”
- volume tank: 2 x 5.02 Gal.
- operating pressure adapter flanges: according to B16.5 CLASS 300 PSI

Classified under the Pressure Equipment Directive 97/23/EC for mineral oil (fluid group 2), Article 3, Para. 3.
Classified under ATEX Directive 94/9/EC according to specific application (see questionnaire sheet-no. 34279-4)

6. **Symbols:**
- without indicator
- with shut-off valve
- with by-pass valve
- with electrical indicator AE 30 and AE 40
- with visual-electrical indicator AE 50 and AE 62
- with visual-electrical indicator AE 70 and AE 80
- AOR/AOC/OP
- with visual-electrical indicator OE

7. **Pressure drop flow curves:**
Precise flow rates see ‘Interactive Product Specifier’, respectively \( \Delta p \) curves; depending on filter fineness and viscosity.

8. **Test methods:**
Filter elements are tested according to the following ISO standards:
- ISO 2941 Verification of collapse/burst resistance
- ISO 2942 Verification of fabrication integrity
- ISO 2943 Verification of material compatibility with fluids
- ISO 3723 Method for end load test
- ISO 3724 Verification of flow fatigue characteristics
- ISO 9868 Evaluation of pressure drop versus flow characteristics
- ISO 16889 Multi-pass method for evaluating filtration performance