### PRESSURE FILTER, change-over

**Series** DA 1004  
**NPS 3” CLASS 300 PSI**  
**Sheet No.** 2185 C

#### 1. Type index:

**1.1. Complete filter:** (ordering example)


**1.2. Filter element:** (ordering example)

**01NR.** 1000. 10VG. 10. B. P. - .

Changes of measures and design are subject to alteration!

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**Changes of measures and design are subject to alteration!**

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**url** www.eaton.com/filtration
2. Accessories:
- SAE-counter flanges, see sheet no. 1652
- adapter for connection acc. to EN1092-1, see sheet no. 1657
- adapter for ANSI connection B16.5 CLASS 300 PSI, see sheet no. 1658
- measure- and bleeder-connections, see sheet no. 1659
- 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>G ½ inch</td>
<td>111599...</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>change over UKK</td>
<td>DN 80</td>
<td>307031 (FPM)</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>O-ring</td>
<td>90 x 4</td>
<td>306941 (NBR)</td>
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<tr>
<td>4</td>
<td>4</td>
<td>O-ring</td>
<td>4 x 4</td>
<td>306045 (NBR)</td>
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<tr>
<td>5</td>
<td>2</td>
<td>corep</td>
<td>DIN425 75 x 2.5 ST</td>
<td>311471</td>
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<tr>
<td>6</td>
<td>4</td>
<td>O-ring</td>
<td>200 x 4</td>
<td>334555 (FPM)</td>
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<tr>
<td>7</td>
<td>2</td>
<td>O-ring</td>
<td>185 x 6</td>
<td>335981 (NBR)</td>
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<tr>
<td>8</td>
<td>12</td>
<td>screw plug</td>
<td>NPT 1½</td>
<td>3005003</td>
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<tr>
<td>9</td>
<td>2</td>
<td>screw plug</td>
<td>G ½</td>
<td>3005003</td>
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<tr>
<td>10</td>
<td>1</td>
<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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<td>OE</td>
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<tr>
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<td>clogging indicator, visual-electrical</td>
<td>AE</td>
<td>see sheet no. 1639</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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<tr>
<td>16</td>
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<td>O-ring</td>
<td>15 x 1.5</td>
<td>315357 (NBR)</td>
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<td>17</td>
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<td>O-ring</td>
<td>22 x 2</td>
<td>304708 (NBR)</td>
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<td>O-ring</td>
<td>14 x 2</td>
<td>304342 (NBR)</td>
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<tr>
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<td>G ½</td>
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<td>20</td>
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<td>pressure balance valve</td>
<td>DN 10</td>
<td>3005003</td>
</tr>
</tbody>
</table>

Item 19 execution only with clogging indicator or clogging sensor

4. Description:
Pressure filters, change-over series DA 1004 are suitable for operating pressure up to 40 bar. 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 no. 1659) the filter element must be removed. Fine filters should use throw and take out the element. These filters can be installed as suction filters.

Filter elements are known as elements with a high intrinsic stability and an excellent filtration capability, a high dirt-retaining capacity and a long service life.

Internormen Product Line filter elements 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 dirt-retaining capacity and a long service life.

5. Technical data:
- temperature ranges:
  - calculation temperature (pressure vessel): -10°C to +10°C
  - medium temperature: -10°C to +80°C
  - ambient temperature: -40°C to +60°C
  - survival temperature: -40°C to +100°C (short-time)
- operating medium: mineral oil, other media on request
- max. operating pressure housing: 40 bar
- test pressure acc. to PED 97/23/EC: 1.3 x operating pressure = 52 bar
- test pressure acc. to ASME VIII Div. 1: 1.5 x operating pressure = 60 bar
- test pressure acc. to API614, Chapter 1: connection system: SAE flange connection 3000 PSI
- housing material: steel
- sealing material: Nitrile (NBR) or Viton (FPM), other materials on request
- bleeder connection: NPT ½" and SAE ½" 3000 PSI
- drain connection dirt side : NPT ½" and SAE ½" 3000 PSI
- drain connection clean side : NPT ½"
- volume tank: 2x 1x1
- operating pressure adapter flanges: according to B16.5 CLASS 300 PSI / DIN EN 1092-1

6. Symbols:
- without indicator
- with shut-off valve
- with by-pass valve
- with electrical indicator
  - AE 30 and AE 40
  - AE 50 and AE 62
  - AE 70 and AE 80
- with visual electrical indicator
  - AOR/AOC/OP
- with visual electrical indicator
  - VS1
- with visual electrical indicator
  - VS2

7. Pressure drop flow curves:
Precise flow rates see ‘Interactive Product Specifier’, respectively gr-curve; 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 3968 Evaluation of pressure drop versus flow characteristics
- ISO 16889 Multi-pass method for evaluating filtration performance

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)