PRESSURE FILTER, change-over
Series DA 1004 NPS 3” CLASS 300 PSI

1. Type index:

1.1. Complete filter: (ordering example)

DA. 1004. 10VG. 10. B. P. - FS. A. - - AE. AV. IS21. F. F

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

2) Filter element:

Example: 01NR. 1000. 10VG. 10. B. P. -

1.2. Filter element: (ordering example)

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

Changes of measures and design are subject to alteration!

Friedenstrasse 41, 68804 Altlussheim, Germany
phone +49 (0)6205 - 2094-0 e-mail info-internormen@eaton.com
fax +49 - 06205 - 2094-40 url www.eaton.com/filtration
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>31</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>O-ring</td>
<td>90 x 4</td>
<td>306941 (NBR)</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>O-ring</td>
<td>62 x 4</td>
<td>308045 (NBR)</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>Circuip</td>
<td>DIN472-75x2.5-ST</td>
<td>311471</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>O-ring</td>
<td>200 x 4</td>
<td>334555 (NBR)</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>O-ring</td>
<td>195 x 6</td>
<td>335381 (NBR)</td>
</tr>
<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>
<td>1</td>
<td>Clogging indicator, visual</td>
<td>AOR or AOC</td>
<td>see sheet no. 1606</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>Clogging indicator, visual-electrical</td>
<td>OP</td>
<td>see sheet no. 1628</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>Clogging indicator, visual-electrical</td>
<td>OE</td>
<td>see sheet no. 1629</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>Clogging indicator, visual-electrical</td>
<td>AE</td>
<td>see sheet no. 1609</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>Clogging sensor, electronic</td>
<td>VS1</td>
<td>see sheet no. 1607</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>Clogging sensor, electronic</td>
<td>VS2</td>
<td>see sheet no. 1608</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>O-ring</td>
<td>16 x 1.5</td>
<td>315397 (NBR)</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>O-ring</td>
<td>22 x 2</td>
<td>304706 (NBR)</td>
</tr>
<tr>
<td>18</td>
<td>2</td>
<td>O-ring</td>
<td>14 x 2</td>
<td>304342 (NBR)</td>
</tr>
<tr>
<td>19</td>
<td>2</td>
<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>
</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 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) 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-away elements made of paper or Interpor fleece (glass fiber). Filter elements as fine as 5 µm are available; finer filter elements on request.
Internormen Product Line filters are suitable for all petroleum based fluids, HW-emulsions, most synthetic hydraulic fluids and lubrication oils.
The inspection according to TÜV, according to ASME VIII Div.1 and the major “Shipyard Classification Societies” D.N.V.; B.V.; G.L.; L.R.S.; R.I.N.A.; A.B.S. and others are possible. If inspection is required please indicate in your order.

5. Technical data:

<table>
<thead>
<tr>
<th>Temperature ranges</th>
<th>Calculation temperature (pressure vessel):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium temperature:</td>
<td>+14°F to +212°F</td>
</tr>
<tr>
<td>Ambient temperature:</td>
<td>+4°F to +176°F</td>
</tr>
<tr>
<td>Survival temperature:</td>
<td>+4°F to +140°F</td>
</tr>
</tbody>
</table>

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
Connection system: SAE-flange connection 3000 PSI
Housing material: 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 dirt side: NPT ½” and SAE ½” 3000 PSI
Drain connection clean side: NPT ½”
Volume tank: 2x 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 50 and AE 62
AE 70 and AE 80
AOR/AOC/OE

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 9968 Evaluation of pressure drop versus flow characteristics
- ISO 16889 Multi-pass method for evaluating filtration performance