PRESSURE FILTER, change-over
Series DA 1014 NPS 3” CLASS 150 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
2. Accessories:  
- SAE-counter flanges, see sheet-no. 1652  
- adapter for ANSI-connection B16.5 CLASS 150 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>O1NR 1000</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>change over UKK</td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>4</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>O-ring</td>
<td>62 x 4</td>
<td>308045 (NBR) 311472 (FPM)</td>
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<tr>
<td>5</td>
<td>2</td>
<td>circlop</td>
<td>DIN472-75x2,5-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 (NBR) 334564 (FPM)</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>O-ring</td>
<td>185 x 6</td>
<td>335381 (NBR) 335396 (FPM)</td>
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<tr>
<td>8</td>
<td>12</td>
<td>screw plug</td>
<td>NPT ½”</td>
<td>307766</td>
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<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. 1607</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>clogging indicator, visual-electrical</td>
<td>OP</td>
<td>see sheet-no. 1628</td>
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<tr>
<td>12</td>
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<td>clogging indicator, visual-electrical</td>
<td>OE</td>
<td>see sheet-no. 1628</td>
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<tr>
<td>13</td>
<td>1</td>
<td>clogging indicator, visual-electrical</td>
<td>AE</td>
<td>see sheet-no. 1609</td>
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<tr>
<td>14</td>
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<td>clogging sensor, electronic</td>
<td>VS1</td>
<td>see sheet-no. 1607</td>
</tr>
<tr>
<td>15</td>
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<td>clogging sensor, electronic</td>
<td>VS2</td>
<td>see sheet-no. 1607</td>
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<tr>
<td>16</td>
<td>1</td>
<td>O-ring</td>
<td>15 x 1,5</td>
<td>315397 (NBR) 315427 (FPM)</td>
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<tr>
<td>17</td>
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<td>O-ring</td>
<td>22 x 2</td>
<td>304708 (NBR) 304721 (FPM)</td>
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<tr>
<td>18</td>
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<td>O-ring</td>
<td>14 x 2</td>
<td>304342 (NBR) 304722 (FPM)</td>
</tr>
<tr>
<td>19</td>
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<td>screw plug</td>
<td>BSPP ¼”</td>
<td>305003</td>
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<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 1014 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 no. 1652 and 1658) for oil filters. The mesh element respectively to change the glass fiber element remove the cover and take out the element.
Filter finner than 40 µm should use throw-away elements made of paper or Interpor fleecy (glass fiber). 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 dirt-retaining 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.
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.L.N.A.; A.B.S. and others are possible. If inspection is required please indicate in your order.

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: - 14°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
- 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 ¼“ and SAE ¼” 3000 PSI
- drain connection clean side: NPT ½“
- volume tank: 2x 5.94 Gal.
- operating pressure adapter flanges: according to B16.5 CLASS 150 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

<table>
<thead>
<tr>
<th>with visual-electrical indicator</th>
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<th>with visual-electrical indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>no. 50 and AE 62</td>
<td>no. 70 and AE 80</td>
<td>OE</td>
</tr>
</tbody>
</table>

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