1) Position II: only for application in the explosive area.

Connection for the potential equalisation at inlet and outlet,
Filter 2 in operation
Filter 1 in operation

1. Type index: (ordering example)
DA. 1014. 10VG. 10. B. P. -. FS. A. -. -. AE. AV. IS21. F. F

1.1. Complete filter: (ordering example)
Series: DA 1014
NPS 3\" CLASS 150 PSI

1.2. Filter element: (ordering example)
01NR. 1000. 10VG. 10. B. P. -. 370 kg

Changes of measures and design are subject to alteration!
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 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>
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<tr>
<td>1</td>
<td>2</td>
<td>filter element</td>
<td>61NR10000...</td>
<td>2180 C</td>
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<td>2</td>
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<td>change over UKK</td>
<td>DIN 80</td>
<td>306941 (NBR) 307031 (FPM)</td>
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<td>335367 (NBR) 315427 (FPM)</td>
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<td>NPT ½&quot;</td>
<td>307766</td>
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<td>9</td>
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<td>screw plug</td>
<td>G ¼&quot;</td>
<td>305003</td>
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<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>CP</td>
<td>see sheet no. 1628</td>
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<td>AE</td>
<td>see sheet no. 1606</td>
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<td>VS1</td>
<td>see sheet no. 1607</td>
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<td>VS2</td>
<td>see sheet no. 1608</td>
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<td>304342 (NBR) 304322 (FPM)</td>
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<td>G ⅝&quot;</td>
<td>305003</td>
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<td>20</td>
<td>1</td>
<td>pressure balance valve</td>
<td>DIN 10</td>
<td>305000</td>
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</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 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 21070-3 and 24448-4) the mesh element respectively to change the glass fibre 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 fibre). 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.I.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):
  - medium temperature:
  - ambient temperature:
  - survival temperature:
- operating medium: mineral oil, other media on request
- max. operating pressure housing: 40 bar
- test pressure acc. to PED 97/23/EC: 1.4 x operating pressure = 57 bar
- test pressure acc. to ASME VIII Div. 1: 1.3 x operating pressure = 52 bar
- test pressure acc. to API 614, Chapter 1: 1.5 x operating pressure = 60 bar
- 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 ¾"
- volume tank: 2 x 19 l
- operating pressure adapter flanges: according to B16.5 CLASS 150 PSI / DIN EN 1092-1

34279-4

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
  - ADP/AOC/CP
  - 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 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)