1. **Type index:** (ordering example)

- **AE. 10. 1.5. P. VA. Ex**
  - 1 series: AE = clogging indicator electrical
  - 2 contact: 10 = contact maker
  - 3 indicator-pressure difference: \( \Delta p \) nominal 1,5 = 22 PSI; 2,5 = 36 PSI; 5,0 = 73 PSI
  - 4 sealing material:
    - P = Nitrile (NBR)
    - V = Viton (FPM)
  - 5 material:
    - VA = stainless steel
  - 6 execution: Ex = explosion-proof

2. **Technical data:**

- Permissible fluid temperature: \(-40^\circ F\) to \(+176^\circ F\)
- Permissible ambient temperature: \(-40^\circ F\) to \(+140^\circ F\)
- Max. operating pressure: 6000 PSI
- Max. pressure difference: 2320 PSI

3. **Electrical limit facts:**

- Execution: V DC/V AC 200/250 V, max. 30 Watt
- Switch contact: contact maker
- Protection: Ex II 2 GD Ex mb II T6 KEMA 00ATEX 1112 X

4. **Symbol:**

- \( p_1 \) \( p_2 \)
- Contact maker

5. **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>1</td>
<td>O-ring</td>
<td>14 x 2</td>
<td>304342 (NBR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>304722 (FPM)</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>O-ring</td>
<td>22 x 2</td>
<td>304708 (NBR)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>304721 (FPM)</td>
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<tr>
<td>3</td>
<td>1</td>
<td>Switch explosion-proof</td>
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<td>315461</td>
</tr>
</tbody>
</table>

Changes of measures and design are subject to alteration!

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5. Description:
The AE 10 pollution indicator is an electrical differential pressure indicator. The differential pressure indicator can be fitted to all pressure filters $p \leq 6000$ PSI for which there is a corresponding assignment on the relevant dimension drawing. As the degree of pollution of the filter element rises, so the difference between the entry pressure $p_1$ and the exit pressure $p_2$ of the filter increases. Depending on this pressure difference and irrespective of the operating pressure, an electrical signal on the AE 10 pollution indicator will be released.
A metering piston subjected to the entry and exit pressure moves against a metering spring according to the pressure differential. Depending on the path a permanent magnet integrated in the metering piston activates a reed contact (electromagnetic switch) and triggers the electrical signal. The electrical indication is effected as a digital signal at the given switching pressure.
At the AE 10 pollution indicator the closed condition signalizes that the change of the filter element is necessary.

6. Operating instructions:
Normally filters are supplied with mounted clogging indicator. When retrofitting - the filter is to be discharged of the operating pressure.
- dismantling the screw plug out of the bare hole which is foreseen for the clogging indicator
- screw in the clogging indicator into the bare hole (starting torque 92.18 lb.-ft.).
It is necessary to make sure the availability and the right positioning of sealing parts
- O-ring 22 x 2 and
- O-ring 14 x 2
as well as a dirt-free mounting. The electrical contacts are to be connected according to the graphical symbol shown on the type plate of the clogging indicator.

7. Maintenance:
The device is maintenance-free, however, note that no cleaning fluids and solvents get on the housing and the cable of the switch.