SPECTORcompact

Where formerly two devices were required, all you need now is just a single SPECTORcompact. As a combined level electrode and controller, it presents the economical alternative for monitoring liquid levels in small installations and steam boilers.

Since the entire electronic control unit is located within the terminal box, the transmission path is short and reliability is higher than for comparable systems.

System Description NRGS 1...-1

The compact system NRGS 11-1 or NRGS 16-1 works according to the conductivity measurement principle. With the NRGS 1...-1 a maximum of four levels can be signalled in conductive liquids:

- High-level alarm, first low-level alarm, pump on, pump off, with one switchpoint each.

The NRGS 1...-1 has a level switch integrated in the electrode case for the control of all functions. An external switching device is not required.

Features and Benefits SPECTORcompact

- Patented temperature barrier in cylindrical body above electrode flange
- Terminal box equipped with excess temperature fuse (102 °C)
- Level electrode and controller in one unit
- Optimum system adaptation thanks to modular design
- No mounting of component parts in control cabinet
  - No space requirements
  - No installation
  - No wiring
  - Easy planning
- No special cable required for wiring sensing unit to control cabinet

- Simplified logistics
  - Only one item of equipment has to be ordered and checked upon receipt
  - Reduced inventory requirements and simplified stocking
  - No onerous assignment procedures of individual component parts to mechanical engineering dept. (boiler) and measurement and control engineering dept. (control cabinet)
- Interchanges with old float-operated systems since they have their output contacts also integrated in the terminal box.

System Description NRGS 1...-2

The compact system NRGS 11-2, NRGS 16-2 works according to the conductivity measurement principle. With the NRGS 1...-2 a maximum of three levels can be signalled in conductive liquids:

- Low-level alarm, pump on, pump off, with one normally open contact.

The NRGS 1...-2 has a level switch integrated in the electrode case for the control of all functions. An external switching device is not required.

The NRGS 1...-2 has two electrode tips for the detection of low-water level. The low-level alarm is signalled via two separate switching channels.

System Description NRGT 26-1

The compact system NRGT 26-1 works according to the capacitance measurement principle. The NRGT 26-1 is used for signalling different levels in conductive and insulating liquids.

- Modulating control ensures that the liquid level is always within the predefined measuring range of the electrode.

The NRGT 26-1 has a level transmitter integrated in the electrode case which produces a standard analogue output of 4 – 20 mA. An external switching device is not required.

Pump Control Units

<table>
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<tr>
<th>Standard features</th>
<th>Type</th>
<th>NRSP 1-11</th>
<th>NRSP 1-12</th>
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<tbody>
<tr>
<td>Pump protection against running dry</td>
<td>●</td>
<td>●</td>
<td></td>
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<tr>
<td>Pump protection against running dry and high-level alarm</td>
<td>–</td>
<td>–</td>
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<tr>
<td>Time-dependent pump switching device</td>
<td>–</td>
<td>●</td>
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<td>Switching-on of stand-by pump</td>
<td>–</td>
<td>–</td>
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<tr>
<td>Collective malfunction alarm (visible)</td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Collective malfunction alarm (visible and audible)</td>
<td>–</td>
<td>–</td>
<td></td>
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<tr>
<td>Volt-free contacts</td>
<td>●</td>
<td>●</td>
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<tr>
<td>Remote level indication</td>
<td>–</td>
<td>–</td>
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</table>
Compact system for on-off level control with fixed switchpoints

Water-level controller with two additional limit contacts, power supply 115/230 V, 50 Hz.

Compact system for water-level limitation and on-off control

Low-level alarm and liquid level controller, power supply 115/230 V, 50 Hz.

Compact system for modulating level control

Modulating level control with current output 4 – 20 mA, power supply 115/230 V, 50 Hz.

Pump control

Optional 4 - 20 mA, 100 % / 0 %