**Bypass Level Indicators**

with Threaded Connection

- Measuring length: max. 6000 mm
- Pressure: max. PN 16 / 150 lbs
- Temperature: max. 120 °C
- Viscosity: max. 200 mm²/s
- Accuracy of transmitter: ±1% mm
- Material: stainless steel 1.4301
- Connections: R ½, R ¾, R 1, R 1¼ according to DIN EN 10226-1 ½ NPT, ¾ NPT, 1 NPT, 1 ¼ NPT
- Rugged, reliable magnetic roller-type display located right at unit; requires no auxiliary power source
- Limit contacts
Kobold bypass level indicators are used for continuous measurement, display and monitoring of liquid levels. The bypass tube is attached onto the side wall of the vessel. According to the law of communicating tubes the level in the bypass tube equals the level in the vessel. A float with embedded magnets in the bypass tube follows the liquid level and transfers it in a non-contacting manner to a display fitted outside the tube or to a monitoring device. The following indication and monitoring devices are available:

**Magnetic roller indicator**

As the float passes by, the red/white rollers are rotated in succession by 180° around their own axes. The rollers change from white to red as the level rises and from red to white as the level falls. The level is continuously displayed as a red column, even when the power fails.

**Transmitter**

A magnetostrictive transmitter can be mounted outside the bypass tube to teletransmit the level. A continuous standard signal of 4 to 20 mA is output by means of a fitted transmitter.

**Limit contacts**

Reed contacts for limit-value acquisition or also for level control can be secured to the bypass tube.

**Applications**

- Storage tanks
- Tanks on ships
- Mixing vessels
- Water tanks

**Order Details** (Example: NBK-01R15 RP0A)

<table>
<thead>
<tr>
<th>Desired medium density</th>
<th>Allowed medium density</th>
<th>Design</th>
<th>Order number*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 kg/dm³</td>
<td>0.9 - 1.18 kg/dm³</td>
<td>with roller indication</td>
<td>NBK-01...RP0A</td>
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<tr>
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<td>0.78 - 0.88 kg/dm³</td>
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<tr>
<td>Standard limit contact</td>
<td></td>
<td></td>
<td>NBK-R</td>
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</tbody>
</table>

**Limit contacts, type NBK-R**

Contact operation: bistable changeover contact
Switching hysteresis: approximately 15 mm
Switch capacity: 60 W/VA, 230 VAC/DC, 1 A
Resistance: 100 mΩ
Medium temperature: max. 100°C
Ambient temperature: max. 75°C
Connection: 3 m PVC cable
Housing: polycarbonate
Protection: IP 65

**Magneostic transmitter with 4-wire transmitter**

Output: 4 - 20 mA
Supply voltage: 24 VDC, max. 150 mA
Load: max. 500 Ω
Max. length: 4000 mm
Medium temperature: max. 120°C
Ambient temperature: max. 80°C
Accuracy: ± 1 mm
Housing: Aluminum pressure-cast
Protection: IP 65

**Dimensions**

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**Technical Details**

Bypass tube: Ø 60.3 mm, st. steel, 1.4301
Connections: R ½, Option: R ¾, R 1, R 1 ¼
½ NPT, ¾ NPT, 1 NPT, 1¼ NPT
Float: Titan
Flat Gasket: PTFE
Max. medium temperature: 120°C
Max. pressure: PN 16
Max. viscosity: 200 mm²/s
Density: 0.78 to 1.18 kg/dm³
Max. measuring length: 6000 mm
Overall length: see dimensions
Indication error: ± 20 mm with deviation from the desired density
Roller indication: aluminium section with polypropylene rollers

No responsibility taken for errors; subject to change without prior notice.