

NIVOFLIP

BYPASS LIQUID LEVEL INDICATOR

FEATURES

- Clearly visible optical display
- measuring range: 500-3500 mm
- ± 10 mm accuracy
- max. 32 bar process pressure
- Optional level switches
- Optional magnetostrictive level transmitter

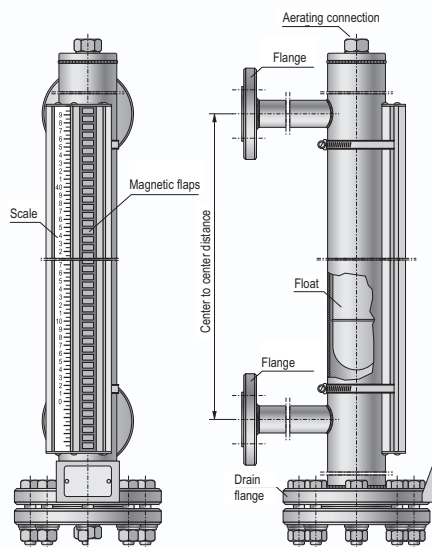
APPLICATIONS

- Oil and gas industries
- Chemical industry
- Power industry
- Boilers
- Pressurized vessels
- Tanks

GENERAL

Mounted on suitable connection flanges located on the side of the tank the liquid level in the bypass tube and the tank is equal. The welded bypass chamber that is the body of the indicator and the tank form one pressurized system.

In the bypass tube a magnetic float tracks the level of the liquid. The polarized magnet in the float operates the magnetic flaps mounted outside of the tube. As the float moves up and down it flips the bi-coloured magnetic flaps thus giving an optical display of the actual level.



The lower 100mm of the scale has different colouring, an optical error signal in case providing for the float is damaged or the liquid level drops below the lower connection point of the instrument.

NIVOFLIP can be equipped with optional limit switches or with Nivelco's Nivotrack high precision magnetostrictive level transmitter if level transmission is needed.

All optional units are operated via magnetic coupling, there is no direct contact with the measured medium.



TECHNICAL DATA

BYPASS LIQUID LEVEL INDICATOR

| | | |
|--|--|---------------------------------------|
| Optical display | Bi-coloured magnetic flaps | |
| Display | scale | mm, inch, % (see order code) |
| | accuracy | ±10 mm |
| | resolution | 5 mm |
| | error indication | lower 100 mm, inverse polarized flaps |
| Flange distance center to center (measuring range) | 500–3500 mm (see order code) | |
| Process connection | DIN, ANSI flanges (see order code) | |
| Aerating connection | M20x1,5 | |
| Drain connection | DN65/PN40 | |
| Process pressure | max. 3,2 MPa (32 bar) | |
| Test pressure | 5 MPa (50 bar) | |
| Material of wetted parts | Stainless steel 1.4571 | |
| Process temperature | -20 ... +130°C | |
| Ambient temperature | -20 ... +60°C | |
| Medium density | 0,8-1,25 kg/dm ³ (see order code) | |
| Level switches | optional (max 4pcs), freely adjustable | |
| Level transmitter | optional NIVOTRACK MT-500 magnetostrictive level transmitter | |

LEVEL SWITCH

| | |
|-----------------------|---------------------------------------|
| Switch rating | 250 V AC12; 2,5 A / 220 V DC13; 0,3 A |
| Electrical protection | Class I. |
| Ingress protection | IP65 |
| Electrical connection | M20x1,5 cable gland, screw terminals |
| Ex marking | ATEX II G EExdme IIC T2..T6 |



ORDER CODES

NIVOFLIP bypass liquid level indicator

NIVOFLIP ML ■ - ■ ■ ■ - ■

| Process connection | Code | Medium density | Code | Scale | Code |
|--------------------|------|----------------------------|------|-------|------|
| DN15 | A | 0,8-1,2 kg/dm ³ | 1 | mm | M |
| DN20 | B | 1-1,25 kg/dm ³ | 2 | Zoll | Z |
| DN25 | C | | | % | P |
| DN40 | D | | | | |
| DN50 | E | | | | |
| ANSI 1/2" | F | | | | |
| ANSI 3/4" | G | | | | |
| ANSI 1" | H | | | | |
| ANSI 1 1/2" | J | | | | |
| ANSI 2" | K | | | | |

| Code | Center to center | Code |
|------|------------------|------|
| 0 | 0 m | 0 dm |
| 1 | 1 m | 1 dm |
| 2 | 2 m | 2 dm |
| 3 | 3 m | 3 dm |
| | | 4 dm |
| | | 5 dm |
| | | 6 dm |
| | | 7 dm |
| | | 8 dm |
| | | 9 dm |

ACCESSORIES

NIVOFLIP magnetic level limit switch

MAK-100- ■

| Output / Ex | Code |
|-------------|------|
| Normal | 0 |
| Exia | 2 |
| Exd | 4 |

Level transmitter

NIVOTRACK MT-500 series magnetostrictive level transmitters

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