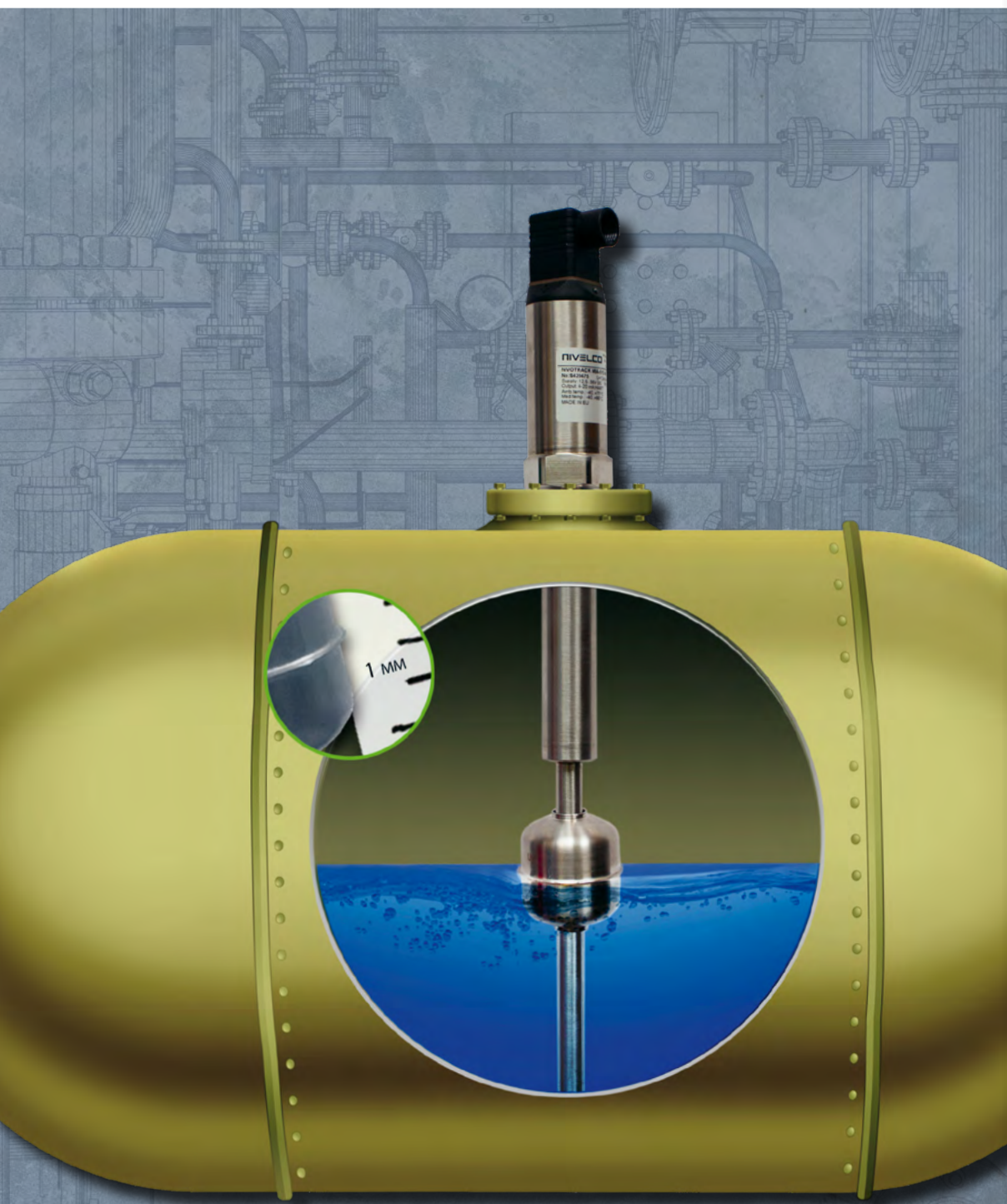


# NIVOTRACK

**NEW  
PRODUCT**

MAGNETOSTRICTIVE INTEGRATED LEVEL TRANSMITTERS



5 YEARS WARRANTY

# NIVELCO

LEVEL TRANSMITTERS

## GENERAL DESCRIPTION

NIVOTRACK MI□-5□□, MY□-5□□ magnetostrictive level transmitters are ideal solutions for high accuracy measurements of clean fluids. Its high precision renders the NIVOTRACK suitable for custody transfer measurements. Integrating the transmitter into a process control system is easy thanks to the intelligent signal processing and communication software as well as the wide of range of accessories offered.

## OPERATING PRINCIPLE

A float containing a magnetic disc moves along a guide tube with the specific magnetostrictive wire in it. A pulse generated by the electronics travels along the magnetostrictive wire. At the point the pulse reaches the float's magnetic field, a torsion develops. Reflected from the torsion point, the pulse creates an acoustic wave that travels back along the wire. The 4 – 20 mA output of the transmitter is proportional to the elapsed time between the excitation and detection.

## MAIN FEATURES

- 2-wire integrated transmitter
- 1 mm resolution
- Distance and level measurement
- Standard and mini type versions
- Stainless steel or titanium floats
- IP65 protection
- HART® communication
- Chemicals, solvents, hydrocarbons
- Level monitoring of tanks
- Interface measurement

## APPLICATIONS

- Level measurement of liquids, with minimum 0.4 kg/dm<sup>3</sup> density
- Chemical industry
- Power plants
- Oil industry
- Water industry



MIA-513

## TECHNICAL DATA

Type	Rigid probe version – standard (MI□)	Rigid probe version – mini (MY□)
Measured process value	Liquid level, distance	
Nominal length (L)	0.3 m – 3.5 m	0.3 m – 1.5 m
Material of the tube	1.4571 (316Ti) stainless steel	
Max. medium pressure <sup>(1)</sup>	2.5 MPa (25 bar)	1.6 MPa (16 bar)
Medium temperature <sup>(1)</sup>	-40 °C ... +90 °C	
Standard float diameter / material <sup>(1)</sup>	Ø54 x 60 mm cylindrical / 1.4404	Ø28 x 29 mm / 1.4404
Medium density	Ø54 mm float min. 0.8 g/cm <sup>3</sup> ; Ø54 mm titanium float min. 0.55 g/cm <sup>3</sup> Ø95 mm float min. 0.55 g/cm <sup>3</sup> Ø124 mm or Ø95 mm titanium float min. 0.4 g/cm <sup>3</sup>	
Material of wetted parts	Stainless steel: 1.4571 (316Ti), floats: see "Float Selection"	
Ambient temperature	-40 °C ... +70 °C	
Output	Analogue	4 – 20 mA (limit values: 3.9 – 20.5 mA)
	Digital communication	HART® (minimum loop resistance: 250 Ω)
Error indication	Output signal = 22 mA or 3.8 mA	
Output load	R <sub>t</sub> = (U <sub>t</sub> - 12.5 V) / 0.02 A, U <sub>t</sub> = power supply voltage	
Power supply	12.5 V – 36 V DC	
Electrical protection	Class III	
Ingress protection	IP65	
Process connection	As per order code	
Electric connection (MI□-5□□-M types)	Hirschmann EN 175 301-803-A (DIN 43650)	
Mass	2.9 kg + measuring probe: 0.6 kg/m	2.9 kg + measuring probe: 0.3 kg/m

<sup>(1)</sup> Details of non-standard floats can be found under "Float Selection".

