

PRODUCT OVERVIEW

2020

QUALITY AND INNOVATION SINCE 1939

NIVELCO

LEVEL TRANSMITTERS

GUIDED MICROWAVE	CAPACITIVE	HYDROSTATIC		MAGNETO-STRICTIVE
<ul style="list-style-type: none"> 2-wire compact transmitter Accuracy: ± 5 or ± 20 mm High pressure High temperature range Wide range of probes Extremely small deadband Rod or cable probes Plug-in graphic display module Explosion-proof models Plastic, aluminium or stainless steel housing Media with turbulent surface, dense dust, vapour or pressurized gas layers above the product surface For all tank shapes, for narrow vessels Heavy industrial applications 	<ul style="list-style-type: none"> 2-wire compact transmitter High sensitivity Rod (0.2 – 3 m) or cable (1 – 20 m) probes Plastic, aluminium or stainless steel housing Fully or partly insulated probes Plug-in display module 32-point linearisation Explosion-proof models Chemicals with dense gas layers above the surface High pressure, high temperature or vacuum Viscous or corrosive media 	<ul style="list-style-type: none"> 2-wire compact transmitter Stainless steel diaphragm Accuracy: 0.25% High overload capability Level and pressure management Plug in display module High temperature range Explosion-proof models Viscous or corrosive materials Chemicals with dense vapour or gas layers above the surface 	<ul style="list-style-type: none"> 2- or 3-wire submersible transmitter Capacitive ceramic, piezoresistive stainless steel and piezoresistive ceramic sensor Plastic or stainless steel body Venting tube in cable Reverse polarity protection Optional lightning protection Linearity: $\pm 0.25\%$ Built-in Pt100 temperature sensor Explosion-proof models Borehole transmitter for the water industry 	<ul style="list-style-type: none"> 2-wire compact and mini compact transmitter 0.1 mm or 1 mm resolution Wetted parts: stainless steel or plastic Plug-in graphic display module 99-point linearisation Distance, level and volume measurement Explosion-proof models Interface measurement Chemicals, solvents, hydrocarbons Custody transfer measurement (OIML R 85)
<ul style="list-style-type: none"> Level, distance or volume measurement of liquids, powders, granules with $\epsilon_r > 1.4$ Agriculture Construction materials Chemical industry Food and beverage Power plants Oil industry Water / wastewater industry 	<ul style="list-style-type: none"> Distance, level and volume measurement of liquids, powders, granules, with $\epsilon_r > 1.5$ relative dielectric constant Chemical industry Food and beverage Power plants Oil industry Water / wastewater industry 	<ul style="list-style-type: none"> Level measurement of most foaming liquids and masses in tanks and vessels Chemical industry Food and beverage Power plants Oil industry Water / wastewater industry 	<ul style="list-style-type: none"> Level metering of small diameter pipes, sewage water, saline solutions, sea water, potable water Chemical industry Water / wastewater industry 	<ul style="list-style-type: none"> Level measurement of normal and flammable liquids, with min. 0.4 kg/dm³ density Chemical industry Power plants Oil industry Water industry
<p>Power supply: 18 – 35 V DC Ambient temperature: -30 °C ... +60 °C Process temperature: -30 °C ... +200 °C Pressure: -1 bar – 40 bar Measuring range: 0 – 24 m Output: 4 – 20 mA + HART® Protection: IP67 Approvals: ATEX, IEC Ex, INMETRO</p> 	<p>Power supply: 12 – 36 V DC Ambient temperature: -25 °C ... +70 °C Process temperature: -30 °C ... +200 °C Pressure: max. 40 bar Output: 4 – 20 mA, HART® Process connection: 1", 1½" Protection: IP67 Approval: ATEX</p> 	<p>Power supply: 10 – 36 V DC Ambient temperature: -40 °C ... +70 °C Process temperature: -25 °C ... +125 °C Pressure: max. 400 bar Output: 4 – 20 mA, HART® Process connection: 1½", flanges, hygienic fittings Protection: IP65 Approval: ATEX</p> 	<p>Power supply: 12 – 30 V DC Process temperature: -30 °C ... +60 °C Measuring range: 0 m – 200 m Output: 4 – 20 mA + HART®, 0 – 10 V Protection: IP68 Approval: ATEX</p> 	<p>Power supply: 12.5 – 36 V DC Ambient temperature: -40 °C ... +70 °C Process temperature: -40 °C ... +90 °C Pressure: max. 25 bar Measuring range: 0 m – 15 m Output: 4 – 20 mA, HART® Process connection: 1", 2" or flanges Protection: IP67 Approvals: ATEX, FM, IEC Ex, EAC, OIML R 85</p>   
MicroTREK	NIVOCAP	NIVOPRESS D	NIVOPRESS N	NIVOTRACK

EasyTREK SP-500

ULTRASONIC LEVEL TRANSMITTER FOR LIQUIDS

The newest generation **EasyTREK SP-500** series level transmitters are based on NIVELCO's 35 years of experience with ultrasonic level measurement.

The IP68 rated units have their transducer and processing electronics incorporated in one single housing. The new **EasyTREK** transmitters utilize HART® 7 communication so they can be used in multidrop systems connected to **MultiCONT** process controller/display, or to a PC with the help of the **UNICOMM** HART®-USB modem or similar. The transmitters can be remotely programmed also with Handheld Field Communicator, and can be connected wirelessly to a PC with the SAT-504 Bluetooth® HART® modem.

The members of the new **EasyTREK SP-500** series can be recognized from the more compact size, the increased maximum measuring range and the decreased minimum measuring range.

MAIN FEATURES

- 2-wire integrated transmitter
- Non-contact level measurement
- Can be powered from 12 V battery
- Max. 18 m (59 ft) measuring range
- Narrow (5°) beam angle
- Temperature compensated
- HART® 7
- Handheld compatibility
- IP68 protection

APPLICATIONS

- For liquid level measurement, open channel flow metering
- Wide application area from wastewater to aggressive chemicals
- Level measurement in basins, wells, sumps, lift-stations
- Suitable for level measurement of hydrocarbons, acids, water based media



OPERATING PRINCIPLE

NON-CONTACT MICROWAVE

FEATURES

- | COMPACT | INTEGRATED |
|--|---|
| <ul style="list-style-type: none">▪ 2-wire compact transmitter▪ 25 GHz (K-band) measuring signal▪ Non-contact level metering▪ Accuracy up to ± 3 mm▪ Measuring range up to 23 m▪ Plug-in graphic display module▪ 99-point linearisation▪ Plastic, aluminium or stainless steel housing▪ Stainless steel parabolic, horn or plastic enclosed antenna▪ High temperature range▪ Explosion-proof models | <ul style="list-style-type: none">▪ 2-wire integrated transmitter▪ 25 GHz (K-band) measuring signal▪ Non-contact level metering▪ Accuracy up to ± 3 mm▪ Measuring range up to 23 m▪ 99-point linearisation▪ Plastic housing▪ Horn, planar or parabolic antenna▪ Stainless steel or plastic encapsulated sensor▪ Explosion-proof models▪ Where IP68 is needed |

APPLICATION

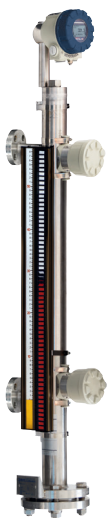




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| <ul style="list-style-type: none">▪ Level measurement of liquids, emulsions and other chemicals▪ Agriculture▪ Construction materials▪ Chemical industry▪ Pharmaceutical industry▪ Food and beverage▪ Power plants▪ Oil industry▪ Water / wastewater industry | <ul style="list-style-type: none">▪ Level measurement of liquids, emulsions and other chemicals▪ Food and beverage▪ Chemical industry▪ Oil industry▪ Water / wastewater industry |
|--|--|

SPECIFICATION

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|---|--|
| <p>Power supply:
20 – 36 V DC</p> <p>Ambient temperature:
-20 °C ... +60 °C</p> <p>Process temperature:
-30° C ... +180 °C</p> <p>Pressure:
-1 bar – 25 bar</p> <p>Output:
4 – 20 mA + HART®</p> <p>Process connection:
1½", 2" or flanges or sanitary</p> <p>Protection:
IP67</p> <p>Approvals:
ATEX, IEC Ex,
FCC, FM,
INMETRO</p> | <p>Power supply:
20 – 36 V DC</p> <p>Ambient temperature:
-20 °C ... +60 °C</p> <p>Process temperature:
-30 °C ... +100 °C</p> <p>Pressure:
-1 bar – 3 bar</p> <p>Output:
4 – 20 mA + HART®</p> <p>Process connection:
1½", 2" or flanges or sanitary</p> <p>Protection:
IP68</p> <p>Approvals:
ATEX, IEC Ex, FCC,
INMETRO</p> |
|---|--|



LEVEL TRANSMITTERS

BYPASS LEVEL INDICATORS	ULTRASONIC INTEGRATED		ULTRASONIC COMPACT	
	FOR LIQUIDS	FOR SOLIDS	FOR LIQUIDS	FOR SOLIDS
<ul style="list-style-type: none"> No power required Brightly coloured indication Stainless steel bypass chamber Error indication Optional level switches Optional magnetostrictive level transmitter 10 mm accuracy Stainless steel or titanium float High temperature version 	<ul style="list-style-type: none"> 2-wire transmitter Non-contact level metering Narrow 5° beam angle Excellent signal processing via QUEST+ software Temperature compensated Secondary lightning protection 32-point linearisation PP, PVDF, PTFE housing and transducers Explosion-proof models Level and volume measurement Open channel flow measurement Fail-safe indication For challenging applications such as vapour, fume, mixing blades, and light foam 	<ul style="list-style-type: none"> 4-wire transmitter Non-contact level metering Narrow 5° beam angle Excellent signal processing Temperature compensated Secondary lightning protection 32-point linearisation PP and aluminium housing transducers with PVC foam Joystick aiming device Explosion-proof models Level and volume measurement Fail-safe indication For challenging applications such as long distance measurement and light dust during filling 	<ul style="list-style-type: none"> 2- or 4-wire integrated transmitter Non-contact level metering Narrow 5° beam angle Excellent signal processing Temperature compensated Secondary lightning protection 32-point linearisation PP, PVDF, PTFE housing and transducers Plug-in display module Plastic, aluminium or stainless steel housing Explosion-proof models Level and volume measurement and display Open channel flow measurement Fail-safe indication For challenging applications such as vapour, fume, mixing blades, and light foam 	<ul style="list-style-type: none"> 4-wire transmitter Non-contact level metering Narrow 5° beam angle Excellent signal processing Temperature compensated Secondary lightning protection 32-point linearisation PP and aluminium housing transducers with PVC foam Joystick aiming device Plug-in display module Paint coated aluminium housing Explosion-proof models Level and volume measurement and display Fail-safe indication For challenging applications such as long distance measurement and light dust during filling
<ul style="list-style-type: none"> Level measurement of pressurized vessels, boilers and tanks Chemical industry Power plants Oil industry Water industry 	<ul style="list-style-type: none"> Level measurement of liquids, wastewater, aggressive chemicals and slurries Agriculture Construction materials Chemical industry Food and beverage Oil industry Paper mill Water / wastewater industry 	<ul style="list-style-type: none"> Level measurement of free flowing solids Chemical industry Food and beverage Mining industry 	<ul style="list-style-type: none"> Level measurement of liquids and slurries Agriculture Construction materials Chemical industry Food and beverage Oil industry Paper mill Water / wastewater industry 	<ul style="list-style-type: none"> Level measurement of free flowing solids Chemical industry Food and beverage Mining industry
<p>Flange distance (CL to CL): 500 – 5500 mm</p> <p>Process connection: DIN, ANSI flanges</p> <p>Pressure: max. 100 bar</p> <p>Process temperature: -60 °C ... +250 °C</p> <p>Medium density: 0.55 – 1.25 kg/dm³</p> <p>Approvals: PED approval, ATEX: MAK-100 level switches</p>	<p>Power supply: 11 – 36 V DC</p> <p>Ambient temperature: -30 °C ... +80 °C</p> <p>Process temperature: -30 °C ... +90 °C</p> <p>Pressure (absolute): 0.05 – 0.3 MPa (0.5 – 3 bar)</p> <p>Measuring range: 0.15 – 25 m</p> <p>Process connection: 1" BSP, 1½" and 2" NPT</p> <p>Output: 4 – 20 mA, HART®, relay</p> <p>Protection: IP68</p> <p>Approvals: ATEX, INMETRO</p>	<p>Power supply: 11.4 – 40 V DC, 11.4 – 28 V AC</p> <p>Ambient temperature: -30 °C ... +60 °C</p> <p>Process temperature: -30 °C ... +60 °C</p> <p>Measuring range: 0.6 – 60 m</p> <p>Process connection: 1" BSP and joystick aiming device</p> <p>Output: 4 – 20 mA, HART®, relay</p> <p>Protection: IP65</p> <p>Approval: ATEX</p>	<p>Power supply: 2-wire: 12 – 36 V DC 4-wire: 85 – 255 V AC, 20 – 28 V AC/DC</p> <p>Ambient temperature: -30 °C ... +70 °C</p> <p>Process temperature: -30 °C ... +100 °C</p> <p>Pressure (absolute): 0.05 – 0.3 MPa (0.5 – 3 bar)</p> <p>Measuring range: 0.2 – 25 m</p> <p>Process connection: 1½", 2" BSP / NPT, flange</p> <p>Output: 4 – 20mA, HART®, relay</p> <p>Protection: IP67</p> <p>Approval: ATEX, INMETRO</p>	<p>Power supply: 85 – 255 V AC; 11.4 – 40 V DC; 11.4 – 28 V AC</p> <p>Ambient temperature: -30 °C ... +60 °C</p> <p>Process temperature: -30 °C ... +75 °C</p> <p>Measuring range: 0.6 – 60 m</p> <p>Process connection: joystick aiming device</p> <p>Output: 4 – 20 mA, HART®, relay</p> <p>Protection: IP65</p> <p>Approval: ATEX</p>
				
NIVOFLIP	EasyTREK		EchoTREK	