



# Catálogo



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# EasyTREK SP-300

INTEGRATED ULTRASONIC LEVEL TRANSMITTERS  
FOR LIQUIDS



NIVELCO

LEVEL TRANSMITTERS

**EasyTREK** high-performance level transmitters embody four decades of NIVELCO's experience in ultrasonic level measurement. Whether measuring the level of sump tanks or open-channel flows, EasyTREK transmitters are the best choice. Installed on the tank's roof or above the liquid's surface, the transmitter produces an output signal (*analog or HART® digital*) proportional to the liquid level.

The **EasyTREK** is an integrated blind transmitter with equal measuring performance to that of EchoTREK; it is also readable and programmable remotely through HART® protocol. There are two mounting options for **EasyTREK**: a 1½" and a 2" process connection. Its 1" threaded neck facilitates suspending it above the medium, a typical water/wastewater application.

**FEATURES**

- 2-wire integrated level transmitter
- Non-contact level measurement
- Maximum 25 m (82 ft) measuring range
- Narrow (5°) beam angle
- Full temperature compensation
- IP68
- HART® communication
- Ex version
- 5 years warranty

**APPLICATIONS**

- For most liquids, including flammable liquids
- Open-channel flow metering
- Wide application range from wastewater to aggressive chemicals
- Level measurement in basins, wells, sumps, lift-stations
- Measuring hydrocarbons, acids, aggressive liquids, any water-based mediums

**CERTIFICATES**

- ATEX (Ex ia G)
- INMETRO (Ex ia G)
- UKCA Ex (Ex ia G)

**PROGRAMMING**

Instruments with HART® output can be connected to a PC using a **UNICOMM** HART-USB modem. All measured values can be visualized on the PC screen, and the instruments can be programmed remotely via HART® modem. Up to 15 (*non-Ex*) instruments can be connected to a single HART® loop. Applicable software: **EView2** configuration software or **NIVISION** process visualization software.

**Programmable features via HART® communication**

- Assign 4 mA to low level
- Assign 20 mA to high level
- Error indication on current value output
- Power relay switch points
- Damping time
- Measurement configuration  
(Units, function, close-end blocking)
- Measurement optimization  
(Damping, tracking speed, sound velocity correction)
- Tank contents profiles: 14 different shapes
- Open-Channel Flow Metering: 21 different profiles
- Relay functions (*differential, flow pulse etc.*)
- 32-point linearization, measurement simulation
- Information / diagnostics (*Echo map and signal / noise*)



SPA-380-4



SPA-340-4



SPA-360-4

## TECHNICAL DATA

		EasyTREK SP-300
System		2-wire
Accuracy <sup>(1)</sup>		± (0.2% of measured distance +0.05% of range)
Resolution		Depending on measured distance: <2 m (6.5 ft): 1 mm (0.04"); 2...5 m (6.5...16.5 ft): 2 mm (0.075"); 5...10 m (16.5...33 ft): 5 mm (0.2"); >10 m (33 ft): 10 mm (0.4")
Output	Analog	4...20 mA
	Relay	SPDT, 30 V DC, 1 A DC
	Digital Communication	HART®
Ambient temperature		-30...+80 °C (-22...+176 °F) Ex version: see "Ex Information"
Process temperature		See Transducer Details, Ex version: see "Ex Information"
Pressure (absolute)		0.5...3 bar (7.5...43.5 psi)
Supply voltage		12...36 V DC / 48...720 mW
Electrical protection		Class III
Housing		Polypropylene (PP) or (PVDF) same as the transducer material; PTFE transducer housing is made of PP;
Seal		PP transducers: EPDM; all other transducers: FPM (Viton®)
Electrical connection		LiYCY 6× 0.5 mm <sup>2</sup> (AWG20) shielded Ø6 (Ø0.25") mm cable; standard cable length: 5 m (16.5 ft) (available up to 30 m [98.5 ft])
Ingress protection		IP68
Explosion protection		See "Ex Information"
Weight		1.2...2 kg (2.65...4.4 lb)

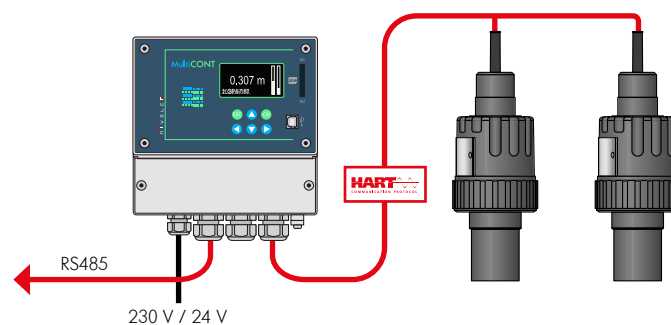
<sup>(1)</sup> Under optimal conditions and constant transducer temperature

## Ex INFORMATION

		EasyTREK SP-300
Protection		Intrinsic safety
Ex marking		⊕ II 1 G Ex ia IIB T6...T5 Ga
Intrinsic safety data		$C_i \leq 28 \text{ nF}$ , $L_i \leq 200 \text{ }\mu\text{H}$ , $U_i \leq 30 \text{ V}$ , $I_i \leq 140 \text{ mA}$ , $P_i \leq 1 \text{ W}$
Ambient temperature		-20...+70 °C (-4...+158 °F)
Process temperature		With PP transducer: -20...+70 °C (-4...+158 °F), with PVDF transducer: -20...+80 °C (-4...+176 °F) Temperature class T6; with PTFE transducer: -30...+90 °C (-22...+194 °F) Temperature class T5
Electrical connection		6× 0.5 mm <sup>2</sup> (AWG20) shielded Ø6 mm (Ø0.25") cable

## HART® MULTIDROP LOOP

MultiCONT Multichannel Process Controllers process and display measurement data supplied by NIVELCO's HART® equipped transmitters in a Multidrop loop. Connected transmitters can be programmed through MultiCONT, and it can also perform data logging tasks. Processed data may be sent to a computer via RS485 and displayed in NIVISON.



## TRANSDUCER DETAILS

	SP□-39	SP□-38	SP□-37	SP□-36	SP□-34	SP□-32
Beam angle	6°	5°	7°	5°		7°
Transducer material	PP or PVDF					
EasyTREK SP 2-wire						
Upper process connection	1" BSP					
Lower process connection	1½" BSP / NPT	2" BSP / NPT		-		
Max. measuring range <sup>(1)</sup>	4 m (13 ft)	6 m (20 ft)	8 m (26 ft)	10 m (33 ft)	15 m (50 ft)	25 m (82 ft)
Min. measuring range <sup>(1)</sup>	0.2 m (0.65 ft)	0.25 m (0.82 ft)	0.35 m (1.15 ft)		0.45 m (1.5 ft)	0.6 m (2 ft)
Process temperature	-30... +90 °C (-22... +194 °F)					
Recommended applications	Small vessels with 1½" or 2" process connection			Small vessels with flange	Medium-sized vessels with flange	Tall vessels with flange

Transducer material	PTFE		
Max. measuring range <sup>(1)</sup>	3 m (10 ft)	5 m (16.5 ft)	6 m (20 ft)
Min. measuring range <sup>(1)</sup>	0.25 m (0.82 ft)		0.35 m (1.15 ft)
Process temperature	-30... +90 °C (-22... +194 °F)		

<sup>(1)</sup> Under optimal conditions and constant transducer temperature.

## ORDER CODES (NOT ALL COMBINATIONS AVAILABLE)

### EasyTREK integrated ultrasonic level transmitters for liquids

EasyTREK S P ■ - 3 ■ ■ - ■<sup>(2)</sup>

Transducer material	Code	Range / Frequency	Code	Process connection	Code	Output / Certificates	Code	
PP	A	0.2...4 m (0.65...13 ft) / 80 kHz <sup>(4)</sup>	9	BSP thread	0	Without Logger	-	4
PVDF	B	0.25...6 m (0.82...20 ft) / 80 kHz <sup>(5)</sup>	8	1½" or 2" NPT and 1" BSP <sup>(3)</sup>	N	Without Logger	Ex ia G	8
PTFE <sup>(5)</sup>	T	0.35...8 m (1.15...26 ft) / 60 kHz <sup>(5)</sup>	7			Without Logger	Relay	H
		0.35...10 m (1.15...33 ft) / 60 kHz <sup>(6)</sup>	6			With Logger	-	3
		0.45...15 m (1.5...50 ft) / 40 kHz <sup>(6)</sup>	4			With Logger	Ex ia G	7
		0.6...25 m (2...82 ft) / 20 kHz <sup>(6)</sup>	2			With Logger	Relay	A

<sup>(2)</sup> The order code of an Ex version product should end in "Ex"

<sup>(3)</sup> Only for SP□-39/-38/-37/□-□ types.

<sup>(4)</sup> Only for 1" or 1½" process connection.

<sup>(5)</sup> Only for 1" or 2" process connection.

<sup>(6)</sup> Only for 1" process connection.

## ACCESSORIES

Description	Order Code
NIVOSONAR PP flanges	SFA-3 ■ ■ -0
UNICOMM HART®-USB modem	SAT-304-0
UNICOMM HART®-USB/Bluetooth® modem	SAT-504-■
UNICOMM HART®-USB/RS485 modem	SAK-305-■
NIVOSONAR Mounting brackets	SAA-10 ■ -■
NIVOSONAR Quick-connect gland for pipe-mounting devices with 1" process connection, PP	SAA-101-0
NIVOSONAR Damping gland for mounting SP devices to thin metal roofs, PP	SAA-106-0

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