

Level transmitters

Features

- ◆ 4~20mA output.
- ◆ Stainless steel flush diaphragm.
- ◆ Wide variety of process connections.
- ◆ Great choice of ranges.
- ◆ High accuracy <0.25%.
- ◆ IP 67 protection.
- ◆ ATEX certified versions.

Applications

- ◆ Most liquids and masses in tanks and vessels.
- ◆ Chemicals with dense vapour or gas layer above the surface.
- ◆ Viscose or corrosive materials.
- ◆ Foaming liquids.

Nivopress DTF Level and Pressure transmitter. (Hydrostatic Liquid Level)

MODEL	DESCRIPTION	PRICE
DTF	Level and Pressure transmitter. Mount: 1.5" BSP. Housing: Plastic or Aluminium. Protection: IP67. Wetted parts: Stainless steel. Accuracy: < 0.25%. F.S.O. Turn down: ~1 : 2. Operating temp: -30~70°C. Medium: -25~125°C. Output: 4~20mA, 2 wire, loop powered. $U_T = 12\sim30Vdc.$ Load resistance: max. $R_L = (U_S - 12V) / 0.02A.$	\$1685.00
Options		Add Price
	Triclamp fitting, 2 inch.	\$163.00
	SAP-203 display module.	\$158.00
	HART Communication.	\$248.00



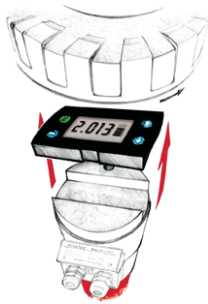
**FOR
FREE FLOWING GRANULES
and BULK SOLIDS**

EchoTREK STD-30J Series—4 Wire. Ultrasonic level transmitter. Stand alone unit.

MODEL	DESCRIPTION	PRICE
4 Wire	EchoTREK compact ultrasonic level transmitter. Housing: Powder coated aluminium. Protection: Housing, IP67. Sensor, IP65. Transducer: Closed cell polyurethane foam sensor face. Polypropylene sensor housing. Beam angle: 5°. Ambient temp: -25~60°C Process temp: -30~75°C. Pressure: 0.7~1.1 bar (absolute). Power supply: 85~255Vac, 50/60Hz. 6.8VA. 120~360Vdc, 5.5W. Outputs: 4~20mA, 600ohm, galv isolated. relay, SPDT, 250Vac / 3amp, ac1.	
STD-34J	Range 0.6m to 8m. Flange, DN150 (min size) 30 kHz. 3x.*	\$2508.00
STD-33J	Range 0.6m to 25m. Flange, DN150 (min size) 30 kHz. 3x.*	\$2898.00
STD-31J	Range 1m to 50m. Flange, DN300 (min size) 15 kHz. 4x.*	\$3300.00
* Dust penetration. 1x = weak...4x = excellent.		
Options		Add price
	SAP-100 programming module/indicator, custom made. Integral, plug-in LCD 6 digit display, bargraph and icons. Scalable in engineering units.	\$185.00
	Power supply of: 10.5~40Vdc, 4.1W. 10.5~28Vac, 50/60Hz. 4.6VA.	N/C
	Approval: Dust Ex approval.	POA
	HART Communication.	POA



Ultrasonic level transmitters



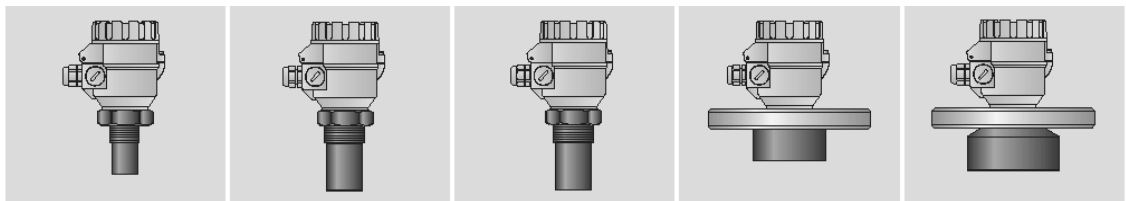
EchoTREK SEP/SEM-300 Series—2 Wire. Ultrasonic level transmitter. With PP or PVDF transducers.

MODEL	DESCRIPTION	PRICE
2 Wire	EchoTREK compact ultrasonic level transmitter. Housing: Plastic. Protection: Housing, IP67. Sensor, IP68. (Submersible). Transducer: Polypropylene, (PP). Flange material: Polypropylene, (PP). Ambient temp: -30~60°C. Process temp: -30~90°C. Pressure: 0.3~3 bar (absolute). Power supply: 11.4~36Vdc / 4.8mw...720mw. Outputs: 4~20mA, (3.9...20.5mA).	
SEP-390	Range 0.2m to 4m. Mount, 1.5" BSP. 6° 80 kHz. 1x.*	\$1540.00
SEP-380	Range 0.25m to 6m. Mount, 2" BSP. 5° 80 kHz. 1x.*	\$1540.00
SEP-370	Range 0.35m to 8m. Mount, 2" BSP. 7° 50 kHz. 2x.*	\$1785.00
SEP-360	Range 0.35m to 10m. Flange, DN80 (min size) 5° 60 kHz. 2x.*	\$1875.00
SEP-340	Range 0.45m to 15m. Flange, DN125 (min size) 5° 60 kHz. 2x.*	\$2030.00
SEM-360	Transducer material of Stainless Steel. Process temp: -30~100°C (120 °C for max 2 hrs). Range 0.4m to 7m. Mount, Flush flange. Din 80.	\$2335.00
SEM-360	Range 0.55m to 12m. Mount, Flush flange. Din 125.	\$2720.00
* Penetration through fumes / vapour, foam. 1x = weak...4x = excellent.		
Options		Add price
	SAP-200 programming module/indicator, custom made. Integral, plug-in LCD 6 digit display, bargraph and icons. Scalable in engineering units.	\$168.00
	Housing material of powder coated aluminium.	\$55.00
	Transducer material of Kynar, (PVDF).	\$105.00
	Larger flanges.	POA
	Mounting bracket 200mm.	\$155.00
	DATALOGGER 10,000 sets of data-HART.	\$160.00
	HART Communication.	POA
	R-Relay	\$98.00

- ◆ Practically any liquid.
- ◆ Reliable measurement even under extreme conditions with vapours, fumes, stirrers, foam on chemicals.
- ◆ 32 point curve linearisation.
- ◆ Volume calculation with pre-programmed tank shapes.
- ◆ Open channel flow measurement with pre-programmed flumes and weirs.
- ◆ Capability to suppress interference from two fixed targets.
- ◆ 4~20mA continuous output plus a fully programmable relay output.



EchoTREK SEP-300 Series.



SEP-390

SEP-380

SEP-370

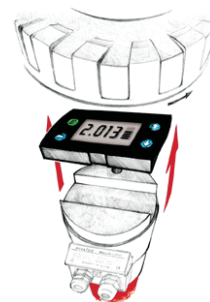
SEP-360

SEP-340

Type	Main application field	Type	Main application field
SEP-390	Small tanks where dead band is critical.	SEP-360	Small process tanks with flanges.
SEP-380	Small process tanks with 2" process connection.	SEP-340	
SEP-370			

EchoTREK STP/STA/STM-300 Series—4 Wire.
Ultrasonic level transmitter.
With PP or PVDF transducers.

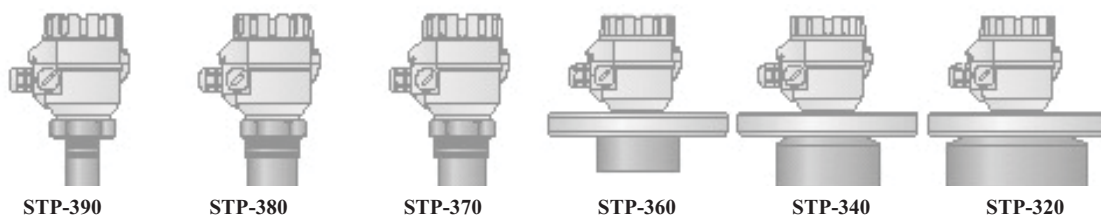
MODEL	DESCRIPTION	PRICE
4 Wire	EchoTREK compact ultrasonic level transmitter. Housing: Plastic. Protection: Housing, IP67. Sensor, IP68. (submersible). Transducer: Polypropylene, (PP). Flange material: Polypropylene, (PP). Ambient temp: -30~60°C Process temp: -30~90°C. Pressure: 0.3~3 bar (absolute). Power supply: 85~255Vac. 50/60Hz. 6VA. Outputs: 4~20mA, 600ohm, galv. isolated. relay, SPDT, 250Vac / 3amp, ac1.	
STP-390	Range 0.2m to 4m. Mount, 1.5" BSP. 6°. 80 kHz. 1x.*	\$1735.00
STP-380	Range 0.25m to 6m. Mount, 2" BSP. 5°. 80 kHz. 1x.*	\$1735.00
STP-370	Range 0.35m to 8m. Mount, 2" BSP. 7°. 50 kHz. 2x.*	\$1999.00
STP-360	Range 0.35m to 10m. Flange, DN80 (min size) 5°. 60 kHz. 2x.*	\$2095.00
STP-340	Range 0.45m to 15m. Flange, DN125 (min size) 5°. 40 kHz. 3x.*	\$2265.00
STP-320	Range 0.60m to 25m. Flange, DN150 (min size) 7°. 20 kHz. 4x.*	\$2860.00
STM-360	Transducer material of Stainless steel. Process temp: -30~100°C. (C.I.P. 120°C for 2 hours max) Pressure: 0.9~1.1 bar (absolute). Range 0.4m to 7m. Flange, DN80 flush 5°. 60 kHz.	\$2555.00
STM-340	Range 0.55m to 12m. Flange, DN125 flush 5°. 40 kHz.	\$2960.00
STM-320	Range 0.65m to 15m. Flange, DN150 flush 7°. 20 kHz.	\$3920.00
* Penetration through fumes / vapour, foam. 1x = weak...4x = excellent.		
Options		Add price
SAP-100 programming module/indicator, custom made. Integral, plug-in LCD 6 digit display, bargraph and icons. Scalable in engineering units.		\$185.00
Power supply of: 10.5~40Vdc, 3.6W. 10.5~28Vac, 50/60Hz. 4VA.		N/C
Housing material of powder coated aluminium (= STA).		\$55.00
Transducer material of Kynar, (PVDF).		\$105.00
Larger flanges.		POA
Mounting bracket 200mm.		\$155.00
HART Communication.		POA



- ◆ Practically any liquid.
- ◆ Reliable measurement even under extreme conditions with vapours, fumes, stirrers, foam on chemicals.
- ◆ 32 point curve linearisation.
- ◆ Volume calculation with pre-programmed tank shapes.
- ◆ Open channel flow measurement with pre-programmed flumes and weirs.
- ◆ Capability to suppress interference from two fixed targets.
- ◆ 4~20mA continuous output plus a fully programmable relay output.

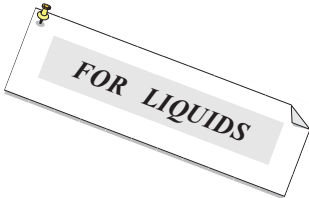


EchoTREK STP-300 Series.



Type	Main application field	Type	Main application field
STP-390	Small tanks where dead band is critical.	STP-360	Small process tanks with flanges.
STP-380	Small process tanks with 2" process connection.	STP-340	Medium size tanks.
STP-370		STP-320	Medium to large size tanks.

Ultrasonic level transmitters



EasyTREK SCA/SPA-300 Series
Ultrasonic level transmitter.
For liquids.



Features

- ◆ 4, 6, 8, 10 and 15m ranges.
- ◆ HART programming (HART Only).
- ◆ Excellent focusing: 5° total beam angle.
- ◆ IP68 protection.
- ◆ Built-in temperature compensation.

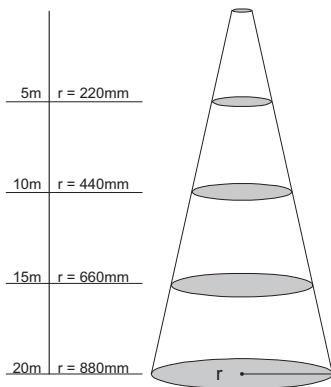


Programmable features via HART communications:

- ◆ Measurement configuration (Units, function, blanking ranges).
- ◆ Measurement optimisation (damping, tracking speed, ignoring stirrers etc).
- ◆ Tank contents profiles: 14 different shapes.
- ◆ Open Channel Flow Metering: 21 different profiles.
- ◆ 32 point linearisation.
- ◆ Information/diagnostics (Echo map and signal/noise).

MODEL	DESCRIPTION	PRICE
2 Wire	Transducer: Polypropylene. Protection: IP68. Ambient temp: -30~60°C. Process temp: -30~60°C. Pressure: 0.3~3 bar (absolute). Beam angle: 5°. Resolution: <2m = 1mm. 2...5m = 2mm. 5...10m = 5mm. Damping: 10 sec, 30 sec, 60 sec, (programmable). Power supply: 10.5~40Vdc, 3.6W. and 10.5~28Vac, 4VA. Outputs: 4~20mA, HART, max 600 ohm. Communication: HART protocol. (HART Only). Accuracy: ±0.2% of measured distance + 0.05% of range.	
SPA-390	Ultrasonic transmitter. 0.25m to 4m. Mount: 1½" BSP.	\$1330.00
SPA-380	Ultrasonic transmitter. 0.25m to 6m. Mount: 1" or 2" BSP.	\$1330.00
SPA-370	Ultrasonic transmitter. 0.35m to 8m. Mount: 2" BSP.	\$1575.00
SPA-360	Ultrasonic transmitter. 0.35m to 10m. Mount: 1" BSP.	\$1575.00
SPA-340	Ultrasonic transmitter. 0.45m to 15m. Mount: 1" BSP.	\$1680.00
Options		Add price
	Fast connecting gland.	\$28.00
SCA-380-2	Outputs: 4~20mA, 600ohm, galv isolated, (max 250V). relay, SPST (n/o), 48Vac / 5amp, ac12. Ultrasonic transmitter. 0.25m to 6m. Mount: 1" and 2" BSP. Process temp: -30~60°C. (1" BSP). -30~80°C. (2" BSP).	\$1410.00
SCA-360-2	Ultrasonic transmitter. 0.35m to 10m. Mount: 1" and 2" BSP. Process temp: -30~60°C.	\$1605.00
SCA-340-2	Ultrasonic transmitter. 0.45m to 15m. Mount: 1" BSP. Process temp: -30~60°C.	\$1738.00
Options		Add price
	HART, RS485 (instead of 4~20mA).	POA
	Mounting bracket 200mm.	\$155.00
	Full Feature programming.	\$445.00

Ultrasonic notes



Radii corresponding to 5° beam angle.

Temperature.
All Nivelco ultrasonic devices have built in temperature compensation over the entire measuring range.

Pressure.
Because of the physical characteristics of ultrasound, ultrasonic measurement is limited in vacuum and high pressure applications.

Sonic Cone.
Most of Nivelco's transducers have a 5°~7° total beam angle at -3dB, ensuring a reliable measurement in narrow silos with uneven side walls as well as in process bins with various protruding objects. Furthermore, as a result of the narrow beam angle, the emitted ultrasonic signal ensures outstanding focusing and good penetration through dust, gases, vapour and foam.

Transducer Material.*
Nivelco offer a wide range of transducer materials:
Polypropylene (PP): Resists most caustics, acids and bases.
Kynar (PVDF): Resists acids and most solvents.
Teflon (PTFE): Resists acids and most solvents. Accepted in hygienic applications.
Stainless steel (316): Ultimate resistance against solvents. Accepted in hygienic applications. Withstands CIP cleaning up to 120°C.

Contact Intech for more Info.