

2260 Ultrasonic Level Transmitters with Ex Approval



The type 2260 is a rugged, high performance ultrasonic level measurement transmitter, having transducer and processing electronics and a display/programming unit incorporated in one single housing.

All type 2260 Level Transmitters are using established high end pulse echo transducers, which provide narrow beam angles and reliable measurement ranges up to a distance of 15 meters.

For small, stand alone tanks the transmitter provides a simple 2-wire 4 to 20 mA output, with additional power relay contacts. It can be programmed using push buttons and the large, graphic display. For large and/or multiple tank applications versions with HART interface are recommended, communicating directly with a panel mount controller or PLC. The HART protocol can easily be used for programming these versions.

For hazardous areas the type 2260 Level Transmitters are available with explosion proof approvals.

Features

- 2-wire compact transmitters
- Non-contact level metering
- Narrow 5° beam angle
- Fully temperature compensated electronics
- Outstanding signal processing software providing highly accurate measuring results
- PP or PVDF sensor body provides best chemical resistance
- Quick-set menu for efficient installation
- Plug-in keypad and display
- 4 to 20 mA / HART interface
- Secondary lightning protection
- Explosion-proof models

CE  RoHS

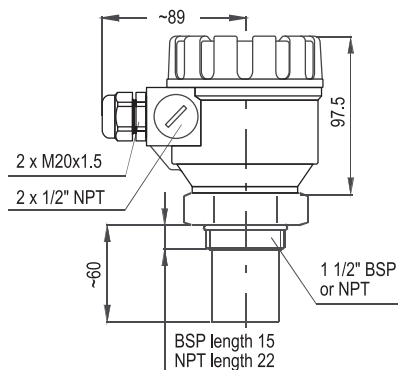


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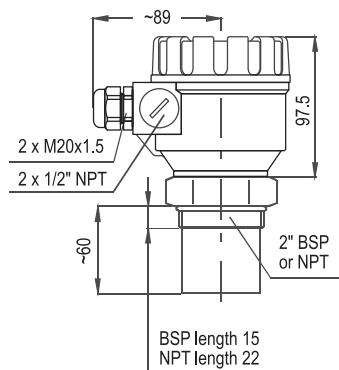
Dimensions (mm)

2-wire level transmitters

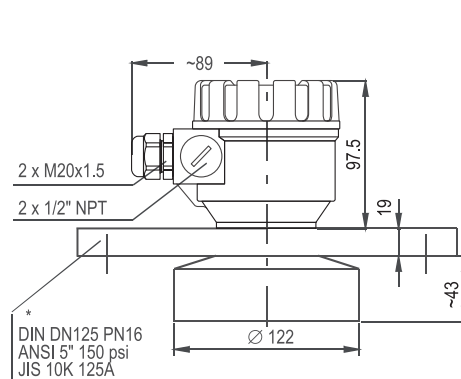
2260-Y-YYY-4



2260-Y-YYY-6



2260-Y-YYY-15



Specifications

General

Type	2260-Y-YYYX-4	2260-Y-YYYX-6	2260-Y-YYYX-15
Range	0.2 to 4 m / 0.65 to 13 ft	0.25 to 6 m / 0.82 to 20 ft	0.45 to 15 m / 1.5 to 49 ft
Measuring Frequency	80 kHz	80 kHz	40 kHz
Total Beam Angle	6°	5°	5°
Accuracy *	± (0.2 % of measured distance plus 0.05 % of range)		
Resolution	<2 m: 1 mm, 2 to 5 m, 2 mm, 5 to 10 m: 5 mm, >10m: 10 mm		

Environmental

Process Temperature

PP sensor	-20 °C to +70 °C
PVDF sensor	-20 °C to +80 °C
Ambient Temperature	-20 °C to +60 °C
Process Pressure (absolute)	0.03 to 0.3 MPa (0.3 to 3 bar)

Enclosure

Enclosure Material

Sensor Body	PP or PVDF		
Housing	PBT		
Ingress Protection			
Sensor	IP 68, NEMA 6P		
Housing	IP 67, NEMA 6P		
Process Connection	1 1/2" BSP / NPT	2" BSP / NPT	DN 125 / 5 inch flange

Sealing

PP sensor	EPDM
PVDF sensor	FPM (Viton)

Electrical

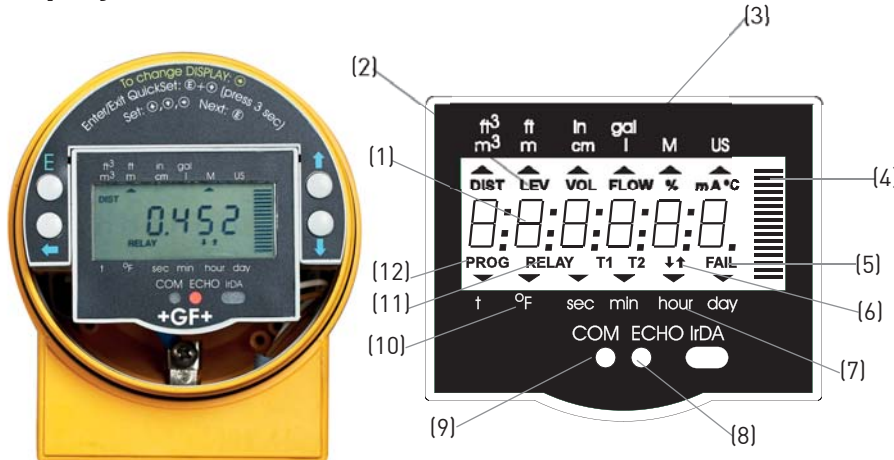
Outputs	2- wire 4-20 mA , HART interface, $R_t \geq 250 \Omega$
Power Supply	12 to 30 V DC, Note: Ex-devices must be powered by EEx ia power supplies
Power Supply Loading	$U_o < 30 \text{ V}$, $I_o < 140 \text{ mA}$, $P_o < 1 \text{ W}$, $R_t \text{ max} = (U_s - 12 \text{ V}) / 0,02 \text{ A}$
Intrinsically safety data	$C_i \leq 15 \text{ nF}$, $L_i \leq 200 \mu\text{H}$, $U_i \leq 30\text{V}$, $I_i \leq 140 \text{ mA}$, $P_i \leq 1 \text{ W}$
Connection	2 x M20x1,5 metal cable gland: Cable: Ø7 ... 13 mm

Standards and Approvals

General Approvals	CE, RoHS
ATEX Approval	ATEX II 1 G EEx ia IIB T6, IP68

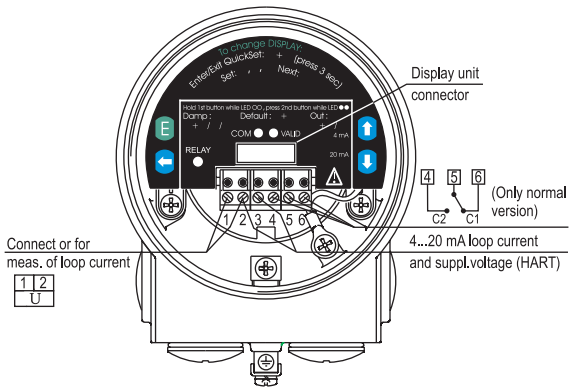
* Under optimal circumstances of reflection and stabilized transducer temperature

Display Unit

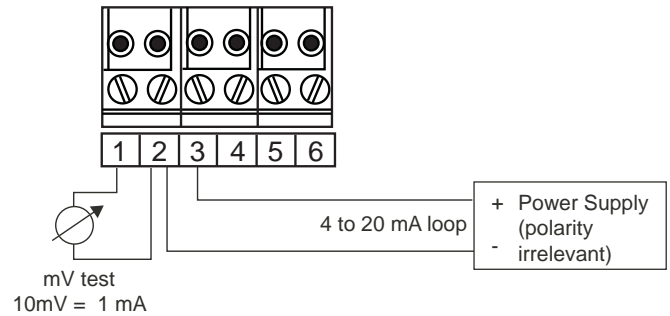


- (1) Primary measured value
- (2) Measurement mode
- (3) Measurement unit / Standard
- (4) Bar graph trend indication
- (5) Measurement error indication
- (6) Liquid movement direction
- (7) Time unit
- (8) Presence of valid echo
- (9) HART communication
- (10) Temperature unit
- (11) Relay status indication
- (12) Programming mode indication

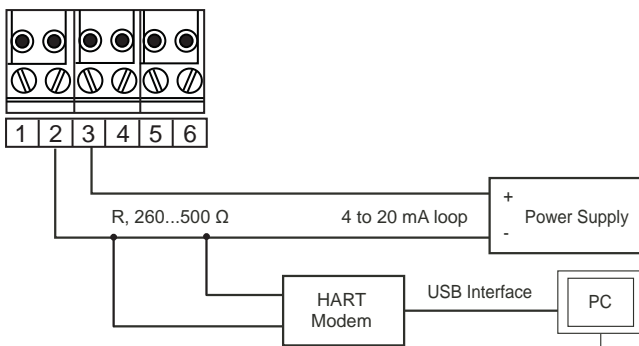
2260 Transmitter Terminals



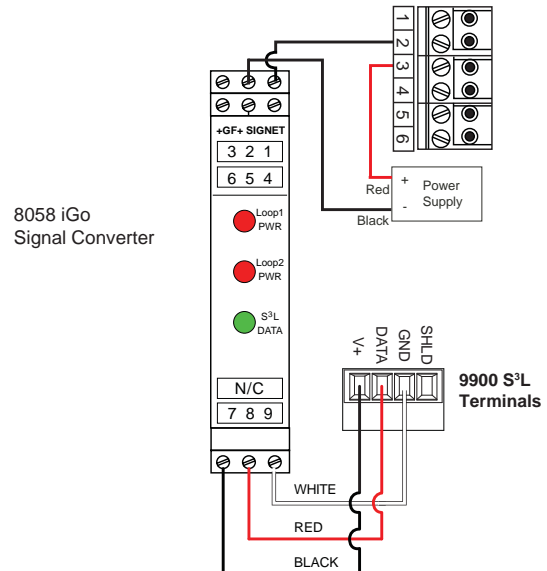
4 to 20 mA Loop Wiring



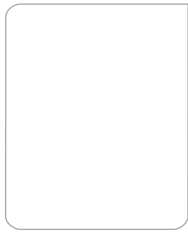
HART Interface Wiring



Wiring to 9900 Universal Transmitter



Ordering Information



Mfr. Part No	Code	Description
Versions with BSP thread / DIN flange		
2260-V-1DBX-4	159 300 112	Range 4 m, PVDF body, 4 to 20 mA 2-wire/HART, ATEX, BSP thread
2260-V-1DBX-6	159 300 113	Range 6 m, PVDF body, 4 to 20 mA 2-wire/HART, ATEX, BSP thread
2260-V-1DFX-15	159 300 114	Range 15 m, PVDF body, 4 to 20 mA 2-wire/HART, ATEX, DIN Flange DN125

Ordering Information



Mfr. Part No	Code	Description
Versions with NPT thread / ANSI flange		
2260-V-1DNX-4	159 300 142	Range 4 m, PVDF body, 4 to 20 mA 2-wire/HART, ATEX, NPT thread
2260-V-1DNX-6	159 300 143	Range 6 m, PVDF body, 4 to 20 mA 2-wire/HART, ATEX, NPT thread
2260-V-1DAX-15	159 300 144	Range 15 m, PVDF body, 4 to 20 mA 2-wire/HART, ATEX, ANSI Flange 5 inch