

2260 Ultrasonic Level Transmitters with Ex Approval **+GF+**



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 (49.2 ft).

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
- Level, volume and open channel flow
- 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 (Optional)
- Secondary lightning protection
- Intrinsically safe (Optional)
- 32-point linearization



Applications

- River water
- Seawater
- Potable water
- Demineralized water
- Treated water

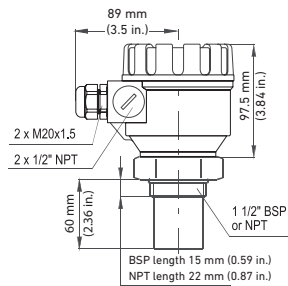


www.gfps.com/level

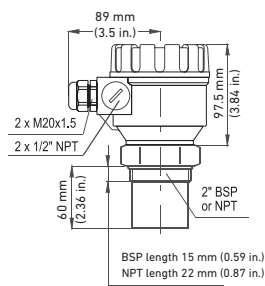
Dimensions (mm)

2-wire level transmitters

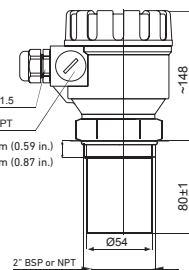
2260-Y-YYY-4



2260-Y-YYY-6



2260-Y-YYY-8



Specifications

General

Type	2260-Y-YYYX-4	2260-Y-YYYX-6	2260-Y-YYY-8	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)	0.35 to 8 m (1.1 to 26 ft)	0.45 to 15 m (1.5 to 49 ft)
Measuring Frequency	80 kHz	80 kHz	50 kHz	40 kHz
Total Beam Angle	6°	5°	7°	5°
Accuracy *	± (0.2 % of measured distance plus 0.05 % of range)			
Resolution	<2 m (6.6 ft): 1 mm (0.04 in.), 2 to 5 m (6.6 to 16.4 ft): 2 mm (0.08 in.), 5 to 10 m (16.4 to 32.8 ft): 5 mm (0.2 in.), >10 m (32.8 ft): 10 mm (0.39 in.)			

Environmental

Process Temperature		
PP sensor	-20 °C to +70 °C (-4 °F to 158 °F)	
PVDF sensor	-20 °C to +80 °C (-4 °F to 176 °F)	
Ambient Temperature	-20 °C to +60 °C (-4 °F to 140 °F)	
Process Pressure (absolute)	0.03 to 0.3 MPa (0.3 to 3 bar) 4.35 psi - 43.5 psi	

Enclosure

Enclosure Material					
	Sensor Body	PP or PVDF			
	Housing	PBT			
Ingress Protection					
	Sensor	IP68, NEMA 6P			
	Housing	IP67, NEMA 6P			
Process Connection		1½ in. BSP / NPT	2 in. BSP / NPT		DN125 / 5 in. Flange
Sealing					
	PP sensor	EPDM			
	PVDF sensor	FKM (Viton)			

Electrical

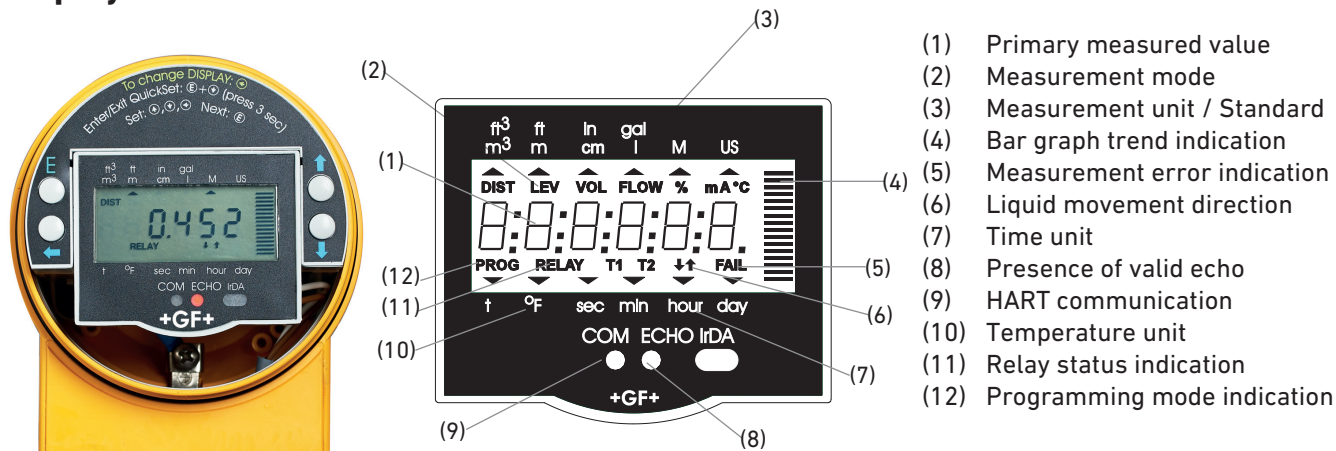
Outputs	2- wire 4–20 mA , HART interface, Rt >= 250 Ω		
Power Supply	12 to 30 V DC, Note: Ex-devices must be powered by EEx ia power supplies		
Power Supply Loading	U _o < 30 V, I _o < 140 mA, P _o < 1 W, R _t max = (U _s - 12 V) / 0,02 A		
Intrinsically safety data	C _i <= 15 nF, L _i <= 200 µH, U _i <= 30V, I _i <= 140 mA, P _i <= 1 W		
Connection	2 x M20x1,5 metal cable gland: Cable: Ø7 ... 13 mm		

Standards and Approvals

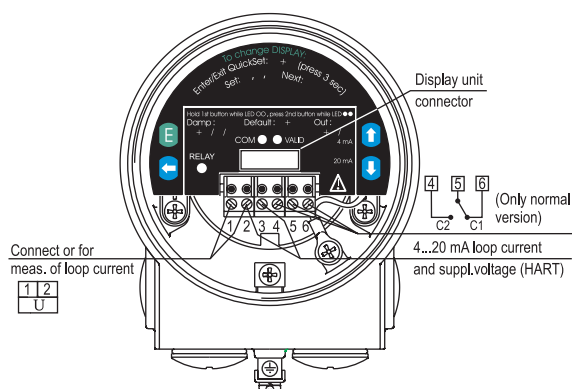
General Approvals	CE, RoHS		
ATEX Approval	ATEX II 1 G EEx ia IIB T6, IP68, NEMA 6P		

* Under optimal circumstances of reflection and stabilized transducer temperature

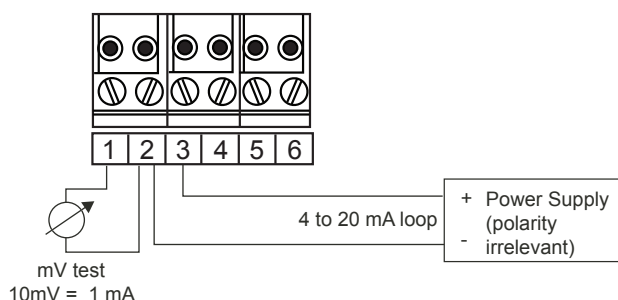
Display Unit



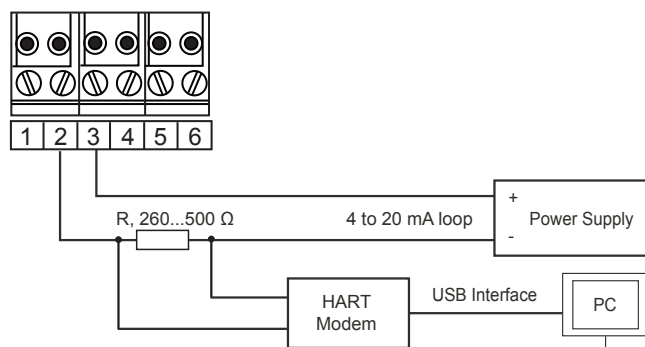
2260 Transmitter Terminals



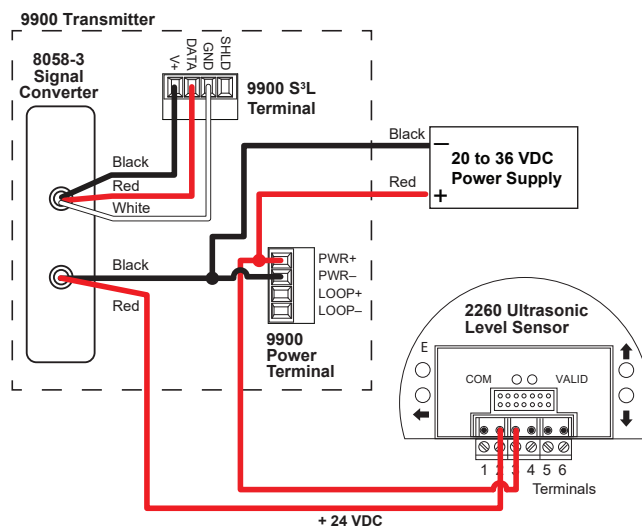
4 to 20 mA Loop Wiring



HART Interface Wiring

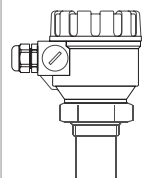


Wiring to 9900 Universal Transmitter



Pin No.	Assignment
1	mV Test, 10 mV \rightarrow 1 mA
2	4 to 20 mA current + supply
3	4 to 20 mA current + supply Polarity irrelevant
4	Relay NO terminal
5	Relay common terminal
6	Relay NC terminal

Ordering Information



Mfr. Part No	Code	Description
2260-P-0DN-4	159 300 120	Range 4 m (13.1 ft), PP body, 4..20 mA 2-wire, NPT thread
2260-P-2DN-4	159 300 121	Range 4 m (13.1 ft), PP body, 4..20 mA 2-wire/relay/HART, NPT thread
2260-P-0DN-6	159 300 122	Range 6 m (19.7 ft), PP body, 4..20 mA 2-wire, NPT thread
2260-P-2DN-6	159 300 123	Range 6 m (19.7 ft), PP body, 4..20 mA 2-wire/relay/HART, NPT thread
2260-P-0DN-8	159 300 109	Range 8 m (26.2 ft), PP body, 4..20 mA 2-wire, NPT thread
2260-P-0DA-15	159 300 124	Range 15 m (49.2 ft), PP body, 4..20 mA 2-wire, ANSI Flange 5 in.
2260-P-2DA-15	159 300 125	Range 15 m (49.2 ft), PP body, 4..20 mA 2-wire/relay/HART, ANSI Flange 5 in.
2260-V-0DN-4		
2260-V-0DN-4	159 300 131	Range 4 m (13.1 ft), PVDF body, 4..20 mA 2-wire, NPT thread
2260-V-2DN-4	159 300 132	Range 4 m (13.1 ft), PVDF body, 4..20 mA 2-wire/relay/HART, NPT thread
2260-V-0DN-6	159 300 133	Range 6 m (19.7 ft), PVDF body, 4..20 mA 2-wire, NPT thread
2260-V-2DN-6	159 300 134	Range 6 m (19.7 ft), PVDF body, 4..20 mA 2-wire/relay/HART, NPT thread
2260-V-0DN-8	159 300 110	Range 8 m (26.2 ft), PVDF body, 4..20 mA 2-wire, NPT thread
2260-V-0DA-15	159 300 135	Range 15 m (49.2 ft), PVDF body, 4..20 mA 2-wire, ANSI Flange 5 in.
2260-V-2DA-15	159 300 136	Range 15 m (49.2 ft), PVDF body, 4..20 mA 2-wire/relay/HART, ANSI Flange 5 in.
Versions with NPT thread / ANSI flange		
2260-V-1DNX-4	159 300 142	Range 4 m (13.1 ft), PVDF body, 4..20 mA 2-wire/HART, ATEX, NPT thread
2260-V-1DNX-6	159 300 143	Range 6 m (19.7 ft), PVDF body, 4..20 mA 2-wire/HART, ATEX, NPT thread
2260-V-1DAX-15	159 300 144	Range 15 m (49.2 ft), PVDF body, 4..20 mA 2-wire/HART, ATEX, ANSI Flange 5 in.
Versions with BSP thread / DIN flange		
2260-P-0DB-4	159 300 090	Range 4 m (13.1 ft), PP body, 4..20 mA 2-wire, BSP thread
2260-P-2DB-4	159 300 091	Range 4 m (13.1 ft), PP body, 4..20 mA 2-wire/relay/HART, BSP thread
2260-P-0DB-6	159 300 092	Range 6 m (19.7 ft), PP body, 4..20 mA 2-wire, BSP thread
2260-P-2DB-6	159 300 093	Range 6 m (19.7 ft), PP body, 4..20 mA 2-wire/relay/HART, BSP thread
2260-P-0DB-8	159 300 107	Range 8 m (26.2 ft), PP body, 4..20 mA 2-wire, BSP thread
2260-P-0DF-15	159 300 094	Range 15 m (49.2 ft), PP body, 4..20 mA 2-wire, DIN Flange DN125
2260-P-2DF-15	159 300 095	Range 15 m (49.2 ft), PP body, 4..20 mA 2-wire/relay/HART, DIN Flange DN125
2260-V-0DB-4		
2260-V-0DB-4	159 300 101	Range 4 m (13.1 ft), PVDF body, 4..20 mA 2-wire, BSP thread
2260-V-2DB-4	159 300 102	Range 4 m (13.1 ft), PVDF body, 4..20 mA 2-wire/relay /HART, BSP thread
2260-V-0DB-6	159 300 103	Range 6 m (19.7 ft), PVDF body, 4..20 mA 2-wire, BSP thread
2260-V-2DB-6	159 300 104	Range 6 m (19.7 ft), PVDF body, 4..20 mA 2-wire/relay /HART, BSP thread
2260-V-0DB-8	159 300 108	Range 8 m (26.2 ft), PVDF body, 4..20 mA 2-wire, BSP thread
2260-V-0DF-15	159 300 105	Range 15 m (49.2 ft), PVDF body, 4..20 mA 2-wire, DIN Flange DN125
2260-V-2DF-15	159 300 106	Range 15 m (49.2 ft), PVDF body, 4..20 mA 2-wire/relay/HART, DIN Flange DN125

Ordering Information

Mfr. Part No	Code	Description
Versions with BSP thread / DIN flange		
2260-V-1DBX-4	159 300 112	Range 4 m (13.1 ft), PVDF body, 4 to 20 mA 2-wire/HART, ATEX, BSP thread
2260-V-1DBX-6	159 300 113	Range 6 m (19.7 ft), PVDF body, 4 to 20 mA 2-wire/HART, ATEX, BSP thread
2260-V-1DFX-15	159 300 114	Range 15 m (49.2 ft), PVDF body, 4 to 20 mA 2-wire/HART, ATEX, DIN Flange DN125

Accessories

Code	Description
159 300 181	HART - USB Modem
159 300 182	HART - USB Modem, DIN Rail
159 300 183	HART - USB Modem, DIN Rail, ATEX
159 300 180	Display unit for type 2260 Transmitter