

TANK LEVEL GAUGES S

INS-08/RIS-08/TLGS-08



KEY FEATURES

- + 180° Viewing Angle
- + I/O Driver For Low Water Warning, Autofill-Hysteresis, Mute input, Etc.
- + CAN Bus Interface
- + Super Bright LEDs
- + Ambient Light Sensor, Backlit
- + Low Installation Depth
- + Multiple sensor input

INS-08 types of Tank Level Gauges are designed to display liquid's volume at an accuracy of 1/8 of the tank level using ultra-bright LEDs. The transducer measures the column of the liquid in the tank above the sensor process input and provides a signal that is proportional to the tank high. The unit standardly uses a pressure transducer with output 0.5-4.5 V. The sensor input is widely configurable and it can also be used for 0-10 V transducers, 4-20 mA transmitters or even resistive probe.

Optional I/O driver can be integrated for low level warning output, autofill-hysteresis output, mute input, etc.

The Tank Level Gauge can be used as a stand-alone system or as a part of MMX system connected via CAN bus to IO Controller. Several slave indicators (small remote - RIS) can be connected to a master indicator INS to show the same value on different locations or in combination with a XL remote indicator (RIXL) for the vehicle sides.



SPECIFICATIONS

POWER

Supply Voltage 8-30 V DC

Current 0.5 A maximum, no outputs active

Electrical Protection overvoltage, transients, reverse polarity, load dump

INTERFACES

CAN 1 x CAN

CAN termination 120 ohm, DIP switch

I/O

Sensor input 0.5-4.5 V, 0-5V, 0-10V, 4-20 mA, resistive probe

Digital Input

IN1 configurable active low/high levels 0..Ub with solder pad on PCB, protected

IN2 active low level, config. input

Digital Output *Only version with integrated I/O driver

OUT1 positive switching (high-side), max. 2 A (Low water warning)

OUT2 positive switching (high-side), max. 2 A (Autofill-Hysteresis xx/xx%)

OUT3-OUT4 positive switching (high-side), max. 2 A

OUT5 negative switching (low-side), max. 0.5 A

Loads Inductive, capacitive, resistive

ENVIRONMENT

IP Class (IEC529) front panel IP67, back IP20

EMC Conformity EN61000-6-2 noise immunity
EN61000-6-4 radiation of interference

Temperature Range storage -40° to +85°C (-40° to 185°F)
operating -40° to +85°C (-40° to 185°F)

ENCLOSURE

Housing Material aluminium

Mounting in-dash, with 4 screws M3 or 3.5 mm (#8) tapping screws

Connector terminal block 4 or 14-way depending of options selected

MISCELLANEOUS

Indicator increments 1/8 Standardly, 1/4 Optional

Day/Night operation automatic – integrated ambient light sensor

Front panel backlit, colour coded for water and foam

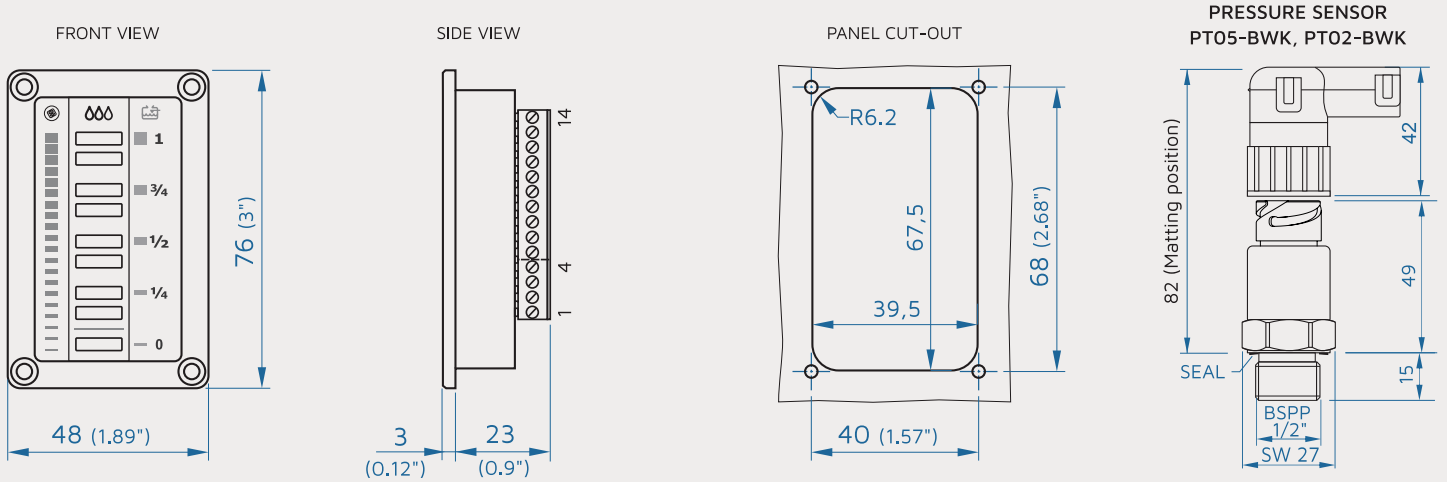
Detectable substances water, fire-smothering foam, gasoline, etc

SIZE & WEIGHT

W x H x D 48 x 76 x 26 mm (1.9" x 3" x 1") with connector

Weight 0.10 kg (0.55 lbs)

DIMENSIONS



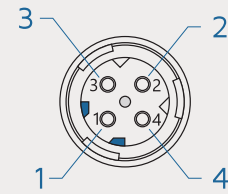
CONNECTIONS

REAR VIEW

CONNECTION TERMINAL BLOCK 4 OR 14-WAY

PIN	Description / wire colour
1	BATTERY + ("15")
2	BATTERY - / GND
3	CAN L
4	CAN H
5	SENSOR [V]/[MA] VCC+
6	SENSOR [V]/[MA] SIGNAL
7	SENSOR [V] GND
8	DIGITAL IN1
9	OUT1 HIGH SIDE 2 A (LOW W/F)
10	OUT2 HIGH SIDE 2 A (HYST.)
11	OUT3 HIGH SIDE 2 A
12	OUT4 HIGH SIDE 2 A
13	OUT5 LOW SIDE 0.5 A
14	CONFIG/MUTE

TRANSDUCER OEM



CONNECTION TWIST LOCK (ISO 15170)

PIN	VOLTAGE SENSOR	CURRENT SENSOR
1	BATTERY +	BATTERY +
2	GND	SIGNAL 4-20 MA
3	SIGNAL 0.5-4.5V	N/C
4	N/C	N/C

PRODUCT CODE

SET of master indicator small INS, sensor PT06-U4, sensor cable

Ordering code example:

T	L	G	S	-	0	8	W	-	0	5	R	H	L	M	
08 DISPLAY INCREM.1/8 04 DISPLAY INCREM.1/4				W: WATER F: FOAM		CABLE LENGTH, METERS (INCH) 05: 5 M (20") 10: 10 M (40") 15: 15 M (60")			OUT1 R: LOW LEVEL WARNING		OUT2 H: AUTOFILL HYST. xx/xx % R: ADD. OUTPUT		OUT3 - OUT6 L: LLD5 DRIVER OUTPUTS		INPUT IN1 M: MUTE OUT1

Remote Indicator - Small

Ordering code example:

R	I	S	-	0	8	W	-	R	H	L	M		
08 DISPLAY INCREM.1/8 04 DISPLAY INCREM.1/4				W: WATER F: FOAM		OUT1 R: LOW LEVEL WARNING			OUT2 H: AUTOFILL HYST. xx/xx % R: ADD. OUTPUT		OUT3 - OUT6 L: LLD5 DRIVER OUTPUTS		INPUT IN1 M: MUTE OUT1

*NOTE: Selection of all three options R, H and L for the same indicator is standardly not possible. Options that are available are R, H, L and the combination RH

Master Indicator - Small

Ordering code example:

I	N	S	-	0	8	W	U	4	R	H	L	M		
08 DISPLAY INCREM.1/8 04 DISPLAY INCREM.1/4				W: WATER F: FOAM		SENSOR INPUT / PROBE U4: 0,5-4,5V U1: 0-10 V I2: 4-20 MA			OUT1 R: LOW LEVEL WARNING		OUT2 H: AUTOFILL HYST. xx/xx % R: ADD. OUTPUT		OUT3 - OUT6 L: LLD5 DRIVER OUTPUTS	INPUT IN1 M: MUTE OUT1