

EB43 RF-Admittance Level Transmitter

Operation Manual

Working Principal

RF Admittance Level Transmitter utilizes the capacitance formed between the sensing probe and the reference probe or the metal vessel wall to calculate the level of the medium inside the vessel according to the capacitance theory that the capacitance and vessel are proportional increased.

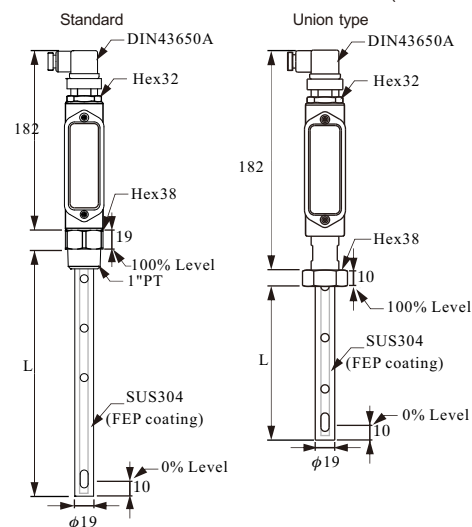
When the probe is surrounding by the air, little capacitance (C_a) is measured by the equivalent A capacitor, the capacitance increase gradually as computing media, the max. capacitance (C_b) will be measured while the tank is full, the difference (dC) between C_a and C_b is proportional to the level.

Features

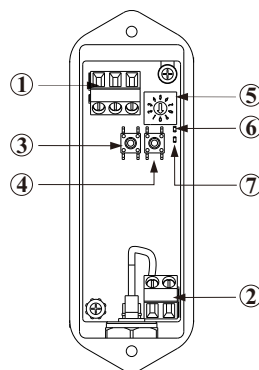
- Low power consumption (20mA max.)
- High accuracy ($<\pm 1.0\%$ F.S.)
- Applicable for fluid measurement:
 - Refrigerants(ex. R22, R134a, R401a, R404a, R407a, R507).
 - Water based fluid
 - Lubricant oil and fuel oil
 - Petroleum and asphalt
- With button/LED indicator for on site set up.
- Response time less than 1/4 sec.
- Detachable housing design, no leakage during regular maintenance.
- MIL-STD-202F-201A Compliance
- IEC60092, IEC61000-4, IEC60068-2 Compliance

Dimension

(Unit:mm)



Panel



- ① Power input
- ② Electrode
- ③ Left button(-)
- ④ Right button(+)
- ⑤ Function knob
- ⑥ Red Led
- ⑦ Green Led

Panel Functions (※Knobs 6-9 nonfunctional)

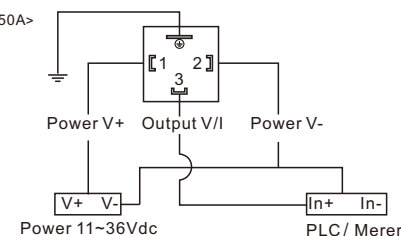
Operation Mode		
0		LED light ON- normal working mode
Output Voltage Selection		
1		Turn the knob to (1) and wait for about 2 seconds, the green LED will be blinking one time which mean you have enter to the voltage setting mode. Press LEFT or RIGHT button for voltage selection.. Green light On for 0-5V mode, RED light on for 1-6V model.
0		Turn the knob to (0) and wait for about 2 seconds, green light will be blinking one time, resuming to normal operation mode., setting will be save accordingly.
Output Fine-Tune Function		
2		Turn the knob to (2) and wait for about 2 seconds, green light blink one time for the set up. Press RIGHT button to increase output voltage to 0.1% more, LEFT button to decrease 0.1% output voltage, the output voltage will be adjusted instantly.
0		Turn the knob to (0) and wait for about 2 seconds, green light will be blinking one time, resuming to normal operation mode., setting will be save accordingly.
High Low Calibration		
3		Turn the knob to (3) and wait for about 2 seconds, green light blinking one time for the High Low setting. Press RIGHT button until green light blinking for Low level calibration, Press LEFT button until green light blinking for HIGH level calibration, the green light will be not blinking until the auto calibration is done.
0		Turn the knob to (0) and wait for about 2 seconds, green light will be blinking one time, resuming to normal operation mode., setting will be save accordingly.
Temperature Compensation Selection		
4		Turn the knob to (4) for about 2 seconds, the green light will blink one time for the setting of Temperature Compensation, press the LEFT or RIGHT button to switch the Temperature Compensation Mode. If Green LED ON constantly, it is in the "other substance" temperature compensation mode; when RED Light ON constantly, it is at the Refrigerant temperature compensation mode.
0		Turn the knob to (0) and wait for about 2 seconds, green light will be blinking one time, resuming to normal operation mode., setting will be save accordingly.
Fine-Tune Value Display and Reset		
5		1) Display: Turn the knob to (5) and wait for about 2 seconds, green light blinking one time for the output fine-tune value display and reset. Red LED means the fine-tune value is negative value; green LED means the fine-tune value is positive value. And the output voltage is the fine-tune value. 2) Reset: Press LEFT button until red LED blinking one time for reset fine-tune value to 0.
0		Turn the knob to (0) and wait for about 2 seconds, green light will be blinking one time, resuming to normal operation mode., setting will be save accordingly.

Installation Guide

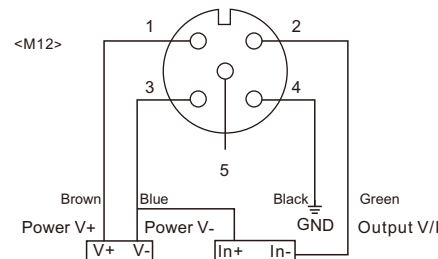
- Tighten the connection point or flange after placing the probe into the tank, ensure the wiring is correct.
- Ensure the housing cover is close tightly after the panel setting to prevent moisture intrusion to the inner part of housing.

Wiring

<DIN 43650A>



<M12>



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