

EG32 Magnetostrictive Level Transmitter

Operation Manual

INSTALLATION

- The EG32 level transmitter is designed to be mounted to the top of a tank/vessel in order to accurately measure the changing height or level of liquid in a tank. It is always best to choose a mounting connection size whose opening will allow for the insertion of the float and stem assembly through the opening without disassembly. Check the diameter of the float to ensure it will easily insert through the process connection opening.
- If the EG32 float will not pass through the process connection opening then the float must be removed from the stem before installation of the stem through the process connection. The float will then have to be re-assembled to the stem from inside the tank/vessel. If this is required please refer to the instructions below (Step 1 through 5).

CAUTION

- Do not replace or change the float on the EG32. Consult with Aplus Finetek technical support if this is required for any reason as the EG32 unit could fail to function properly.
- Do not at any time open the sealed electronics enclosure of the EG32 level transmitter. There are no operator adjustments or serviceable parts inside and this action could damage the unit or impact the calibration and sensor accuracy.
- The EG32 float should be handled with care to prevent it from being damaged. Do not allow it to drop on the ground or the retaining clip at the bottom of the stem. Do not bang the float on anything to avoid breaking the magnet inside the float. Damage can result.
- If replacing the float onto the stem the float needs to be installed in the correct direction. The float has an arrow symbol Δ that should point in the upward direction.
- If replacing the float retaining ring clip onto the stem, the retaining ring clip must be installed at the proper point on the stem as shown on the stem with an appropriate marking.
- Handle the sensor with care during transportation and installation. Sensor should not be mishandled, squeezed, bended or deformed. In case of any deformation of any part of the EG32 level transmitter and resulting abnormal functioning, the unit will need to be returned to Aplus Finetek for repair and calibration.
- For transportation the EG32 unit must be properly packaged and covered with anti-vibration packaging materials to protect the assembly and its parts from damage.

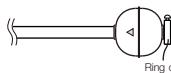
SPECIFICATIONS

- Power supply: 18-30Vdc
- Measuring range: 1.97~216.5in (50~5500mm)
- Output signal: 4~20 mA or 20~4 mA
- Maximum load (Ω): $(Vs-18V) \div 0.02$
Vs= power supply
- Non-Linearity:
1.97~19.7" (50~500mm): $\pm 100\mu m$
19.7~98.4" (501~2500mm): $\pm 0.02\% F.S.$
98.4~216.5" (2501~5500mm): $\pm 0.04\% F.S.$
- Repeatability: 0.002%FS
- Hysteresis: 0.004%FS
- Temperature coefficient: $\pm 100 \text{ ppm}/^{\circ}\text{C}$
- Ambient temp.: -40°F~185°F (-40°C~85°C)
- Operating temp.: -40°F~257°F (-40°C~125°C)
- Temperature sensor: PT100 (optional)
- Temp. accuracy: $\pm 1^{\circ}\text{C}$
- Communication interface: HART/RS485 (optional)
- Protection rating: IP67/IP69

REMOVING/INSTALLING FLOAT

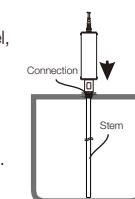
Step 1

Remove the retaining ring clip located near the bottom of the stem by loosening the fastener.



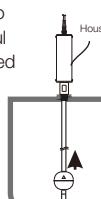
Step 3

Install the EG32 onto the tank/vessel, after the float has been removed, using the supplied threaded or flanged process connection.



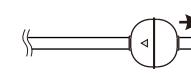
Step 4

Replace the float onto the stem being careful to get the float installed with the Δ arrow symbol pointing in the upward direction.



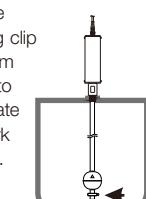
Step 2 text to read:

Remove the float.



Step 5

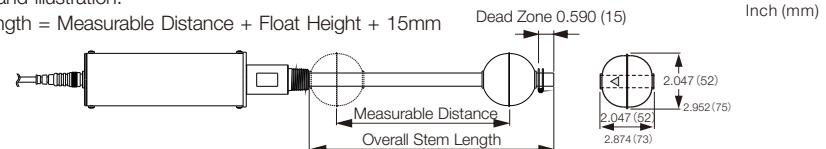
Reattach the retaining ring clip onto the stem taking care to properly locate it at the mark on the stem.



MEASURABLE DISTANCE VS. OVERALL STEM LENGTH

The relationship between the EG32 measurable distance and the overall stem length is shown in the below equation and illustration:

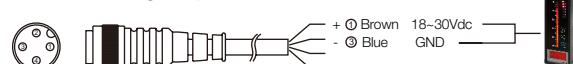
$$\text{Overall Stem Length} = \text{Measurable Distance} + \text{Float Height} + 15\text{mm}$$



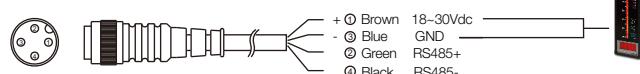
Example: Overall Stem Length = 500mm (measurable distance) + 73mm (Type S5 float height) + 15mm = 588mm
※ Height of float varies by type

ELECTRICAL CONNECTIONS

A. Single Float w/ Analog Output

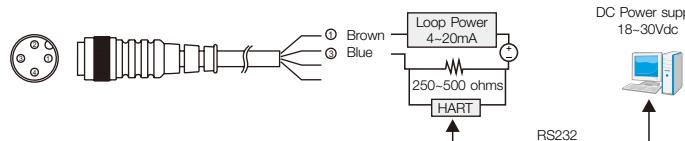


B. Single/Double Float w/ RS485 Output with or without Analog output



※The analog output wires are just used for power supply connection if no analog output is provided

C. Single/Double w/ HART Output + Analog Output



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