

ITEM NO. : 24**ITEM : BOARD & FLOAT TYPE LEVEL INDICATOR CUM TRANSMITTER
WITH EXTERNALLY ADJUSTABLE SWITCHES FLP / WP
REFER OUR G. A. DRG. NO. RBFLITA-2-1012-AM-LS-FLP / WP****PRINCIPLE OF OPERATION :**

When the level builds up inside the tank the float moves up and counter weight (Level Indicator) moves down indicating the level inside the tank. The level Indicator which carries a magnet operates the magnetic switch which is kept inside the flameproof or weatherproof enclosure. When the level variation takes place, the indicator moves up or down. The indicator carries a magnet and when it comes in the proximity of the magnetic switch, the magnetic switch operates and a change over contact takes place. This is applicable to the unit which is having an external mounted magnetic switch.

TRANSMITTER 4-20 mA OUTPUT :

The above movement of the indicator which is due to variation in liquid level inside the tank rotates the pulley and the counter weight, moves up or down to indicate the actual level inside the tank. The rotating pulley rotates a precision wire wound potentiometer and the resistance value varies due to this movement. The change in resistance value which is directly related to the measurement of level in mm, transmitted to the control room or local control panel as 4-20 mA output.

Here we are provided with local indication by the scale and also the remote transmission of the level variation as 4-20 mA to the control panel.

MATERIAL SPECIFICATIONS :

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|---|---|--|
| 1. Type | : | Board & float type Level Indicator cum transmitter with switches |
| 2. Float | : | SS 316 / PP / PVC / PTFE etc, depending on service. |
| 3. Indicator wire rope | : | SS 316 / PP / PTFE etc., depending on service. |
| 4. Float dimensions | : | 450 mm centre to centre distance |
| 5. Pipe | : | GI / SS epoxy painted (depending on service.) |
| 6. Inspection elbows | : | These are cast aluminium housings having Teflon pulleys into which two bearings are housed to have a free rotation. |
| 7. Bolts & Nuts used for connecting the board to 1" NB pipe | : | Galvanized alloysteel |
| 8. Indicator assembly (Counter weight) | : | CI electroplated & stove enameled. The background being black. The indicator painted red. |
| 9. Boards ie. scales | : | These are powder coated and screen printed to have better readability and uniform thickness of lines and numerals. Added to this they have very good aesthetic look also. These boards are fabricated in single metre basis so that handling is easy at site. Added to it shipment does not get damaged during transit. Assembly is quick. |
| 10. Scale Graduation | : | Scales are having the graduations @ every 10mm equispaced with black marking & red numerals. |
| 11. Connection to vessel | : | 1 " BSP (F) screwed or flanged : To Mention |
| 12. Service | : | To mention |
| 13. Op.pressureKg/Cm2g/temp.* C /Sp.Gr. | : | To mention |
| 14. Tank height / Measuring range | : | To Mention |

DETAILS OF EXTERNALLY ADJUSTABLE W/P (OR) FLP SWITCHES :

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|----------------------------|---|---|
| 1. No. of Alarms | : | 1/2/3/4 Nos. (for HiHi, Hi,Lo & LoLo). These alarms are adjustable throughout the range externally. |
| 2. Type of switch | : | Sealed magnetic switch |
| 3. Contact Form & Rating | : | 1 No. SPDT 230 VAC 5 A (SURGE) 60 W / VA for each level sensing. |
| 4. Switch differential | : | Fixed 20 mm approx. |
| 5. Enclosure / cable entry | : | Cast aluminium W / P or FLP / ¾" ET (F) |

DETAILS OF TRANSMITTER ELECTRONIC UNIT :

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|----------------------------|---|--|
| 1. Sensor type | : | Float operated |
| 2. Input supply | : | 24 VDC or 230 / 110 VAC 50 Hz 1 ø |
| 3. Output supply | : | 4 -20 mA 2/3 wire type |
| 4. Accuracy | : | ± 0.5% of the total range |
| 5. Indicator | : | Will be 2 ½ " Dial analogue meter |
| 6. Enclosure / cable entry | : | Will be cast Aluminium WP (or) FLP / ¾" ET (F) |

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