

# LEVEL MONITORING

## Rotating & Vibrating





### PRECISE AND RELIABLE LEVEL INDICATORS FOR POWDERY AND GRANULAR MATERIALS

ILT Rotating Level indicators are designed for level monitoring of bins, hoppers or silos by means of the rotating paddle.

When the material level reaches the measuring paddle the rotation is blocked. The motor is freely suspended within the casing.

The resulting reaction torque activates a limit switch output signal that stops the motor.

As soon as the material level sinks below the paddle radius, a spring pulls the motor back into its operating position. The switch returns to the OFF position and the motor is switched on.

The top or side-mounted indicators are commonly used for materials having a minimum bulk density of 0.3 t/m<sup>3</sup> (0.01 lbs per cu in).

#### Features

##### MECHANICAL DATA

- Enclosure: IP 66
- Process connection: Thread G1 1/4", G1 1/2", G2 1/2"
- Material process connection: Plastic and aluminium
- Material shaft and measuring vane: stainless steel
- Friction clutch: Protection of the gearing from impact of the measuring vane
- Pickup delay: Approx. 1.3 sec
- Sensitivity: adjustable via reset force of spring in three positions
- Speed of measuring vane: 1 r.p.m.

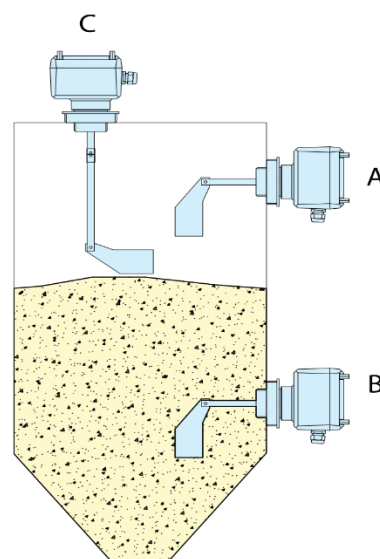
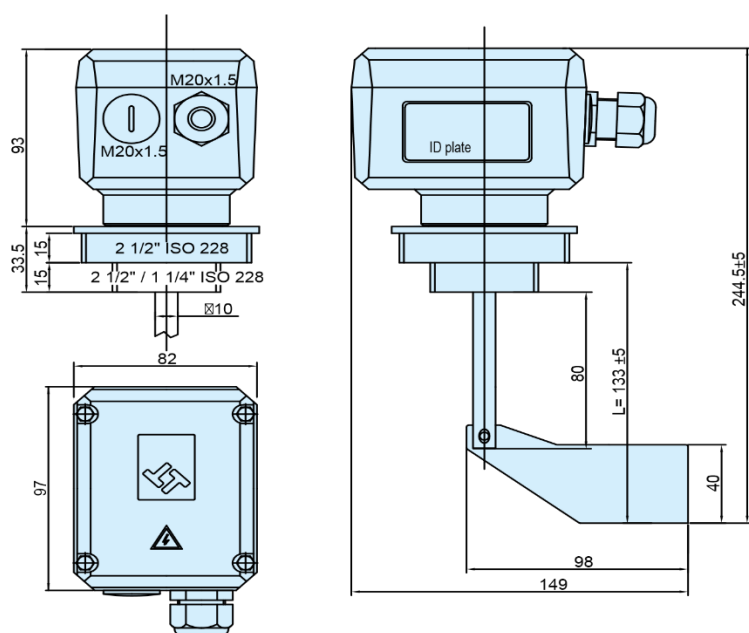
##### ELECTRICAL DATA

- Mains voltage: 24/48V 50-60Hz or 115V / 230V, 50-60Hz or 24V DC (all voltages +10% / -15%)
- Installed load: 3 VA (3W)
- Signal output: Floating micro-switch
- Signal output: Floating micro-switch ( AC max. 250V, 2 A, 500W - DC max. 300V, 2A, 60W )
- Protection class: I

##### OPERATING CONDITIONS

- Container excess pressure: max. 0.8 bar
- Temperature inside vessel: -20°C ~ 80°C (-20°C / + 250°C with high temperature version)
- Ambient temperature inside the casing: -20°C ~ 70 °C

#### Overall Dimensions



A = Maximum horizontal installation level  
B = Minimum installation level  
C = Maximum vertical installation level

# ILV

## Vibrating Level Indicator



Vibrating Level  
Indicator  
ILV

### PRECISE AND RELIABLE DETECTION FOR ALL POWDERS AND GRANULAR MATERIALS

The piezo-electrically stimulated oscillating fork vibrates at its mechanical resonance frequency. If the probe is covered by the bulk material, the damping thus generated is registered electronically and a corresponding signal output is actuated.

The top or side-mounted indicators are commonly used for materials having a bulk density ranging from 0.06 t/m<sup>3</sup> (0.002 lbs per cu in).

#### Features

- Voltages available: 19 V .....230 V AC, 50-60 Hz; (absorption 22 VA)  
19 V....40 V DC; (absorption 2 W)
- Signal output: Floating relay DPDT, max. 250 V AC, 8 A – max 30 V; DC, 5 A – non-inductive
- Standard connection: thread G 1½"
- Enclosure: IP 66
- Working temperature inside vessel:  
ILVA-ILVB: - 40 °C to 150 °C (- 40° F to 302° F)  
ILVC: - 25°C to 80°C (- 13°F to 176°F)
- Ambient temperature:  
ILVA-ILVB: - 40°C to + 60°C (- 40°F to 140°F)  
ILVC: - 25°C to + 60°C (- 13°F to 140°F)
- Vessel maximum pressure:  
ILVA-ILVB: min. – 1 bar - max. 16 bar (- 14.5 to 232 PSI)  
ILVC: min. – 1 bar – max. 6 bar (- 14.5 to 87 PSI)
- Threaded fittings material: 304 stainless steel
- Vibrating Forks material: 316 stainless steel
- Casing material: Aluminium alloy
- Maximum Oscillation: 7 V DC
- Measuring Frequency: 200 Hz
- Sensitivity: Adjustable at two levels (max. 0.06 t/m<sup>3</sup> – min. 0.15 t/m<sup>3</sup>)
- Rain shield cover as option
- Flanged connection as option

#### Accessories

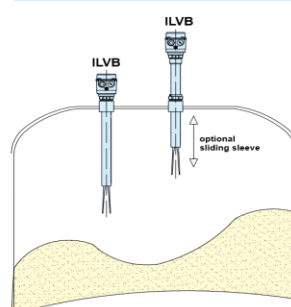
##### Threaded Bushes



Made from carbon steel, can be supplied to be welded on to the silo/hopper wall for quick installation of ILV.

Thread: 1½" ISO 228

##### Sliding Sleeve (for ILVB only)



G1½" ISO 228 or  
1½" NPT ANSI B 1.20.1  
Material: 304 SS  
Sealing material to the extension tube: NBR