



CAPACITANCE LEVEL POSITION DETECTOR (PiCap)

PRINCIPAL

PiCap is microcontroller based, working on ultra high frequency principal, capable of detecting metallic and non-metallic objects at distances, reliably and efficiently. **PiCap** sensitivity is factory set to detect most of the available substances in common Industrial applications. Since the detection range depends on the dielectric constant of the media and the nearness of objects surrounding the installation; in special cases, the sensitivity may need adjustment. The detection distance can be set by non contact magnetic switch for a desired distance within the PiCap limits.



Features

- Digital sensing, digital setting Available in metal housing
- Flush or non-flush types
- Long sensing range
- ~~No manual calibration~~ **Industrial applications** No manual calibration required for most of the
- Non contact magnetic key provided for sensitivity adjustment in typical applications
- Current limited universal transistor output as standard (PNP/NPN -field selectable)
- Reverse polarity and transient voltage protected
- Selectable Fail-safe High or Low mode
- Built-in LED indicators for Status, Alarm and Normal operation

Applications

- Suitable for very low dielectric constant material.
- Food Grains and plastic pellet detection
- Object detection and counting
- Level control / monitoring through a sight glass / non-metallic window
- Liquid level detection in non-metallic containers

Technical Specification

| | |
|-----------------------------------|---|
| Sensing range (Sd) | :1.0 to 30 mm, factory set at 15 mm |
| Sensitivity | :Adjustable via magnetic key |
| Effective operating distance (Sr) | : $0.9 \times S_n \leq S_r \leq 1.1 \times S_n$ |
| Usable operating distance (Su) | : $0.8 \times S_r \leq S_u \leq 1.2 \times S_r$ |
| Repeat accuracy (R) | : $\leq 5\%$ |
| Rated operational current (Ie) | : ≤ 100 mA (continuous) |
| No load supply current (Io) | : ≤ 12 mA |
| Voltage drop (Ud) | : ≤ 2.5 VDC @ max. load |
| Protection | :Short-circuit, reverse polarity, transients |
| For status | :Green LED |
| For Alarm | :Red LED |
| Environment | |
| Operating temperature | :0 to +60 deg. C |
| Housing material | :Body and check-nut , metallic |

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