

LMC30 Compact Capacitance Level Switch for Solids



Mounting Nuts

Introduction

LMC30 is a compact capacitance level limit switch for solids specially intended for see though plastic window material sensing in packing hoppers.

LMC30 can be mounted on any M30 compatible mounting hole and it is supported by two supplied mounting nuts.

LMC30 deploys touch sense on its rear, so as to set its switching point and no potentiometer or touch button is present enhancing operational life of the device

User Touch Sense Red Connection Cable Yellow Black User Touch Sense with ⊕ and ⊖ markings are touch switches to be touched with fingers

LED Glow Back

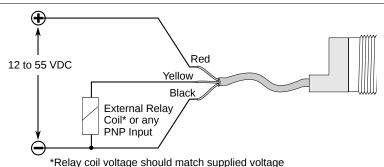
Electrical Connection

LMC30 can be powered using any available DC supply within the range 12V to 55V DC.

Red wire from cable connects to positive of DC supply Black connects to negative of DC supply Yellow wire provides PNP-NO output which can be connected to any PNP capable input.

PNP output gets energized and red LED turns permanently ON when sensing face is facing the material to be sensed.

When connecting external relay coil to PNP output, make sure that relay coil voltage matches to the DC supply voltage



ED ON : output ON

material present

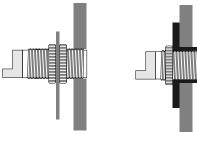


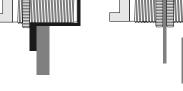
LED 1 blink per 4 sec : device is powered ON : output OFF (floating)

: no material

Mounting

It is advisable to mount LMC30 prior to set it for sensing the material. Three possible methods of mounting LMC30 are shown on right. A sheet metal with M30 bore should be provided to support when mounting directly to hopper (1) and though plexi-glass or other plastic see-thru window (3). Trumen can also supply PVC anti-spill adapter, for which outer fitting of anti-spill is needed to be customize (2). Shown in example is protruded flanged type anti-spill adapter, thread type anti spills are also possible,





1. Direct Mounting

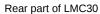
Mounting through anti-spill adapter

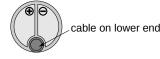
3. Mounting through see thru window

Calibration

To make LMC30 sense the material, calibration after mounting is required.

- With cable at lower end as shown on right, touch the user touch switches with two fingers firmly on ⊕ and ⊖ parts on the rear, as shown for 5 seconds.
- After 5 seconds, red and green LED will start blinking alternately, leave both the touch switches.
- After 2 seconds red LED will stay ON indicating device entered into calibration mode.
- 4. Touch ⊕ part with one finger only, LED will start blinking at 1 blink per 1 seconds, count each blink. One blink sets the device to most sensitive and 20 blinks set the device to most insensitive.
- 5. Release the finger from touch switch, red and green LED will start blinking alternately then green LED continuously ON indicating completion of calibration. Device will now sense the material in this new mounting position.







red & gree LED blinks alternately after 5 seconds



red LED stays ON after 2 sec



red LED blinks with 1 blink per 1 sec Each blinks adds to the hysterisis, more blinks more insensitive the device will become.



red & green LED blinks alternately for 2 sec then green LED continuously ON

Device is now ready to sense the material.

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