

# Instruction & Maintenance Manual



## Techtrol Loop Powered Indicator - 'TLPI'

'TLPI' is a digital indicator, with 4 digit LCD display to provide indication on field locally. It is used with X'mitter and powered directly from 4 to 20 mA loop.

### Pre-Installation Check

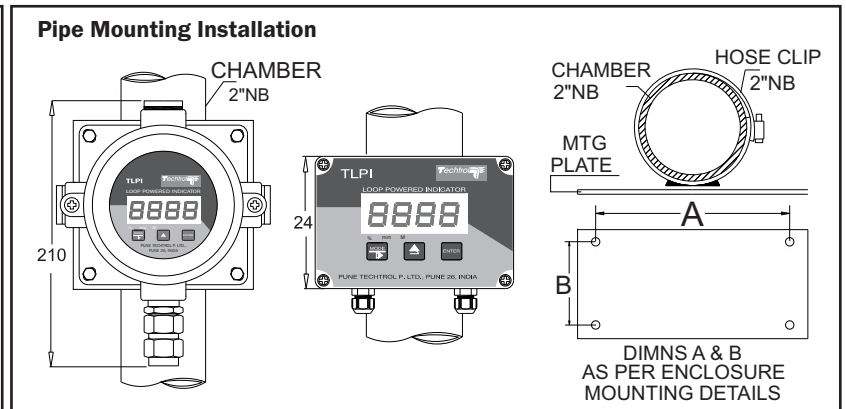
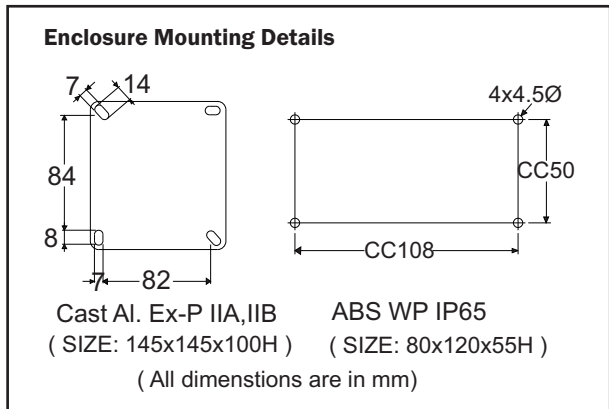
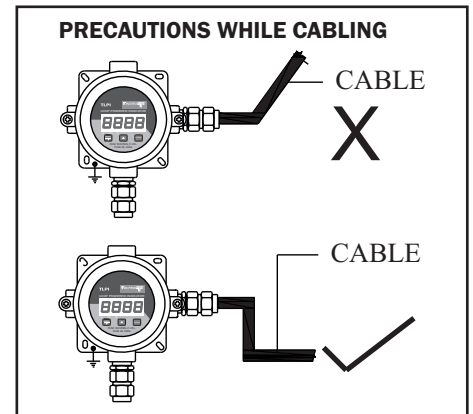
- ☑ 'TLPI' is pre calibrated at factory for 4-20mA input.
- ☑ Ensure that there is not any physical damage to 'TLPI' in transit.
- ☑ Wire 'TLPI' as shown in 'Wiring Diagram' (Fig. 1)
- ☑ Switch on supply and observe display value.
- ☑ At i/p 4mA, 'TLPI' indicate lowest value.
- ☑ Increase i/p gradually from 4 to 20mA, observe increase in displayed value to its maximum.



### Installation

Mount 'TLPI' on identified location and secure it on four mounting holes. Please ensure -

- ☑ Mounting surface should be flat and without vibration.
- ☑ Mounting location should be away from high voltage cables, contactor.
- ☑ The temperature of 'TLPI' location should be below rated temp (50°C)
- ☑ Where installed outdoor 'TLPI' should be protected from direct sunlight using canopy.



### Termination and Wiring Diagram

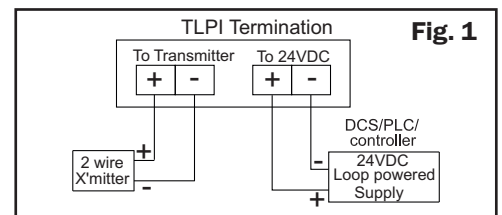
- ☑ During wiring of 'TLPI', supply should be kept OFF.
- ☑ Connect 24 VDC (PLC/DCS) & transmitter to 'TLPI' as shown in Fig.1

### Precautions




- ☑ Wiring should run away from power cable, contactors or motors.
- ☑ Ensure enclosure is closed properly along with its gasket in place and there is no gap between 'cable OD' and 'cable gland ID' to maintain (IP65) weather proofness.
- ☑ Before switching supply, ensure wiring is correct and completed.

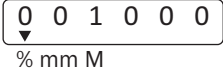

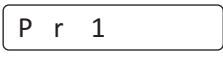



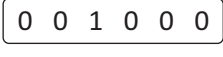


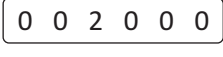



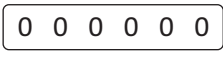


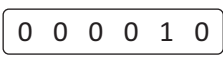



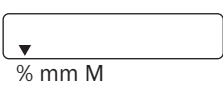

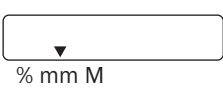

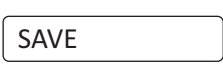

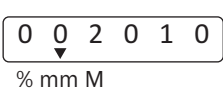
### Periodic Maintenance

- ☑ During maintenance, switch off the supply.
- ☑ Check and tighten loose electric connections
- ☑ After maintenance, close the enclosure properly with its cover and gasket for weather proofness.
- ☑ Clean 'TLPI' internally to ensure, it is free from metallic particles and dust.



## Programming **Key Functions**

-  **MODE** - To enter in '**Program Mode**' and configure data or to '**Decrement**' of selected digit value.
-  **UP** - To '**Increment**' selected digit value 'or' to select '**Next Menu**'.
-  **ENTER** - To '**Enter**' parameter and go to '**Run Mode**' after saving.

Programming Steps	Display
<b>RUN</b> : Data viewed on display are operating values	 <b>'Run Mode'</b> Display % mm M
<b>PROGRAM MODE</b> : Operator can use the keypad in conjunction with display to set parameters.	
 Press ' <b>MODE</b> ' for few sec to enter in program mode. (Again pressing ' <b>MODE</b> ' goes directly to 'SAVE')	
 Press ' <b>ENTER</b> ' to program measuring range (P-Span)	
 Press ' <b>UP</b> ' to change measuring range.	
  Use ' <b>MODE</b> ' & ' <b>UP</b> ' to change measuring range.	
 Press ' <b>ENTER</b> ' & display shows 'Bottom offset' menu.	
 Press ' <b>UP</b> ' to change bottom offset. (Display shows previous values of bottom offset)	
  Use ' <b>MODE</b> ' and ' <b>UP</b> ' key to change bottom offset.	
 Press ' <b>ENTER</b> ' & display shows 'Unit' selection menu.	
 Press ' <b>UP</b> ' to change unit (% , mm, M printed on sticker) (Display shows previous selected unit)	
 Use ' <b>UP</b> ' to shift arrow mark (▼) at right & select unit.	
 Press ' <b>ENTER</b> ' to show ' <b>SAVE</b> ' mode	
 Press ' <b>ENTER</b> ' to save parameters and go to ' <b>Run Mode</b> '.	

\*\* Bottom offset is dead level or blanking distance in mm.

## Troubleshooting

SL	Faults/Defects	Cause	Solution
1	No Display	a. Incorrect wiring and termination b. Loose connections c. Improper supply	a. Check & correct wiring. Refer Fig.1. b. Tighten loose connections c. Check & ensure correct supply (24VDC)
2	Display value not proper	a. Level range and bottom offset value not proper b. Calibration not proper	a. Check & re-program. b. Contact factory

\* TLPI can not be repaired by user. Repairs should be carried out only by manufacturer.



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We reserve the right to modify design and specifications without prior notice.

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