

# LPI-01 (Code Z1)

Programmable loop powered led display for mounting in the temperature sensor head



## Technical data

### Performance

**Reference operating condition:** 25 °C  
**Max. Measured error:** 0,1% of the progr. range +/- 1 digit  
**Influence of ambient temperature (tem. drift):** 20ppm/°C of measuring range at 20 °C as reference temperature  
**Output signal:** 4...20 mA  
**Supply voltage:** 24 V (10...30 V)  
**Voltage drop out:** 3.3 V at 4 mA and 3.7 V at 20 mA  
**Minimum current of LED activation:** 3,5 mA  
**Digits:** LED, 4 digits, 7 segments, height 9,5 mm  
**Visible dimension:** 30 x 14 mm  
**Display characteristic:** 6400 ucd for If=10 mA  
**Data storage:** FLASH  
**Storage period:** 10 years ( non powered)  
**Mounting:** 4 holes/90 Ø 4,2 on Ø 55  
**Collaboration with Hart protocol transmitter:** yes

### Operating conditions

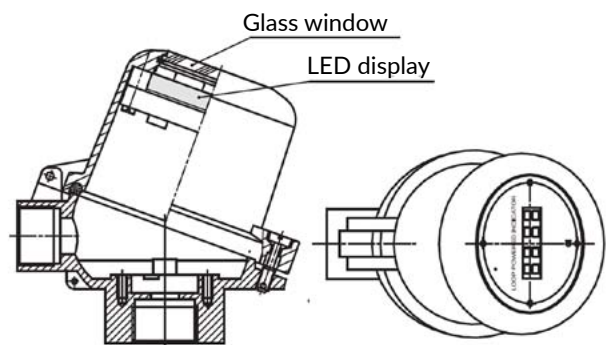
**Ambient temperature:** -20...80 °C  
**Storage temperature:** -30...80 °C  
**Moisture:** 25...95% no condensation  
**Ingress protection:** IP 20  
**Electromagnetic compatibility:** EN 61000, EN 55022

### Functionality

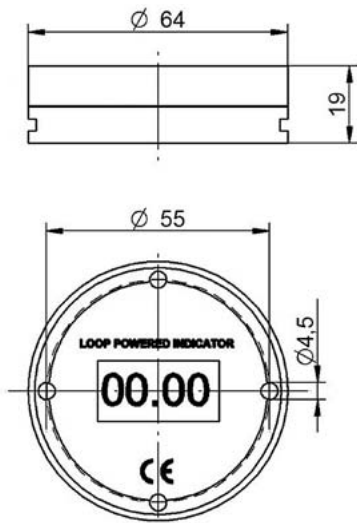
**Parameters:** Zero,span,decimal,point,refresh rate,unit  
**Indication limits:** -1999...+9999  
**Programmable range:** -1999...+9999  
**Decimal points position:** 0 to 3 decimals  
**Over-load limits:** 3.5...20.5 mA  
**Refresh rate:** From 1 to 10 second  
**Calibration points:** Zero (4 mA) and span (20 mA), stored on FLASH  
**Units:** °C, °F, K, % in cycle: 4 sec. value – 2 sec. unit

### Mechanical construction

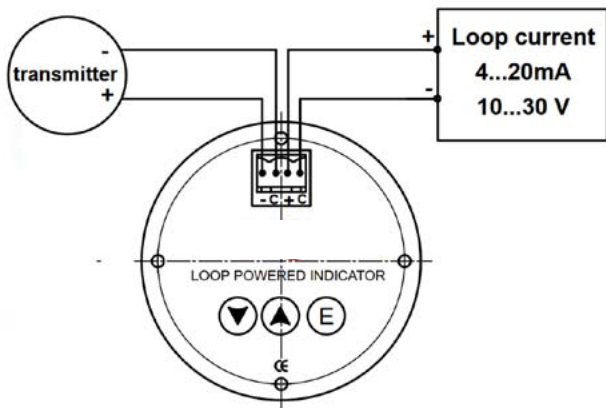
**Electrical loop connection:** 2 terminals, max. wire section 1 mm<sup>2</sup>  
**Dimension:** Ø 64 x 19 mm  
**Weight:** 65 g  
**Compatible with head (code):** H4W, H4DW



### Dimensions



### Connections



### Settings

Plug for connection to transmitter



#### Indicator parameters

-LO-	Display will indicate low (-LO-) when the input current is lower than overload limit (3.6 mA or 4 mA see configuration).
-HI-	Display will indicate height (-HI-) when the input current is higher than overload limit (20.0 mA or 20.4 mA-see configuration).
----	Display will indicate (----) when displayed value is <1999 or > 9999.

#### Configuration

(To enter menu press E button for 2 sec)

dp	<b>Setting decimal point DP</b> Press E button Press ▲ and ▼ button to change decimal position: <ul style="list-style-type: none"> <li>• 1.234 (value 3)</li> <li>• 12.34 (value 2)</li> <li>• 123.4 (value 1)</li> <li>• 1234 to decimal point (value 0)</li> </ul> Press E button
3	
Zero	<b>Setting low limit Zero (setup of the low limit)</b> Press E button Press ▲ and ▼ button to change the value between -1999 and 9999. (chosen value will be displayed at input current of 4 mA-point low). Press again E button.
1999	
SPAN	<b>Setting high limit SPAN (setup of the high limit)</b> Press E button Press ▲ and ▼ button to change the value between -1999 and 9999. (the value chosen will be displayed at input current of 20 mA-point high). Press again E button.
10	
LI	<b>Setting overload limit Li (setup of the overload limit.)</b> Press E button Press ▲ and ▼ button to change the value: <ul style="list-style-type: none"> <li>• 0 for 4 mA-20 mA</li> <li>• 1 for 3.6 mA - 20.4 mA</li> </ul> Press again E button.
S+	<b>Setting sampling rate St</b> Press E button Press ▲ and ▼ button to change the sampling rate from 1 to 10 seconds Press again E button.
Unit	<b>Setting engineering Unit</b> Press E button Press ▲ and ▼ button to select the unit <ul style="list-style-type: none"> <li>• nonE - for no unit on the display.</li> <li>• °C, °F, ° K, %.</li> </ul> (LPI-01 works on 6 sec. cycle - measured value is displayed for 4s - the unit is displayed for 2s.) Press again E button.
<b>Exit from menu and save settings press ▲ and ▼ buttons (possible from each step)</b>	

⚠ The display unit must not be connected directly to the supply voltage without current limitation or without a limiting impedance connected in a loop (usually a transmitter). Such a connection would damage the display unit!