1. INTRODUCTION

The LPI-PT is a microprocessor controlled loop powered display for any 4 ~ 20 mA standard signal. It does not require its own separate voltage source as it is supplied directly from the measuring current loop.

The measured value is displayed on a 4-digit LCD with a wide max. display range of -1999 to +9999 digits.

The operating range of the display device can be directly adjusted to the transmitter without any accessories being required. Simply enter the maximum and minimum measuring range limits and the decimal point position.

The Plug-on display LPI-PT is fit for all of the transmitters and converters with 4 ~ 20mA 2-wire technique, just as pressure, differential pressure, temperature, flow, PH, acceleration and so on. 16-bit ADC MCU inside, allows customer to use the two buttons, to program the zero point, span, decimal point, damping and alarm point etc. Over or under range are displayed as a message. The integrated smart diagnostic system continuously monitors all device function. The programmed parameters are stored in an EEPROM to be restored in case of a power failure. The plug-on display is simply plugged in between connector and socket; it is then ready for operation. The plug-on display is powered by the current loop of the 4 ~ 20 mA signal transmitter. No additional auxiliary power is required. The plug-on display can be rotated in 90 steps; it can thus be adapted to different mounting positions.

2. PRESENTATION

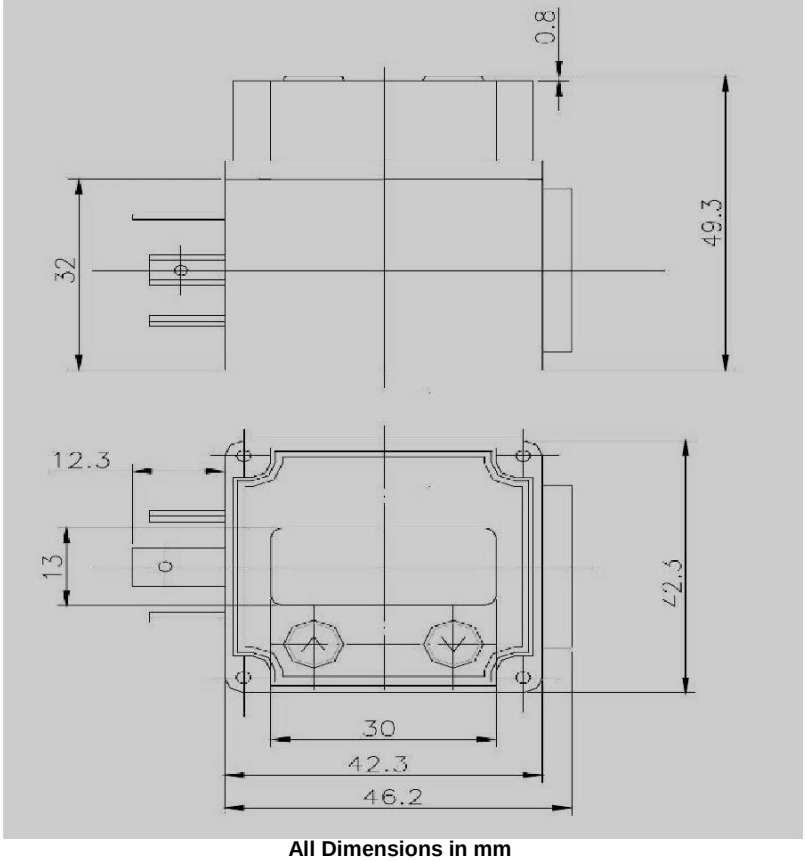
2.1 Features

1. 2-wire, no additional power supply required, just as traditional LED display.
2. Scale easily adjustable to transmitter range.
3. Option: with backlight, can be visible in the dark environment.
4. 16-bit ADC MCU inside.
5. Large display range of -1.9.9.9. ~ 9.9.9.9. LCD digits.
6. LED can work at 3mA.
7. Two OPTO switch outputs. (Optional)
8. Low circuit voltage drop.

2.2 Technical Parameters

Analogue signal:	*2 wire-system:*	4 ~ 20mA
Supply:	*Supply:*	Not required, 4 ~ 20mA loop powered.
		Voltage Drop: ≤ 4.2V.
Electrical Protection:	*Short-circuit protection:*	Permanent
	Reverse polarity protection:	Maximum current, approx. 200mA
Display:	*Type:*	4-digit, red LED display, digit height 7mm, digit width 4.85mm.
	Range:	-1.9.9.9. ~ 9.9.9.9.
	Accuracy:	0.1% ±1 digit
	Digital Damping:	0 to 20s (step 0.5s)
Temperature:	*Operation:*	-20 ~ 70°C
	Storage:	-30 ~ 85°C
Materials:	*Display& Housing:*	ABS
Miscellaneous:	*Weight:*	Approx. 80g
	Ingress Protection:	IP 65
	Colour of Housing:	*Black,* Orange (option)

3. DIMENSIONS



All Dimensions in mm

4. ORDERING DETAILS

TYPE				DESCRIPTION
Product	LPI-PT			Loop Power Indicator for Pressure Transmitter
Transmitter Output		D		4~20 mA DC
Alarm			N	No Alarm
			1	1-Alarm
			2	2-Alarm
Accessories			N	None
			Y	Screw and Packing Gasket

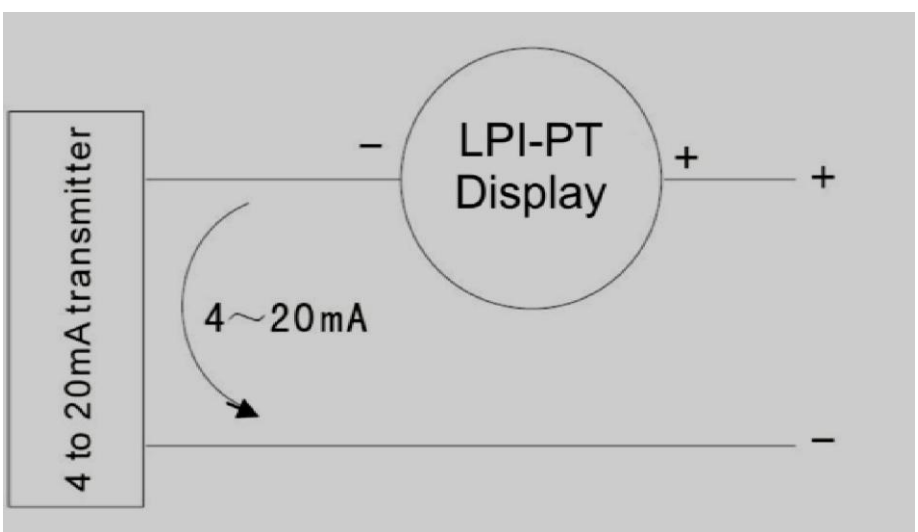
Example: LPI-PT > D > N > N

5. CONNECTIONS

To connect the LPI-PT simply plug into an existing transmitter by means of a special adaptor for the DIN43650 plug.

Supply voltage: Device takes power directly from measuring current. *Please allow for an additional loop voltage drop of 3 Volts.*

Caution: Wrong electrical connection may lead to the destruction of the device. Mind the maximum input current rating of 40 mA under any circumstances!



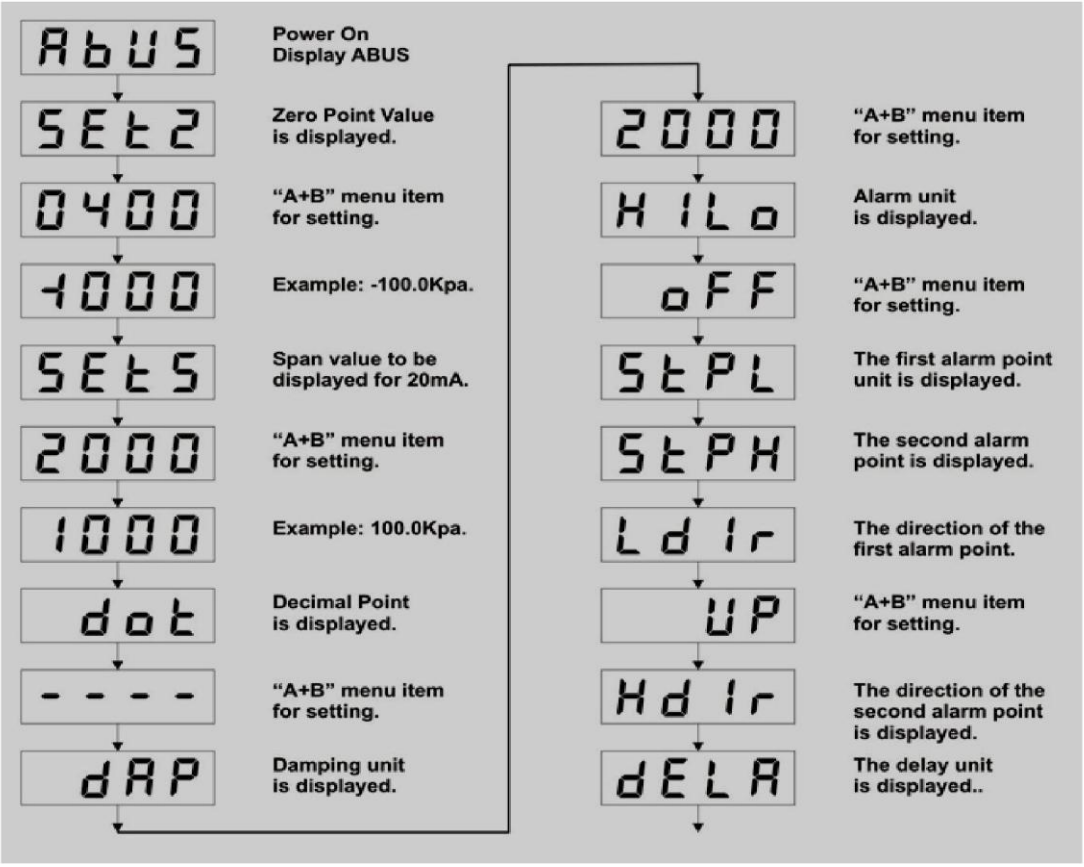
Electrical connections		DIN 43650
2-wire system	Supply + Supply - Ground	1 2 Ground Contact

6. INSTALLATION

LPI-PT Installed on Pressure Transmitter

7. CONFIGURATION

Configuration Process



Note: In the following description, "A" denotes the up button, "B" denotes the down button, and "A+B" denotes pressing the up button and the down button at the same time.

1. Power On

After the digital display was connected to the current circle 4 ~ 20mA, the LCD is lighted, and the name of the manufacturer is displayed, and further enters into the interface of display.

2. Zero-point (value to be displayed for 4mA)

Press button “A+B”, unit is displayed:

“A+B” menu item for setting.

“A” to move the cursor; “B” to change the value that the cursor points to.

“A+B” to confirm and store setting and return to the menu item.

3. Span (value to be displayed for 20mA)

Press button “B”, unit is displayed.

“A+B” menu item for setting.

“A” to move the cursor, “B” to change the value that the cursor points to.

“A+B” to confirm and store setting and return to the menu item.

4. Decimal Point

Press button “A”, unit is displayed.

“A+B” menu item for setting.

“A” to move the decimal towards left; “B” to move it towards right.

“A+B” to confirm and store setting and return to the menu item.

5. Damping

Press button “B”, unit is displayed.

“A+B” menu item for setting.

“A” to increase it by step of 0.5s and “B” to reduce it by step of 0.5s. (Min=0s, Max=20s, step 0.5s)

“A+B” to confirm and store setting and return to the menu item.

6. Alarm

Press button “A”, unit is displayed.

“A+B” menu item for setting.

"A" or "B" to change the setting either "on" or "off". "on" means the parameter followed is valid, and the Alarm was expressed by the twinkle of the last decimal point. And "off" means to cancel the alarm function.

"A+B" to confirm and store setting and return to the menu item.

7. First alarm point

Press button "A", unit is displayed. It is configured in percentage of span.

8. Second alarm point

Press button "A", unit is displayed. The method of setting is the same as step 7.

9. The direction of first alarm point

Press button "A", unit is displayed. "A+B" menu item for setting.

"A" or "B" to change the setting either "up" or "down". "up" means alarm while the value change from small to big, and "down" means alarm while the value change from big to small.

"A+B" to confirm and store setting and return to the menu item.

10. The direction of second alarm point

Press button "B", unit is displayed. Other is the same as step 9.

11. The Delay

Press button "B", unit is displayed.

"A" menu item for setting.

"A" to increase it by step 0.5s and "B" to reduce it by step 0.5s. (Min=0s, Max=30s step 0.5)

"A+B" to confirm and store setting and return to the menu item. "A" returns to the original interface. And all setting is completed.