

# LOOP POWERED DIGITAL PROCESS INDICATORS



**PM5600 / PM5625**  
**INSTRUCTION MANUAL**  
99A

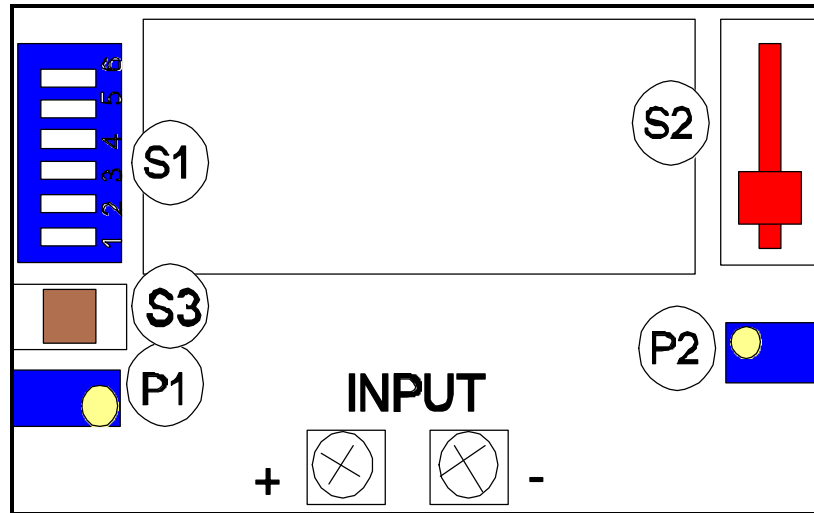


FIG.1

PM5625

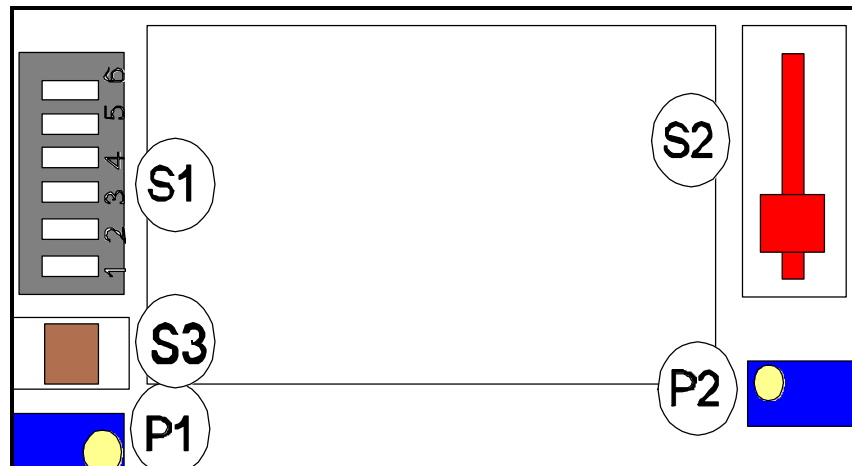


FIG.2

PM5600

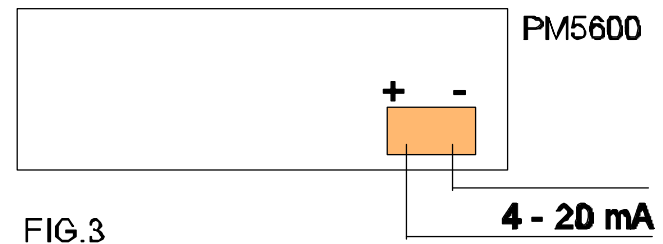
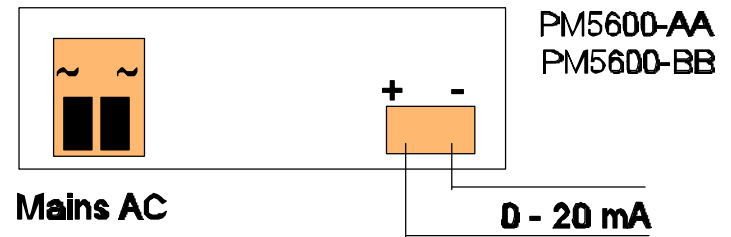


FIG.3

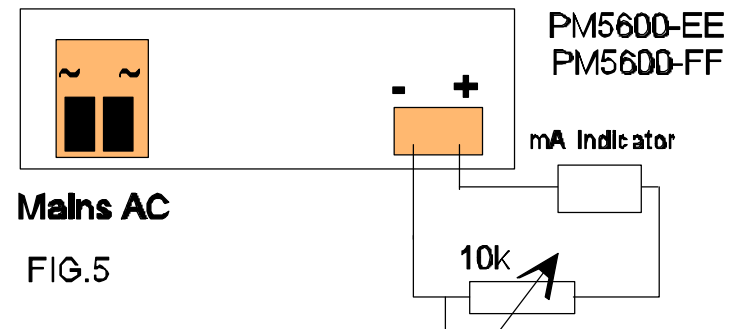
4 - 20 mA



Mains AC

FIG.4

0 - 20 mA



Mains AC

FIG.5

mA Indicator

10k

## INTRODUCTION LOOP-POWERED DIGITAL PROCESS INDICATORS

Loop-Powered Digital Process Indicators are the ideal monitoring devices for all 2-wire systems. Taking their power from the loop and requiring no additional power source, they provide a display in either engineering units or actual loop current.

The Model PM5600 and the Model PM5625 are two of the highest quality Loop-Powered Process Indicators available today. They provide a large, high-contrast 3½ digit LCD for display of all 4-20 mA process loops in both engineering units or actual loop current. The PM56XX Loop-Powered Process Indicators have the capability of displaying a “Zero” reading from -1999 to +1999 and a “Span” reading from 0 to +1999.

Model PM5600: 1/8 DIN Panel-Mount Process Indicator (96 x 48 x 116 mm) / (3.8 x 1.9 x 4.6 “)

Model PM5625: IP65 Wall-Mount Process Indicator (76 x127 x 76 mm) / (3 x 5 x 3 “)

Optional for Model 5600:

**AA:** 230 VAC mains for 0-20 mA input.

**BB:** 115 VAC mains for 0-20 mA input.

**EE:** Built-In 24 VDC power supply to power a 2-wire transmitter. 230 VAC Power.

**FF:** Built-In 24 VDC power supply to power a 2-wire transmitter. 115 VAC Power.

## CALIBRATION INSTRUCTIONS

In order to calibrate the Model PM5600 or PM5625, a 4-20 mA (DC) simulator is required. (Model **TL245** is recommended as a fast, simple calibration tool.)

Model PM5600: Remove the front bezel and the two cover plates. Place the cover plates on a soft, non-scratching surface.

Model PM5625: Loosen the 4 screws on the clear cover. Place the cover on a soft non-scratching surface. Remove the 4 phillipshead screws from the front cover.

1. **PM56XX**

connect as in FIG.1 or 3, adjust the mA simulator to provide an output of 4.00 mA.

**PM5600** option **AA** or **BB**

connect as in FIG.4, adjust the mA simulator to provide an output of 0.00 mA.

**PM5600** option **EE** or **FF**

connect as in FIG.5, the TL245 is not suitable for this option. Adjust to 4.0 mA.

NOTE: The model PM5600 has a built-in fuse to provide protection against short circuit or incorrect connection. If the indicator fails to show a display when connected, please check that the wiring is correct. If a display still doesn't appear check the fuse. If it has "blown", replace it with an equivalent value: 32 mA 250 V.

2. Use switch S1 to determine the Offset or Zero. Only switches #4, 5 and 6 are used for this function. Set the Zero to obtain the correct range using the following table:

readout	switch position
0 - 500	#4, #5, #6 'OFF'
500 - 1000	#4 'ON' - #5 & #6 'OFF'
1000 - 1500	#5 'ON' - #4 & #6 'OFF'
1500 - 1999	#6 'ON' - #4 & #5 'OFF'

Adjust the ZERO potentiometer P1 to obtain the exact reading desired.

- To select the Zero or Offset POSITIVE (+) or NEGATIVE (-) sign, use S3. The 'A' position will give a positive (+) sign; the '1' position will display a negative (-) sign.
- Use S1 to select the position of the Decimal Point. Only switches #1, 2 and 3 are used.

decimal location	switch position
000.0	#1 'ON' - #2 & #3 'OFF'
00.00	#2 'ON' - #1 & #3 'OFF'
0.000	#3 'ON' - #1 & #2 'OFF'

- Adjust the simulator to an output of 20 mA. Use S2 to determine the Span Range. Set the Span to the desired range using the following table:

span range	switch position
0 - 500	#1
500 - 1000	#2
1000 - 1500	#3
1500 - 1999	#4

Adjust the SPAN potentiometer P2 to obtain the exact reading desired.

Note that decimal point is not shown in this table. For a range of 0 - 150.0 you must put S2 in position #3.

6. Adjust the simulator to provide an output of 4 mA. (Or 0 mA for option AA/BB). If the displayed value is incorrect, repeat the calibration procedure. Repeat for a simulator output of 20 mA. The Model PM56XX is now calibrated. Replace the front cover plates and bezel/clear cover.

NOTE: When the PM56XX is installed in a location where the ambient temperature may fall below 0°C (32°F), the LCD display will have a slower than normal response. However, this will not harm the display and it will return to normal operation when the temperature rises.

## **INSTALLATION INSTRUCTIONS**

### PM5600 Panel-Mount Loop-Powered Indicator

1. Make a panel cutout as shown
2. Insert the PM5600 and attach clamps
3. Connect wiring.

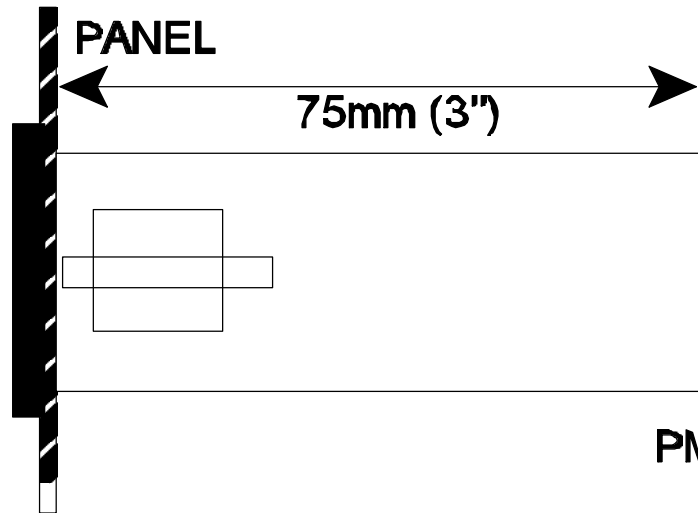
### PM5625 Wall-Mount Loop-Powered Indicator

1. Remove the 4 captive screws on the clear front cover. Place the cover on a soft surface.
2. Remove the 2 phillipshead screws on the lower printed circuit card. Gently remove the meter assembly from the housing.
3. Locate the position of the cable entry.

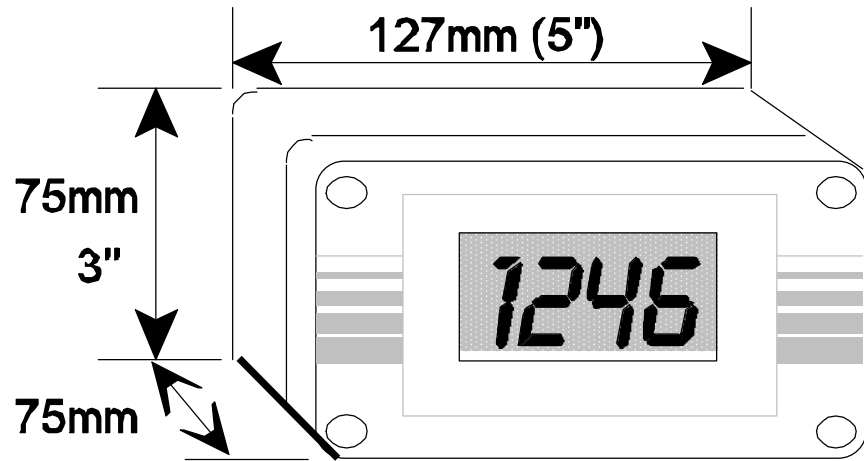
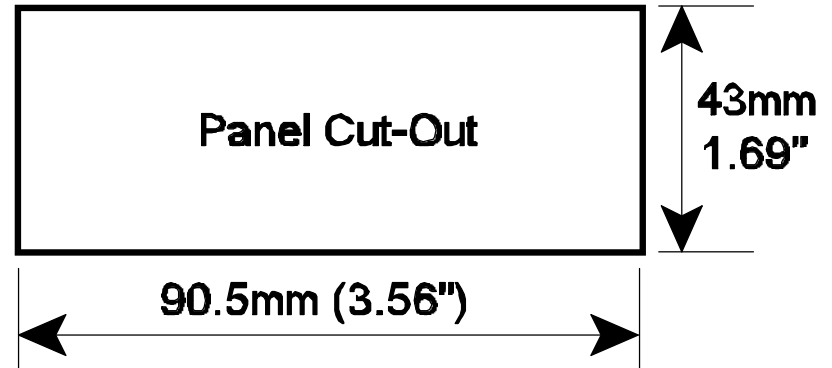
NOTE: Make sure that there is sufficient clearance from the meter assembly to insure that the entry tube nut and the connecting cables clear the meter assembly.

4. Drill the hole for the cable entry.
5. Re-install the meter assembly and replace the cover.

NOTE: Pipe-Mount and Wall-Mount kits are available.



PM5600



PM5625

**SUPPLIED BY:**

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