

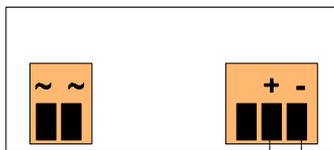
# DIGITAL PROCESS INDICATOR



## PM5650 INSTRUCTION MANUAL 99A



FIG.1 Location of Switches (Front Panel)



230V AC (AA&CC)  
115V AC (BB&DD)

0 - 20 mA (option AA & BB)  
4 - 20 mA (option CC & DD)

FIG.2 Connection

## INTRODUCTION

The model PM5650 is a high quality, free to scale, digital read-out. Depending on the option the unit accepts linear 4 - 20 mA or 0 - 20 mA signals. Other input signals are available upon request.

## CALIBRATION INSTRUCTIONS

In order to calibrate the Model PM5650, a current (0/4-20 mA DC) simulator is required. (Model **TL245** is recommended as a fast, simple calibration tool.)

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

1. Connect the simulator to the input (refer to Fig.2)
2. Connect the power supply 230 or 115V (check instrument label!)
3. Use switch S1 to determine the Offset or Zero. Only switches # 5, 6 and 7 are used for this function. Set the Zero to obtain the correct range using the following table:

readout	switch position
0 - 500	#5, #6, #7 'OFF'
500 - 1000	#5 'ON' - #6 & #7 'OFF'
1000 - 1500	#6 'ON' - #5 & #7 'OFF'
1500 - 1999	#7 'ON' - #5 & #6 'OFF'

Adjust the ZERO potentiometer P1 to obtain the exact reading desired. P1 has an adjustment range of approximately 600 digits.

4. 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.
5. 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'

6. 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 - 120.0 you must put S2 in position #3.

7. Adjust the simulator to provide an input of 0 mA or 4 mA. If the displayed value is incorrect, repeat the calibration procedure. Repeat for a simulator value of 20 mA.

The Model PM5650 is now calibrated. Replace the front cover plates and bezel.

**example:** reading -50...+150

Use only the potentiometers for this range. Set S3 to the "1" position to select a negative zero. Connect 4 mA and adjust the reading to -50 with P1, apply 20 mA and adjust the reading to 150 with P2.

**example:** reading -100.0...+150.0

Set #5 of S1 to "ON"; note that 100.0 is 1000 digits therefore you must select the zero-reading as 500-1000. Set S3 to the "1" position to select "-". Set S2 in position 3 for a range of 1500. Set #1 of S1 to "ON" to select the position of the decimal point.

## INSTALLATION INSTRUCTIONS

PM5650 Panel-Mount Indicator

1. Make a panel cutout as shown
2. Insert the PM5650 and attach clamps
3. Connect wiring.

