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## Display Scaling Meter



# DISPLAY SCALING METER INTRODUCTION

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## FEATURES

Adapts microprocessor control circuit, modular design, advanced digital calibration, and switching power supply technology.

Modulized design is a concept to adapt different analog input signals by means of changing different signal board (such as temperature, pressure, alternating voltage, electric current.). Also, optional output board could add the analog output signal (isolated). By using advanced digital calibration capability, its analog input/output could be accurate to +/- 1 bit.

## PB SERIES---BARGRAPH DISPLAY

It is easy to tell the measuring, operator can tell measuring range easily by eyesight even in the remote site.

Provides not only 4 digits numerical display with bargraph analog output indicator but also 6 relay setting points. It makes users to tell Process setting position without difficulties by bargraph indicator. In general, it is an easy applied and understand model to customers.

PB-1470 are horizontal mounting design, all functions are same as vertical models.

## PM SERIES---DIGITAL DISPLAY

PM-1430 are single channel models with 5-digit or 4 digit LED display respectively.

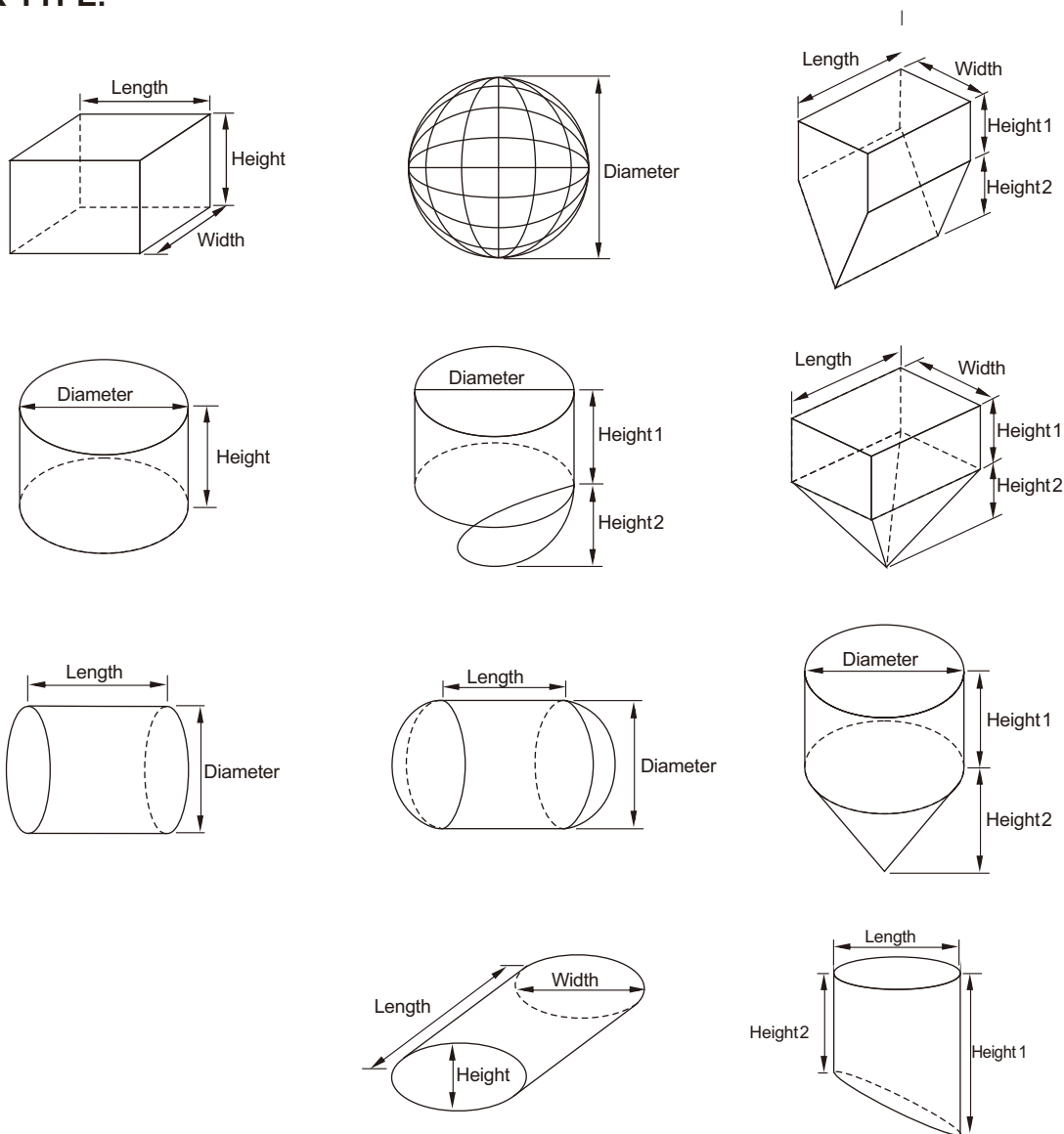
# NON-LINEAR TANK VOLUME CONVERSION FEATURE

## NON-LINEAR TANK VOLUME CONVERSION FEATURE



PM/PB Series support volume adjustment function for non-linear tanks. By means of a 20-point look-up table, panel meter calculate tank volume according to the material level measured.

Bundled with this package, a software is provided, user simply select tank type shown as below, and enter necessary dimension, tank volume and 20 control points will be calculated and reported.

### TANK TYPE:



# SPECIFICATIONS

	Microprocessor Bargraph Display Panel Meter	Microprocessor Digit Display Panel Meter
Appearance		
Dimension (mm)	DIN 3/16 48 (W) x144 (H) x121.5 (D)	DIN 1/8 96 (W) x48 (H) x128.5 (D)
Model	PB-1471	PM-1430
Display	4 Digits 7-Segment LED 101 LED Bargraph Display Totally 6 Set Points	Display4-Digit, 7 Segment LED 4 Relay Setpoints Max. - LED
Standard	Display range	-1999 ~ +9999
	Input signal	Refer to Input Signal Selection in Order Information (Page 6)
	Relay contact	Up to 4 Relays (as standard), SPST (N.O. or N.C. Jumper Selectable), 3A@250VAC/5A@30VDC
Optional	Power supply	85~265VAC or 18~36VDC
	Relay	Expand to 6 Relay
	Analog output	0/4~20mA or 0~10VDC
	Communication port	RS485 MODBUS
	Non-Linear Function	20-Point Linearization for Non-Linear Tanks

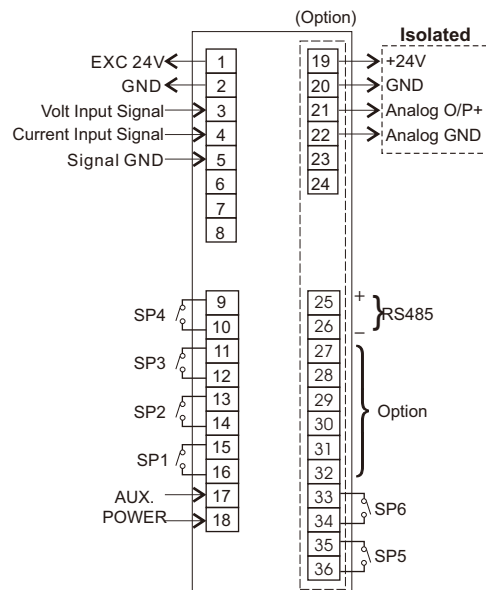
# PB-1471 Microprocessor Bargraph Display Panel Meter



## FEATURES:

- 4 Digits LED Numeric Display
- 101-segment LED Bargraph display
- Wide Range of User Definable Scaling Ratio
- Modulized input signal boards available for different applications
- Optional Output Boards with Isolated Analog Output & Relay Output
- 85V~265VAC or 18~36VDC Switching Power Supply
- Support volume adjustment function for non-linear tanks (optional)

## TERMINAL ARRANGEMENTS:

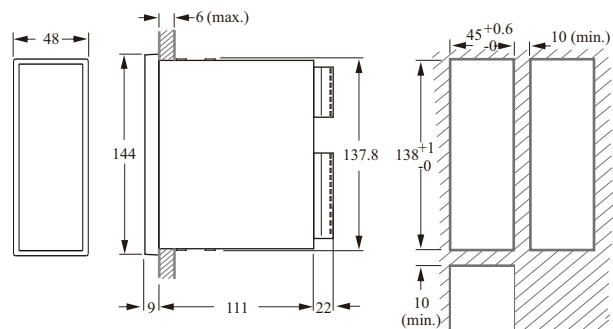


## SPECIFICATIONS

Dimension (mm)	<b>48 (W) x144 (H) x121.5 (D) DIN 3/16</b>
Model	<b>PB-1471</b>
Power SUPply	85 ~ 265V AC or 18~36V DC Switching Power Supply
Power supply for sensor	DC24V, 50mA
Display	4 Digits, 0.36" 7-Segment red LED Display 101 LED Bargraph Display 6 LED set-point indicator Display Range: -1999 ~ +9999 Over Range Display: "1" or "-1"
Input signal	Range: Refer to Ordering information Accuracy: 0.1%FS or $\pm 1$ digit Temperature coefficient: 200ppm/ $^{\circ}$ C ADC Resolution: 4-1/2 digit Sampling Rate: 4 samples/second/channel
Relay contact	4 relay (up to 6 relay) 3A/250V AC or 5A/30V DC (N.C. / N.O. Jumper selectable)
Analog output	4~20mA, 0~20mA, 2~10V and 0~10V (optional)
Power consumption	Less than 9VA
Communication port	RS485 (optional) Modbus Protocol
Operating condition	0~50 $^{\circ}$ C(20 to 90% RH non-condensed)
Storage condition	0~70 $^{\circ}$ C(20 to 90% RH non-condensed)

## EXTERIOR/CUTOUT DIMENSIONS

(Unit:mm)



# PM-1430 Microprocessor Digit Display Panel Meter



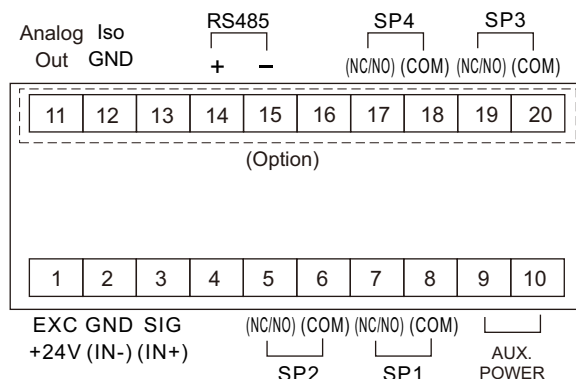
## FEATURES:

- 4 Digits LED Numeric Display
- Wide Range of User Definable Scaling Ratio
- Modulized input signal boards available for different applications
- Optional Output Boards with Isolated Analog Output & Relay Output
- 85V~265VAC or 18~36VDC Switching Power Supply
- Support volume adjustment function for non-linear tanks (optional)
- IP54 Class front panel

## SPECIFICATIONS

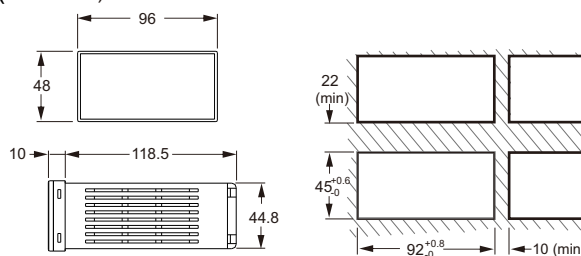
Dimension (mm)	<b>96 (W) x48 (H) x128.5 (D) DIN 1/8</b>
Model	<b>PM-1430</b>
Power supply	85 ~ 265V AC or 18~36V DC Switching Power Supply
Power supply for sensor	DC24V, 50mA
Display	4 Digits, 0.56" 7-Segment red LED Display 4 LED set-point indicator Display Range: -1999 ~ +9999 Over Range Display: "1" or "-1"
Input signal	Range: Refer to Ordering information Accuracy: 0.1%FS or $\pm 1$ digit Temperature coefficient: 200ppm/ $^{\circ}$ C ADC Resolution: 4-1/2 digit Sampling Rate: 4 samples/second/channel
Relay contact	2 or 4 relay 3A/250V AC or 5A/30V DC (N.C. / N.O. Jumper selectable)
Analog output	4~20mA, 0~20mA, 2~10V and 0~10V (optional)
Power consumption	Less than 7VA
Communication port	RS485 (optional) Modbus Protocol
Operating condition	0~50 $^{\circ}$ C(20 to 90% RH non-condensed)
Storage condition	0~70 $^{\circ}$ C(20 to 90% RH non-condensed)

## TERMINAL ARRANGEMENTS:



## EXTERIOR/CUTOUT DIMENSIONS

(Unit:mm)



# MODEL NUMBER / ORDER CODE COMPARISON TABLE

## ORDER INFORMATION

Model Number	Order Code
PB-1471	PBX11400-B6

PBX1 1 4 0 0 - B 6 <sup>⑪</sup> <sup>⑫</sup> <sup>⑬</sup> 0 0 <sup>⑯</sup> <sup>⑰</sup> <sup>⑱</sup> <sup>⑲</sup>

**⑪ Power Supply**

A: 85~265Vac  
B: 18~36Vdc

**⑫⑬ Single channel input**

A1: 4~20mA DC with Exc 24V  
A2: 0~20mA DC with Exc 24V  
A4: 0~5V DC with Exc 24V  
A5: 0~10V DC with Exc 24V  
A6: 0~20V DC with Exc 24V

**⑯ Relay contact**

A: None  
C: 2 Relay  
E: 4 Relay  
G: 6 Relay

**⑰ Non-Linear function**

A: None  
B: Non - linear bucket conversion

**⑱ Analog output**

A: None  
B: 0~10V output  
C: 0/4~20mA output

**⑲ Communi-cation port**

A: None  
B: RS-485

# MODEL NUMBER / ORDER CODE COMPARISON TABLE

## ORDER INFORMATION

Model Number	Order Code
PM-1430	PMX11400-E2

PMX 1 1 4 0 0 - E 2 <sup>⑪</sup> <sup>⑫</sup> <sup>⑬</sup>    0 0 <sup>⑯</sup> <sup>⑰</sup> <sup>⑱</sup>

**⑪ Power Supply**

- A: 85~265Vac
- B: 18~36Vdc

**⑫⑬ Single channel input**

- A1: 4~20mA DC with Exc 24V
- A2: 0~20mA DC with Exc 24V
- A4: 0~5V DC with Exc 24V
- A5: 0~10V DC with Exc 24V
- A6: 0~20V DC with Exc 24V

**⑯ Relay contact**

- A: None
- C: 2 Relay
- E: 4 Relay

**⑰ Non-Linear function**

- A: None
- B: Non - linear bucket conversion

**⑱ Analog output**

- A: None
- B: 0~10V output
- C: 0/4~20mA output

**⑲ Communication port**

- A: None
- B: RS-485

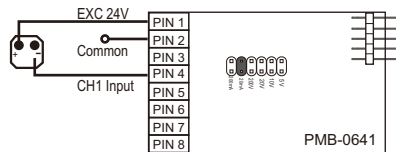


# PB DC SIGNAL INPUT MODULE

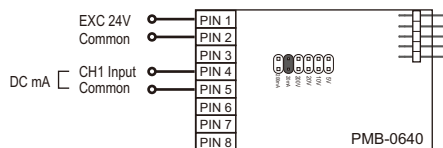
This section will elaborate how to adapt to different input signals in the PB series panel meter, by using the correct jumper and using iSEL command. Panel meter series can accommodate 6 types of conventional input signals, 20mA, 200mA, 5V, 10V, 20V, 200V, please refer below for setup.

## Single Channel Signal Input Module: (For PB-1471)

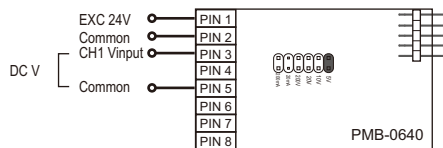
A1: 4~20mA DC with Excitation +24V



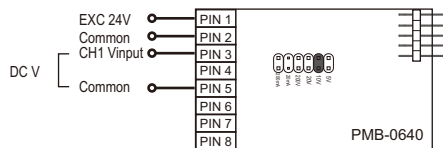
A2: 0~20mA DC with Excitation +24V



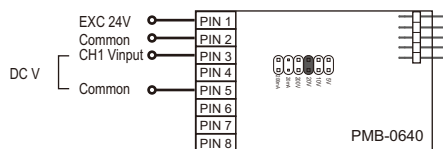
A4: ± 5V DC with Excitation +24V



A5: ± 10V DC with Excitation +24V



A6: ± 20V DC with Excitation +24V

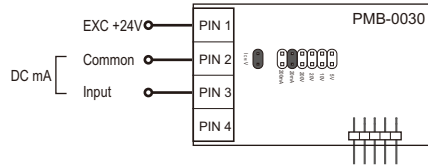


# PM DC SIGNAL INPUT MODULE

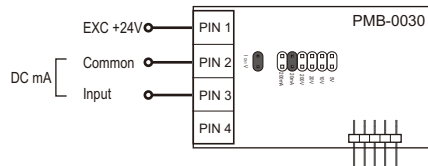
This section will elaborate how to adapt to different input signals in the PM series panel meter, by using the correct jumper and using iSEL command. Panel meter series can accommodate 6 types of conventional input signals, 20mA, 200mA, 5V, 10V, 20V, 200V, please refer below for setup.

## Single Channel Signal Input Module: (For PM-1430)

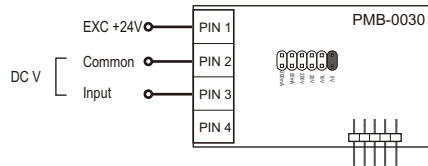
A1: 4~20mA DC with Excitation +24V



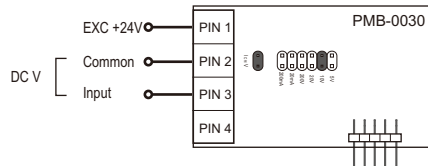
A2: 20mA DC with Excitation +24V



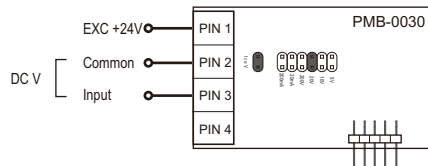
A4: 5V DC with Excitation +24V



A5: 10V DC with Excitation +24V



A6: 20V DC with Excitation +24V



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