

MODEL PAX – 1/8 DIN ANALOG INPUT PANEL METERS



- PROCESS, VOLTAGE, CURRENT, TEMPERATURE, AND STRAIN GAGE INPUTS
- 5-DIGIT 0.56" RED SUNLIGHT READABLE DISPLAY
- VARIABLE INTENSITY DISPLAY
- 16 POINT SCALING FOR NON-LINEAR PROCESSES
- PROGRAMMABLE FUNCTION KEYS/USER INPUTS
- 9 DIGIT TOTALIZER (INTEGRATOR) WITH BATCHING
- OPTIONAL CUSTOM UNITS OVERLAY W/BACKLIGHT
- FOUR SETPOINT ALARM OUTPUTS (W/OPTION CARD)
- COMMUNICATION AND BUS CAPABILITIES (W/OPTION CARD)
- RETRANSMITTED ANALOG OUTPUT (W/OPTION CARD)
- CRIMSON® PROGRAMMING SOFTWARE
- NEMA 4X/IP65 SEALED FRONT BEZEL

GENERAL DESCRIPTION

The PAX® Analog Panel Meters offer many features and performance capabilities to suit a wide range of industrial applications. Available in five different models to handle various analog inputs, including DC Voltage/Current, AC Voltage/Current, Process, Temperature, and Strain Gage Inputs. Refer to pages 4 through 6 for the details on the specific models. The optional plug-in output cards allow the opportunity to configure the meter for present applications, while providing easy upgrades for future needs.

The meters employ a bright 0.56" LED display. The unit is available with a red sunlight readable or a standard green LED. The intensity of display can be adjusted from dark room applications up to sunlight readable, making it ideal for viewing in bright light applications.

The meters provide a MAX and MIN reading memory with programmable capture time. The capture time is used to prevent detection of false max or min readings which may occur during start-up or unusual process events.

The signal totalizer (integrator) can be used to compute a time-input product. This can be used to provide a readout of totalized flow, calculate service intervals of motors or pumps, etc. The totalizer can also accumulate batch weighing operations.

The meters have four setpoint outputs, implemented on Plug-in option cards. The Plug-in cards provide dual FORM-C relays (5A), quad FORM-A (3A), or either quad sinking or quad sourcing open collector logic outputs. The setpoint alarms can be configured to suit a variety of control and alarm requirements.

Communication and Bus Capabilities are also available as option cards. These include RS232, RS485, Modbus, DeviceNet, and Profibus-DP. Readout values and setpoint alarm values can be controlled through the bus. Additionally, the meters have a feature that allows a remote computer to directly control the outputs of the meter. With an RS232 or RS485 card installed, it is possible to configure the meter using a Windows® based program. The configuration data can be saved to a file for later recall.

A linear DC output signal is available as an optional Plug-in card. The card provides either 20 mA or 10 V signals. The output can be scaled independent of the input range and can track either the input, totalizer, max or min readings.

Once the meters have been initially configured, the parameter list may be locked out from further modification in its entirety or only the setpoint values can be made accessible.

The meters have been specifically designed for harsh industrial environments. With NEMA 4X/IP65 sealed bezel and extensive testing of noise effects to CE requirements, the meter provides a tough yet reliable application solution.

SAFETY SUMMARY

All safety related regulations, local codes and instructions that appear in this literature or on equipment must be observed to ensure personal safety and to prevent damage to either the instrument or equipment connected to it. If equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Do not use this unit to directly command motors, valves, or other actuators not equipped with safeguards. To do so can be potentially harmful to persons or equipment in the event of a fault to the unit.



CAUTION: Risk of Danger
Read complete instructions prior to installation and operation of the unit.



CAUTION: Risk of electric shock.

DIMENSIONS In inches (mm)

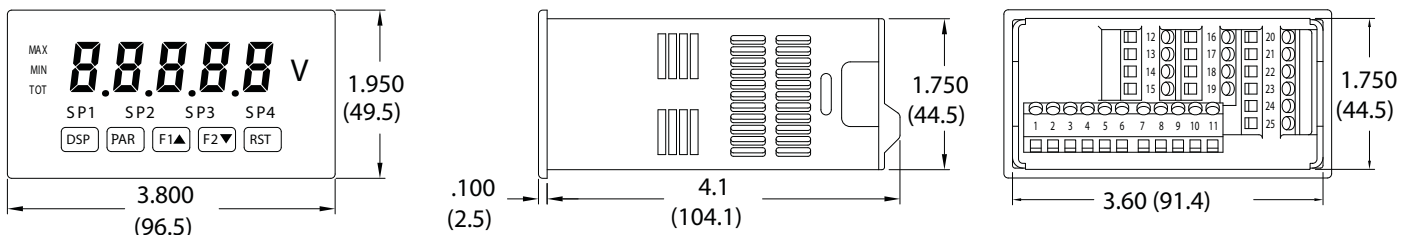


TABLE OF CONTENTS

Ordering Information	2	Installing the Meter	8
General Meter Specifications	3	Setting the Jumpers	8
Universal DC Input Panel Meter	4	Wiring the Meter	10
Process Input Panel Meter	4	Reviewing the Front Buttons and Display . .	13
AC True RMS Voltage and Current Meter . . .	5	Programming the Meter	14
Strain Gage Input Panel Meter	5	Factory Service Operations	23
Thermocouple and RTD Input Meter	6	Parameter Value Chart	25
Optional Plug-In Cards	7	Programming Overview	27

ORDERING INFORMATION

Meter Part Numbers



- D - DC Volt/ Current Input
- P - Process Input
- H - AC True RMS Volt/Current Input *
- S - Strain Gage/Bridge Input
- T - Thermocouple and RTD Input

- 0 - Red, Sunlight Readable Display
- 1 - Green Display

- 0 - 85 to 250 VAC
- 1 - 11 to 36 VDC, 24 VAC

* PAXH is only available with 85-250 VAC power supply.

Option Card and Accessories Part Numbers

TYPE	MODEL NO.	DESCRIPTION	PART NUMBERS
Optional Plug-In Cards	PAXCDS	Dual Setpoint Relay Output Card	PAXCDS10
		Quad Setpoint Relay Output Card	PAXCDS20
		Quad Setpoint Sinking Open Collector Output Card	PAXCDS30
		Quad Setpoint Sourcing Open Collector Output Card	PAXCDS40
	PAXCDC	RS485 Serial Communications Output Card with Terminal Block	PAXCDC10
		Extended RS485 Serial Communications Output Card with Dual RJ11 Connector	PAXCDC1C
		RS232 Serial Communications Output Card with Terminal Block	PAXCDC20
		Extended RS232 Serial Communications Output Card with 9 Pin D Connector	PAXCDC2C
		DeviceNet Communications Card	PAXCDC30
		Modbus Communications Card	PAXCDC40
		Extended Modbus Communications Card with Dual RJ11 Connector	PAXCDC4C
	Profibus-DP Communications Card	PAXCDC50	
	PAXCDL	Analog Output Card	PAXCDL10
Accessories	PAXLBK	Units Label Kit Accessory (Not required for PAXT)	PAXLBK10
	SFCRD*	Crimson 2 PC Configuration Software for Windows 98, ME, 2000 and XP	SFCRD200

GENERAL METER SPECIFICATIONS

1. **DISPLAY:** 5 digit, 0.56" (14.2 mm) red sunlight readable or standard green LEDs, (-19999 to 99999)

2. **POWER:**

AC Versions:

AC Power: 85 to 250 VAC, 50/60 Hz, 15 VA

Isolation: 2300 Vrms for 1 min. to all inputs and outputs.

DC Versions (Not available on PAXH):

DC Power: 11 to 36 VDC, 11 W

(derate operating temperature to 40° C if operating <15 VDC and three plug-in option cards are installed)

AC Power: 24 VAC, ± 10%, 50/60 Hz, 15 VA

Isolation: 500 Vrms for 1 min. to all inputs and outputs (50 V working).

3. **ANNUNCIATORS:**

MAX - maximum readout selected

MIN - minimum readout selected

TOT - totalizer readout selected, flashes when total overflows

SP1 - setpoint alarm 1 is active

SP2 - setpoint alarm 2 is active

SP3 - setpoint alarm 3 is active

SP4 - setpoint alarm 4 is active

Units Label - optional units label backlight

4. **KEYPAD:** 3 programmable function keys, 5 keys total

5. **A/D CONVERTER:** 16 bit resolution

6. **UPDATE RATES:**

A/D conversion rate: 20 readings/sec.

Step response: 200 msec. max. to within 99% of final readout value

(digital filter and internal zero correction disabled)

700 msec. max. (digital filter disabled, internal zero correction enabled)

PAXH Only: 1 sec max. to within 99% of final readout value (digital filter disabled)

Display update rate: 1 to 20 updates/sec.

Setpoint output on/off delay time: 0 to 3275 sec.

Analog output update rate: 0 to 10 sec

Max./Min. capture delay time: 0 to 3275 sec.

7. **DISPLAY MESSAGES:**

“OLOL” - Appears when measurement exceeds + signal range.

“ULUL” - Appears when measurement exceeds - signal range

PAXT: “SHrt” - Appears when shorted sensor is detected. (RTD only)

PAXT: “OPEN” - Appears when open sensor is detected.

“...” - Appears when display values exceed + display range

“-...” - Appears when display values exceed - display range.

“E...” - Appears when Totalizer exceeds 9 digits.

“h...” - Denotes the high order display of the Totalizer.

8. **INPUT CAPABILITIES:** See specific product specifications, pages 4-6

9. **EXCITATION POWER:** See specific product specifications, pages 4-6

10. **LOW FREQUENCY NOISE REJECTION:** (Does not apply to PAXH)

Normal Mode: > 60 dB @ 50 or 60 Hz ± 1%, digital filter off

Common Mode: >100 dB, DC to 20 Hz

11. **USER INPUTS:** Three programmable user inputs

Max. Continuous Input: 30 VDC

Isolation To Sensor Input Common: Not isolated. (Not PAXH)

PAXH: Isolation to Sensor Input Common: 1400 Vrms for 1 min.

Working Voltage: 125 V

Response Time: 50 msec. max.

Logic State: Jumper selectable for sink/source logic

INPUT STATE	SINKING INPUTS 22 KΩ pull-up to +5 V	SOURCING INPUTS 22 KΩ pull-down
Active	$V_{IN} < 0.9 \text{ VDC}$	$V_{IN} > 3.6 \text{ VDC}$
Inactive	$V_{IN} > 3.6 \text{ VDC}$	$V_{IN} < 0.9 \text{ VDC}$

12. **TOTALIZER:**

Function:

Time Base: second, minute, hour, or day

Batch: Can accumulate (gate) input display from a user input

Time Accuracy: 0.01% typical

Decimal Point: 0 to 0.0000

Scale Factor: 0.001 to 65.000

Low Signal Cut-out: -19,999 to 99,999

Total: 9 digits, display alternates between high order and low order readouts

13. **CUSTOM LINEARIZATION:**

Data Point Pairs: Selectable from 2 to 16

Display Range: -19,999 to 99,999

Decimal Point: 0 to 0.0000

PAXT: Ice Point Compensation: user value (0.00 to 650.00 $\mu\text{V}/^\circ\text{C}$)

14. **MEMORY:** Nonvolatile E²PROM retains all programmable parameters and display values.

15. **ENVIRONMENTAL CONDITIONS:**

Operating Temperature Range: 0 to 50°C (0 to 45°C with all three plug-in cards installed)

Vibration According to IEC 68-2-6: Operational 5 to 150 Hz, in X, Y, Z direction for 1.5 hours, 2g's.

Shock According to IEC 68-2-27: Operational 25 g (10g relay), 11 msec in 3 directions.

Storage Temperature Range: -40 to 60°C

Operating and Storage Humidity: 0 to 85% max. RH non-condensing

Altitude: Up to 2000 meters

16. **CERTIFICATIONS AND COMPLIANCES:**

SAFETY

UL Recognized Component File #E179259, UL61010A-1, CSA C22.2 No. 61010-1

PAXT Only: File # E156876, UL873, CSA C22.2 No. 24

Recognized to U.S. and Canadian requirements under the Component Recognition Program of Underwriters Laboratories, Inc.

UL Listed, File # E137808, UL508, CSA C22.2 No. 14-M95

LISTED by Und. Lab. Inc. to U.S. and Canadian safety standards

Type 4X Enclosure rating (Face only), UL50

IECEE CB Scheme Test Certificate #US/8843A/UL

CB Scheme Test Report #04ME11209-20041018

Issued by Underwriters Laboratories, Inc.

IEC 61010-1, EN 61010-1: Safety requirements for electrical equipment for measurement, control, and laboratory use, Part I

IP65 Enclosure rating (Face only), IEC 529

IP20 Enclosure rating (Rear of unit), IEC 529

ELECTROMAGNETIC COMPATIBILITY

Immunity to EN 50082-2

Electrostatic discharge	EN 61000-4-2	Level 2; 4 Kv contact Level 3; 8 Kv air
Electromagnetic RF fields	EN 61000-4-3	Level 3; 10 V/m ¹ 80 MHz - 1 GHz
Fast transients (burst)	EN 61000-4-4	Level 4; 2 Kv I/O Level 3; 2 Kv power
RF conducted interference	EN 61000-4-6	Level 3; 10 V/rms 150 KHz - 80 MHz
Simulation of cordless telephones	ENV 50204	Level 3; 10 V/m 900 MHz ± 5 MHz 200 Hz, 50% duty cycle

Emissions to EN 50081-2

RF interference	EN 55011	Enclosure class A Power mains class A
-----------------	----------	--

Notes:

1. *Self-recoverable loss of performance during EMI disturbance at 10 V/m: Measurement input and/or analog output signal may deviate during EMI disturbance.*

For operation without loss of performance:

Unit is mounted in a metal enclosure (Buckeye SM7013-0 or equivalent) I/O and power cables are routed in metal conduit connected to earth ground.

Refer to EMC Installation Guidelines section of the bulletin for additional information.

17. **CONNECTIONS:** High compression cage-clamp terminal block

Wire Strip Length: 0.3" (7.5 mm)

Wire Gauge: 30-14 AWG copper wire

Torque: 4.5 inch-lbs (0.51 N-m) max.

18. **CONSTRUCTION:** This unit is rated for NEMA 4X/IP65 outdoor use. IP20 Touch safe. Installation Category II, Pollution Degree 2. One piece bezel/case. Flame resistant. Synthetic rubber keypad. Panel gasket and mounting clip included.

19. **WEIGHT:** 10.4 oz. (295 g)

MODEL PAXD - UNIVERSAL DC INPUT

- FOUR VOLTAGE RANGES (300 VDC Max)
- FIVE CURRENT RANGES (2A DC Max)
- THREE RESISTANCE RANGES (10K Ohm Max)
- SELECTABLE 24 V, 2 V, 1.75 mA EXCITATION

PAXD SPECIFICATIONS

INPUT RANGES:

INPUT RANGE	ACCURACY* (18 to 28°C)	ACCURACY* (0 to 50°C)	IMPEDANCE/ COMPLIANCE	MAX CONTINUOUS OVERLOAD	RESOLUTION
±200 µADC	0.03% of reading +0.03 µA	0.12% of reading +0.04µA	1.11 Kohm	15 mA	10 nA
±2 mADC	0.03% of reading +0.3 µA	0.12% of reading +0.4 µA	111 ohm	50 mA	0.1 µA
±20 mADC	0.03% of reading +3µA	0.12% of reading +4 µA	11.1 ohm	150 mA	1 µA
±200 mADC	0.05% of reading +30 µA	0.15% of reading +40 µA	1.1 ohm	500 mA	10 µA
±2 ADC	0.5% of reading +0.3 mA	0.7% of reading +0.4 mA	0.1 ohm	3 A	0.1 mA
±200 mVDC	0.03% of reading +30 µV	0.12% of reading +40 µV	1.066 Mohm	100 V	10 µV
±2 VDC	0.03% of reading +0.3 mV	0.12% of reading +0.4 mV	1.066 Mohm	300 V	0.1 mV
±20 VDC	0.03% of reading +3 mV	0.12% of reading +4 mV	1.066 Mohm	300 V	1 mV
±300 VDC	0.05% of reading +30 mV	0.15% of reading +40 mV	1.066 Mohm	300 V	10 mV
100 ohm	0.05% of reading +30 Mohm	0.2% of reading +40 Mohm	0.175 V	30 V	0.01 ohm
1000 ohm	0.05% of reading +0.3 ohm	0.2% of reading +0.4 ohm	1.75 V	30 V	0.1 ohm
10 Kohm	0.05% of reading +1 ohm	0.2% of reading +1.5 ohm	17.5 V	30 V	1 ohm

* After 20 minute warm-up. Accuracy is specified in two ways: Accuracy over an 18 to 28°C and 10 to 75% RH environment; and accuracy over a 0 to 50°C and 0 to 85% RH (non-condensing environment). Accuracy over the 0 to 50°C range includes the temperature coefficient effect of the meter.

EXCITATION POWER:

Transmitter Power: 24 VDC, ±5%, regulated, 50 mA max.
 Reference Voltage: 2 VDC, ±2%
 Compliance: 1 kohm load min. (2 mA max.)
 Temperature coefficient: 40 ppm/°C max.
 Reference Current: 1.75 mADC, ±2%
 Compliance: 10 kohm load max.
 Temperature coefficient: 40 ppm/°C max.

MODEL PAXP - PROCESS INPUT

- DUAL RANGE INPUT (20 mA or 10 VDC)
- 24 VDC TRANSMITTER POWER

PAXP SPECIFICATIONS

SENSOR INPUTS:

INPUT (RANGE)	ACCURACY* (18 to 28°C)	ACCURACY* (0 to 50°C)	IMPEDANCE/ COMPLIANCE	MAX CONTINUOUS OVERLOAD	DISPLAY RESOLUTION
20 mA (-2 to 26 mA)	0.03% of reading +2 µA	0.12% of reading +3 µA	20 ohm	150 mA	1 µA
10 VDC (-1 to 13 VDC)	0.03% of reading +2 mV	0.12% of reading +3 mV	500 Kohm	300 V	1 mV

* After 20 minute warm-up. Accuracy is specified in two ways: Accuracy over an 18 to 28°C and 10 to 75% RH environment; and accuracy over a 0 to 50°C and 0 to 85%RH (non-condensing environment). Accuracy over the 0 to 50°C range includes the temperature coefficient effect of the meter.

EXCITATION POWER:

Transmitter Power: 24 VDC, ±5%, regulated, 50 mA max.

MODEL PAXH - AC TRUE RMS VOLT AND CURRENT

- FOUR VOLTAGE RANGES (300 VAC Max)
- FIVE CURRENT RANGES (5 A Max)
- ACCEPTS AC OR DC COUPLED INPUTS
- THREE WAY ISOLATION: POWER, INPUT AND OUTPUTS

PAXH SPECIFICATIONS

INPUT RANGES:

 Isolation To Option Card Commons and User Input Commons: 125 Vrms
Isolation To AC Power Terminals: 250 Vrms

INPUT RANGE	ACCURACY*	IMPEDANCE (60 Hz)	MAX CONTINUOUS OVERLOAD	MAX DC BLOCKING	RESOLUTION
200 mV	0.1% of reading +0.4 mV	686 Kohm	30 V	±10 V	0.01 mV
2 V	0.1% of reading +2 mV	686 Kohm	30 V	±50 V	0.1 mV
20 V	0.1% of reading +20 mV	686 Kohm	300 V	±300 V	1 mV
300 V	0.2% of reading +0.3 V	686 Kohm	300 V	±300 V***	0.1 V
200 µA	0.1% of reading +0.4 µA	1.11 Kohm	15 mA	±15 mA	0.01 µA
2 mA	0.1% of reading +2 µA	111 ohm	50 mA	±50 mA	0.1 µA
20 mA	0.1% of reading +20 µA	11.1 ohm	150 mA	±150 mA	1 µA
200 mA	0.1% of reading +0.2 mA	1.1 ohm	500 mA	±500 mA	10 µA
5 A	0.5% of reading +5 mA	0.02 ohm	7 A**	±7 A***	1 mA

*Conditions for accuracy specification:

- 20 minutes warmup
- 18-28°C temperature range, 10-75% RH non-condensing
- 50 Hz - 400 Hz sine wave input
- 1% to 100% of range
- Add 0.1% reading + 20 counts error over 0-50°C range
- Add 0.2% reading + 10 counts error for crest factors up to 3, add 1% reading up to 5
- Add 0.5% reading + 10 counts of DC component
- Add 1% reading + 20 counts error over 20 Hz to 10 KHz range

** Non-repetitive surge rating: 15 A for 5 seconds

*** Inputs are direct coupled to the input divider and shunts. Input signals with high DC component levels may reduce the usable range.

MAX CREST FACTOR (V_p/V_{RMS}): 5 @ Full Scale Input

INPUT COUPLING: AC or AC and DC

INPUT CAPACITANCE: 10 pF

COMMON MODE VOLTAGE: 125 VAC working

COMMON MODE REJECTION: (DC to 60 Hz) 100 dB

MODEL PAXS - STRAIN GAGE INPUT

- LOAD CELL, PRESSURE AND TORQUE BRIDGE INPUTS
- DUAL RANGE INPUT: ±24 mV OR ±240 mV
- SELECTABLE 5 VDC OR 10 VDC BRIDGE EXCITATION
- PROGRAMMABLE AUTO-ZERO TRACKING

PAXS SPECIFICATIONS

SENSOR INPUTS:

INPUT RANGE	ACCURACY* (18 to 28°C)	ACCURACY* (0 to 50°C)	IMPEDANCE	MAX CONTINUOUS OVERLOAD	RESOLUTION
±24 mVDC	0.02% of reading +3 µV	0.07% of reading +4 µV	100 Mohm	30 V	1 µV
±240 mVDC	0.02% of reading +30 µV	0.07% of reading +40 µV	100 Mohm	30 V	10 µV

* After 20 minute warm-up. Accuracy is specified in two ways: Accuracy over an 18 to 28°C and 10 to 75% RH environment; and accuracy over a 0 to 50°C and 0 to 85% RH (non-condensing environment). Accuracy over the 0 to 50°C range includes the temperature coefficient effect of the meter.

CONNECTION TYPE: 4-wire bridge (differential)
2-wire (single-ended)

COMMON MODE RANGE (w.r.t. input common): 0 to +5 VDC
Rejection: 80 dB (DC to 120 Hz)

BRIDGE EXCITATION :

Jumper Selectable: 5 VDC @ 65 mA max., ±2%

10 VDC @ 125 mA max., ±2%

Temperature coefficient (ratio metric): 20 ppm/°C max.

MODEL PAXT - THERMOCOUPLE AND RTD INPUT

- THERMOCOUPLE AND RTD INPUTS
- CONFORMS TO ITS-90 STANDARDS
- CUSTOM SCALING FOR NON-STANDARD PROBES
- TIME-TEMPERATURE INTEGRATOR

PAXT SPECIFICATIONS

READOUT:

Resolution: Variable: 0.1, 0.2, 0.5, or 1, 2, or 5 degrees

Scale: F or C

Offset Range: -19,999 to 99,999 display units

THERMOCOUPLE INPUTS:

Input Impedance: 20 MΩ

Lead Resistance Effect: 0.03μV/ohm

Max. Continuous Overvoltage: 30 V

INPUT TYPE	RANGE	ACCURACY* (18 to 28 °C)	ACCURACY* (0 to 50 °C)	STANDARD	WIRE COLOR	
					ANSI	BS 1843
T	-200 to 400°C -270 to -200°C	1.2°C **	2.1°C	ITS-90	(+) blue (-) red	(+) white (-) blue
E	-200 to 871°C -270 to -200°C	1.0°C **	2.4°C	ITS-90	(+) purple (-) red	(+) brown (-) blue
J	-200 to 760°C	1.1°C	2.3°C	ITS-90	(+) white (-) red	(+) yellow (-) blue
K	-200 to 1372°C -270 to -200°C	1.3°C **	3.4°C	ITS-90	(+) yellow (-) red	(+) brown (-) blue
R	-50 to 1768°C	1.9°C	4.0°C	ITS-90	no standard	(+) white (-) blue
S	-50 to 1768°C	1.9°C	4.0°C	ITS-90	no standard	(+) white (-) blue
B	100 to 300°C 300 to 1820°C	3.9°C 2.8°C	5.7°C 4.4°C	ITS-90	no standard	no standard
N	-200 to 1300°C -270 to -200°C	1.3°C **	3.1°C	ITS-90	(+) orange (-) red	(+) orange (-) blue
C (W5/W26)	0 to 2315°C	1.9°C	6.1°C	ASTM E988-90***	no standard	no standard

*After 20 min. warm-up. Accuracy is specified in two ways: Accuracy over an 18 to 28 °C and 15 to 75% RH environment; and Accuracy over a 0 to 50 °C and 0 to 85% RH (non condensing) environment. Accuracy specified over the 0 to 50 °C operating range includes meter tempo and ice point tracking effects. The specification includes the A/D conversion errors, linearization conformity, and thermocouple ice point compensation. Total system accuracy is the sum of meter and probe errors. Accuracy may be improved by field calibrating the meter readout at the temperature of interest.

** The accuracy over the interval -270 to -200 °C is a function of temperature, ranging from 1 °C at -200 °C and degrading to 7 °C at -270 °C. Accuracy may be improved by field calibrating the meter readout at the temperature of interest.

*** These curves have been corrected to ITS-90.

RTD INPUTS:

Type: 3 or 4 wire, 2 wire can be compensated for lead wire resistance

Excitation current: 100 ohm range: 165 μA

10 ohm range: 2.6 mA

Lead resistance: 100 ohm range: 10 ohm/lead max.

10 ohm range: 3 ohms/lead max.

Max. continuous overload: 30 V

INPUT TYPE	RANGE	ACCURACY* (18 to 28 °C)	ACCURACY* (0 to 50 °C)	STANDARD ***
100 ohm Pt alpha = .00385	-200 to 850°C	0.4°C	1.6°C	IEC 751
100 ohm Pt alpha = .003919	-200 to 850°C	0.4°C	1.6°C	no official standard
120 ohm Nickel alpha = .00672	-80 to 260°C	0.2°C	0.5°C	no official standard
10 ohm Copper alpha = .00427	-100 to 260°C	0.4°C	0.9°C	no official standard

CUSTOM RANGE: Up to 16 data point pairs

Input range: -10 to 65 mV

0 to 400 ohms, high range

0 to 25 ohms, low range

Display range: -19999 to 99999

INPUT TYPE	RANGE	ACCURACY* (18 to 28 °C)	ACCURACY* (0 to 50 °C)
Custom mV range	-10 to 65mV (1 μV res.)	0.02% of reading + 4μV	0.12% of reading + 5μV
Custom 100 ohm range	0 to 400 Ω (10 MΩ res.)	0.02% of reading + 0.04 Ω	0.12% of reading + 0.05 Ω
Custom 10 ohm range	0 to 25 Ω (1 MΩ res.)	0.04% of reading + 0.005 Ω	0.20% of reading + 0.007 Ω

ACCESSORIES

UNITS LABEL KIT (PAXLBK) - Not required for PAXT

Each meter has a units indicator with backlighting that can be customized using the Units Label Kit. The backlight is controlled in the programming.

Each PAXT meter is shipped with °F and °C overlay labels which can be installed into the meter's bezel display assembly.

EXTERNAL CURRENT SHUNTS (APSCM)

To measure DC current signals greater than 2 ADC, a shunt must be used. The APSCM010 current shunt converts a maximum 10 ADC signal into 100.0 mV. The APSCM100 current shunt converts a maximum 100 ADC signal into 100.0 mV. The continuous current through the shunt is limited to 115% of the rating.