

1/8 DIN Graphic Display Panel Meter and Data Logger for Temperature and Process Measurement

With Optional Alarm Relays, Isolated Analog Output, 24 Vdc Excitation Voltage, and Wireless Receiver



Graphic panel meter shown in line graph charting mode.



Horizontal bar graph mode.

DPI1701 Series



- ✓ Monochrome, High Resolution Graphic Display
- ✓ Universal Input Accepts Thermocouples, RTD, and Process (Voltage and Current)
- ✓ Displays Process Input in Horizontal Bar Graph, Line Graph Charting, or Standard Digital Format
- ✓ Records 85,000 Data Points with Time Stamping
- ✓ Real-time Clock with Battery Backup for Time Stamping Reliability
- ✓ Data Logging Based on Time and Date, Alarm 1 or 2, or Key Press
- ✓ Monitors and Displays Minimum and Maximum Process Values
- ✓ Universal Power Input from 90 to 240 Vac
- ✓ Isolated 24 Vdc Excitation to Power External Transmitters
- ✓ RoHS 2 Compliant

All models shown smaller than actual size.



Large digital display mode.

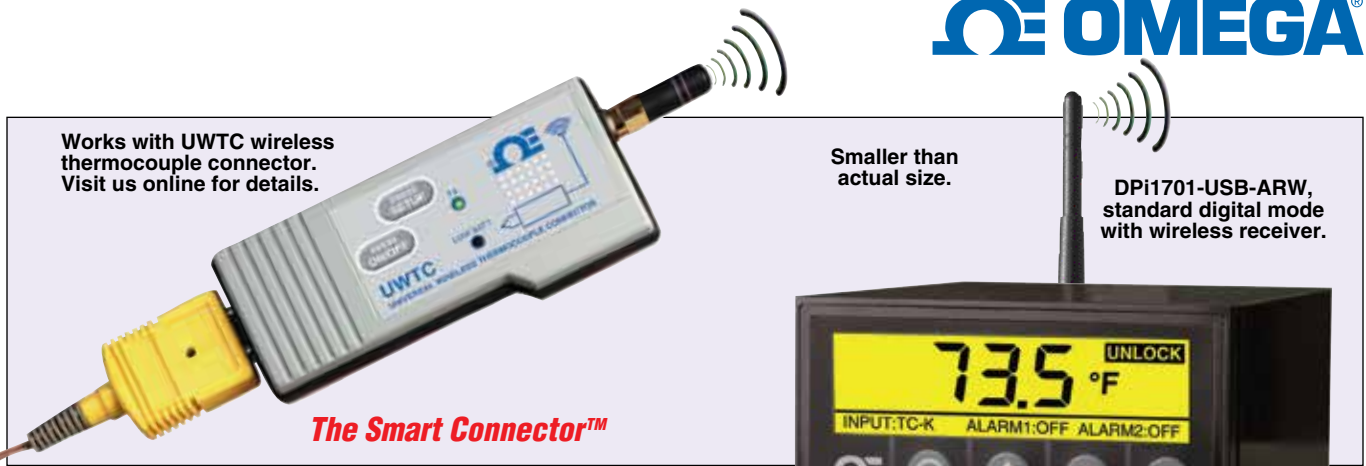
OMEGA's 1/8 DIN DPI1701 Series graphic display panel meter and data logger provides unmatched display functionality and performance. The high intensity, backlit, graphic display (240 x 64 dots) provides powerful display features such as horizontal bar graph, line graph, and data logging in real time. The unit can be configured to accept Thermocouples (J, K, T, E, R, S), RTDs (2- or 3-wire), Voltage (0 to 10 Vdc), or Current (0 to 20 mA). Optional features are two Form C relays, isolated USB or RS232 PC interface, isolated analog output, isolated 24 Vdc excitation, and wireless receiver.

The graphic display deploys full word menus for configuration options, providing an easier method of programming when compared to typical panel meters with their cryptic 4 letter acronyms. These flexible meters are a great fit for

typical laboratory, factory, and process monitoring applications, while the time stamped data logging capability also makes them very useful for troubleshooting and method development applications.

Options

- ✓ Two Form C (SPDT) Relays
- ✓ Isolated Analog Output (0 to 5 Vdc, 0 to 10 Vdc, or 4 to 20 mA)
- ✓ Isolated 24 Vdc Excitation
- ✓ Isolated USB or RS232 PC interface
- ✓ Wireless Receiver Accepts Signals from Our Family of 2.4 GHz Transmitters such as UWTC, UWRTD, UWRH, and UWIR



Specifications

Display: Monochrome backlit, 240 x 64 dots

Display Backlighting: High intensity yellow

Display Format: Standard digital, large digital, horizontal bar graph, line graph charting

Sampling Rates: 4 samples per second

Line Graph Time Speed: Adjustable from 1 to 60 sec

INPUTS

Thermocouple Accuracy: 0.5°C (0.9°F), 2.5°C (4.5°F)

Thermocouple Range:

Type J: -100 to 760°C (-148 to 1400°F)

Type K: -100 to 1260°C (-148 to 2300°F)

Type E: -200 to 849°C (-328 to 1560°F)

Type T: -200 to 400°C (-328 to 752°F)

Type R & S: 100 to 1760°C (212 to 3200°F)

Open Thermocouple Detection: Up scale

Thermocouple Lead Resistance: 100 Ω maximum

RTD: 100 Ω Platinum, 2 or 3 wire, 0.00385 curve

RTD Accuracy: 0.5°C (0.9°F)

RTD Range: -200 to 850°C (-328 to 1562°F)

Open RTD Detection: Up scale

PROCESS (VOLTAGE OR CURRENT)

Accuracy: 0.1% of R_{dg}

Voltage Input Range: 0 to 10 Vdc

Current Input Range: 0 to 20 mA/4 to 20 mA

Keypad: 4 tactile feedback keys

DATA LOGGING

Recorded Data: Up to 85,000 data points with time stamping

Logging Mode: Stop When Full or Circular Buffer

Logging Interval: Adjustable from 1 to 60 sec

Logging Start/ Stop: Press key, alarm 1 or 2 on, alarm 1 or 2 off, time and date

Real Time Clock: Backed-up for 2 weeks when there is no main power

Output: 0 to 5 Vdc, 0 to 10 Vdc or 4 to 20 mA isolated

ALARMS

Relay: SPDT, 250 Vac or 30 Vdc @ 3A

Alarm: Enable/disable, high/low, latch/unlatch

Deadband: Set via configuration menu

EXCITATION

Voltage Excitation: Isolated 24 Vdc @ 25 mA

PC Interface: Isolated USB or RS232 (9600 baud rate, 8-bit data, no parity, 1 stop bit)

PC Software: Runs on Windows® 7, 8*, and 10

*For Windows 8.1, .NET Framework 3.5 needs to be installed.

WIRELESS

RF Transmitter Carrier: ISM 2.4 GHz, direct sequence spread spectrum, license free world wide

RF Data Packet Standard: IEEE 802.15.4 open communication architecture

RF Range:

Indoor/Urban: Up to 40 m (130')

Outdoor/Line of Sight: Up to 120 m (400')

RF Power Output: 10 dBm (10 mW)

ELECTRICAL ISOLATION

Power to Input/Output: 3000 Vac for 1 minute

Power to Relays: 2300 Vac for 1 minute

GENERAL

Power: 90 to 240 Vac ±10%, 50 to 400 Hz

Operating Conditions: 0 to 50°C (32 to 122°F), 90% RH non-condensing

Protection: NEMA-1/Type 1 front bezel

Dimensions: 48 H x 96 W x 118 mm D (1.89 x 3.78 x 4.65")

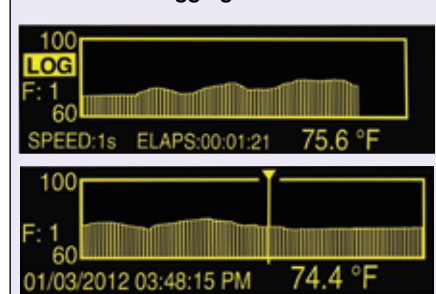
Panel Cutout: 45 H x 92 mm W (1.772 x 3.622")

Weight: 295 g (0.65 lb)

Configuration menu sample screen



Line graph charting in data logging mode.



To Order

Model No.	Description
DPi1701	Graphic panel meter and logger with isolated RS232 interface
DPi1701-USB-R	Graphic panel meter and logger with 2 relays, isolated USB and 24 Vdc excitation
DPi1701-USB-AR	Graphic panel meter and logger with 2 relays, isolated USB interface, and analog output
DPi1701-USB-ARW	Graphic panel meter and logger with 2 relays, isolated USB interface, analog output, and wireless receiver

Comes complete with quick start manual, and USB cable (for USB models only). Free software available for download from OMEGA.

Ordering Example: DPi1701-USB-R, 1/8 DIN graphic panel meter, and logger with two relays, isolated USB and 24 Vdc excitation.