

Temperature/Process Meters with Alarm Outputs



DPI-AL Series



- Universal Inputs
- High Accuracy
- 2 Relay Alarm Outputs
- Totally Programmable Color Displays (Visual Alarms)
- User-Friendly, Simple to Configure
- Built-In Excitation
- AC or DC Powered Units
- Front Removable and Plug Connectors
- Programmable Digital Filter

The OMEGA® iSeries meter with alarms offers unparalleled flexibility in process measurement and alarm applications, accepting 10 different thermocouple types, 18 RTD combinations or 4 process voltage/current inputs and providing 2 relay alarm outputs and a large multi-color, programmable display. Easily configured options include 11 different alarm conditions. Front panel configuration buttons allow the user to select the type of input, the alarm conditions and the resulting display color. Process inputs are fully scalable, supporting virtually all engineering units with a selectable decimal point providing a perfect solution for pressure, flow or other process inputs.

Standard features include a built-in 24 Vdc excitation source for transmitters or other devices and a universal power supply that accepts 90 to 240 Vac. A low power option is available that supports 24 Vac or 12 to 36 Vdc.

Specifications

Input Types: Thermocouple, RTD, analog voltage, analog current

Accuracy: $\pm 0.5^{\circ}\text{C}$ temperature; 0.03% rdg

Temperature Stability:

RTD: $0.04^{\circ}\text{C}/^{\circ}\text{C}$

Thermocouple @ 25°C (77°F): $0.05^{\circ}\text{C}/^{\circ}\text{C}$, cold junction compensation

Process: 50 ppm/ $^{\circ}\text{C}$

Reading Rate: 3 samples/s

Display:

$\frac{1}{8}$ DIN: Single 4-digit 9-segment LED 21 mm (0.83")

$\frac{1}{32}$, $\frac{1}{16}$ DIN: 10.2 mm (0.40")

Thermocouple Types (ITS 90):

J, K, T, E, R, S, B, C, N, L (J DIN)

Thermocouple Lead Resistance:

100 Ω maximum

RTD Input (ITS 68): 100/500/1000 Ω Pt sensor, 2-, 3- or 4-wire; 0.00385 or 0.00392 curve)

Voltage Input: 0 to 100 mV, 0 to 1V, 0 to 10 Vdc

iSeries

Input Impedance: 10 M Ω for 100 mV, 1 M Ω for 1 or 10 Vdc

Current Input: 0 to 20 mA (5 Ω shunt)

Excitation

Voltage Excitation: 24 Vdc @ 25 mA (not available with low power option)

Alarm 1 and 2 Outputs

Relay: SPDT, 250 Vac or 30 Vdc @ 3 A (resistive load)

Operation: High/low, above/below, band, latch/unlatch, normally open/normally closed and process/deviation; front panel configurations

General

Power: 90 to 240 Vac $\pm 10\%$, 50 to 400 Hz, 110 to 300 Vdc, equivalent voltage

Low Voltage Power Option: 24 Vac, 12 to 36 Vdc; external power source must meet safety agency approvals

Operating Temperature: 0 to 55°C (32 to 131°F); 90% RH non-condensing

Protection:

$\frac{1}{8}$ DIN: NEMA 1/Type 1 front bezel

$\frac{1}{32}$, $\frac{1}{16}$ DIN: NEMA 4X/Type 4 (IP65) front bezel

Dimensions:

$\frac{1}{8}$ DIN: 48 H x 96 W x 127 mm D (1.89 x 3.78 x 5")

$\frac{1}{16}$ DIN: 48 H x 48 W x 127 mm D (1.89 x 1.89 x 5")

$\frac{1}{32}$ DIN: 25.4 H x 48 W x 127 mm D (1.0 x 1.89 x 5")

To Order

Model No.	Description
DPI8-AL	$\frac{1}{8}$ DIN meter with alarm, 2 relays, 90 to 240 Vac power
DPI16-AL	$\frac{1}{16}$ DIN meter with alarm, 2 relays, 90 to 240 Vac power
DPI32-AL	$\frac{1}{32}$ DIN meter with alarm, 2 relays, 90 to 240 Vac power
DPI8-AL-DC	$\frac{1}{8}$ DIN meter with alarm, 2 relays, 12 to 36 Vdc power
DPI16-AL-DC	$\frac{1}{16}$ DIN meter with alarm, 2 relays, 12 to 36 Vdc power
DPI32-AL-DC	$\frac{1}{32}$ DIN meter with alarm, 2 relays, 12 to 36 Vdc power

Ordering Example: DPI32-AL, $\frac{1}{32}$ DIN meter with alarm, two relay outputs, 90 to 240 Vac.