



3 YEAR
WARRANTY



NEW

3 YEAR
WARRANTY





NEW

Temperature/Process Panel Meter



Shown actual size

DP1632 Series

\$149

Basic Unit

Standard Features:

- ✓ 1/2 DIN Panel Cutout
- ✓ Universal Inputs, Accepts Thermocouple, RTD, Voltage or Current Inputs
- ✓ Large Display Available in Red or Green
- ✓ °C/°F Programmable

Optional:

- ✓ RS-485 Communications MODBUS RTU Protocol
- ✓ Relay or dc Pulse Alarm
- ✓ Second Alarm Relay
- ✓ 12 to 24 Vac/12 to 30 Vdc Low Voltage Power

The DP1632 series includes large, multi-colored LED's that indicate process value and alarm conditions, clearly identifying the status of your process at all times. The high visibility four-digit display, available in red or green, is the largest available in an indicator of this size. For use in systems, RS-485 MODBUS communications is available with up to 128 units addressable on a two-wire multi-drop line.

Easy programming via three keys provides straightforward daily operation and set-up.

No internal hardware configuration is

required. There are no switches or jumpers to change.

Optional outputs include a choice of relay or dc pulse for alarming. There is also a second alarm relay available when communications is not included.

2 A rated relays and a 10 Vdc pulse output provide the highest capacity available for a 1/32 DIN controller. The universal input accepts seven thermocouple types, 2- or 3-wire RTD, mV dc, and mA inputs.

Specifications

Input

For specific input types and ranges, refer to input type and range chart

General

Input Sample Rate: Four per second

Input Resolution: 14-bit

approximately

Input Impedance: >10 MΩ resistive

Isolation: 240 Vac isolation from

all outputs except dc pulse

Thermocouple

Types: R, S, J, T, K, B and N

Calibration: Complies with BS4937, NBS125 and IEC584

Sensor Break Protection: Break detected within 2 seconds

RTD: Pt 100 (0.00385 curve), 3-wire

Current and Voltage:

0 to 20 mA, 4 to 20 mA

0 to 50 mV, 10 to 50 mV

Alarm Relay One

General

Types Available:

Mechanical or dc pulse relay

Mechanical Contact Type: SPST

Rating: 2 A resistive at 120/240 Vac

Isolation: Inherent
Pulse

Drive Capability: >10 Vdc into 500 Ω (50 mA maximum)

Isolation: Not isolated from input

Alarm Relay Two (-AL)

General

Types Available: Mechanical relay

Contact Type: SPST

Rating: 2 A resistive at 120/240 Vac

Isolation: Inherent

Digital Communications (-C4)

Type: RS-485 serial communication port

Character Format:

MODBUS RTU

Bit Rate: User configurable to 1200, 2400, 4800, 9600

Address: User configurable 1 to 32

Alarms

Maximum Number: 2 physical outputs are possible

Alarm Setpoint Range: Limited to configuration range. Setpoint lockable

Alarm Types

Process High:

Range min to range max

Process low: Range min to range max

Band: 1 LSD to span

Performance

Reference Conditions

Ambient Temperature:

20°C ±2.8°C (68°F ±5°F)

Relative Humidity: 60 to 70%

Performance Under Reference

Conditions:

Common Mode Rejection: >120 db at 50/60 Hz giving negligible effect at up to 264 V at 50/60 Hz



T
R
S



For Additional Controllers, See Section P



T
N

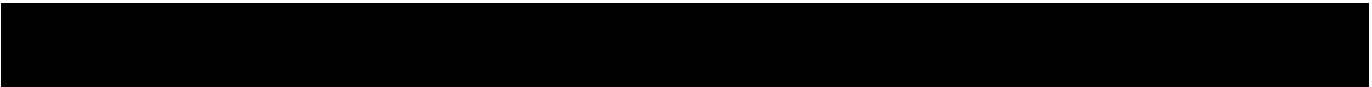


M



K

N
R
S



M



For Additional Controllers, See Section P

Series Mode Rejection:
 >500% of span at 50/60 Hz giving negligible effect
dc Linear Inputs:
Measurement Accuracy:
 ±0.1% of span ±1 LSD
Thermocouple Inputs
Measurement Accuracy:
 ±0.1% of span ±1 LSD typical (0.25% for types J and T) Note: Reduced performance with type B T/C from 100 to 600°C (212 to 1112°F)
Linearization Accuracy:
 Better than ±0.2°C at any point for any 0.1°C range (±0.05°C typical). Better than ±0.5°C at any point for any 1°C range
Cold Junction Compensation:
 Better than ±0.07%
RTD Inputs:
Measurement Accuracy:
 ±0.1% of span ±1 LSD
Operating Conditions
Ambient Operating Temperature:
 0 to 55°C (32 to 131°F)
Ambient Storage Temperature:
 -20 to 80°C (-4 to 176°F)
Relative Humidity:
 20 to 95% non-condensing
Supply Voltage: 90-264 Vac 50/60 Hz standard, 12-24 Vac 50/60 Hz or 12-30 Vdc (optional)
Source Resistance:
 100 ohm max (Thermocouple)
Lead Resistance:
 50 ohm/lead max (Pt100)
Performance Under Operating Conditions
Temperature Stability:
 0.01% of span/°C change in ambient temperature (RTD and dc mA/mV)
 0.005% of span)

Cold Junction Compensation:
 Better than ±1°C
Supply Voltage Influence:
 Negligible
Relative Humidity Influence:
 Negligible
Sensor Resistance Influence:
 Thermocouple 1000 Ω <0.1% span
 RTD Pt100 50 Ω/lead<0.25% span
Environmental
EMI Susceptibility: Complies with EN50082 Parts 1 (1992) and 2 (1995)
EMI Emissions: Complies with EN50081 Parts 1 (1992) and 2 (1994)
Safety Considerations: Complies with EN61010-1 insofar as it applies
Power Consumption:
 4 Watts max
Front Panel Sealing: NEMA-4/IP66



Model DP1632-GN-R1
 Shown actual size

Physical Dimensions: Front Panel:
 25 x 49 x 100 mm (0.98 x 1.93 x 3.94")
Mounting: Plug-in with panel mounting sleeve. Panel cut-out: ½ DIN, 45 x 22.5 mm (1.77 x 0.89")
Weight: 100 grams (3.53 oz)

Low Noise Thermocouple Probes. See Section A. GEQSS-125G-12, \$27

Input Types and Ranges

Input	Range	
J Iron-Constantan	-200 to 1200°C -128.0 to 537.0°C	-328 to 2191°F -198.4 to 998.5°F
K CHROMEGA®-ALOMEGA®	-240 to 1371°C -128.0 to 536.7°C	-400 to 2499°F -198.4 to 998.5°F
T Copper-Constantan	-240 to 401°C -128.0 to 400.6°C	-400 to 753°F -198.4 to 753.0 °F
N OMEGALLOY®	0 to 1399°C	32 to 2550°F
R Pt-13% Rh/Pt	0 to 1759°C	32 to 3198°F
S Pt-10% Rh/Pt	0 to 1760°C	32 to 3217°F
B Pt-6% Rh/Pt-30% Rh	100 to 1824°C	211 to 3315°F
RTD 100 Ω Pt 3-wire	-199 to 802°C -127.9 to 537.0°C	-327 to 1475°F -198.3 to 998.5°F
Current	0 to 20 mA, 4 to 20 mA	-1999 to 9999
Voltage	0 to 50 mV, 10 to 50 mV	-1999 to 9999

IN STOCK FOR FAST DELIVERY!

To Order (Specify Model Number)

Model Number	Price	Description
DP1632	\$149	Basic unit panel meter with red display (no outputs)
DP1632-GN	149	Basic unit with green display (no outputs)
DP1632-R1	159	Meter with a single relay alarm
DP1632-GN-R1	159	Meter with a single relay alarm and green display
DP1632-DC1	159	Meter with a single dc pulse alarm
DP1632-GN-DC1	159	Meter with a single dc pulse alarm and green display

OMEGACARESM extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order.

Ordering Example: DP1632-R1-AL-LV, ½ DIN indicator with two alarm outputs and low voltage power supply, \$159 + 26 + 15 = \$200
 OCW-1 OMEGACARESM extends standard 3-year warranty to a total of 4 years (\$25), \$200 + 25 = \$225

Options (only one option available per unit)

Ordering Suffix	Price	Description
-AL	\$26	Second alarm relay
-C4	62	RS-485 communications

Optional Power Supply

Ordering Suffix	Price	Description
-LV	\$15	12 to 24 Vac, 12 to 30 Vdc



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• Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

• pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

• Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

• Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

• Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters