PLATINUM Series
Digital Panel Meters
Industry Leading Performance...and Easy to Use

DP16DPt Series shown actual size.

DP8EPt Series shown actual size.

DP32Pt, DP16Pt, and DP8Pt Series

1 YEAR WARRANTY

- **High Performance, Extremely Versatile**
- **Easy and Intuitive to Use**
- **Bright 3-Color (RED, GREEN, and AMBER) 9 Segment LED, 4 or 6 Digit Display with Wide Viewing Angle**
- **High Accuracy Universal Inputs for Thermocouples, RTD's, Thermistors, and Process Voltage/Current**
- **No Jumpers to Set, Totally Firmware Configurable**
- **Automated Configuration Recognition, "Smart" Menu Flow**
- **Up to 20 Samples per Second with 24-Bit ADC**
- **Standard USB, Optional Ethernet and RS232/ RS485 with MODBUS® Serial Communications**
- **Built-In Excitation Firmware Selectable at 5V, 10V, 12V, and 24V**
- **Full Scale Positive and Negative Readings**
- **NEMA 4 (IP65) Front Bezel (1/32 and 1/16 DIN) or NEMA 1 (1/8 DIN)**
- **Flexible Alarm Programming**
- **Remote Latch Reset**
- **Available with 4 Optional SSR or Mechanical Relays for Alarms and Isolated Analog Output**
- **Offered in 1/32, 1/16, and 1/8 DIN Sizes**

DP32Pt Series shown actual size.

The PLATINUM Series family of microprocessor-based digital panel meters offer unparalleled flexibility in process measurement. While extremely powerful and versatile, great care has gone into designing a product that is very easy to set-up and use. The automatic hardware configuration recognition eliminates the need for jumpers and allows the firmware to automatically simplify itself, eliminating all menu options that do not apply to a specific configuration.

Each unit allows the user to select the input type from 9 thermocouple types (J, K, T, E, R, S, B, C, and N), Pt RTDs (100, 500, or 1000 Ω, with either 385, 392, or 3916 curve), thermistors (2250 Ω, 5K Ω, and 10K Ω), DC voltage, or DC current and strain. The bipolar voltage or current inputs are fully scalable to virtually all engineering units, with a selectable decimal point that is perfect for use with pressure, flow, or other process input.

Two alarms can be configured for above, below, hi/lo, and band triggering using either absolute or deviation alarm trigger points.

In addition, high-high/low-low indication is available. The four optional SSR or mechanical relays can be assigned to either or both alarm triggers. Two annunciators and three display colors can also be assigned to the alarm triggers.

The PLATINUM Series device features a large, 3-color, 9 segment programmable LED display with the capability to change color and/ or change the state of designated outputs every time an alarm is triggered. The universal power supply accepts 90 to 240 Vac. The low voltage power option accepts 24 Vac or 12 to 36 Vdc.

Embedded Ethernet and Serial Communications

Optional embedded ethernet on the 1/16 and 1/8 DIN models allow the units to connect directly to an ethernet network and transmit data in standard TCP/IP packets, or serve web pages over a LAN or the internet. Optional serial communications are also available configurable as RS232 or RS485, with straightforward ASCII commands or MODBUS®. All three types of communications interfaces (USB, ethernet, and serial) can be installed and active simultaneously.

Specifications

INPUTS

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

Current Input: 4 to 20 mA, 0 to 24 mA scalable

Voltage Input: -100 to 100 mV, -1 to 1 V, -10 to 10 Vdc scalable

Thermocouple Input (ITS 90): K, J, T, E, R, S, B, C, N

RTD Input (ITS 90): 100/500/1000 Ω Pt sensor, 2-, 3- or 4-wire; 0.00385, 0.00392 (100 Ω only), or 0.003916 (100 Ω only) curves

Thermistor Input: 2252 Ω, 5K Ω, 10K Ω

Strain Input: ±50 mV, ±100 mV

Configuration: Differential

Polarity: Bipolar

Resolution: 0.1° temperature; 10 µV process

Input Impedances:
- **Process/Strain:** 10M Ω for ±100 mV, 1M Ω for other voltage ranges
- **Process Current:** 5 Ω
- **Thermocouple:** 10K Ω max

Temperature Stability:
- **RTD:** 0.04°C/°C
- **Thermocouple @ 25°C (77°F):** 0.05°C/°C (cold junction compensation)
- **Process/Strain:** 50 ppm/°C

A/D Conversion: 24-bit sigma delta

Reading Rate: 20 samples per second

Digital Filter: Programmable from 0.05 seconds (filter = 1) to 6.4 seconds (filter = 128)

CMRR: 120 dB

Excitation: Firmware selectable (no jumpers to set) to 5, 10, 12, and 24 Vdc @ 25 mA

Setpoint Adjustment: 4 digit (-9999 to +9999 counts), 6 digit (-99999 to +999999 counts)

Warm-Up to Rated Accuracy: 30 mins

ALARM OUTPUTS (OPTIONAL)

SPDT Relay: Single pole, double throw mechanical relay, 250 Vac or 30 Vdc at 3 A (resistive load)

SPST Relay: Single pole, single throw mechanical relay, 250 Vac or 30 Vdc at 3 A (resistive load)

SSR: 20 to 265 Vac at 0.05 to 0.5 A (resistive load); continuous

Isolated Analog: Isolated, user programmable 0 to 5, 0 to 10, 4 to 20 mA, or 0 to 24 signal

COMMUNICATIONS (USB STANDARD, OPTIONAL SERIAL AND ETHERNET)

Connection:
- **USB:** Female micro-USB
- **Ethernet:** Standard RJ45
- **Serial:** Screw terminals

USB: USB 2.0 host or device

Ethernet Standards Compliance: IEEE 802.3 10/100 Base-T auto-switching, TCP/IP, ARP, HTTPGET

Serial: Software selectable RS232 or RS485; programmable 1200 to 115.2 K baud

Protocols: OMEGA ASCII, MODBUS® ASCII/RTU

ISOLATION

Approvals: UL, cUL, CE, UKCA

Power to Input/Output: 2300 Vac per 1 min test; 1500 Vac per 1 min test (low voltage/power option)

Power to Relays/SSR Outputs: 2300 Vac per 1 min test

Relays/SSR to Relay/SSR Outputs: 2300 Vac per 1 min test

RS232/RS485 to Inputs/Outputs: 500 Vac per 1 min test

GENERAL

Display: 4-digit, 9 segment LED
- **DP32Pt, DP16Pt:** 10.2 mm (0.40")
- **DP8Pt/DP8EPt:** 21 mm (0.83")

Dimensions:
- **DP8Pt Series:** 48 H x 96 W x 127 mm D (1.89 x 3.78 x 5")
- **DP16Pt Series:** 48 H x 48 W x 127 mm D (1.89 x 1.89 x 5")
- **DP32Pt Series:** 25.4 H x 48 W x 127 mm D (1.0 x 1.89 x 5")

Panel Cutout:
- **DP8Pt Series:** 45 H x 92 mm W (1.772 x 3.622"), ⅛ DIN
- **DP16Pt Series:** 45 mm (1.772") square, ¹⁄₁₆ DIN
- **DP32Pt Series:** 22.5 H x 45 mm W (0.886 x 1.772"), ¹⁄₃₂ DIN

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

External Fuse Required:
- **Time-Delay, UL 248-14 Listed:** 100 mA/250 V; 400 mA/250 V (low voltage option)
- **Time-Lag, IEC 127-3 Recognized:** 100 mA/250 V; 400 mA/250 V (low voltage option)

Ranges and Accuracies for Supported Inputs

Input Type	Description	Range	Accuracy
Process/Strain	Process Voltage	±50 mV, ±100 mV, ±1, ±10 Vdc	0.03% FS
Process	Process Current	Scalable within 0 to 24 mA	0.03% FS
J	Iron-Constantan	-210 to 1200°C (-346 to 2192°F)	0.4°C (0.7°F)
K	CHROMEGA™-ALOMEGA™	-270 to -160°C (-454 to -256°F) -160 to 1372°C (-256 to 2502°F)	1.0°C (1.8°F) 0.4°C (0.7°F)
T	Copper-Constantan	-270 to -190°C (-454 to -310°F) -190 to 400°C (-310 to 752°F)	1.0°C (1.8°F) 0.4°C (0.7°F)
E	CHROMEGA™-Constantan	-270 to -220°C (-454 to -364°F) -220 to 1000°C (-364 to 1832°F)	1.0°C (1.8°F) 0.4°C (0.7°F)
R	Pt/13%Rh-Pt	-50 to 40°C (-58 to 104°F) 40 to 1788°C (104 to 3250°F)	1.0°C (1.8°F) 0.5°C (0.9°F)
S	Pt/10%Rh-Pt	-50 to 100°C (-58 to 212°F) 100 to 1768°C (212 to 3214°F)	1.0°C (1.8°F) 0.5°C (0.9°F)
B	30%Rh-Pt/6%Rh-Pt	100 to 640°C (212 to 1184°F) 640 to 1820°C (1184 to 3308°F)	1.0°C (1.8°F) 0.5°C (0.9°F)
C	5%Re-W/26%Re-W	0 to 2320°C (32 to 4208°F)	0.4°C (0.7°F)
N	Nicrosil-Nisil	-250 to -100°C (-418 to -148°F) -100 to 1300°C (-148 to 2372°F)	1.0°C (1.8°F) 0.4°C (0.7°F)
RTD	Pt, 0.00385, 100 Ω, 500 Ω, 1000 Ω	-200 to 850°C (-328 to 1562°F)	0.3°C (0.7°F)
RTD	Pt, 0.003916, 100 Ω	-200 to 660°C (-328 to 1220°F)	0.3°C (0.7°F)
RTD	Pt, 0.00392, 100 Ω	-200 to 660°C (-328 to 1220°F)	0.3°C (0.7°F)
Thermistor	2252 Ω	-40 to 120°C (-40 to 248°F)	0.2°C (0.35°F)
Thermistor	5K Ω	-30 to 140°C (-22 to 284°F)	0.2°C (0.35°F)
Thermistor	10K Ω	-20 to 150°C (-4 to 302°F)	0.2°C (0.35°F)

Line Voltage/Power: 90 to 240 Vac ±10%, 50 to 400 Hz*, 110 to 375 Vdc, equivalent voltage
**No CE compliance above 60 Hz.*
Max Power Consumption:
4 W power

Low Voltage/Power Option:
External power source must meet Safety Agency Approvals; units can be powered safely with 24 Vac power, but no certification for CE/UL is claimed for this case
DP8Pt, DP16Pt, DP32Pt Models:
12 to 36 Vdc, 3 W power

Protection:
DP32Pt, DP16Pt Models:
NEMA 4X (IP65) front bezel
DP8Pt Models: NEMA 1 front bezel
Weight:
DP8Pt Models: 295 g (0.65 lb)
DP16Pt Models: 159 g (0.35 lb)
DP32Pt Models: 127 g (0.28 lb)

To Order

Model No.	Size/ Cutout	Input Types	Alarm Outputs	Communications	Power
DP32Pt	1/32 DIN	T/C, RTD, thermistor, process	None	USB	AC
DP32Pt-DC	1/32 DIN	T/C, RTD, thermistor, process	None	USB	DC
DP32Pt-330	1/32 DIN	T/C, RTD, thermistor, process	2 Relays	USB	AC
DP32Pt-330-DC	1/32 DIN	T/C, RTD, thermistor, process	2 Relays	USB	DC
DP32Pt-C24	1/32 DIN	T/C, RTD, thermistor, process	None	USB, Serial	AC
DP32Pt-C24-DC	1/32 DIN	T/C, RTD, thermistor, process	None	USB, Serial	DC
DP32Pt-330-C24	1/32 DIN	T/C, RTD, thermistor, process	2 Relays	USB, Serial	AC
DP32Pt-330-C24-DC	1/32 DIN	T/C, RTD, thermistor, process	2 Relays	USB, Serial	DC
DP16Pt	1/16 DIN	T/C, RTD, thermistor, process	None	USB	AC
DP16Pt-DC	1/16 DIN	T/C, RTD, thermistor, process	None	USB	DC
DP16Pt-330	1/16 DIN	T/C, RTD, thermistor, process	2 Relays	USB	AC
DP16Pt-330-DC	1/16 DIN	T/C, RTD, thermistor, process	2 Relays	USB	DC
DP16Pt-C24	1/16 DIN	T/C, RTD, thermistor, process	None	USB, Serial	AC
DP16Pt-C24-DC	1/16 DIN	T/C, RTD, thermistor, process	None	USB, Serial	DC
DP16Pt-330-C24	1/16 DIN	T/C, RTD, thermistor, process	2 Relays	USB, Serial	AC
DP16Pt-330-C24-DC	1/16 DIN	T/C, RTD, thermistor, process	2 Relays	USB, Serial	DC
DP16Pt-EIP	1/16 DIN	T/C, RTD, thermistor, process	None	USB, Ethernet	AC
DP16Pt-EIP-DC	1/16 DIN	T/C, RTD, thermistor, process	None	USB, Ethernet	DC
DP16Pt-330-EIP	1/16 DIN	T/C, RTD, thermistor, process	2 Relays	USB, Ethernet	AC
DP16Pt-330-EIP-DC	1/16 DIN	T/C, RTD, thermistor, process	2 Relays	USB, Ethernet	DC
DP16Pt-C24-EIP	1/16 DIN	T/C, RTD, thermistor, process	None	USB, Serial, Ethernet	AC
DP16Pt-C24-EIP-DC	1/16 DIN	T/C, RTD, thermistor, process	None	USB, Serial, Ethernet	DC
DP16Pt-330-C24-EIP	1/16 DIN	T/C, RTD, thermistor, process	2 Relays	USB, Serial, Ethernet	AC
DP16Pt-330-C24-EIP-DC	1/16 DIN	T/C, RTD, thermistor, process	2 Relays	USB, Serial, Ethernet	DC
DP8EPt	1/8 DIN, 6 digit	T/C, RTD, thermistor, process	None	USB	AC
DP8Pt-DC	1/8 DIN	T/C, RTD, thermistor, process	None	USB	DC
DP8Pt-330	1/8 DIN	T/C, RTD, thermistor, process	2 Relays	USB	AC
DP8Pt-330-DC	1/8 DIN	T/C, RTD, thermistor, process	2 Relays	USB	DC
DP8Pt-C24	1/8 DIN	T/C, RTD, thermistor, process	None	USB, Serial	AC
DP8Pt-C24-DC	1/8 DIN	T/C, RTD, thermistor, process	None	USB, Serial	DC
DP8Pt-330-C24	1/8 DIN	T/C, RTD, thermistor, process	2 Relays	USB, Serial	AC
DP8Pt-330-C24-DC	1/8 DIN	T/C, RTD, thermistor, process	2 Relays	USB, Serial	DC
DP8Pt-EIP	1/8 DIN	T/C, RTD, thermistor, process	None	USB, Ethernet	AC
DP8Pt-EIP-DC	1/8 DIN	T/C, RTD, thermistor, process	None	USB, Ethernet	DC
DP8Pt-330-EIP	1/8 DIN	T/C, RTD, thermistor, process	2 Relays	USB, Ethernet	AC
DP8Pt-330-EIP-DC	1/8 DIN	T/C, RTD, thermistor, process	2 Relays	USB, Ethernet	DC
DP8Pt-C24-EIP	1/8 DIN	T/C, RTD, thermistor, process	None	USB, Serial, Ethernet	AC
DP8Pt-C24-EIP-DC	1/8 DIN	T/C, RTD, thermistor, process	None	USB, Serial, Ethernet	DC
DP8Pt-330-C24-EIP	1/8 DIN	T/C, RTD, thermistor, process	2 Relays	USB, Serial, Ethernet	AC
DP8Pt-330-C24-EIP-DC	1/8 DIN	T/C, RTD, thermistor, process	2 Relays	USB, Serial, Ethernet	DC

Comes complete with quickstart manual with downloadable operator's manual.
***Note:** Ethernet options not available on 1/32 DIN models.*