Wall-Mount Programmable Temperature Monitor

DPS3301
Starts at
$345

2 YEAR WARRANTY | MADE IN USA | OMEGACARE Extended Warranty Program

DPS3301-TC-3, $445, shown smaller than actual size.

- **Large, 7-Digit, 7-Segment LED Display 20 mm (0.8") H**
- **Easy to View from a Distance**
- **Multiple Programmable Display Modes**
- **Frequently Used Mathematical Functions**
- **Timer for Process Run Time**
- **Remote Display Hold**
- **Fully Programmable via Front Keys**
- **Sealed Enclosure with Clear Plastic Front**
- **Protection from Dust and Moisture**
- **Thermocouple, RTD, and Thermistor Inputs**
- **Alarm Status Indication on Front Panel**
- **Built-In Buzzer to Sound Alarm (Optional)**
- **2 Programmable Timers, 4 Process Alarms (Optional)**

Housed in a wall-mount, watertight plastic enclosure, the DPS3301 is a powerful temperature monitor/indicator that accepts a single thermocouple, RTD, or 400 Series thermistor sensor input and then displays the temperature in either °C or °F. In addition, it monitors a number of important functions, such as high and low process readings, process run time, and rate of process change.

Four (optional) process alarms are available that are programmable over the entire range of selected input type. They can be configured as latching or non-latching, normally open, or normally closed. Also available are 2 optional timers that work independently or in conjunction with process limits (e.g., turning on a fan 10 minutes after limit 1 temperature is reached). The time function keeps track of process run time.

The DPS3301 can function as a rate monitor, indicating instantaneous as well as average rate of temperature change. Programmable time base allows the rate to be displayed in per second, minute, hour, or any other interval. The DPS3301 can also be programmed for a rate alarm, which can indicate whether a predetermined rate is exceeded or not achieved.

The DPS3301 can be programmed to indicate in 1 of 7 display modes:

1. Display Process
2. Display Rate of Change
3. Display Deviation
4. Display Max Reading
5. Scan All Parameters
6. Display Min Reading
7. Display Elapsed Time

If scan mode is selected, all the above parameters are briefly displayed in sequence. Dwell time for each mode is programmable.

Additional features include a built-in buzzer that sounds whenever a limit is reached (available with the relay option). Visual indication of relay output status is given by LEDs on the front panel. A watchdog timer keeps track of any runaway programs caused by excessive noise or other malfunctions. The DPS3301 also has a power line filter designed to provide trouble-free operation in harsh industrial environments.

Specifications

Input Type:
J, K, T, E, R, S, B, thermistor [2252 Ω @ 25°C (77°F)], Pt 100 RTD

CJC Error: ±0.5°C (0.9°F)
[10 to 45°C (50 to 113°F)]

Accuracy:

Resolution: 1°C/°F for T/Cs and RTDs, 0.1°C/0.2°F for thermistor

A/D Conversion:
20,000 count A/D converter

Conversion Rate: 7/s (typical)

Display: Red 7-segment LED display, 20 mm (0.8") High

Display Test:
8.8.8.8.8.8.8. on power-up

Power Options:
120 Vac (60 Hz)—standard
220 Vac (50/60 Hz)—optional
15 Vdc @ 900 mA—optional

Output (Optional):

Open Collector: 6 open-collector outputs, maximum sink capability of 50 mA per output, internal source

Relays: SPST, 1 A @ 28 Vdc or 0.5 A @ 120 Vac resistive

Output Termination:
Euro-style pluggable connector

Rate: Variable, displayed as rate of change/time base

Dimensions/Enclosure:

Case: 192 W x 160 H x 103 mm D (7.55 x 6.29 x 4.05")

Material: Polystyrene with crystal-clear polycarbonate lid

Ingress Protection:
Up to IP65 (DIN standard)

Weight: 1.4 kg (3 lb)

Type	Range	Accuracy
J	-200 to 1190°C (-328 to 2174°F)	±1°C ±1 count (±2°F ±1 count)
K	-170 to 1365°C (-274 to 2489°F)	±1°C ±1 count (±2°F ±1 count)
T	-155 to 400°C (-247 to 752°F)	±1°C ±1 count (±2°F ±1 count)
E	-185 to 915°C (-300 to 1675°F)	±1°C ±1 count (±2°F ±1 count)
R	0 to 1600°C (32 to 2900°F)	±3°C ±1 count) (±6°F ±1 count
S	0 to 1600°C (32 to 2900°F)	±3°C ±1 count (±6°F ±1 count)
B	470 to 1800°C (900 to 3300°F)	±3°C ±1 count (±6°F ±1 count)
RTD-385 (2-Wire)	-200 to 800°C (-328 to 1472°F)	±1°C ±1 count (±2°F ±1 count)
RTD-392 (2-Wire)	-100 to 450°C (-148 to 842°F)	±1°C ±1 count (±2°F ±1 count)
Thermistor	-8 to 100°C (17.2 to 212°F)	±0.5°C ±1 count (±1.0°F ±1 count)

MOST POPULAR MODELS HIGHLIGHTED!

To Order *(Specify Model Number)*

Model No.	Price	Description
DPS3301-(*)	$345	Wall-mount temperature monitor

Note: *Select input code from table below.*

Input Codes

Input Code*	Programmable Inputs
TC	J, K, T, E
RTD	100 Ω
TH	400 Series thermistor
R	R Thermocouple
S	S Thermocouple
B	B Thermocouple

**Select one input code.*

Power Options

Ordering Suffix	Price	Description
-1	N/A	240 Vac
-2	$25	8 to 15 Vdc

Output Options

Ordering Suffix	Price	Description
-3	$100	6 relay outputs (4 alarms, 2 timers)
-4	100	6 open-collector outputs (4 alarms, 2 timers)

Accessories

Model No.	Price	Description
RELAY-URM-400	$145	Universal 15 A mechanical 4-relay module
RELAY-URM-800	195	Universal 15 A mechanical 8-relay module
EE-1319	70	Reference Book: Grounding and Shielding Techniques

Comes with watertight connectors (2) and complete operator's manual.
Ordering Example: DPS3301-TC-1-3*, wall-mount temperature monitor, T/C input, 240 Vac, with 6 relay outputs, $345 + 100 =* ***$445.***

See page P-104a for RELAY-URM Series product details!

Must-Have Accessory!

RELAY-URM-400, $145, shown smaller than actual size.

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