

# Wall-Mount 4- and 7-Zone Process Scanners

## DPS3300 Series



- ✓ Large, 7-Digit, 7-Segment LED Display, 20 mm (0.8") H
- ✓ Selectable Temperature Units—°C or °F
- ✓ Process Readings in Engineering Units
- ✓ Fully Programmable via Front Keys
- ✓ Programmable Automatic Scanning
- ✓ Hold Feature to Dwell on Any Selected Channel
- ✓ Thermocouples, RTDs, and Thermistors
- ✓ Simple Scaling for Voltage, Current, and Millivolt Inputs
- ✓ Programmable Limit for Each Channel
- ✓ Built-In Buzzer to Sound Alarm (Optional)
- ✓ Visual Indication of Channel Alarm Status
- ✓ Power Line Filter for High Reliability
- ✓ Protection from Dust and Moisture
- ✓ Sealed Enclosure with Clear Plastic Front

Housed in a wall-mount, watertight plastic enclosure, the DPS3300 Series scanners offer highly functional multichannel scanning with a number of very useful features. Tasks that formerly required multiple monitors can now be accomplished by using a single unit. Signals from 7 different transducers are carried into conveniently located screw terminals that are accessed through a sealed plastic cover. The unit



DPS3307 shown smaller than actual size.

**MOISTUREPROOF!**



DPS3307 shown smaller than actual size.

automatically scans each channel, displaying the channel number and its process reading.

Signals from thermocouples, RTDs, and thermistors are linearized and can be displayed in °C or °F. Current, voltage, and millivolt signals are easily scaled for indicating the process in specified engineering units. Up to 7 different processes can be displayed on a single scanner, and each channel can be assigned a 3-digit, alphanumeric engineering unit (psi, ft, etc.). Channels are sequentially displayed for a programmed length of time; with the hold feature, the display can be held indefinitely on any one channel.

The DPS3300 has multiple display modes and can be programmed to scan all channels, display the

channel with the highest or lowest reading, process deviation from a pre-programmed setpoint, and display differentials between channels. The DPS3300 can also run merely as a timer.

Additional features include min/max readings and rate of change for all channels. A control relay or open-collector output for each channel is available as an option. A built-in buzzer (available with output option) sounds an alarm whenever a limit is reached. Visual indication of relay output status is given by LEDs.

## Specifications

**Input Types:** J, K, T, E, R, S, B, Pt100 RTD and thermistor [2252 Ω @ 25°C (77°F)], 4 to 20 mA, 0 to 100 mV, 0 to 10 Vdc

**Cold-Junction Compensation Error:** ±1°C max [10 to 40°C (50 to 104°F)]

**Open Thermocouple Indication:** "HELP" displayed.

**Custom Inputs Available:** Consult Engineering

**Scan Rate:** Fixed—2 channels per second

**Channel Interval:** Programmable from 1 to 999 seconds

**Reliability/Accuracy:**

**Calibration:**

NIST traceable (temperature)

**Resolution:** 1°C or F

**Thermistor:** 0.1°C/0.2°F

**Process:** 9999, 999.9, 99.99, 9.999

**Selectable Temperature Units:** Celsius or Fahrenheit

**Analog-to-Digital Conversion:** 20,000 count A/D converter; dual-slope integrating converter

**Conversion Rate:**

7 conversions per second (typical)

**Display:** Red 7-segment LED display, 7 digits, 20 mm (0.8") high; negative polarity indication

**Over-Range Indication:** "HELP"

**Display Test:** Briefly indicates 8.8.8.8.8.8.8 on power-up

**Elapsed Time:** Displayed in hours, minutes and seconds

**Format:** HH.MM.SS

**Power Options:**

120 Vac—60 Hz (standard)

220 Vac—50/60 Hz (optional)

8 to 15 Vdc @ 900 mA (optional)

**Relay/Open-Collector**

**Output (Optional):**

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

**Open Collector Output:**

50 mA max (internal 5 Vdc source)

**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)



OMEGACARE<sup>SM</sup> extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARE<sup>SM</sup> covers parts, labor and equivalent loaners.

Type	Range	Accuracy
J	-200 to 1190°C (-328 to 2174°F)	±1°C ±1 cnt (±2°F ±1 cnt)
K	-170 to 1365°C (-274 to 2489°F)	±1°C ±1 cnt (±2°F ±1 cnt)
T	-155 to 400°C (-247 to 752°F)	±1°C ±1 cnt (±2°F ±1 cnt)
E	-185 to 915°C (-300 to 1675°F)	±1°C ±1 cnt (±2°F ±1 cnt)
R	0 to 1600°C (32 to 2900°F)	±3°C ±1 cnt (±6°F ±1 cnt)
S	0 to 1600°C (32 to 2900°F)	±3°C ±1 cnt (±6°F ±1 cnt)
B	470 to 1800°C (900 to 3300°F)	±3°C ±1 cnt (±6°F ±1 cnt)
RTD-385 (2-Wire)	-200 to 800°C (-328 to 1472°F)	±1°C ±1 cnt (±2°F ±1 cnt)
RTD-392 (2-Wire)	-100 to 450°C (-148 to 842°F)	±1°C ±1 cnt (±2°F ±1 cnt)
Thermistor	-8 to 100°C (17 to 212°F)	±0.5°C ±1 cnt (±1°F ±1 cnt)
Current	1 to 30,000 counts	0.05% ±1 cnt
Millivolt	1 to 30,000 counts	0.05% ±1 cnt
Voltage	1 to 30,000 counts	0.05% ±1 cnt

## To Order

Model No.	Description
DPS3304-(* )	Dedicated input 4-zone scanner
DPS3307-(* )	Dedicated input 7-zone scanner
DPS3314-(* )	Programmable input 4-zone scanner
DPS3317-(* )	Programmable input 7-zone scanner

*Note:* Select input code from table below.

## Input Codes

Input Code*	Programmable Inputs	Dedicated Inputs
TC	J, K, T, E, 4 to 20 mA, 0 to 10 Vdc	J, K, T, E
RTD	RTD, 4 to 20 mA, 0 to 10 Vdc	RTD
TH	Thermistor, 4 to 20 mA, 0 to 10 Vdc	Thermistor
R	R T/C, 4 to 20 mA, 0 to 10 Vdc	R thermocouple
S	S T/C, 4 to 20 mA, 0 to 10 Vdc	S thermocouple
B	B T/C, 4 to 20 mA, 0 to 10 Vdc	B thermocouple
MV	—	0 to 100 mV
P	100 mV, 4 to 20 mA, 0 to 10 Vdc	—
V	—	0 to 10 Vdc
C	—	4 to 20 mA

\*Select one input code.

## Power Options

Ordering Suffix	Description
-1	240 Vac
-2	8 to 15 Vdc

## Output Options

Ordering Suffix	Description
-3	7 relay outputs (7-channel units)
-4	7 open-collector outputs (7-channel units)
-5	4 relay outputs (4-channel units)
-6	4 open-collector outputs (4-channel units)

## Accessories

Model No.	Description
RELAY-URM-400	Universal 15 A mechanical 4-relay module
RELAY-URM-800	Universal 15 A mechanical 8-relay module

Comes with watertight connectors (2) and complete operator's manual.

**Ordering Example:** DPS3304-TC-1-5, dedicated input 7-zone scanner, thermocouple input, 240 Vac, with 4 relay outputs.