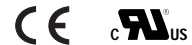


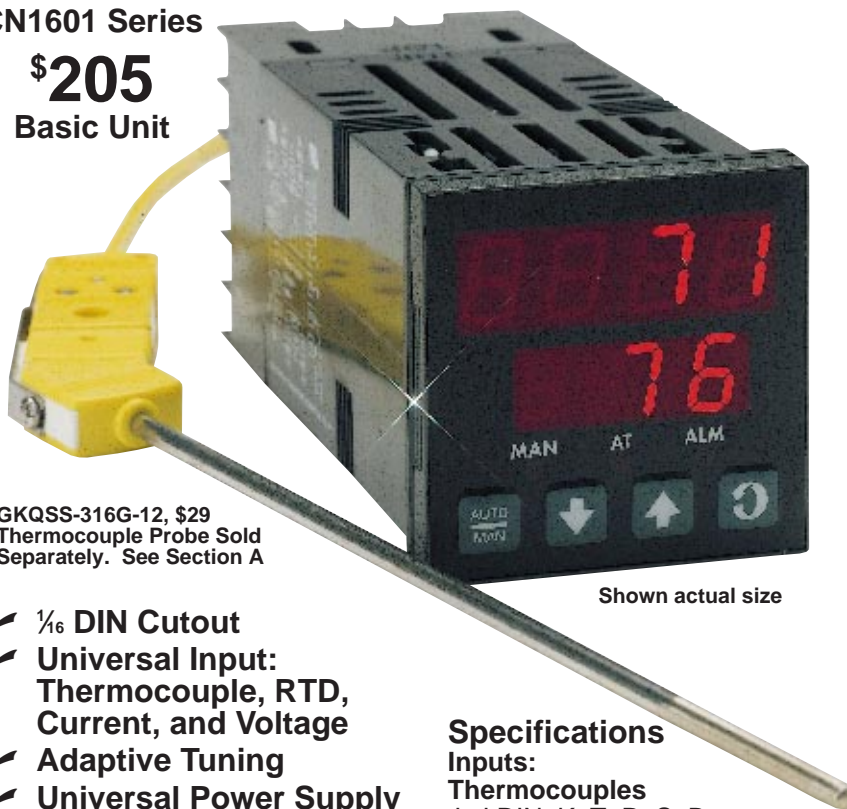
Temperature/ Process Controller Adaptive Tune



CN1601 Series

\$205

Basic Unit



GKQSS-316G-12, \$29
Thermocouple Probe Sold Separately. See Section A

Shown actual size

- ✓ 1/6 DIN Cutout
- ✓ Universal Input: Thermocouple, RTD, Current, and Voltage
- ✓ Adaptive Tuning
- ✓ Universal Power Supply & Optional Low Voltage
- ✓ Keypad Security
- ✓ Field Interchangeable Plug-In Output Modules
- ✓ NEMA-4X (IP65) Front Panel Standard
- ✓ Ramp to Setpoint
- ✓ Optional RS-485 Communications

The CN1600 Series features adaptive tune/autotune for optimal control. These modes provide more accurate and hands-free tuning of your process, saving time and achieving better control. Adaptive tune provides a continuous automatic response to changes in the load, changes in setpoint, and changes in the final control device.

Specifications

Inputs:

Thermocouples

J, J DIN, K, T, R, S, B

RTD:

Pt100, alpha = 0.00385, 3-wire

Process:

0-50 mV, 0-10 V, 4-20 mA, 0-20 mA, 10-50 mV, 1-5 V, 2-10 V

Accuracy: ±0.25% of span ±1 LSD

Input Sampling Cycle Time:

4 samples per second

Isolation: 240 Vac isolation from all outputs except dc Pulse

Outputs

Mechanical Relay:

SPDT 2 A @ 120/240 Vac

DC Pulse:

4.3 Vdc; 250 Ω min load required

Current: 0-20 mA, 4-20 mA; 500 Ω maximum load

Voltage: 0-5 Vdc, 0-10 Vdc;

500 Ω minimum load

Control Characteristics

Alarms: Process high/low, deviation high/low, band, open loop and two alarm combination

Proportional Band: 0.5 to 999.9% of input span in 0.1% increments

Reset: 1 to 99 min 59 sec and Off

Rate: 0 sec to 99 min

59 sec and Off

Cycle Time:

1/2 to 512 sec in binary steps

On/Off Deadband:

0.1 to 10.0% of input span

Serial Communications:

RS-485, 2-wire, isolated

General

Power:

90 to 264 Vac, 50/60 Hz; 4W

Display:

Dual Red LED, 4-digit Four 7-segment; 0.39" (9.9 mm) high process value, 0.28" (7.1 mm) high setpoint value.

Isolation: 240 V input/output

Weight: 8 oz (0.23 kg)

Panel Cutout:

1/6 DIN, 45 mm (1.77") square

Dimensions: 48 mm (1.89") square, 110 mm (4.33") depth

Operating Ambient Range:

0 to 55°C (32 to 130° F)

Output Types

| Output No. 2 | Add'l Cost | Output No. 3 | Add'l Cost | Output Description |
|--------------|------------|--------------|------------|--------------------|
| -R2 | \$26 | -R3 | \$26 | 2A Relay |
| -DC2 | 26 | -DC3 | 26 | dc Pulse |
| -F2 | 47 | -F3* | 47 | Analog |

*Note: F1 and F2 are control outputs. F3 is for retransmission output only.

Additional Options

| Ordering Suffix | Add'l Price | Description |
|-----------------|-------------|--|
| -C4 | \$62 | RS-485 Comm. |
| -LV | 15 | Low voltage power: 25-50 Vac/22-65 Vdc |

To Order (Specify Model Number)

| Model Number | Price | Description |
|--------------|-------|---------------------------|
| CN1601-R1 | \$205 | Single 2 amp relay output |
| CN1601-DC1 | 205 | Single dc pulse output |
| CN1601-F1 | 235 | Single analog output |

Ordering Example: CN1601-R1-R2-F3-C4, 1/6 DIN adaptive tune controller with dual relay output, retransmission output and RS-485 communications option, \$205 + 26 + 47 + 62 = \$340. OMEGACARESM extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OCW-1 OMEGACARESM extends standard 3-year warranty to a total of 4 years (\$34), \$340 + 34 = \$374.

Field Installable Plug-in Boards

| Model No. | Price | Description |
|-----------|-------|-------------|
| BD1600-R | \$26 | 2 A Relay |
| BD1600-DC | 26 | dc Pulse |
| BD1600-F | 47 | Analog |

Note: Options above are for Outputs 2 and 3 only

| | | |
|-----------|------|--------------|
| BD1600-C4 | \$62 | RS-485 Comm. |
|-----------|------|--------------|



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• Flow and Level

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• 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