

1/16 DIN High/Low Limit Controller

CN3271 Series



- ✓ High-Limit, Low-Limit or High and Low Limits
- ✓ Peak Temperature Detection
- ✓ Universal Sensor Inputs
- ✓ NEMA 4X (IP65) Splashproof Faceplate
- ✓ Coded Security Levels
- ✓ Alarm Inhibit on Power-Up and Setpoint Change
- ✓ Remote Reset Option

The CN3271 Series high-/low-limit controllers are designed to provide reliable protection of processes, process equipment and personnel. These are UL listed overtemperature (or undertemperature) controllers, and are FM approved as limit controllers. Universal sensor inputs allow the CN3271 Series used in temperature, pressure and other processes. Versatile, easy-to-install and simple to operate, the CN3271 Series provides all of the limit control functions and features of larger and more costly controllers in a space-efficient, 1/16 DIN package. With a NEMA 4X (IP65) rated faceplate, the controller is an excellent choice for washdown environments such as food processing plants.

The CN3271 Series offers sophisticated LED displays of process information such as shutdown duration in hours and minutes, and maximum or minimum process values measured during a shutdown. Temperature input is field programmable for °C or °F. Process input decimal points and range are programmable from -1999 to 9999.

Additional Features Include

- ✓ Power-Up Programming Options—Select from powering up in power down condition, always in alarm or in the condition at power-up.
- ✓ Limit Acknowledge—Can acknowledge even though you're still in alarm condition (output does not reset until condition cleared), or reset when not in alarm condition.
- ✓ Alarm Output 2 with "Silence" Option—Used for horn outputs. Output 2 can be reset before the condition resets.

Specifications

Accuracy: ±0.2% FS
Output #1 Relay: SPDT contact, 250 Vac (resistive) limit output, normally energized (latching high, low or high and low)

Output #2 Relay: NO, SPST contact, 2 A @ 250 Vac (resistive) normally energized, de-energized, inhibit on power setpoint changes, latching/resettable (field selectable: process, digital input)

Digital Input Option: Dry contact input, for remote acknowledgement; RS485, MODBUS® communications included with "DI" option

Power: 100 to 240 Vac, 50 to 60 Hz (24 Vac/dc optional) ±10% nominal value; consumption, 8 VA

Operating Environment: 0 to 50°C (30 to 122°F) 20 to 85% relative humidity non-condensing

Panel Cutout: 45 mm² (1.77 in²)

Dimensions: 48 mm² (1.9 in²)

Depth Behind Panel: 105 mm (4.33")



CN3271-R1 shown actual size.

or 122 mm (4.8") with digital input option
Weight: 250 g (8.75 oz)

Panel punches available, visit omega.com/panelpunches

Input		
Thermocouple	J	-100 to 1000°C (-150 to 1830°F)
	K	-100 to 1370°C (-150 to 2500°F)
	E	-100 to 800°C (-150 to 1470°F)
	T	-200 to 400°C (-330 to 750°F)
	N	-100 to 1400°C (-150 to 2550°F)
	R/S	-50 to 1760°C (-60 to 3200°F)
	B	0 to 1820°C (32 to 3300°F)
	L (J DIN)	-100 to 900°C (-150 to 1650°F)
	U (T DIN)	-200 to 600°C (-330 to 1110°F)
	PL II	-100 to 1400°C (-150 to 2550°F)
C/D/G	0 to 2300°C (32 to 4170°F)	
RTD, 3-Wire, 100 Ω, α = 0.00385		-200 to 850°C (-330 to 1560°F)
Process (DC)		0 to 20 or 4 to 20 mA, 0 to 60 or 12 to 60 mV, 0 to 5, 1 to 5, 0 to 10, or 2 to 10 Vdc

To Order Visit omega.com/cn3271 for Pricing and Details

Model No.	Description
CN3271-R1	Limit controller, 1/16 DIN, single relay
CN3271-R1-R2	Limit controller, 1/16 DIN, dual relays
CN3271-R1-R2-DI	Limit controller, dual relays, digital reset input
CN3271-R1-LV	Limit controller, single relay, low voltage power
CN3271-R1-R2-LV	Limit controller, dual relays, low voltage power
CN3271-R1-R2-DI-LV	Limit controller, dual relays, DI reset, low power
CNQUENCHARC	Noise suppression RC snubber (2 leads), 110 to 230 Vac

Comes complete with operator's manual.

Ordering Examples: CN3271-R1-R2-DI, limit controller with dual relays and digital reset input. CN3271-R1, limit controller with single relay. OCV-2, OMEGACARESM extends standard 3-year warranty to a total of 5 years.