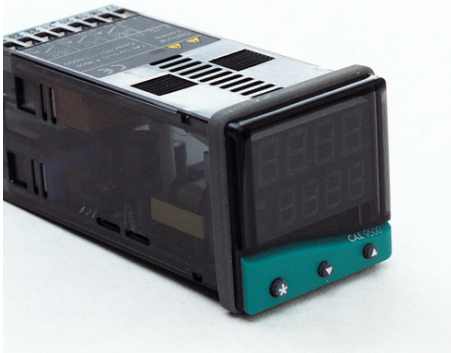# CAL 9500

The NEW Dual Display
CAL 9500
Temperature Controller
With 4-20 mA Retransmission

Dual-display 1/16 DIN Autotune Temperature Controller with Windows™ based Charting and logging

Introducing the most versatile CAL controller of them all, featuring permanent displays of both process and setpoint temperature, together with triple outputs inviting a choice from different combinations of 4-20 mA, relay and SSR driver devices.

In addition, the CALCOMMS™ software package is designed for PC supervision of up to 32 Model 9500 controllers. It is affordable, easy to use and is an ideal way of providing temperature records for management requirements.
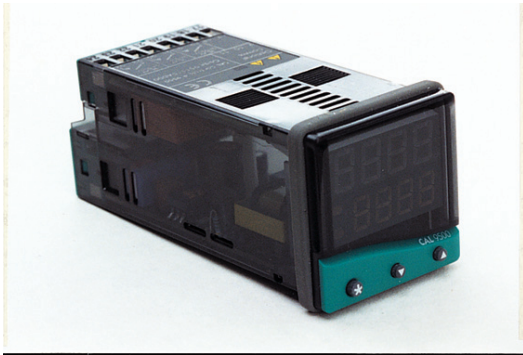
CAL 9500

- Dual four digit display
- Full PID Autotune
- Ramp / Soak
- 5 Alarm configurations
- PID Heat-Cool
- Sleeve mounting
- 3 year warranty

CALCOMMS™

- Windows™ based logging and charting software
- Instrument configuration and remote setpoint adjustments
- Recipe / profile save and recall
- Instrument cloning
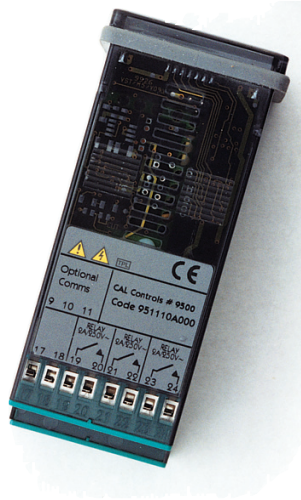- Selectable scan rate
- Alarms

CAL 9500

FRONT

SIDE VIEW

BACK

SPECIFICATIONS

Thermocouples

9 types	B,E,J,K,L,N,R,S,T
Standards:	IPTS68/DIN 43710
External resistance	100 Ω Maximum
CJC rejection	20:1 (0.05° / °C) typical

Resistance temperature detectors (RTD)

RTD-2/Pt 100 2 wire

Standards:	DIN 43760 (100Ω 0°C/138.5Ω 100°C Pt)
Bulb current:	0.2mA maximum

Linear process inputs

mV range:	0 to 50mV (0to 20mV, 4 to 20mV)

Applicable to all inputs SM = sensor maximum

Calibration accuracy	±0.25% SM ± 1°C
Sampling frequency:	input 10Hz, CJC 2 sec.
Common mode rejection:	Negligible effect up to 140dB, 240V, 50-60Hz
Series mode rejection:	60dB, 50-60Hz
Temperature coefficient:	150ppm/°C SM
Reference conditions:	22°C±2°C, rated voltage after 15 minutes setting time

Output devices

SSd/SSd1/SSd2:	solid state relay driver: To switch a remote SSR 5Vdc +0/-15% 15mA non-isolated
Miniature power relay:	form A/SPST contacts (AgCdO)
r-LY and rLY1:	2A/250ac resistive load
r-LY2:	1A/250ac resistive load

General

Displays:	Upper, 4 Digits high brightness green LED. 10mm (0.4") high. Lower, 4 Digits high brightness orange LED. 9mm (0.35") high Digital range - 199 to 9999 Hi-res mode - 199.9 to 999.9
	LED output indicators - flashing SP1 square-green; SP2 round-red
Keypad:	3 full travel elastomeric push buttons

Environmental

Humidity:	Max 80%
Altitude:	up tp 2000m
Installation:	Categories II and III
Pollution:	Degree II
Protection:	NEMA 4X, IP66
EMC emission:	EN50081-1 FCC Rules 15 subpart J Class A
EMC immunity:	EN50082-2
Ambient:	0-50°C (32-130°F)
Mouldings:	Flame retardant polycarbonate

Mechanical:	Front facia 51.0 x 51.0mm (includes gasket) Sleeve length 106.7mm (with gasket fitted) Instrument 44.8 x 44.8mm (1/16th DIN) Overall length 116.2mm
Weight:	130g (4.2oz)

SECTION 8