SERIES: SCL90

➤ **UNIVERSAL INPUT WITH AUTO-TUNING**
➤ **TWO 4-DIGIT INDICATIONS**
➤ **VARIOUS CONTROL ALGORITHMS**
➤ **RELAY, SSR, OPEN COLLECTOR OR SCR OUTPUT**
➤ **ANALOG CONTROL OR RETRANSMISSION OUTPUT**
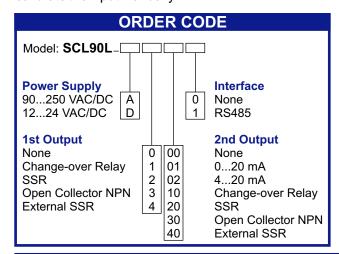➤ **AUTOMATIC COLD JUNC. & RESIS. COMPENSATION**

INTRODUCTION

The *SCL90* Temperature/Process Controller is a microprocessor-based instrument designed to control temperature or other physical quantities converted into a 4-20 mA or millivolt signals, such as: pressure, level, etc. The controller displays the measured value and the setpoint on its two bright, 4-digit LED indicators.

The controller may have either two relay outputs (see the options) with adjustable hysteresis or one relay and one analogue outputs. The analogue output can be used as control signal or as the input retransmission.

The user may select various control algorithms (see the spec.), while the PID auto-tuning functions ensure an optimal control quality. The *SCL90* enables the operator to work in manual or automatic mode, and the optional RS485 interface enables networking.

The *SCL90* controller has built-in automatic software compensation for line resistance, cold junction temperature and temperature drift. The operator may calibrate the input manually.

SPECIFICATIONS

Input Type	Range
Pt100 (w=1.385), 3-wire	-100...600°C
Pt100 (w=1.391), 3-wire	-100...600°C
Cu100 (w=1.426), 3-wire	-50...200°C
Cu100 (w=1.428), 3-wire	-50...200°C
"J" thermocouple	0...1000°C
"K" thermocouple	0...1300°C
"S" thermocouple	0...1700°C
"R" thermocouple	0...1700°C
"B" thermocouple	100...1800°C
"C" thermocouple	0...2300°C
"L-GOST" thermocouple	0...600°C
0...50 mV	-1999...9999 display
0...20 mA	-1999...9999 display
4...20 mA[1]	-1999...9999 display

[1] Provides supply voltage for external 2-wire transmitter 12/24 VDC.

Relay Output	5A @ 250V, NO/NC contact
Solid state Relay	SSR - 1A @ 250 V
Transistor Gate	40 mA @ 40 V, open collector
External SSR Output	12(24)V / 50 mA
Operation Mode	Automatic or manual
Control Algorithm	ON/OFF, PID analogue, PID pulse, PID for motor valves
Tuning	Auto-tuning / manual tuning
Control Feature	BUMPLESS and ANTI-WINDUP
Analogue Output (op.)	4(0) to 20 mA, isolated
Accuracy	0.3% of the span
Temperature Drift	Negligible
Self-calibration	Automatic software
Cold Junc. Comp.	Automatic software
RTD Line Comp.	Automatic software
Display	Two 4-digit, PV: 20 mm high (red), SV: 14 mm high (green)
LEDs	One for each relay
Power Supply	90...250 VAC/VDC, 12...24 VAC/DC (option)
Power Consumption	<3 W
Serial Interface (option)	RS485 Isolated
Ambient Conditions	-10...65°C
Enviorn. Protection	IP54 on front panel
Case Material	Hard plastic
Case Dimensions	96 x 96 x 125 mm (H x W X D)
Cut-out Dimensions	93 X 93 mm
Weight	250 g (0.55 lb) approximately

ORDER CODE

Model: **SCL90L** _ ☐ ☐ ☐ ☐

Power Supply
90...250 VAC/DC	A
12...24 VAC/DC	D

Interface
None	0
RS485	1

1st Output
None	0
Change-over Relay	1
SSR	2
Open Collector NPN	3
External SSR	4

2nd Output
None	00
0...20 mA	01
4...20 mA	02
Change-over Relay	10
SSR	20
Open Collector NPN	30
External SSR	40