Oven Control Device

Configuration Via Computer

OC991

ONE THERMOCOUPLE INPUT

OC991 devices are 96 x 96 mm in size. They are oven control devices that control temperature with a single thermocouple or resistance thermometer and are used for time-dependent processes.

They can perform temperature control with on / off control, have automatic / manual steam release feature, can alarm at the end of time, they are fully modular and each module can be configured as self-contained devices.

Thanks to its universal supply source, it can be used with 100-240VAC / DC or 24V supply source.

Device Features

2 pcs 4 Digit Numeric Display
6 pcs LED Indicator
1 pcs Sensor Input (B,E,J,K,L,N,R,S,T,U,RT)
2 pcs Analog Output (0/4-20mA.0/2-10V)
1 pcs RS485 Communication Unit
4 pcs Relay or Logic Output (24VDC)
100-240V AC/DC Universal or 24V AC/DC Supply
Isolation Between Input/Output Modules

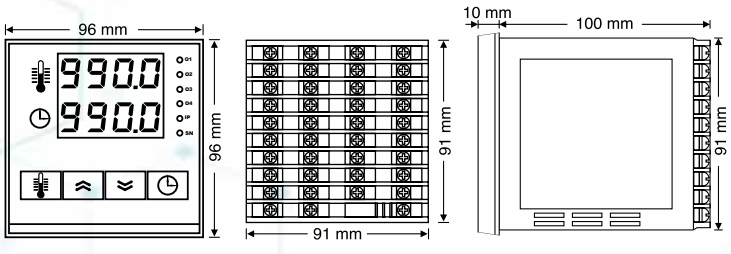
Temperature Control Output (ON/OFF or PID CONTROL)
Independent Set Temperature and Time
Oven Time Can be Adjusted Between 0...9999 or 0,0...999,9
Time can be set between 0...999 (in sec., min., or hours)
Alarm Control Can be Adjusted Continuous or Time Dependent
Automatic/Manual Steaming
Steam Time Can be Adjusted Between 1...9999 sec
Temperature Scroll
Sensor Error Detection
Retransmission (For Process and Set Value)
15Vdc Logic Inputs
Optional Special Software for Logic Inputs
(Example: Start/Stop or Steaming Depending on the Door Switch)

NOTE: Customer-specific programmatic requests can be made regarding the operation of the device.

Input Types

Sensor Type	Standard	Min.	Max.
Type-T (Cu-Const)	IEC60584	-200 °C	300 °C
Type-U (Cu-Const)	IEC60584	-200 °C	600 °C
Type-J (Fe-Const)	IEC60584	-200 °C	800 °C
Type-L (Fe-Const)	IEC60584	-200 °C	900 °C
Type-K (NiCr-Ni)	IEC60584	-200 °C	1200 °C
Type-E (Cr-Const)	IEC60584	-200 °C	1200 °C
Type-N (Nicrosil-Nisil)	IEC60584	0 °C	1200 °C
Type-S (Pt%10Rh-Pt)	IEC60584	0 °C	1500 °C
Type-R (Pt%13Rh-Pt)	IEC60584	0 °C	1600 °C
Type-B (Pt%18Rh-Pt)	IEC60584	0 °C	1800 °C
Pt-100	DIN 43760	-200 °C	850 °C

Device Dimensions

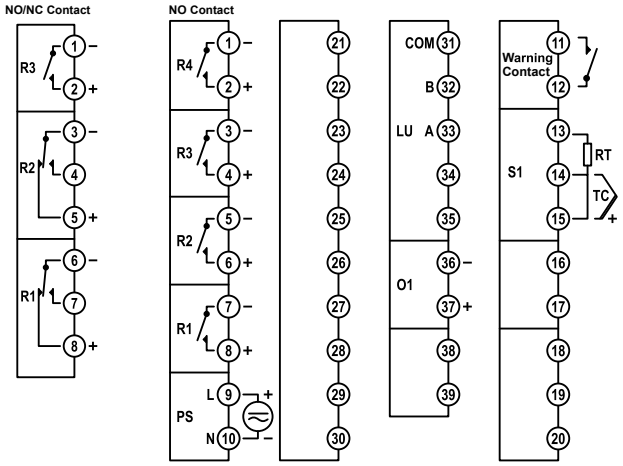


Panel Cutting Dimensions = 92 ± 0,5 mm x 92 ± 0,5 mm

Technical Specifications

Power Supply (PS)	100-240 Vac/dc +10%-15% 24 Vac/dc +10%-20%
Power Consumption	4W, 6VA
Universal Sensor Input (S1)	Thermocouple = B ,E, J, K, L, N, R, S, T, U Resistance Thermometer = Pt-100
Analog Input Impedance	Thermocouple, mV = 10MΩ
Analog Output (O1)	Current = 0/4-20mA 20-4/0mA(RL≥500Ω) Voltage = 0/2-10V (RL≥1MΩ)
Relay Output (R1,R2,R3,R4)	Contact = 250VAC 10A Logic Output = 24Vdc 20mA
Contact Lifetime	No Load = 10.000.000 Switching 250V,10A Resistive Load = 1.000.000 Switching
Memory	100 Years, 100.000 Renewals
Accuracy	+/- 0,2%
Sampling Time	100 ms
Environment Temperature	Working = -10...+55°C Storage = -20...+65°C
Protection Class	Front Panel = IP54 Trunk = IP20
Dimensions	Width = 96 mm Height = 96 mm Depth = 110 mm
Panel Cutting Dimensions	91 +/- 0,5 mm x 91 +/- 0,5 mm
Weight	430 gr

Modular Structure and Connection Diagram



Product Code

OC991 - ___ / ___ / ___ ___ ___

Power Supply : (PS)
0 = 100-240Vac (Universal)
1 = 24Vac/dc

Communication Module : (LU)
0 = N/A
1 = 2 Pcs 15V Logic Input
3 = RS485 (MODBUS) Communication Module

Analog Output Module : (O1-O2)
0 = N/A
1 = 0/4-20mA Current Output
2 = 0/2-10Vdc Voltage Output

R1,R2 Output Modules : (R1-R2)
0 = N/A
1 = NO Contact
2 = 24V Logic Output (to drive SSR)
3 = NO/NC Contact

R3,R4 Output Modules : (R3-R4)
0 = N/A
1 = NO Contact
2 = 24V Logic Output (to drive SSR)

Note : If R1 relay is coded as 3 (NO / NC), and relay R2 is selected as contact, it must be coded as NO / NC.
If the R2 relay is coded as 3 (NO / NC), and the R1 relay is selected as a contact, it must be coded as NO / NC.
If R1, R2 module is selected as 3, then R4 module must be coded as 0.