

3101 1/4 DIN High/Low Limit Controller



- One High/Low Limit Control Output
- Two Independent Alarm Outputs
- Analog Process Output for Retransmit of Process Variable
- Peak Temperature Display
- Universal Sensor Inputs
- NEMA 4X Front Panel
- Switching Power Supply 100-240 Vac or 12-24 Vac/Vdc
- Digital Communications with ChromaSoft™ Compatibility



Description

The 3101 is a compact, fully programmable high or low limit controller. It is a UL Listed Overtemperature (or Undertemperature) controller, and FM approved as a limit controller. With user programmable inputs, outputs and high/low limit features, it is flexible to most any limit control application, and can be easily reconfigured as needed.

Features

- Control Limit Output can be programmed for high or low limit control (overtemperature or undertemperature).
- Two Independent Alarm Outputs, Form C Relays, can be used to warn of impending out-of-limit process conditions, providing protection for equipment and personnel.
- Universal Sensor Input accepts thermocouple, RTD or analog signals.
- 24 Vdc Output for loop power.
- Digital Input available for remote alarm reset.
- Analog Process Output option for retransmission of process variable to a remote recorder, computer or other device.
- Isolated Serial Digital Communications (RS-232/422/485) can be used to address from 1 up to 255 Chromalox controllers.
- Security Code Protection prevents unauthorized access to programmable control parameter.
- Operating Ambient up to 150°F.
- Three Year Warranty.

Peak Temperature Display



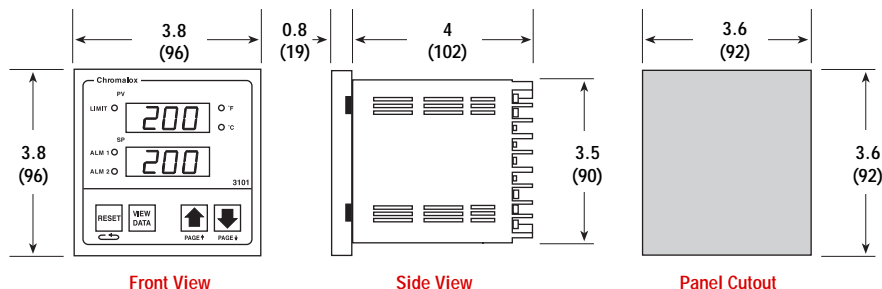
The 3101 records and displays the peak process temperature.

Over Setpoint Timer Display



The 3101 is equipped with a timer to record the total process time over setpoint.

Dimensions



All Dimensions in Inches (mm)

Chromalox®

3101

1/4 DIN High/Low Limit Controller *(cont'd.)*

Specifications

Limit Output Automatic	Normally-energized latching relay; relay de-energizes at limit setpoint. Form C contacts, 5 Amps at 120/230 Vac	
Limit Control Adjustments	High/Low Limit Setpoint Sensor Range Setpoint Limit Sensor Range Deadband 0-100°F Display Offset -100 to +100°F	
Alarm Outputs (2) Relay	Form C contacts, 5 Amps at 120/230 Vac (resistive)	
Sensor Input	Field selectable Thermocouple, RTD, Current or Voltage	
Digital Input	Accepts dry-contact closure	
Input Specifications	Range °F	Range °C
J TC	-100 to +1400	-73 to +760
K TC	-300 to +2400	-184 to +1316
T TC	-350 to +750	-212 to +399
E TC	-100 to +1100	-73 to +593
R TC	0-3200	-18 to +1760
S TC	0-3200	-18 to +1760
B TC	50-3300	10 to +1816
100Ω Pt RTD (a = .00385)	-200 to +1000	-128 to +538
4-20mA	-500 to +5000 (programmable)	
0-5 Vdc	-500 to +5000 (programmable)	
1-5 Vdc	-500 to +5000 (programmable)	
Transmitter Power +24 Vdc Output	+24 Vdc ± 20% at 50 mA maximum	
Digital Communications (Optional)	RS-232 Single-drop, isolated RS-422/485 Multi-drop, isolated, field selectable by switch	
Instrument Power	100-240 Vac, +10%, -15%; 50-60 Hz; 15 VA 12-24 Vac/Vdc, ± 20% (optional); 15 VA	
Operating Environment	32-150°F (0-65°C) ambient temperature, relative humidity less than 95%, non-condensing	

Ordering Information

Complete the Model Number using the Matrix provided.

Model	High/Low Limit Controller
3101	Microprocessor-Based 1/4 DIN Programmable High/Low Limit Controller. Universal Sensor Input accepts Thermocouple, RTD, Current or Voltage Inputs, One Digital Input and One Alarm Output.
Code	Limit Output #1
1	Relay—Form C Contact, 5A @ 120 or 230 Vac
Code	Alarm #1 Output
1	Relay—Form C Contact, 5A @ 120 or 230 Vac
Code	Analog Process Output Option
0	None
1	Field selectable 4-20 mA or 1-5 Vdc
Code	Digital Comm. and Alarm #2 Options
0	None
1	RS-422/485 Digital Communications and Alarm #2 Relay - Form C Contact, 5A @ 120 or 230 Vac
2	RS-232 Digital Communications and Alarm #2 Relay - Form C Contact, 5A @ 120 or 230 Vac
Code	Power Supply
0	100-240 Vac
1	12-24 Vac or Vdc
3101 - 1 1 1 2 0	Typical Model Number

Single Channel
Controllers