

# Platinum™

**S E R I E S**

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## Limit Controller

1/32 DIN - 48 x 24 mm

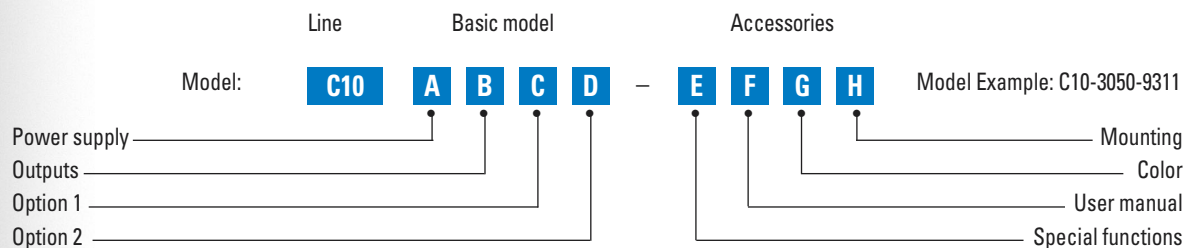
Platinum™ series C10 line



### Safety and Reliability in a Small Package

The C10 Platinum Limit Controller is a micro-processor based controller used to safely limit temperatures in thermal applications where a runaway condition may compromise operator safety, equipment, or product. The C10 Limit Controller provides this protection cost effectively and with minimum panel space while providing standard features of IP65 front panel protection and Factory Mutual (FM) approval. Options include communications, DIN rail-mounting, and two front panel colors.

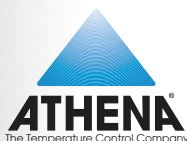
### Ordering Codes



Power supply		<b>A</b>
100-240V~ (-15% +10%)		3
24V~ (-25% +12%) or 24V- (-15% +25%)		5
OP1 output	OP2 output	<b>B</b>
Relay	Logic	0
Option 1	Option 2	<b>C</b>   <b>D</b>
None	None	0   0
RS485 Modbus/JBus	None	5   0
Special Functions		<b>E</b>
Limit Model - FM approval		9
User manual		<b>F</b>
English		3
Front bezel Color	0/4-20 mA Input Shunt Resistor*	<b>G</b>
Dark Grey(std)	Standard Resistor	0
Beige	Standard Resistor	1
Dark Grey	High Accuracy Resistor	2
Beige	High Accuracy Resistor	3
Mounting		<b>H</b>
Panel (std)		0
DIN Rail with display		1

Input type	Range scale	
RTD Pt100 IEC751	-99.9...300.0 °C	-99.9...572.0 °F
RTD Pt100 IEC751	-200...600 °C	-328...1112 °F
TC L Fe-Const DIN43710	0...600 °C	32...1112 °F
TC J Fe-Cu45% Ni IEC584	0...600 °C	32...1112 °F
TC T Cu-CuNi	-200...400 °C	-328...752 °F
TC K Chromel -Alumel IEC584	0...1200 °C	32...2192 °F
TC S Pt10%Rh-Pt IEC584	0...1600 °C	32...2912 °F
0...50mV linear (0...20mA)	Engineering units	
10...50mV linear (4...20mA)	Engineering units	
Custom input	By request	
<b>Operator mode display</b>		
Input Variable		
AL1 Threshold		
AL2 Threshold		
Alarm 1 Power-On Condition	AL 1 Function	
Automatic Reset	High Limit	
Manual Reset	Low Limit	
Status Retention		
AL2 type and function	AL2 Action	AL2 Reset
Disabled	Direct	Auto
Sensor break	Reverse	Manual
Absolute	active high	
	active low	
Deviation	active high	
	active low	
Band	active out	
	active in	

\*Std. Shunt Resistor without field calibration = 1.10% input accuracy  
 High Accuracy Shunt Resistor without field calibration = 0.20% input accuracy  
 Either Shunt Resistor with field calibration = 0.10% input accuracy

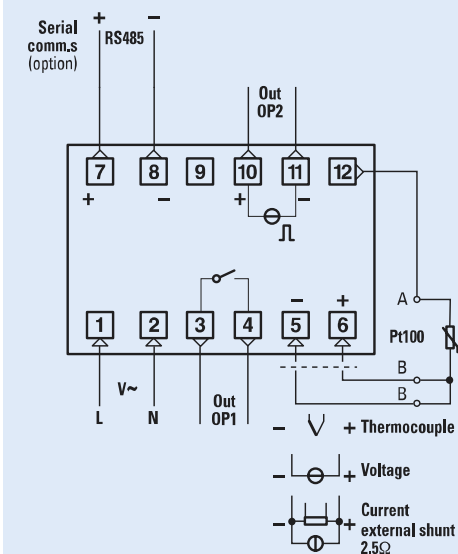


## Technical data

Features at env. 25 °C	Description			Input type	Scale range	
Total configurability	From keypad or serial communications, the user selects: - the type of input - the type and functionality of the alarms - the associated functions - the values of all the control parameters			RTD Pt100Ω at 0°C	-99.9...300.0 °C -99.9...572.0 °F -200...600 °C -328...1112 °F	
Process Variable (PV) input (for signal ranges see Table 1)	Common characteristics	A/D converter with 50.000 points Update measurement time : 0.2 sec Sampling time : 0.5 sec Input shift : ± 60 digits Input filter : 1...30 sec (OFF = 0)			T/C type L Fe-Const.	0...600 °C 32...1112 °F
	Accuracy	0.25% ± 1 digit (T/C and RTD) 0.1% ± 1 digit (mA* and mV)	Between 100 and 240V~ error is minimal		T/C type J Fe-Cu 45% Ni	0...600 °C 32...1112 °F
	Resistance thermometer (for ΔT: R1+R2 must be <320Ω)	Pt100Ω at 0°C (IEC 751) °C /°F selectable	2 or 3 wire connection	Line: 20Ω max (3 wire) Thermal drift 0.35°C/10°C env. T. <0.35°C/10Ω line resist.	T/C type T Cu - CuNi	-200...400 °C -328...752 °F
	Thermocouple	L,J,T,K,S (IEC 584) °C /°F selectable	Internal cold junction compensation	Line: 150Ω max Thermal drift <2μV/°C env. T. <5μV/Ω line resist.	T/C type K Cromel Alumel	0...1200 °C 32...2192 °F
	DC input (current)	0/4...20mA with 2.5Ω ext. Shunt Rj > 10MΩ	Engineering units, floating decimal point, Low Range -999...9999	Input drift: < 0.1%/20°C env. T.	T/C type S Pt10%Rh-Pt	0...1600 °C 32...2912 °F
	DC input (voltage)	0/10...50mV Rj > 10MΩ	High Range -999...9999 100 digits minimum		0/4...20 mA 0/10...50 mV Custom input	Configurable engineering units mA, mV, V, bar, psi, Rh, ph By request
Operating modes	Limit Controller with 1 alarm	Limit AL1 alarm OP1 - relay	AL2 alarm OP2 - Logic			
Output 1 (OP1)	SPST relay N.O., 2A/250V~ or 4A/120V~ (for resistive load)					
Output 2 (OP2)	Logic (SSR drive) not isolated: 5V~, ± 10%, 30mA max					
Alarm 1 (AL1)	Hysteresis 0.1...10.0% range					
	Active high	Absolute threshold, whole range				
Alarm 2 (AL2)	Hysteresis 0.1...10.0% range					
	Action	Active high	Action type	Deviation threshold ± range		
		Active low		Band threshold 0...range		
		Special function	Sensor break		Absolute threshold, whole range	
Ser. comms (opt.)	RS 485 isolated, Modbus/Jbus protocol 1200, 2400, 4800, 9600 bit/sec, two wires					
Operational safety	Measure input	Detection of out of range, short circuit or sensor break with automatic activation of the safety strategies and alerts on display				
	Parameters	A non volatile memory stores for unlimited time all the parameter and configuration values				
	Password	A password protects the access to the instrument configuration				
	Power supply	100-240V~ (-15% +10%) 50/60Hz or 24V~(-25% +12%), 50/60Hz and 24V~ (-15% +25%). Power consumption 1.6W max				
General characteristics	Safety	Compliance EN61010-1 (IEC 1010-1), installation class 2 (2500V), pollution class 2, class II instrument				
	Electromagnetic compatibility	Compliance to the CE standards for industrial system and equipment				
	Protection EN60529 (IEC 529)	IP65 front panel				
	Overall dimensions	1/32 DIN - 48 x 24, depth 120 mm, weight 100g appr.				
		Panel cut-out: 45 <sup>+0.6</sup> x 22.2 <sup>+0.3</sup> mm				
	Operating conditions	Temperature: 0-50 °C Relative humidity: 5-95% non-condensating				
Approvals	cULus (for regulatory use only), FM					

Table 1 : Process Variable (PV) input

### Electrical wirings



\*Requires field calibration for 0.1% accuracy