

# 4700

## 1/4 DIN Limit Alarm Unit



The 4700 is a safety cut-out, with optional annunciators and alarms. A latched relay cuts process power if safe values are exceeded. A reset is required before continuing.

- High or low trip
- 5 amp latched relay
- Remote reset option
- 2 Annunciators or alarms
- Exceed & relay indicators
- Configuration via PC
- RS485 comms
- PV retransmit option



### Technical Data

#### Features

Output Configuration	Up to 3 Total. 1 latching trip relay, max 2 alarms relays, max 1 DC linear retransmit (PV or limit value)
Alarm 1 & 2 Types	Process high, process low, setpoint deviation, band, logical OR alarms or trip annunciator.
Limit Action	Latching relay output when PV exceeds set value. Selectable for high or low trip activation.
Output Reset Action	Limit output can be reset only when exceed condition is absent. Local or remote reset options.
Annunciator Reset Action	Annunciator output can be reset at any time. Local or remote reset options.
Human Interface	4 button operation, dual 4 digit 13mm & 10mm high LED displays. Exceed, output & alarm indicators
PC Configuration	Off-line configuration from serial port to dedicated config socket (comms option not required)

#### Input

Thermocouple	J, K, R, S, T, B, L, & N.
RTD	3 Wire PT100, 50Ω per lead maximum (balanced)
DC Linear	0-20/4-20mA, 0-50/10-50mV, 0-5/1-5/0-10/2-10V. Scaleable -1999 to 9999, dec point available
Impedance	>100MΩ for Thermocouple and mV ranges, 47KΩ for V ranges and 4.7Ω for mA ranges
Accuracy	+/- 0.25% of input span +/- 1 LSD (T/C CJC better than 0.7°C)
Sampling	4 per second, 14 bit resolution approximately
Sensor Break Detection	<2 secs (except zero based DC ranges), control O/P's turn off, high alarms activate for T/C and mV ranges, low alarms activate for RTD, mA or V ranges.

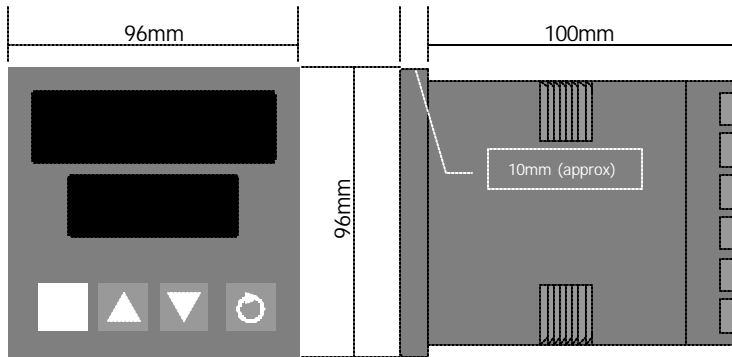
#### Outputs & Options

Limit Trip Relay	Contacts SPDT 5Amp resistive at 240V AC, >100,000 operations
Alarm Relays	Contacts SPDT 2Amp resistive at 240V AC, >500,000 operations
Retransmit Outputs	0-20/4-20mA into 500Ω max, 0-10/0-5V into 500Ω min. Accuracy typically +/- 0.25%
Communications	2 Wire RS485, 1200 to 9600 Baud, West ASCII
Remote Reset option	Allows remote latched relay and annunciator reset, using volt free or TTL input (Reset = -0.6 to 0.8V, or contact closure)

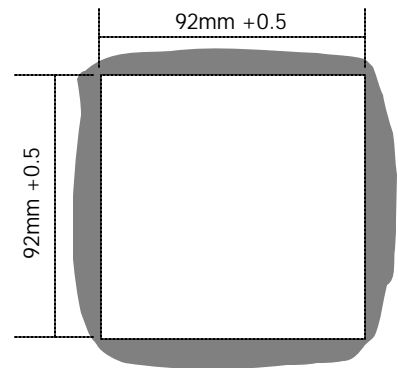
#### Operating & Environmental

Temperature & RH	0 to 55°C (-20 to 80°C storage), 20% to 95%RH non-condensing
Power Supply	100 to 240V 50/60Hz (optional 20 to 55V AC/22 to 65V DC), approx 4 Watts
Front Panel Protection	IEC IP66 (Behind panel protection is IP20)
Approvals and Certification	CE, UL & ULc

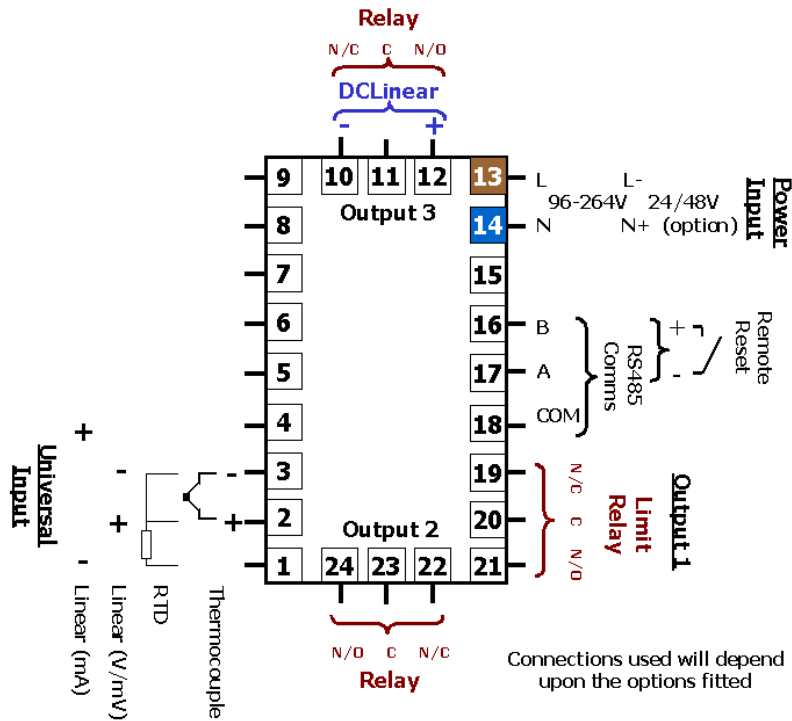
## Dimensions



## Panel Cut-out



## Connection Details



## Field Reconfiguration

### Input

Configurable to any type, no extra parts required

### Output 1

Type is fixed as Limit Relay

### Output 2

Configurable as Alarm or Annunciator, via plug-in Relay

### Output 3

Configurable as Alarm or Annunciator via plug-in Relay, or retransmit using DC Linear module

### Option Slot

Configurable as RS485 comms or Remote Reset, via plug-in modules

## Order Code

**N4700** - **x** - **1** - **x** - **x** - **xx**

### Input type

3 Wire RTD or DC mV	1
Thermocouple	2
DC mA	3
DC Voltage	4

### Output 1

Limit Relay	1
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### Output 2

Not fitted	0
Relay Alarm 2 or Annunciator	1

### Options and Power Supply

00	No Options/100-240V AC line supply
02	No Options/24-48V AC or DC line supply
10	RS485 Comms/100-240V AC line supply
12	RS485 Comms/24-48V AC or DC supply
30	Remote Reset/100-240V AC line supply
32	Remote Reset/24-48V AC or DC supply

### Output 3

0	Not fitted
1	Relay Alarm or Annunciator
3	DC 0-10V Re-Transmit PV or SP
4	DC 0-20mA Re-Transmit PV or SP
5	DC 0-5V Re-Transmit PV or SP
7	DC 4-20mA Re-Transmit PV or SP