

Raytek Product Application Notes

Product Wiring

Sensor Cable

The connection cable between sensor and electronic box is preinstalled by the manufacturer. It may be shortened but not lengthened.

Caution: Shortening the cable length:

1m causes a temp. reading error of - 0.1 Kelvin.

Do not bend the connection cable between box and sensing head tighter than 25 mm (1") dia.

Signal Outputs and Power Supply

Electronic Box

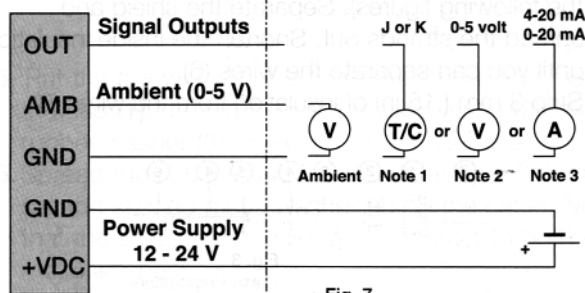


Fig. 7
Signal Outputs and Power Supply

Note 1: Output impedance is 20 ohms

Note 2: Minimum load impedance must be 100 kohms

Note 3: Maximum current loop impedance can be 500 ohm, and the power supply and loop impedance must be matched as shown on page 14:

You need to connect the power supply (12 - 24 VDC) and the signal output wires. Use only cable with outside diameter from 4 to 6 mm (.16 to .24 in), AWG 24.

Caution: The cable must include shielded wires. It should not be used as a strain relief.

Product Menu Setting

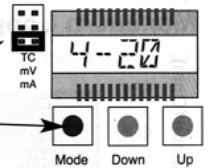
0-5V, 0/4-20mA SETTINGS

4 - 20 mA Output

Set the jumper to the mA position.

Use the Down button,

until 4-20 appears. Press Mode.



Disp.	Mode	Range (to modify: Up- and Down buttons)
C	Target Temperature*	not adjustable
A	Head Ambient Temperature	not adjustable
T	Actual Target Temperature	not adjustable (signal output settings inactive)
	Output Mode	mV mV output setting (default) TCK thermocouple type K output setting TCJ thermocouple type J output setting 4-20 4 to 20 mA current loop 0-20 0 to 20 mA current loop
E	Emissivity	0.100 ... 1.100 (default: 0.950)
T	Transmissivity	0.100 ... 1.000 (default: 1.000)
A	Signal Output Mode Average	0.100 ... 999.0 **
P	Signal Output Mode Peak Hold	0.100 ... 998.9 ** 999 = infinite (display: P ∞)
V	Signal Output Mode Valley Hold	0.100 ... 998.9 ** 999 = infinite (display: V ∞)
L	Low end of range	L = (-40 ... 600) (default: 0)
H	High end of range	H = (-40 ... 600) (default: 500)
U	Unit	°C or °F (default: °C)
M	Multidrop address***	1 -32, --- means 0 = single unit

* according to signal output mode settings
appears automatically, if longer than 10 sec within another mode setting

** not simultaneously

*** only with RS485

Temperature ranges shown: according to LT head

0 - 20 mA Output

Set the jumper to the mA position.

Use the Down button,

until 0-20 appears. Press Mode.

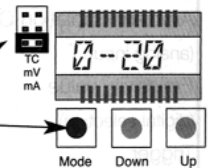


Fig. 15
Assigning 0/4-20 mA Output

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