

#### Models Available

**IR33S** 1 Relay O/P Refrigeration Controller

**IR33Y** 2 Relay O/P Refrigeration Controller

**IR33F** 3 Relay O/P Refrigeration Controller

**IR33C** 4 Relay O/P Refrigeration Controller

#### Product Features

- NTC thermistor probe inputs
- Up to 4 relay outputs
- Real time clock and HACCP function
- Infrared receiver and buzzer
- 12 to 24Vac/dc or 230Vac powered
- RS-485 serial connection
- IP65 enclosure
- Plug-in terminals
- Front panel mounting system

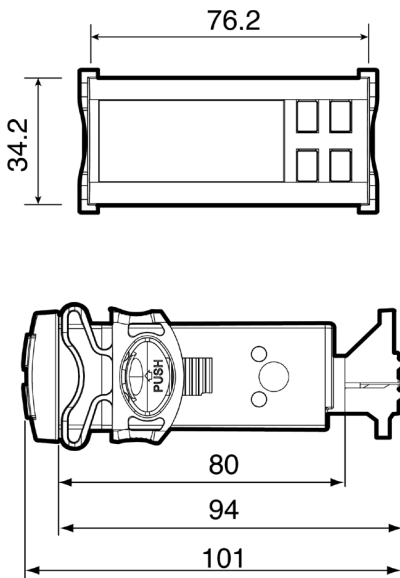
## IR33 Refrigeration Controllers

The IR33 refrigeration controllers are designed for management of refrigeration and food processing applications. The controllers have 2 NTC inputs for ambient and defrost temperatures and versions are available which have 1, 2, 3 or 4 relay outputs for control of the compressor, active defrost, evaporator ventilation fan and auxiliary output. Versions incorporating a real time clock and HACCP function are also available.

The controllers feature a simple user interface and are housed in a compact panel mounting enclosure. All versions can be connected to a network for monitoring and programming, using the optional RS-485 serial interface. The IR33 controllers are powered from 12 to 24Vac/dc or 230Vac and optional transformers are available for powering the controllers from 110Vac or 230Vac.

## For digital monitoring and control in refrigeration and food processing

#### Dimensions

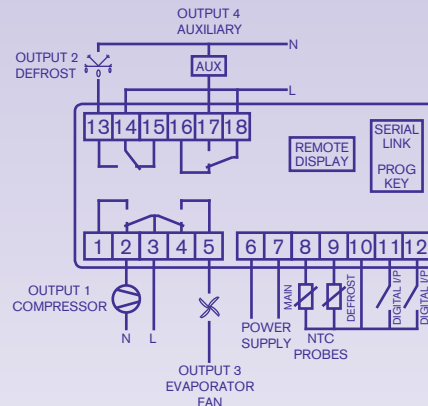


Panel cutout 71mm x 29mm (-0.0/+0.5)

Allow 95mm x 40mm clearance around controller for panel clip

All dimensions in mm

#### Connections



**Ordering information**

Model	Code	Description
	IR33S	1 Relay Output Digital Refrigeration Controller For use on static refrigeration units (i.e. with no evaporator fan)
	IR33Y	2 Relay Output Digital Refrigeration Controller For use on static refrigeration units with active defrost by heater
	IR33F	3 Relay Output Digital Refrigeration Controller For use on ventilated refrigeration units with compressor, defrost and fan control
	IR33C	4 Relay Output Digital Refrigeration Controller For use on ventilated refrigeration units with compressor, defrost and fan control with additional auxiliary output

Auxiliary Power	Code	Description
	0L	12 to 24Vac/dc (N/A for IR33F)
	0E	230Vac
	0H	115-230Vac (N/A for IR33S & IR33Y)

Features	Code	Description
	N00	Economic (RS-485 serial port only)
	R00	Standard (Infrared control and RS-485 serial port)
	B00	As above but with real time clock and HACCP

Options	Code	Description
	TRA12UNI11	110/12Vac Transformer
	TRA12UNI00	240/12Vac Transformer
	IRTRUES000	Remote control for IR33 universal
	IROPZKEY00	Programming key with battery
	IROPZKEYA0	Programming key with 230V power supply
	IROPZ485S0	RS485 serial communication interface

**Example**                    **IR33S0LR00**

**Options****Temperature Probes**

A range of NTC temperature probes is available to suit the IR33 refrigeration controllers.

**Remote Control**

The infrared remote control allows access to all the main functions and configuration parameters for easy set up of all IR33 controllers from a distance.

**Programming Key**

All IR33 controllers can be programmed quickly using the optional programming key, even when not powered, reducing the risk of errors.

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# TEMPATRON

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**Specification****Accuracy:**

- $\pm 1\%$  of scale range

**Power Supply Voltage:**

- 0L: 12 to 24Vac/dc ( $\pm 10\%$ )
- 110Vac with TRA12UNI11 transformer
- 230Vac with TRA12UNI00 transformer
- 0E: 230Vac ( $\pm 10\%$ )

**Frequency:**

- 50/60Hz

**Burden:**

- <3VA

**Inputs:**

- 2 NTC inputs (10kohm @ 25°C)

**Scale Range:**

- -50 to +90°C (standard)
- -40 to +150°C (extended)

**Resolution:**

- 0.1°C between -20.0°C and 20.0°C
- 1°C over the rest of the range

**Digital Inputs:**

- 2 voltage free contacts

**Relay Outputs (Resistive):**

- IR33S0L: 16A changeover contact
- IR33S0E: 8A changeover contact
- IR33Y: 16A changeover contact  
& 8A changeover contact
- IR33F: two 8A changeover contacts  
& 5A changeover contact
- IR33C: 16A changeover contact  
& three 8A changeover contacts

**Operating Temperature & Humidity:**

- -10°C to 50°C
- <90% rH (non-condensing)

**Enclosure Code:**

- Case IP65

**Weight:**

- IR33S: 160g
- IR33Y: 180g
- IR33F: 200g
- IR33C: 220g

**Markings:**

- CE marked (meets EN61010-1 low voltage and EN50081-1/50082-1 EMC directives)

Specification subject to change without notice.