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IR33 Refrigeration Controllers

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

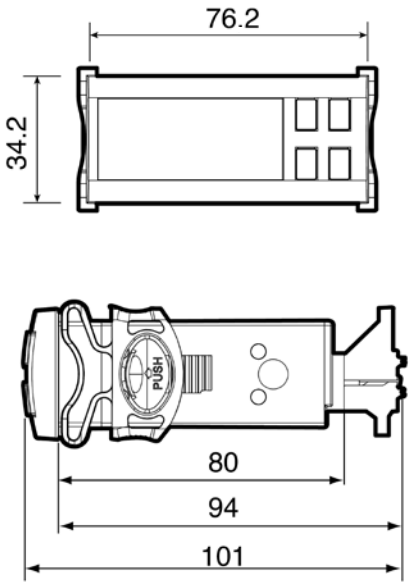
- NTC thermistor probe inputs
- Up to 4 relay outputs
- Real time clock and HACCP function
- Infrared receiver and buzzer
- 12 to 24Vac/dc or 230Vac powered
- RS-485 serial connection
- IP65 enclosure
- Plug-in terminals
- Front panel mounting system

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

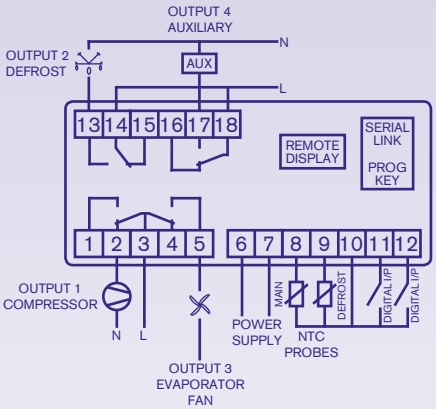


Panel cutout 71mm x 29mm (-0.0/+0.5)

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 (N/A for IR33F)
	0E	230Vac

Features	Code	Description
	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 are 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.

Specification

Accuracy:
- ±1% of scale range

Power Supply Voltage:
- OL: 12 to 24Vac (±10%)
- 110Vac with TRA12UNI11 transformer
- 230Vac with TRA12UNI00 transformer
- 0E: 230Vac (±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.

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