IRDR Universal Electronic Controllers

Models Available
IRDRV 1 Relay Output Digital Controller
IRDRW 2 Relay Output Digital Controller
IRDRZ 4 Relay Output Digital Controller
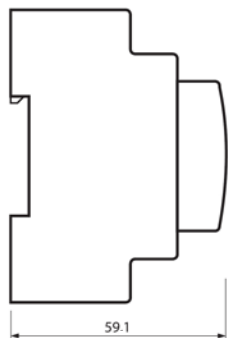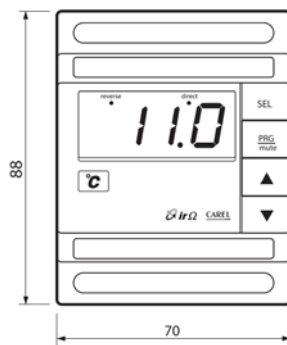**IRDRA** 4 SSR Output Digital Controller

Product Features
- Temperature input or process input
- Relay or SSR output versions
- 9 preset control modes
- Infrared receiver and buzzer
- DIN rail mounting
- IP40 enclosure
- 12 to 24Vac/dc or 24Vac & 230Vac
- Transformers available for 110V or 230V

The IRDR universal electronic controllers can be used to control temperature, humidity, air pressure or other variables using appropriate sensors. Versions are available to accept NTC, PT100, J and K type thermocouples, DC Voltage and DC mA inputs, and are available with 1, 2 and 4 relay outputs or 4 SSR outputs.

The controllers offer nine different control modes including on/off, proportional or proportional integral control. They feature a simple user interface and are housed in a compact DIN rail mounting enclosure. All versions can be connected to a network for monitoring and programming, using the optional RS-485 serial card. The IRDR controllers are powered from 12 to 24Vac/dc or 24Vac & 230Vac and optional transformers are available for powering the controllers from 110Vac or 230Vac.

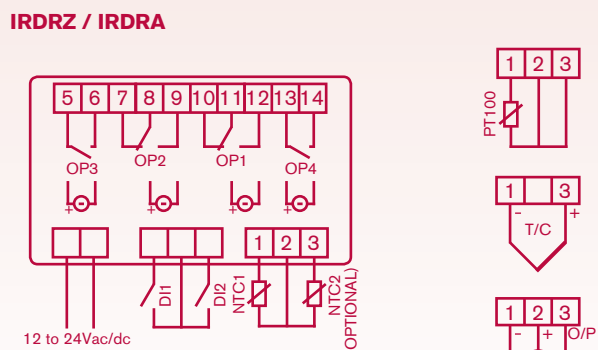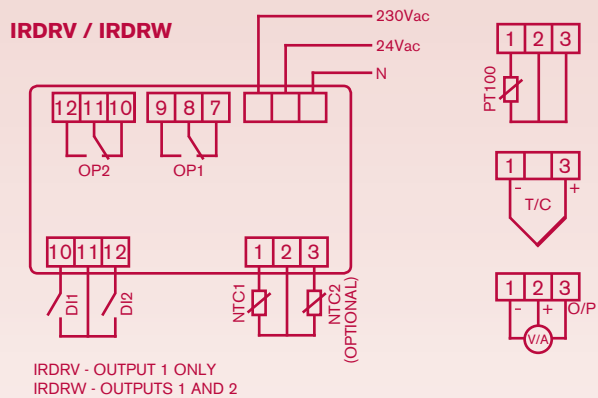## For digital temperature or process monitoring and control

Dimensions

Panel cutout 70mm x 45mm (-0.0/+0.5)

All dimensions in mm

Connections

IRDRV / IRDRW

IRDRV - OUTPUT 1 ONLY
IRDRW - OUTPUTS 1 AND 2

IRDRZ / IRDRA

12 to 24Vac/dc

3

Ordering information

Model	Code	Description
	IRDRV	1 Relay Output Digital Controller 24Vac & 230Vac
	IRDRW	2 Relay Output Digital Controller 24Vac & 230Vac
	IRDRZ	4 Relay Output Digital Controller 12 to 24Vac/dc
	IRDRA	4 SSR Output Digital Controller 12 to 24Vac/dc

Input	Code	Description
	0	NTC -50 to 90°C
	1	PT100 -99 to 600°C
	2	K Type Thermocouple -99 to 999°C J Type Thermocouple -99 to 800°C
	3	0-20mA or 4-20mA (scaled -99 to 999 units)
	4	-0.5 to +1Vdc (scaled -99 to 999 units)

IR Sensor & Buzzer	Code	Description
	0000	Infrared Sensor & Buzzer

Options	Code	Description
	TRA12UNI11	110/12Vac Transformer
	TRA12UNI00	240/12Vac Transformer
	IRTRUE0000	Remote control for IRDR universal
	IRDRSER00E	RS485 serial communication card

Example	IRDRA10000	

Options

Temperature Probes

A range of NTC, PT100 and thermocouple temperature probes are available to suit the IRDR controllers.

Remote Control

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

Specification

Accuracy:
– ±0.5% of scale range

Power Supply Voltage:
– IRDRV & IRDRW:
  24Vac (±10%) & 230Vac (±15%)
– IRDRZ & IRDRA:
  12 to 24Vac/dc (±10%)
– 110Vac with TRA12UNI11 transformer
– 230Vac with TRA12UNI00 transformer

Frequency:
– 50/60Hz

Burden:
– <4VA

Probe Supply:
– 10Vdc at 30mA internal
– 8Vdc at 30mA internal for IRDRW

Inputs:
– 1 or 2 NTC, PT100, J T/c, K T/c, mA, V

Resolution:
– 0.1°C or 1°C selectable

Digital Inputs:
– Programmable to switch between setpoints or to act as an alarm

Relay Output:
– IRDRV: 1 changeover contact
– IRDRW: 2 changeover contacts
– IRDRZ: 2 changeover & 2 N/O contacts
– 8A at 250Vac (resistive)

SSR Output:
– Maximum output 10V/15mA
– Maximum output resistance 660 ohms

Operating Temperature & Humidity:
– 0°C to 50°C
– <90% rH (non-condensing)

Storage Temperature:
– -10°C to 70°C

Enclosure Code:
– Case IP40

Weight:
– IRDRV: 220g
– IRDRW: 240g
– IRDRZ: 260g
– IRDRA: 260g

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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