

TEMPERATURE CONTROL RELAY

MODEL RTM20

Applications

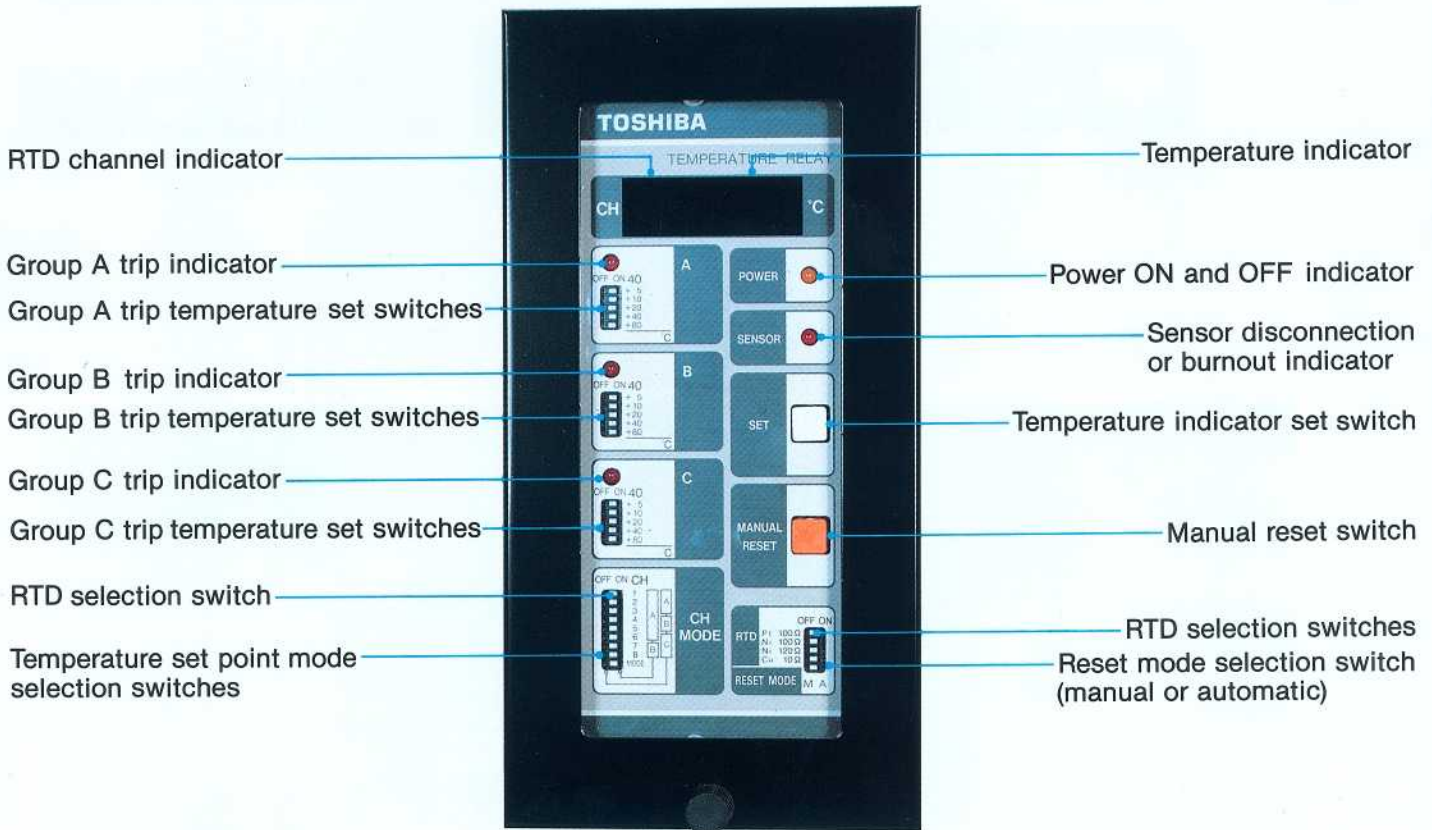
Toshiba's RTM20 relay is designed to monitor temperature of:

- Bearings
- Motor stator windings
- Generator stator windings
- Engine exhaust
- Engine cylinders
- Furnaces
- Industrial processes

Features

- RTD (resistance temperature detector) inputs are three compensated wire leads.
- Adjustable trip-point setting (40°C to 195°C)
- Alarm outputs at 90% of trip temperature
- 12 mm display
- Alarm sounds if sensors break.
- Rugged, compact case.
- Selectable RTD materials

Functions



Settings

The Model RTM20 temperature control relay has eight different channels, each of which is devoted to a separate RTD. There are two ways, or modes, of using the eight channels. In mode 1, six channels (RTD's) can be set at one trip temperature and the other two

can be set at another trip temperature. In mode 2, three channels can be set at one trip temperature, two at a second trip temperature and three at a third trip temperature. In each mode, eight different places can be monitored.

Table 1 Trip Temperature Channels

Channel Mode	1	2	3	4	5	6	7	8
1	Trip temperature A						Trip temp. B	
2	Trip temp. A		Trip temp. B		Trip temp. C			

Specifications

Table 1 General Specification

Item		Specification
Temperature display range		- 20 to 200°C
Frequency		50/60 Hz
Supply voltage	AC	100 to 120 V
	DC	100 to 125 V
Power consumption		6 W
Ambient temperature	Operation	- 10 to 60°C
	Storage	- 20 to 70°C
Outputs	Trip setting range	40 to 195°C
	No. of outputs	6 outputs (1 trip & 1 alarm outputs for each group)
Inputs	Sensor (RTD)	Pt 100 Ni 100 Ni 120 Cu 10
	No. of points	8

Table 2 Contact Capacity

AC or DC		Continuous	Breaking
AC *	Resistive	5 A	250 V - 5 A
	Inductive		250 V - 2 A @ pf=0.4
DC	Resistive	5 A	30 V - 5 A
	Inductive		125 V - 0.07A @ L/R=7ms

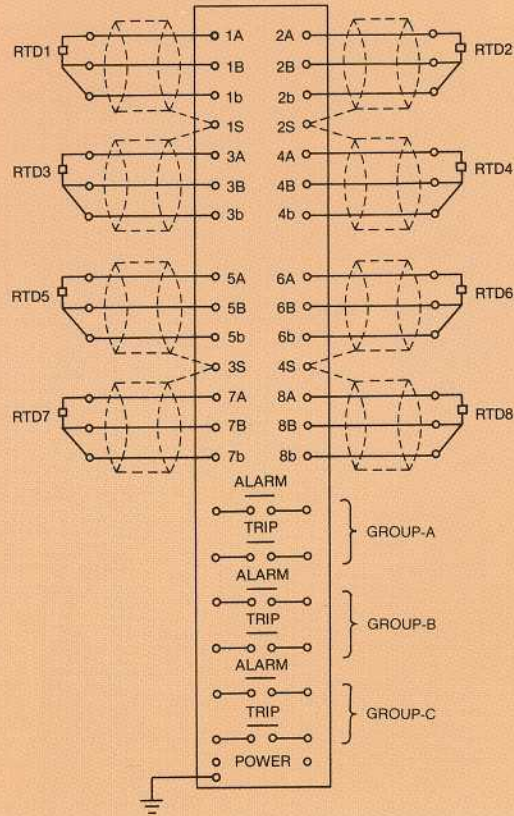
* C300 per UL/NEMA.

Alarm and Trip Outputs

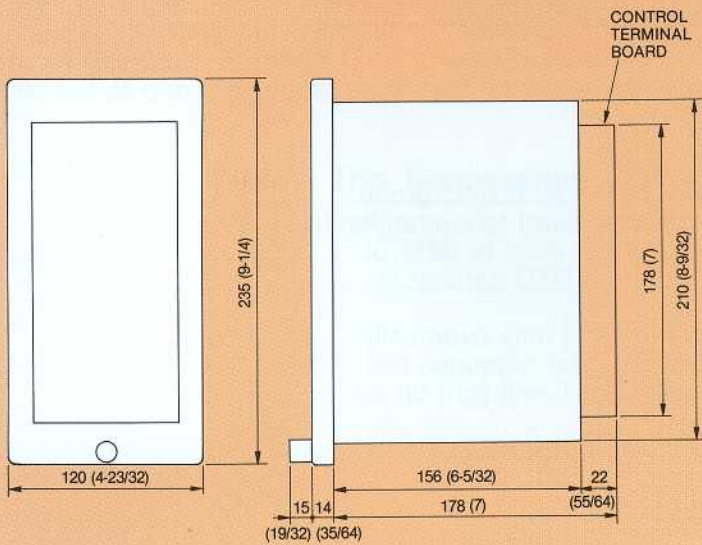
The alarm connected to either of the A, B or C group of channels goes off when the monitored temperature on one of the channels in that group rises to 90% of the set trip temperature, or when an RTD contact is broken for some reason.

If the temperature continues to rise, it may eventually exceed the preset trip level. When that happens, the trip indicator for either group A, B or C will light up on the front of the relay.

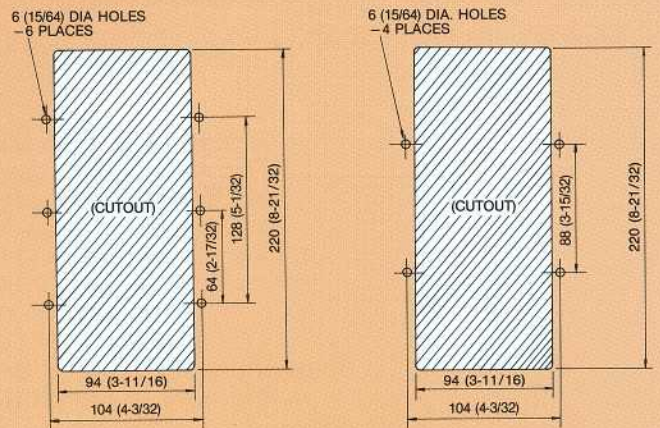
Wiring



Dimensions



Drilling Plan



Standard Installation

Installation with M5 Bolts (M5 Nuts are Provided on the Relay.)

Unit: mm (in)

TOSHIBA

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