2D78559G01

01 / Product identity and function

Universal RTD Module

Eaton 2D78559G01 is the Universal RTD Module (URTD), an accessory for compatible motor-protection relays. It acquires up to eleven resistance-temperature detectors in four configurable groups.

Temperature role

Motor winding, bearing, load-bearing and auxiliary RTDs

Group setup

Four RTD material groups selected by eight DIP switches

Relay link

Shielded three-conductor or compatible fiber-optic connection

Acceptance focus

Confirm sensor type, wiring, grounding and relay readings

Installed-system context

Eaton identifies style 2D78559G01 as the URTD Universal RTD Module in the MP-4000 accessory table. The dedicated IL 17367B instructions define eleven possible inputs: six motor windings, two motor bearings, two load bearings and one auxiliary. Each of the four groups uses one selected RTD type, so different materials within a group cannot be mixed.

Original wiring reference: Eaton/Cutler-Hammer IL 17367B. Verify the exact relay type, RTD grouping and link before energizing.

Motor-protection context

The URTD gathers resistive temperature signals and passes them to a compatible motor-protection device.

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02 / Technical data and limits

RTD input capacity	11	**Motor winding inputs**	6
Motor bearing inputs	2	**Load bearing inputs**	2
Auxiliary inputs	1	**Sensor type 1**	10 Ω copper
Sensor type 2	100 Ω platinum	**Sensor type 3**	100 Ω nickel
Sensor type 4	120 Ω nickel	**Group-selection switches**	8 two-position DIP switches
Module input power	120 VAC ±15%	**Input frequency**	50/60 Hz

Data applicability

Style number 2D78559G01 is confirmed by Eaton accessory documentation. Electrical and wiring values are from IL 17367B for the Universal RTD Module; relay- and link-specific restrictions must be checked against the selected host.

How does 2D78559G01 distinguish winding RTDs from bearing RTDs?

The module assigns six winding, two motor-bearing, two load-bearing and one auxiliary input to four groups. Match each sensor to the correct terminal and program its group material with the corresponding two DIP switches.

Why can one channel on 2D78559G01 read incorrectly after an RTD material change?

A 100 Ω platinum curve is not interchangeable with 100 Ω nickel or 120 Ω nickel. Check the installed sensor material and both DIP positions for that entire group; all RTDs in one group must use the same type.

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03 / Configuration and uses

Power consumption	6 VA	**Operating temperature**	0 to 70°C
Storage temperature	-20 to 85°C	**Relative humidity**	0-95%, noncondensing
Enclosure rating	Type 1	**Shielded relay link limit**	500 ft (152 m)
Fiber relay link limit	400 ft (122 m), MP-3000/IQ-1000 II		

The module accepts 10 Ω copper, 100 Ω platinum, 100 Ω nickel and 120 Ω nickel sensors. Eight two-position DIP switches select the group types. Its input supply is 120 VAC ±15% at 50/60 Hz and 6 VA. These are module requirements, distinct from the attached relay supply and sensor circuit.

Applications

Motor winding monitoring

Connect up to six winding RTDs of one selected material group for relay-based thermal supervision.

Motor bearing temperatures

Use the two dedicated motor-bearing inputs with the group DIP setting matched to the installed RTD material.

Driven-load bearing temperatures

Keep the two load-bearing sensor circuits distinct from motor-bearing wiring and settings.

Auxiliary temperature point

Use the single auxiliary input where the selected relay supports its display and action logic; the manual notes display support on MP-3000 and IQ-1000 II.

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04 / Service and support

Isolate 120 VAC

Disconnect and verify the module power before changing terminals or DIP positions.

Record all DIP settings

Capture the eight switches and identify the RTD material for each of the four groups before exchange.

Use three sensor conductors

Wire each RTD with the specified stranded twisted three-conductor cable; a two-wire run causes incorrect relay operation.

Terminate shields correctly

Connect the sensor cable shield at the module end and insulate it at the RTD end; follow the separate relay-link shield instructions.

Technical questions

How are unused RTD positions handled on 2D78559G01?

The manufacturer permits unused inputs to remain open or be jumpered without preventing operation. Record which positions are inactive so a later maintenance engineer does not mistake them for failed sensors.

Technical enquiry

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