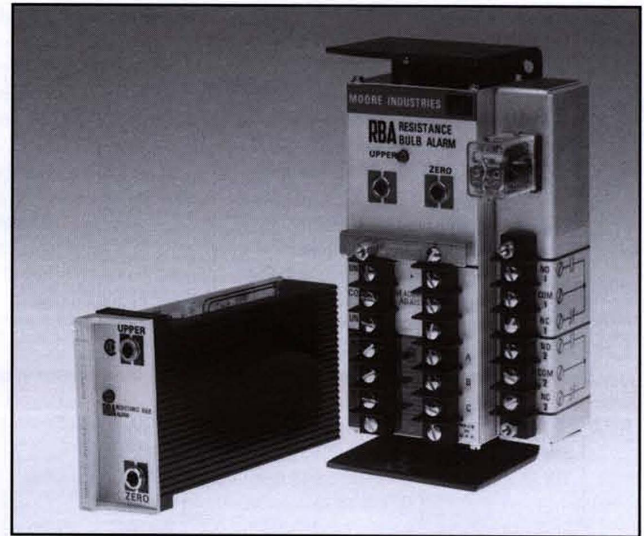


Description

The Moore Industries RBA RTD Alarm accepts input from any 2- or 3-wire RTD. When the input value falls outside of a fully-adjustable preset limit, the RBA outputs a contact closure signal ideal for indicating a high and/or low condition via a bell, buzzer, light or other device. A bright LED on the front panel indicates when an alarm condition has occurred.

Highly accurate to within $\pm 0.1\%$ of span, the RBA is offered in both single and dual alarm models. The dual alarm models allow configuration of two separate trip points per module (High/Low, High/High or Low/Low). On both single and dual alarm models, trip points are easily set using potentiometers conveniently located on the unit's front panel.

Valuable Options—The RBA can be ordered with a variety of options including adjustable dead-band (-AD); alarm response delay of between 1 and 30 seconds (factory set); a differential temperature alarm (-DT) that allows the unit to accept signals from two RTDs and alarm according to the magnitude of their difference; process variable indication (-IO) that provides a voltage signal proportional to the input for process variable readout; and superior RFI/EMI protection (-RF). For a complete listing of available options, see Options under Ordering Specifications on the back page.

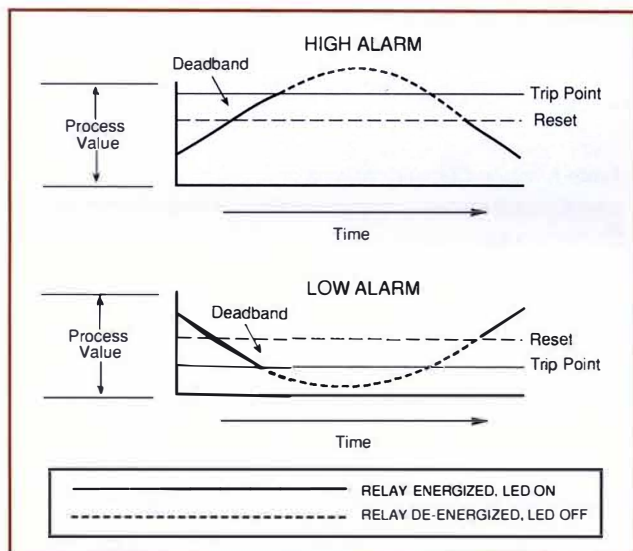


The RBA's easy-to-install surface-mount and high-density plug-in card housings are ideal for control room applications. A field-mount enclosure is also available.


Features


- **Accepts any 2- or 3-wire RTD.** The RBA accepts input from any 2-or 3-wire RTD.
- **Industry standard.** Thousands of RBAs are counted on worldwide to provide reliable and accurate performance in a wide variety of process applications.
- **Versatile mounting.** The RBA's control room and field mounting options permit fast and simple installation in nearly any environment.
- **Input isolation.** Prevents false alarms due to ground loops.

Figure 1. Normal Failsafe High and Low Alarm Configuration.



Certifications

 **CE:** Conformant - EMC Directive 89/336/EEC EN 50081-2, 1993 and EN 50082-2, 1995

 **CSA,** General Locations; Hazardous Locations, Class I, Groups C and D; File Number LR28549-17, -18, -07

City of Los Angeles, General Locations

Specifications

<p>Performance Repeatability: Trip point repeats within $\pm 0.1\%$ of input span</p> <p>Deadband: 1 % of span, standard</p> <p>Alarm Response: 50 milliseconds for a step change or 1% of span beyond trip points</p> <p>Line Voltage Effect: $\pm 0.005\%/1\%$ line voltage change (ac or dc)</p>	<p>Performance Isolation: Input, output, (continued) and power input are isolated with no dc connections between them (both ac and dc powered units)</p> <p>Ambient Temperature Range: -18°C to $+65^{\circ}\text{C}$ (0°F to 150°F)</p> <p>Effect on Amplifier: Less than $\pm 0.018\%/^{\circ}\text{C}$ ($\pm 0.01\%/^{\circ}\text{F}$) over above range</p>	<p>Ambient Temperature Trip Points: Multiturn front panel potentiometers adjust over a range of 0% to 100% of span</p> <p>Zero: $\pm 10\%$ of span minimum</p> <p>Indicators Front panel LED(s) indicate when relay is energized</p> <p>Weight Approximately 908 grams (2 pounds)</p>
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Ordering Information

Unit	Input	Output	Power	Options	Housing
RBA	<p>Rtd Type: 2W 2-wire RTD 3W 3-wire RTD</p> <p>Span (in ohms change): 5Ω (specify -LSA option) 10Ω 25Ω 100Ω 400Ω</p>	See Table 1 below (SPDT relay contacts provide user-selection of either NO or NC contact configurations and are rated at 5A @ 117Vac non-inductive or 28Vdc; DPDT and 10A relays are optional)	<p>117AC 50/60Hz, $\pm 10\%$</p> <p>220AC 50/60Hz, $\pm 10\%$</p> <p>240AC 50/60Hz, $\pm 10\%$</p> <p>24DC $\pm 10\%$ (5 watts, nominal)</p> <p>45DC $\pm 10\%$ (5 watts, nominal)</p>	<p>-AD Adjustable deadband, 1-20% nominal (available up to 100%)</p> <p>-AR alarm response time delay; specify between 1-30 seconds (factory set)</p> <p>-DPDT Double-pole, double-throw relays</p> <p>-EZ Elevated zero (required); specify ohms at minimum temperature</p> <p>-DT Differential input</p> <p>-FU Power fuse on PC housing</p> <p>-HS Hermetically sealed relays rated 1A @ 117Vac non-inductive or 2A @ 26Vdc</p> <p>-IO Indicator Output (0-1V @ 1mA)</p> <p>-MR Manual reset (for customer supplied external pushbuttons)</p> <p>-RE External relay (Required for inductive loads on alarms with -RF option)</p> <p>-RF RFI/EMI protection rated at 50V/m - ABC = 1% F.S. as defined by SAMA Standard 33.1 (when -RF option is selected, the -RE option must be specified)</p> <p>-TT Ten-turn lockable dial with vernier scale for setting trip point(s) (Requires EXUL housing selection)</p>	<p>STD Standard housing with U-back bracket for surface mounting</p> <p>AB Standard housing with angle flanges for surface mounting or mounting in NEMA enclosures</p> <p>PC Plug-in card for mounting in RMR or SMR multi-unit plug-in card rack</p> <p>DCM DIN clip for mounting standard housing on G-type rail</p> <p>EX Standard housing in 2-hub, solid cover, NEMA 7 explosion-proof enclosure</p> <p>EXUL 2-hub, solid cover, NEMA 7 explosion-proof enclosure (Required for TT-equipped units)</p> <p>(Other housings and enclosures are available. Installation and terminal information can be found on the applicable housing sheets)</p>

When ordering specify: Unit / RTD type and Input Span / Output / Power / Options [Housing]

Model number example: RBA / 3W-100 / DH1L1 / 24DC / -EZ100 [STD]

Ordering Information

To order, use the bold face data from the Ordering Information table above. For assistance, refer to the model number example presented at the bottom of the table.

Table 1. Alarm Output Configurations.

Alarm Configuration	Failsafe (1)	Non-Failsafe (2)
Single (S), High (H)	SH1	SH2
Single (S), Low (L)	SL1	SL2
Dual (D), High (H)-Low (L)	DH1L1	DH2L2
Dual (D), High (H)-High (H)	DH1H1	DH2H2
Dual (D), Low (L)-Low (L)	DL1L1	DL2L2

NOTE: Failsafe means the relay is energized in Normal state, and de-energized only upon alarm or power loss to the unit. Combinations of Failsafe and Non-Failsafe dual alarms are possible in the same unit.