

February 2001 Data Sheet 9.01

Affordable Alarm Trip

The ECA DIN-style Alarm features a solid metal housing that stands up to the continual rigors of process control and factory automation applications.

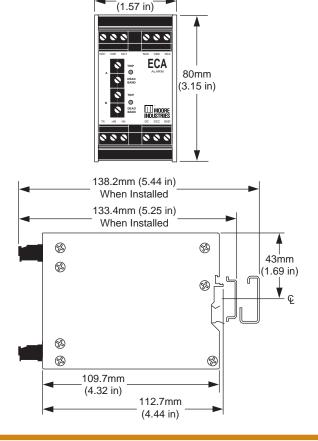
Rugged and reliable, the 4-wire (line-powered) ECA is the low-cost solution when alarm trip outputs are needed to indicate high or low process conditions.

Available models accept current and voltage input from field transmitters, transducers, and other process instruments. When the input falls outside of a pre-set limit (user configurable), the ECA provides contact closure outputs ideal for indicating a high and/or low condition via a bell, buzzer, light or other annunciating device.

Configurable Dual Alarms—The ECA is offered in a wide variety of dual alarm models. Choose any combination of high or low, failsafe or non-failsafe alarms, and the ECA will be factory-set for you. Internal jumpers allow for changes after it arrives at your plant.

40mm

Figure 1. ECA-DIN dimensions.



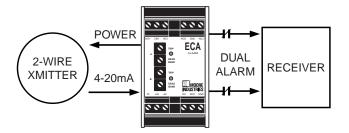


Compact durable aluminum housing snaps quickly and securely onto standard G-type and Top Hat rails.

Features

- Independently configurable dual alarms.
 Individually field-configure the ECA's dual alarms to low/low, high/high, low/high, or high/low output, and failsafe or non-failsafe trip operation.
- Wide range of input options. Available models accept common ac and dc input types.
- RFI/EMI Protection. The ECA provides an effective barrier against the unpredictable, harmful effects of radio frequency and electromagnetic interference.
- Fully-adjustable trip point. A potentiometer on the front panel will allow quick selection of trip point values from 0-110% of input span.
- LED provides alarm indication. The ECA's LED clearly indicates when the alarm trip changes from normal mode to alarm mode.

Figure 2. The ECA comes equipped with two alarm outputs, and will power a transmitter using the –TX option.





Current and Voltage Alarms

Specifications

Performance Repeatability: Trip point repeats within ±0.1% of full

scale

Stability: Trip point within ±0.2% of span per year

4-20mA is 1V, max; 0-5A is 0.01V, max

Power Consumption:

1.5W, typical;

2.5W, typical with -TX option; 3.5W max, with –TX option Deadband: 1-20% of span standard (see -AD100 option for 1-100% deadband range)

Alarm Response: 50 msec for a step change of 10-90%

beyond trip point(s)

Performance Line Voltage Effect: 0.005% (Continued) per 10% line change

Isolation: 1500Vrms between input, output and power

Maximum Input Overrange:

200% of full scale for DC Current input; 150% of full scale for DC Voltage and AC

Current inputs

Operating Range:

Ambient -20°C to +70°C Conditions (-4°F to +158°F) Relative Humidity:

0-95%, non-condensing **Ambient Effect:**

±0.007% of span/°C, typical; ±0.015% of span/°C, max

(Continued)

Ambient RFI/EMI Protection: Trip Conditions point not to be affected by more than 0.1% of span at

10V/m, 20-1000MHz

Adjustments Trip Points: Multiturn front

panel potentiometers adjust trip point from 0-110% of input

span

Deadband: Multiturn front panel potentiometers adjust from 1-20% or 1-100% of full scale, depending on the option

selected

Indicators Front panel LED(s) is ON

when relay is energized

Weight 454 grams (1lb.)

Ordering Information

| Unit | Input | Output | Power | Options | Housing |
|---|---|---|---|---|--|
| ECA 4-Wire Current and Voltage Alarm | 4-20mA into 50Ω 1-5V into 1MΩ 0-5AAC into 0.002Ω | Alarm Configuration (High or Low and Failsafe or Non-Failsafe are configurable via internal jumpers): DH1L1 Dual, High/Low, Failsafe DH2L2 Dual, High/Low, Non-Failsafe DH1H1 Dual, High/High, Failsafe DH2H2 Dual, High/High, Non-Failsafe DL1L1 Dual, Low/Low, Failsafe DL1L1 Dual, Low/Low, Non-Failsafe DL1L1 Dual, Low/High, Failsafe DL1H1 Dual, Low/High, Failsafe DL2H2 Dual, Low/High, Non-Failsafe CSPDT relays rated 5A @ 250Vac noninductive or 30Vdc) NOTE: Failsafe is energized in the normal condition and de-energized either upon alarm or power loss to the unit. Combinations of Failsafe and Non-Failsafe for dual alarms are also possible by following the same method of designation. | 24DC, ±10% 117AC, 50/ 60Hz, ±10% 230AC, 50/ 60Hz, ±10% (117AC and 230AC are jumper selectable) 1.5 Watts, typical; 2.5 Watts, typical with -TX option; 3.5 Watts, max with -TX option | -AD100 Adjustable deadband 1-100% of full scale -EM Externally-mounted input transformer for current input (available with 0-5AAC input type only) -TX 24V transmitter excitation for powering a 2-wire transmitter (DC input types only) | DIN Aluminum, DIN-style housing mounts on both 32mm G-type (EN50035) and 35mm Top Hat (EN50022) rail |

When ordering, specify: Unit / Input / Output / Power / Options [Housing] Model number example: ECA / 4-20MA / DH1L1 / 117AC / -AD100 [DIN]



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