ECSTD Series CurrentWatch AC Current Switches

Page V8-T7-19

Overview

AC current switches with time delay.

Applications

Motor protection—serves as an electronic proof-of-operation; detects current draw changes in motors when they encounter problems such as pumps running dry or pending bearing failure; non-intrusive and less expensive to install than differential pressure flow sensors or thermal switches

High inrush or temporary overload current—adjustable start-up/delay timer allows 0–15 second delay to eliminate nuisance trips from high inrush or short overload conditions

Product Features

Adjustable start-up/delay timer—field adjustable from 0–15 seconds to eliminate nuisance alarms due to start-up inrush or temporary overcurrent conditions

Choice of NO/NC AC or universal outputs—contact ratings of 1.0A at 240 Vac or universal outputs of 0.15A at 240 Vac/dc (NO models) and 0.2A at 135 Vac/dc (NC models) for use with most standard motor control systems

Improved ease of installation and use—self-powered, split-core models simplify installation, 1.0A AC rating eliminates need for time delay relay, and status LED provides visual indication of setpoint trip and contact action

Current Range

Adjustable set point, 1.5–200A

Approvals

UL Listed
cUL Listed
CE

Listed (Pending)

(ECSTD401 and 4025C—No approval)

ECSD Series CurrentWatch DC Current Switches

Page V8-T7-23

Overview

DC switch with solid-state or mechanical relay output.

Applications

Electronic proof of flow—current operated switches eliminate the need for multiple pipe or duct penetrations

Welders—Instant indication of equipment status

Large drive motors—provide monitoring for field loss protection

Power supplies—detect and signal over-current condition before equipment damage

UPS—monitors battery output

Ancillary equipment

Product Features

Choice of mechanical relay or solid-state outputs—
SPDT (Form C) relay, 5.0A at 240 Vac or 30 Vdc
Solid-state, NO, 0.15A at 240 Vac/dc

Easily adjustable setpoint—speeds start-up and reduces inventory

Compact, one-piece design—easily fits in crowded control panels

Input isolation—safer than shunt/relay combinations

Adaptive hysteresis—hysteresis is five percent of setpoint, allowing closer control than fixed-hysteresis switches

Solid-core housings

Current Range

Varies by model

Approvals

UL Listed
cUL Listed
CE

Listed Listed

EAC Series CurrentWatch AC Current Sensors

Page V8-T7-26

Overview

AC current sensor with analog outputs and power supply options.

Applications

Automation equipment—analog current reading for remote monitoring and software alarms

Data loggers—self-powered sensor helps conserve data logger batteries

Panel meters—simple connection displays power consumption

Product Features

Highly accurate—factory matched and calibrated single-piece sensor is more accurate than traditional two-piece, field-installed solutions

Average responding—"average responding" algorithm gives an RMS output on pure sine waves, perfect for constant speed (linear) loads

Jumper selectable ranges—the ability to change input ranges reduces inventory and eliminates zero and span

Isolation—output is magnetically isolated from the input for safety and elimination of insertion loss (voltage drop)

Current Range

0–200A

Approvals

UL Listed
cUL Listed
cULus (except EACP models)
CE marked (except EACP models)

Listed Listed Listed

(EACP models not listed)

EACR Series CurrentWatch RMS Current Sensors

Page V8-T7-30

Overview

True RMS AC current sensing with 4–20 mA output.

Applications

VFD controlled loads—monitoring Vdc output indicates how the motor and attached load are operating

SCR controlled loads—accurate measurement of phase angle fired or burst fired (time proportioned) SCRs, with faster current measurement than temperature sensors

Switching power supplies and electronic ballasts—true RMS sensing is the most accurate way to measure power supply or ballast input power

Product Features

True RMS output—true RMS technology is accurate on distorted waveforms like VFD or SCR outputs

Jumper-selectable ranges—reduces inventory and eliminates zero and span

Isolation—output is magnetically isolated from the input for safety and elimination of insertion loss (voltage drop)

Current Range

0–200A true RMS

Approvals

UL Listed
cUL Listed
cULus
CE

Listed Listed Listed

EDC Series CurrentWatch DC Current Sensors

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Overview

Current sensing for DC loads up to 300A with analog outputs.

Applications

Battery banks—monitors load current, monitors charging current and verifies operation

Transportation—measures traction power or auxiliary loads

Electric heating elements—monitors heater loads with a faster response time than temperature sensors

Product Features

Jumper-selectable ranges—reduces inventory and eliminates zero or span pots

Isolation—output is magnetically isolated from the input for safety, also eliminating insertion loss (voltage drop)

Internal power regulation—cuts installation costs and works well, even with unregulated power

Split core design and built-in mounting brackets—makes installation quick and easy

Current Range

0–400A

Approvals

UL Listed (Pending)
CE

Listed

EGF Series CurrentWatch Ground Fault Sensors

Page V8-T7-37

Overview

Ground fault sensors with solid-state or mechanical relay outputs.

Applications

Personnel protection (typically 5 mA)—detects sensitive ground fault conditions, which could cause injury to people, and functions as a sensor and alarm trigger when applied as an input to an overall ground fault protection system

Equipment protection (typically 10 or 30 mA)—for applications where personnel protection is not the primary concern, higher setpoint capability helps eliminate nuisance tripping while still providing adequate ground fault detection to protect machine electronics

Product Features

Broad range of options to meet application needs—NO or NC, solid-state or mechanical relays, normally energized or normally de-energized contacts

Setpoint options maximize ease-of-use and application flexibility—field selectable 5, 10 or 30 mA setpoints on the EGF "Tri-set" models make user adjustments fast, sure and convenient

Compatible with standard equipment—application on single- and three-phases systems, ideal for use with shunt trip breakers, and magnetically isolated from monitored circuit and control power

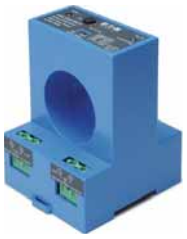
Current Range

Fixed or adjustable 5/10/30 mA trip

Approvals

UL Recognized
CE

EGFL Series CurrentWatch Ground Fault Sensors



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Overview

Ground fault sensors with mechanical relays.

Applications

Personnel protection (typically 5 mA)—detects sensitive ground fault conditions, which could cause injury to people

Equipment protection (typically 10 or 30 mA)—for applications where personnel protection is not the primary concern, higher setpoint capability helps eliminate nuisance tripping

Regulatory—meets requirements as stipulated by governmental and industrial regulatory groups for ground fault sensing

Product Features

Broad range of options to meet application needs—mechanical relays, normally energized or normally de-energized contacts

Setpoint options maximize ease-of-use and application flexibility—field selectable 5, 10 or 30 mA setpoints on the EGFL "tri-set" models make user adjustments fast, sure and convenient

Compatible with standard equipment—application on single- and three-phase systems, ideal for use with shunt trip breakers, and magnetically isolated from monitored circuit and control power

Current Range

Tri-Set Adjustable, 5, 10 or 30 mA

Approvals

UL Approved
cULus
CE

Listed