THE DATASHEET OF

CR4395-EL-120-330-X-CD-ELR-R1

CR4395 Series

The **CR4395** Series, Current Sensing Relay provides an effective and highly stable method for monitoring electrical current. The current-carrying wire is routed through the opening extending from the top of the case. When current reaches the level set by the trip point adjustment, the relay trips and starts the adjustable timer. After the timer cycles the electromechanical relay is energized. A precision voltage reference circuit ensures a highly repeatable trip point.

Applications

Monitor Electrical Heater Elements
Sense Motor Over/Under Loads
Detect Lamp burn-out
Indicate Phase Loss

Features

Variable Trip Point and Time Delay
Monitors Currents from 1 AC to 100 AC Amps
Electrical Isolation Between Circuits
Output Relay Rated up to 20 Amps
LED Trip Status Indicator
Dead Band Prevents Relay Chatter
Calibrated Dial Option Available
External Current Transformers Available

Specifications

Mounting:
3/16″ dia. clearance holes on $1^{15/16}$″ by $2^{15/16}$″centers
Environmental:
Operating Temperature: -30° C to +60° C
Storage Temperature: -55° C to +85° C
Power-On Delay: 100 MS MAX
Hysteresis: 5% Max.
Input Supply Power:
Typical 80mA Max 100mA
Sensed Current:
Max. Continuous: 200% Full Scale
Frequency: 60-400 Hz *
*All specifications for operation at 60 Hz only
Altitude: 2000 meters max.
(Contact factory for High Altitude applications)
Weight 0.5 LBS.

Regulatory Agencies

c UL us E234389

RoHS

OUTPUT OPTIONS

The Relay is available with three different output configurations, electromechanical relay, optoisolated NPN transistor or optoisolated triac. Specify desired selection in part number.

RELAY (-ELR)

Arrangement: 1 Form C (SPDT)
Contact Material: Silver-cadmium oxide
Terminals: $3^{1/4}$″ Male QC
Mechanical Life: 10 million operations, typ.@ rated load
Electrical Life: 100,000 operations, typ. @ rated load
Initial Contact Resistance:
50 milliohms max. @ 500 mA, 12 VDC
Contact Rating: UL508/873 & CSA

DC SWITCHING (-NPN)

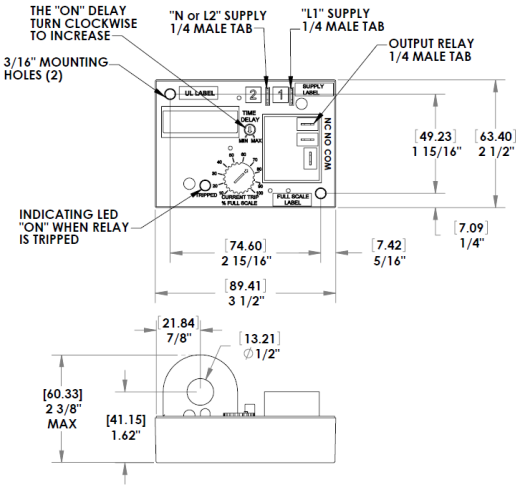
Vce (full off): 30 VDC max.
Isink (full on): 120 mADC max.@ rated full-on
Vce (full on): 1.5 VDC @ 120 mADC Isink
Off state leakage current: 5ua @ 30 VDC (typical)

AC SWITCHING (-TRC)

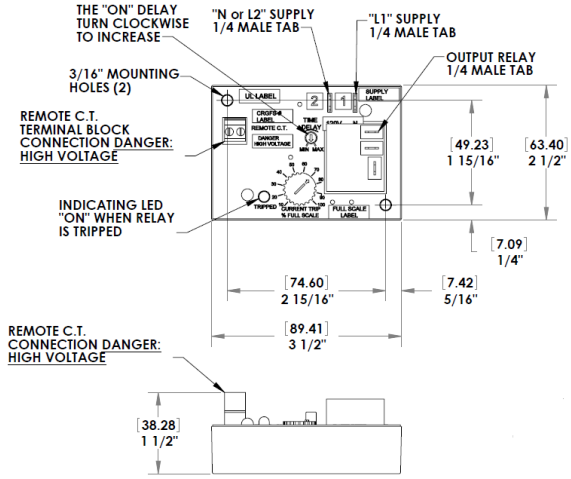
Off state voltage: 240 VAC RMS max.
Minimum switch voltage: 24 VAC RMS
On state current: 0.5 AAC RMS max. continuous
Switching mode: Zero crossing
Off state leakage: 60 ua @ 240 VAC max.
Terminals: 2 @ 1/4″ Male QC

VOLTAGE	LOAD TYPE	N.O. CONTACT	N.C. CONTACT
240 VAC	Resistive	20A	10A
240 VAC	Motor	2HP	1/2 HP
125 VAC	Motor	1HP	1/4 HP
28 VDC	Resistive	20A	10A

OUTLINE DRAWING



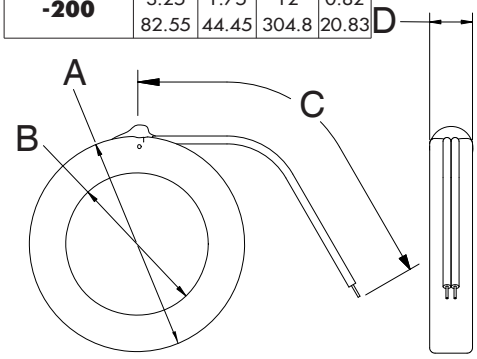
Top view of Current Sensing Relay



Shown with Remote Current Transformer Option (-R)

CR4395 Series

CRGFS	A	B	C	D
-100	2.88 73.16	1.60 40.58	12 304.8	0.79 20.07
-200	3.25 82.55	1.75 44.45	12 304.8	0.82 20.83



Remote Current Transformers CRGFS - Series

PART NUMBER

CR4395	-			-				-				-				-				-		

TRIP STATUS
EH - Energized on High, trips when sense current is above trip point and returns to non-trip status when sense current is below the trip point.
EL - Energized on Low, trips when sense current is below trip point and returns to non-trip status when sense current is above the trip point.
LH - Latch on High, trips when sense current is above trip point and remains tripped until supply power is removed.
LL - Latch on Low, trips when sense current is below trip point and remains tripped until supply power is removed.

SUPPLY VOLTAGE
AC
120 - 120 VAC
240 - 240 VAC
DC
24D - 24 VDC

All supply voltage tolerances are ± 10 %

TRIP RANGE
110 - 1.0 to 10 AAC
330 - 3.0 to 30 AAC
660 - 6.0 to 60 AAC
101 - 10 to 100 AAC
The trip ranges shown are for one wire pass through the window opening. The trip range may be proportionally lowered with additional wire passes through the window.

TRIP ON DELAY
A - .5 to 6 Sec.
B - 2 to 25 Sec.
C - .1 to 1 Sec.
X - none
Time-on delay is the time from when the relay trips to when the output energizes. The ranges are guaranteed minimum, actual range may be slightly greater.

TRIP POINT DIAL
CD - Calibrated Dial
FP - Fixed Trip Point
(Specify value of fixed trip point with order)

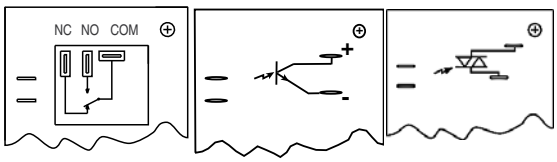
No adjustment dial provided with the fixed set point option

- CD - FP

-3.30 trip range shown

I - INTERNAL TRANSFORMER
R1 - REMOTE TRANSFORMER w/ CRGFS-100 (1.60" window diameter)
R2 - REMOTE TRANSFORMER w/ CRGFS-200 (1.75" window diameter)

OUTPUT OPTIONS



ELR Electromechanical Relay
NPN Optoisolated NPN Transistor
TRC Optoisolated Triac, Zero Crossing

Example Part Numbers:
CR4395-EH-120-110-A-CD-ELR-I (Relay with CT on board)
CR4395-EL-240-330-A-CD-NPN-R1 (Relay with external CRGFS-100)

The Professional Energy Monitoring Company
CR MAGNETICS
ISO 9001:2008 Quality Management System
3500 Scarlet Oak Blvd. St. Louis MO USA 63122 V: 636-343-8518 F: 636-343-5119
Web: http://www.crmagnetics.com

E-mail: sales@crmagnetics.com

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- View CR4395-EL-120-330-X-CD-ELR-R1 on WIN SOURCE
- CR Magnetics Inc. Information

Optimize Your Supply Chain with WIN SOURCE Solutions

- Global Sourcing Solution
- Obsolete Management
- Cost Control Management
- Shortage Management
- Alternative Solution
- Excess Inventory Management