## **Protection Relays** Current Monitoring Relays and Transducers



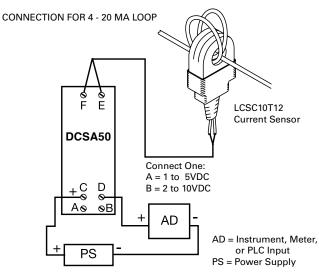
# DCSA SERIES

# **Current Transducers**

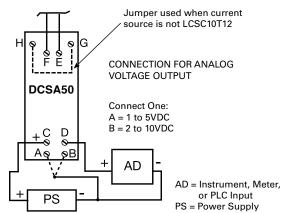
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# Wiring Diagram



#### To LCSC10T12 Current Sensor



## Description

The DCSA Series is a loop-powered, linear output current transducer that provides an output that is directly proportional to the RMS AC current passing through the LCSC10T12 sensor. The DCSA Series provides either an analog current or voltage: 4-20 mA, 1 to 5VDC, or 2 to 10VDC. Each unit is factory calibrated for monitoring (with the LCSC10T12 connected) in one of four ranges; 0-5, 0-10, 0-20, or 0-50A. Zero and span adjustments allow field calibration if needed. The DCSA Series mounts on both DIN 1 and DIN 3 rails.

#### Operation

The DCSA Series varies the effective resistance of its output in direct proportion to the current flowing in the conductor monitored by the LCSC10T12. Connecting the power supply to terminals C & D provides a 4 to 20mA DC current. Connect the power supply to terminals C & A to get 1 to 5VDC at terminal D. Connect the power supply to terminals C & B to get 2 to 10VDC at terminal D.

### Features

- Mounts on DIN 1 or DIN 3 rail
- 0-50A in 4 ranges using LCSC10T12 sensor
- Loop powered from 10 to 30VDC
- Linear output from 4-20mA, 1-10VDC
- Zero & span adjustments
- Separate sensor & control unit

### Accessories



#### LCSC10T12 Toroidal Current Sensor

Remote monitoring of currents up to 50A.

### **Ordering Information**

MODEL	CURRENT RANGE WITH LCSC10T12	INPUT RANGE (F TO E)
DCSA5	0-5A	0-5mA AC
DCSA20	0-20A	0-20mA AC
DCSA50	0-50A	0-50mA AC

If you don't find the part you need, call us for a custom product 800-843-8848

## **Protection Relays Current Monitoring Relays and Transducers**



## **Specifications**

DCSA SERIES

#### Input

**Ranges** (without LCSC10T12 connected) 4 factory calibrated ranges in mA AC **Factory calibration Repeat Accuracy Response Time Temperature Coefficient Input to Output** Output Type Analog Range Supply Voltage\* **Momentary Voltage** Zero Adjust Span Adjust Adjustment Protection **Dielectric Breakdown Insulation Resistance** Polarity **Mechanical** Mounting Termination Wire clamp Environmental

**Operating/Storage** Temperature Humidity Weight

0 - 5mA, 0 - 10mA, 0 - 20mA, or 0 - 50mA AC ±0.5% of full scale ±0.25% of full scale under fixed conditions ≃ 300ms ±0.05%/°C Not isolated

Current directly proportional to input current

4 - 20mA, or 1 to 5VDC or 2 to 10VDC

Mini-screw, multi-turn potentiometer

Units are reverse polarity protected

For 22 - 14AWG (.336 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>)

DIN 1 & DIN 3 rail mounting

-30° to 60°C / -40° to 85°C

≅ 1.6 oz (45.4 g)

95% relative, non-condensing

≥ 2500V RMS terminals to mounting surface

10 to 30VDC

40VDC for 1m

18mA - 22mA

≥ 100 MΩ

≅ 3.75 - 4.25mA

Accessory - LCSC10T12 Toroidal Sensor

Number of Turns	1000
Nominal Output Current	
Full Range	0 - 50 mA
Maximum Allowable Current	Steady 50A turns; Inrush 300A turns for 10s
Burden	≤ 0.5 VA
Frequency	
0 - 20A / 21 - 50A	20/100 Hz / 30/100 Hz
Sensor Hole	0.36 in. (9.14 mm) for up to #4 AWG
	(21.1 mm <sup>2</sup> ) THHN wire
Weight	≅ 1 oz (28.3 g)

\*Minimum loop-power supply voltage equals the minimum sensor voltage 10VDC plus the voltage drop developed across all the other loop devices at 20mA.

## **Monitored Current Amps Diagram**

