

# Current Converter

**P/N: IC-DR-XX**

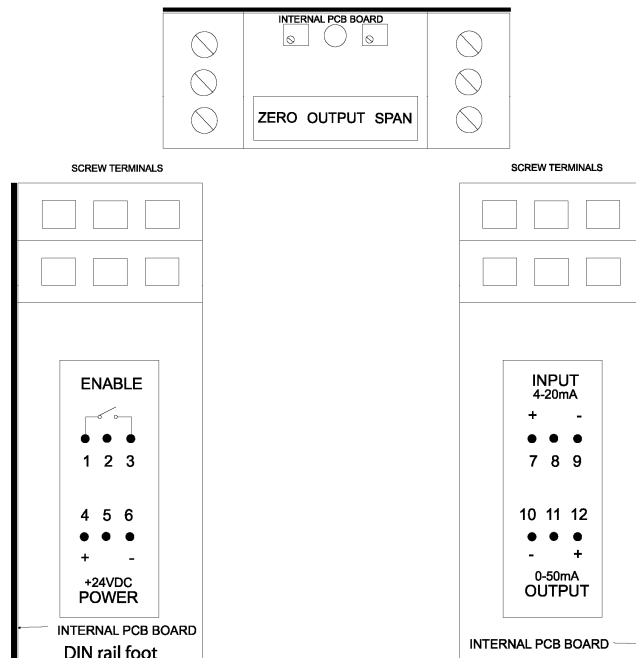
- Where xx = 11 (0-200 mA output)
- 12 (20 – 160 mA output)
- 14 (0-50 mA output)
- 20 (0-100 mA output)
- 24 (0-160 mA output)
- 25 (20-200 mA output)

**Description:** The Current Converter accepts a 24VDC power supply (nominal) and a 4-20mA input signal converting it to a current output. Various outputs are available, including 0-200 mA, 20-200 mA, 0-100 mA, 20-160 mA, 0-160 mA or 0-50 mA. Span and zero is user adjustable. A diagnostic LED indicates operational status, glowing green when the load, input signal and power supply are connected. The load should be floating, isolated from ground. The circuit board is conformal coated and the unit is available in a DIN rail mount housing.



**Application:**  
Industrial automation

### Connection Diagram



**Note:** Connections for IC-DR-14 are shown but are identical for IC-DR-11, IC-DR-12 and IC-DR-20.

## Technical Specifications:

Typical at nominal input voltage and 25 degrees C unless otherwise specified

<b>Ordering Part Number:</b>	IC-DR-xx xx = 11 (0-200mA output) xx = 12 (20-160mA output) xx = 14 (0-50 mA output) xx = 20 (0-100 mA output) xx = 24 (0-160 mA output) xx = 25 (20-200 mA output)
<b>Input Specifications:</b>	
Current Input	4-20mA
<b>Output Specifications:</b>	
Current Output	IC-DR-11 = 0-200mA IC-DR-12 = 20-160 mA IC-DR-14 = 0-50 mA IC-DR-20 = 0-100 mA IC-DR-24 = 0-160 mA IC-DR-25 = 20-200 mA (Other current output ranges are available on request.) Connect output to Output positive terminal and not to GND.
Response Time	<5 mSec.
Non-linearity	<0.1% without adjustments performed
<b>General Specifications:</b>	
Power Supply	24VDC nominal (9-45VDC operating range) Transient protection is provided.
Power Consumption	550 milliwatts All measurements taken at 24VDC, full output current (max.).
Reverse Polarity Protection	Provided
Operating Conditions	-40 to 85 degrees C (-40 to 185 degrees F)
Electrical Connection	Screw terminals accept 14-24 AWG wire
Enable (enables output through closing a mechanical relay contact)	To enable operation, externally short terminals 1 and 3.
Packaging and Dimensions (W x H x D)	DR12, 16 Amp max. current rating, Polycarbonate DIN rail mount (75 x 98.5 x 22.5 mm or 2.95 x 3.87 x 0.88 inches) for high profile DIN rail (35 mm)
Protection	PCB conformal coated IP40 rated housing, Terminals rated at IP20
Weight	0.25 lbs. (0.11 kg)

<b>Adjustments:</b>	Multi-turn trim pots (10 turns)
Zero	CW = increasing Apply 4mA input current and adjust the Zero trimpot to desired output current within range of 0 to 25mA (IC-DR-11, IC-DR-25) or 6 to 29 mA (IC-DR-12) or 0-5 mA (IC-DR-14) or 0-12 mA (IC-DR-20) or 0.14-43.46 (IC-DR-24).
Span	CW = increasing Apply 20mA input current and adjust the Span trimpot to desired maximum current output within range of 155 to 220mA (IC-DR-11, IC-DR-25) or 116 to 171mA (IC-DR-12) or 38 to 63 mA (IC-DR-14) or 69 to 105 mA (IC-DR-20) or 143-172 (IC-DR-24).

CW = clockwise, CCW = counter clockwise

Specifications are indicative and subject to change. Actual performance will vary depending on the application and operating conditions. Users should satisfy themselves that the product is suitable for use in the intended application. All our products carry a limited warranty against defects in material and workmanship. Please refer to our Warranty, Application Approvals/Limitations and Return Materials Process as described on [www.axiomatic.com/service.html](http://www.axiomatic.com/service.html).

Form: TD2300AX-07/31/09