AN710 – How to Calibrate Current Converters

Introduction

This is a general guide on how to calibrate the Current converters Part numbers IC-DR-XX where XX is the optional output.

Connections

Connect the 24Vdc Power +/-, Input Signal +/-, connect an Ammeter to the Output +/- connections and short the Enable terminals.

Calibration

Turn the Power Supply On.

Step 1: Apply a 20mA signal to the input. If the measured output is > Imax then turn the Span pot counter clockwise until the output is =

Imax. If the measured output is < Imax then turn the Span pot clockwise until the output is = Imax.

Step 2: Apply 4mA to the input. If the measured output is > Imin then turn the Zero pot counter clockwise until the output is = Imin. If

the measured output is < Imin then turn the Span pot clockwise until the output is = Imin.

Step 3: Repeat Steps 1 and 2 since the adjustment of the Zero pot may affect the Imax accuracy.

Factory Output Settings

Each unit has a different output current range with a default Imin and Imax (see page 2 of the datasheet) https://www.axiomatic.com/current-converter or refer to the table below.

LED

The output Led increases in brightness proportionally to the input signal applied.

Axiomatic Technologies Oy
Höytämöntie 6
33880 LEMPÄÄLÄ, Finland
Tel. +358 103 375 750
salesfinland@axiomatic.com
www.axiomatic.fi

Axiomatic Technologies Corporation
1445 Courtneypark Dr. E.
Mississauga, ON Canada L5T 2E3
Tel. 1 905 602 9270
sales@axiomatic.com
www.axiomatic.com

Default Current Outputs and Adjustment Ranges:

MODELS	IOUT MIN RANGE		IOUT MAX RANGE		DEFAULT	DEFAULT
P/N	MIN [mA]	MAX [mA]	MIN [mA]	MAX [mA]	MIN [+/-2 mA]	MAX [+/-2 mA]
IC-DR-11	0	25	155	220	0	200
IC-DR-12	6	29	116	171	20	160
IC-DR-14	0	5	38	63	0	50
IC-DR-18	0.14	43.46	143	172	40	160
IC-DR-20	0	12	69	105	0	100
IC-DR-24	0.14	43.46	143	172	0	160
IC-DR-25	0	25	155	220	20	200
AX130300	0	25	155	220	15	195

Version	Date	Author	Comments
1.00	April 3, 2024	Lawrence Durham/ Sue Thomas/Chantalle Menard	Initial release