



## I-8093W

High-speed 3-axis Encoder Module

### Features

- 3-axis Encoder Inputs
- 1 MHz Input Rate for Quadrant Input Mode
- 4 MHz Input Rate for Pulse/Direction and cw/ccw Input Modes
- 32-bit Count Range
- 2500 Vrms Optical Isolation



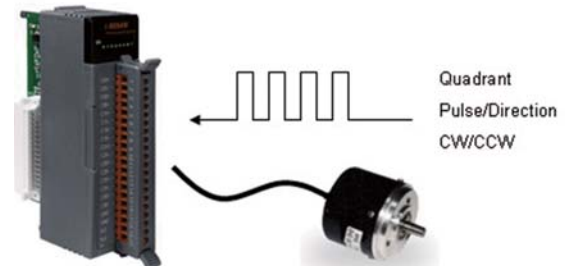
### Introduction

The **I-8093W** is a 3-axis high speed encoder module. Its each axis can be independently configured as one of Quadrant, Pulse/Direction or CW/CCW input mode. The maximum input rate for Quadrant mode is 1 MHz, and for Pulse/Direction and CW/CCW modes is 4 MHz.

The high-end specifications of I-8093W and complete software support make it ideal for wide range applications in position measurement of motion systems for industrial and laboratory environment.

### Applications

- Position Measure of Motion System



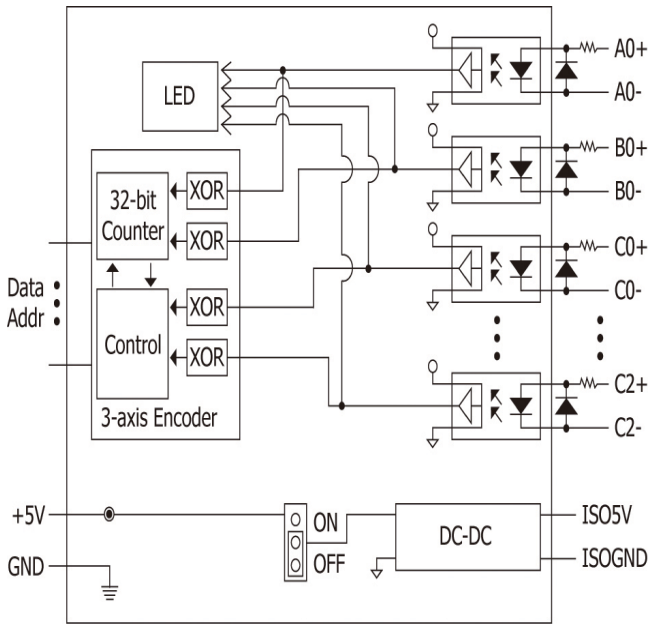
### System Specifications

Display	
LED Display	1 LED as Power Indicator 9 LED as Status Indicator
Isolation	
Intra-module Isolation, Field to Logic	2500 Vrms
ESD Protection	4 KV Contact for each channel
Power	
Power Consumption	2 W Max
Mechanical	
Dimensions (W x L x H)	30 mm x 102 mm x 115 mm
Environment	
Operating Temperature	-25 ~ 75 °C
Storage Temperature	-30 ~ 85 °C
Humidity	5 ~ 95 % RH, Non-condensing

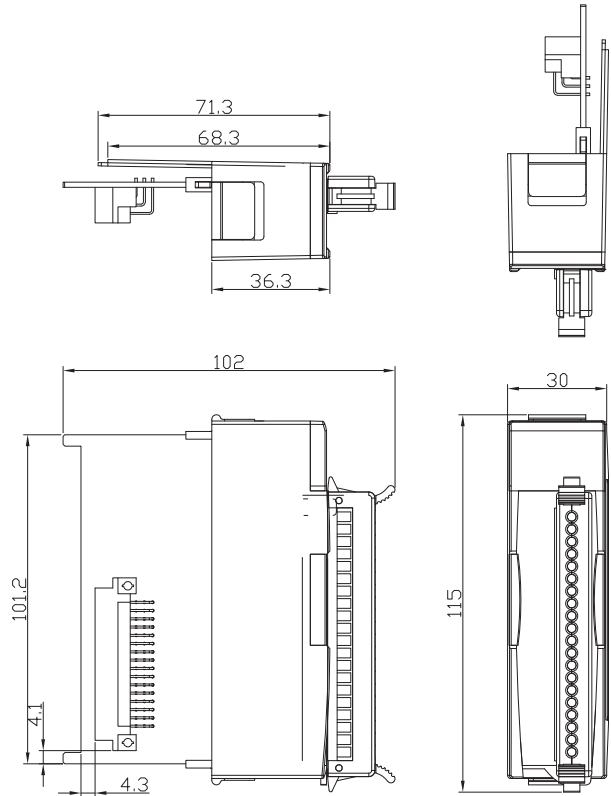
### I/O Specifications

Encoder Input	
Input Axis	3-axis
Encoder Counter	32-bit
Counting Mode	Quadrant Counting CW/CCW Pulse/Dir
Encoder Counting Rate	Quadrant Counting : 1 MHz (Max.) CW/CCW : 4 MHz (Max.) Pulse/Dir : 4 MHz (Max.)

## Internal I/O Structure



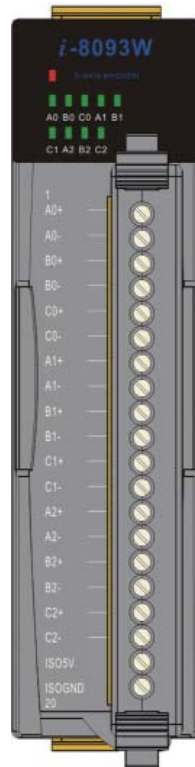
## Dimensions (Units: mm)



## Wire Connection

Input Type	ON State LED ON Readback as 0	OFF State LED OFF Readback as 1
Relay Contact	Relay ON 	Relay Off 
TTL/CMOS Logic	Voltage > 4V 	Voltage < 0.8V 
NPN Output	Open Collector On 	Open Collector Off 
PNP Output	Open Collector On 	Open Collector Off 

## PIN Assignments



Terminal No.	Pin Assignment
01	A0+
02	A0-
03	B0+
04	B0-
05	C0+
06	C0-
07	A1+
08	A1-
09	B1+
10	B1-
11	C1+
12	C1-
13	A2+
14	A2-
15	B2+
16	B2-
17	C2+
18	C2-
19	ISO5V
20	ISOGND

## Ordering Information

<b>I-8093W</b>	High-speed 3-axis Encoder Module
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