



**I-8080**

4/8-ch Counter/Frequency/Encoder Input Module



**I-8080-G**

**Features**

- Support 8 Up Counter
- Support 8 Frequency
- Support 4 Up/Down Counter
- Support 4 Dir/Pulse Counter
- Support isolated and non-isolated input signals
- Power LED indicators



**Introduction**

I-8080 is a high speed Counter/Frequency/Encoder I/O with "Up Counter", "Frequency", "Up/Down Counter" and "Dir/Pulse Counter" mode.

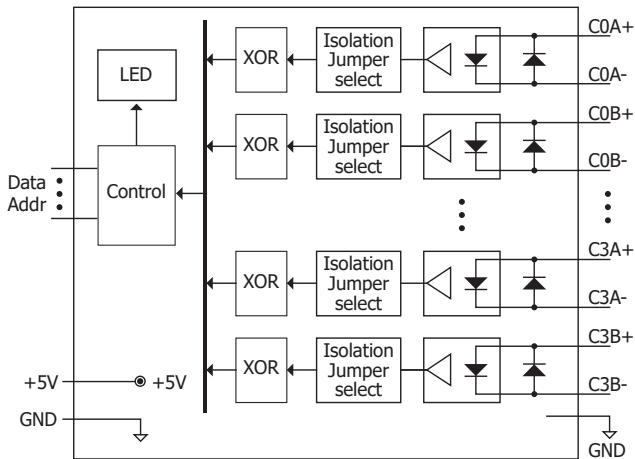
**System Specifications**

LED Indicators/Display	
System LED Indicators	1 LED as Power Indicator
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal
Power	
Power Consumption	1 W max.
Mechanical	
Dimensions (W x L x H)	31 mm × 116 mm × 88 mm
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +85 °C
Humidity	10 ~ 90% RH, Non-condensing

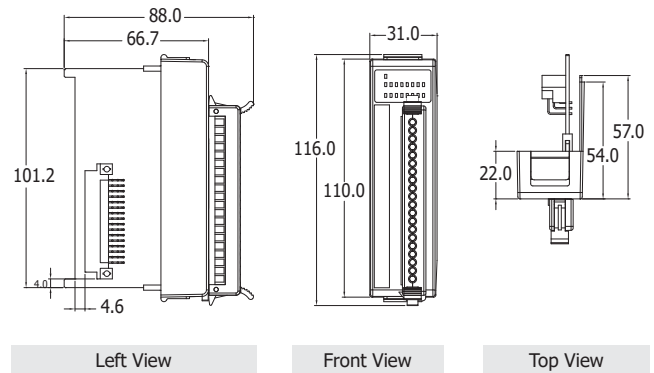
**I/O Specifications**

Counter/Frequency/Encoder Input	
Type	Isolated Input, TTL Input
ON Voltage Level	Isolated Input: +10 VDC ~ +30 VDC
OFF Voltage Level	Isolated Input: +1 VDC Max.
TTL, ON Voltage Level	+2 VDC ~ +5 VDC
TTL, OFF Voltage Level	0 VDC ~ +0.8 VDC
Frequency Accuracy	10 ~ 450K Hz (Frequency mode) 450K Hz max (Counter mode)
Counter Mode	4 Channel Pulse/Dir Counter 4 Channel Up/Down Counter 8 Channel Frequency 8 Channel Up Counter
Digital Noise Filter	1 ~ 32767 μsec

## Internal I/O Structure



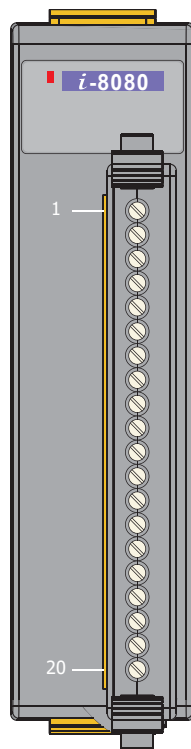
## Dimensions (Units: mm)



## Wire Connections

Dir/Pulse Counter Mode			
Isolation		Non-isolation	
Vin+ (Pulse)	CxA+	Vin+ (Pulse)	CxA+
Vin- (Pulse)	CxA-	Vin+ (Dir)	CxB+
Vin+ (Dir)	CxB+	Vin- (Pulse)	CxB-
Vin- (Dir)	CxB-	Vin- (Dir)	GND
Note: In TTL status, A0+ and B0+ exist 2.3 potential voltage. So the logical level is high.			
Up/Down Counter Mode			
Isolation		Non-isolation	
Vin+ (Up)	CxA+	Vin+ (Up)	CxA+
Vin- (Up)	CxA-	Vin+ (Down)	CxB+
Vin+ (Down)	CxB+	Vin- (Up)	CxB-
Vin- (Down)	CxB-	Vin- (Down)	GND
Frequency Mode			
Isolation		Non-isolation	
Vin+ (Freq0)	CxA+	Vin+ (Freq0)	CxA+
Vin- (Freq0)	CxA-	Vin+ (Freq1)	CxB+
Vin+ (Freq1)	CxB+	Vin- (Freq0)	CxB-
Vin- (Freq1)	CxB-	Vin- (Freq1)	GND
Up Counter Mode			
Isolation		Non-isolation	
Vin+ (Up0)	CxA+	Vin+ (Up0)	CxA+
Vin- (Up0)	CxA-	Vin+ (Up1)	CxB+
Vin+ (Up1)	CxB+	Vin- (Up1)	CxB-
Vin- (Up1)	CxB-		

## Pin Assignments



Terminal No.	Pin Assignment
01	C0A+
02	C0A-
03	C0B+
04	C0B-
05	C1A+
06	C1A-
07	C1B+
08	C1B-
09	C2A+
10	C2A-
11	C2B+
12	C2B-
13	C3A+
14	C3A-
15	C3B+
16	C3B-
17	GND
18	GND
19	GND
20	GND

## Ordering Information

<b>I-8080 CR</b>	4/8-ch Counter/Frequency/Encoder Input Module (Blue Cover) (RoHS)
<b>I-8080-G CR</b>	4/8-ch Counter/Frequency/Encoder Input Module (Gray Cover) (RoHS)