



I-8017DW-G

8/16-ch Analog Input Module with DB37 Connector

Features

- 8 Differential/16 Single-ended Analog Input
- Voltage or Current (Jumper Select) Input
- 14-bit 100 kHz AD Converter
- Internal Trigger
- Individual Channel Configuration
- ± 4 kV ESD Protection
- 2500 VDC Intra-module Isolation
- Wide Operating Temperature Range: $-25 \sim +75$ °C



Introduction

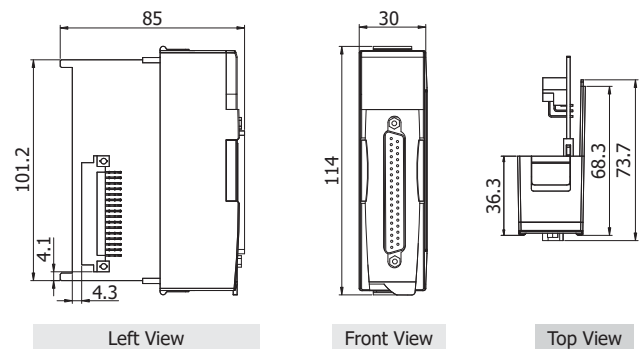
The I-8017DW is a high performance Analog Input Module. Up to 16 single-ended or 8 differential input channels are provided with 14-bit of resolution and 90 kS/s sampling rate. Each channel can be configured to an individual input range of ± 10 VDC, ± 5 VDC, ± 2.5 VDC, ± 1.25 VDC or ± 20 mA. The modules also provide ± 4 kV ESD protection as well as 2500 VDC intra-module isolation. All the three modules can be used to measure voltage and current source.

On the I-8017DW, an internal resistor is jumper-selectable for differential current input. The jumper is factory default setting for voltage measurement on the I-8017DW



I-8017DW-G with DN-37-381-A and DB37 Male to Female Cable (Optional)

Dimensions (Units: mm)



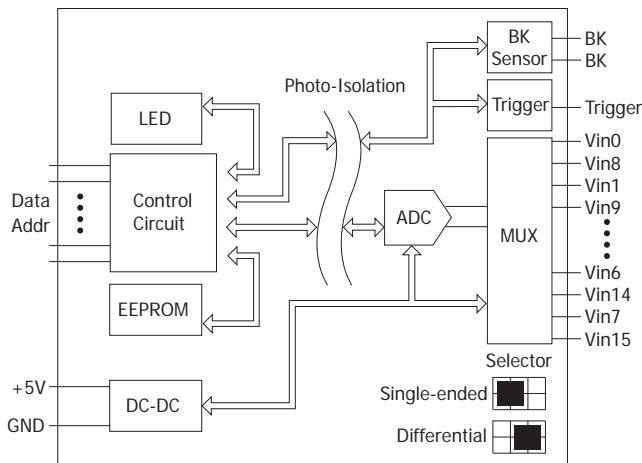
System Specifications

LED Indicator	
System LED Indicator	1 LED as Power Indicator
I/O LED Indicator	16 LEDs as I/O Status Indicator
Isolation	
Intra-module Isolation, Field-to-Logic	2500 VDC
EMS Protection	
ESD (IEC 61000-4-2)	± 4 kV Contact for each Terminal
Power	
Consumption	2 W Max.
Mechanical	
Dimensions (W x L x H)	30 mm x 114 mm x 85 mm
I/O Connector	D-Sub 37 Pin
Environment	
Operating Temperature	$-25 \sim +75$ °C
Storage Temperature	$-40 \sim +85$ °C
Humidity	10 ~ 90 % RH, Non-condensing

I/O Specifications

Analog Input	
Channels	16-ch Single-ended/ 8-ch Differential
Voltage Input Range	± 10 VDC, ± 5 VDC, ± 2.5 VDC, ± 1.25 VDC
Current Input Range	± 20 mA, Jumper Selectable
Resolution	14-bit
Sample Rate	Single Channel Polling Mode: 90 kS/s Single Channel Interrupt Mode: 50 kS/s 8 channel Scan Mode: 16 kS/s
Accuracy	$\pm 0.1\%$ of FSR
Zero Drift	± 0.1 μ V/°C
Span Drift	± 10 ppm/°C
Input Bandwidth	100 kHz
Input Impedance	20 K, 200 K, 20 M (Jumper Selectable)
Individual Channel Configuration	Yes

Internal I/O Structure



Wire Connections

Input	Differential	Singled-ended
Voltage Input Wiring		
Current Input Wiring		

Note: Differential Input Type: Current Input Wiring need to jumper at current input. Single-ended Input Type: Current Input Wiring need to jumper at voltage input, an options external 125 Ω resistor is required

Accessories

DN-37-A CR	Female DB37 to Screw Terminal Board (Pitch = 5.08 mm) with DIN-rail Mounting (RoHS) Include: CA-3710A (DB37 Male to Female Cable, 90°, 1 M)
DN-37-381-A CR	Female DB37 to Screw Terminal Board (Pitch = 3.81 mm) with DIN-rail Mounting (RoHS) Include: CA-3710A (DB37 Male to Female Cable, 90°, 1 M)
CA-3705A CR/CA-3710A/CA-3715A CR	DB37 Male to Female Cable, 90°, 0.5 M/1 M/1.5 M (RoHS)
CA-3710AM/CA-3720AM/CA-3730AM/CA-3750AM/CA-37100AM CR	Female DB37 to Screw Terminal Board (Pitch = 5.08 mm) with DIN-rail Mounting (RoHS) Include: CA-3710A (DB37 Male to Female Cable, 90°, 1 M)

Pin Assignments

Pin Assignment		Terminal No.	Pin Assignment	
Differential	Single-ended		Differential	Single-ended
AGND	AGND	19	37	BK Sensor* BK Sensor*
Trig	Trig	18	36	-
AI7-	AI15	17	35	-
AI7+	AI17	16	34	-
AI6-	AI14	15	33	-
AI6+	AI6	14	32	-
AI5-	AI13	13	31	-
AI5+	AI5	12	30	-
AI4-	AI12	11	29	-
AI4+	AI4	10	28	-
AI3-	AI11	09	27	-
AI3+	AI3	08	26	-
AI2-	AI10	07	25	-
AI2+	AI2	06	24	-
AI1-	AI9	05	23	-
AI1+	AI1	04	22	-
AI0-	AI8	03	21	AGND AGND
AI0+	AI0	02	20	AGND AGND
BK Sensor*	BK Sensor*	01		

BK Sensor*:
Check the cable is disconnected or not.

Input Type Selection	
JP1	
Input Impedance Select	
JP3	
JP2	

Ordering Information

I-8017DW-G CR	8/16-ch Analog Input Module with DB37 Connector (Current Input Mode: Jumper Select) (Gray Cover) (RoHS) Includes CA-4002F (DB37 connector Female with plastic cover)
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