



F-8017CH

8-ch Isolated Current Input Redundant Module with HART Master Interface

Features

- 8 current input channels
- Overrange measurement (0~24 mA)
- Built-in HART master interface
- 16 bit A/D Converter
- 500 Hz sampling rate
- Termination board break off detection
- Redundant switching time (<100 us)



Introduction

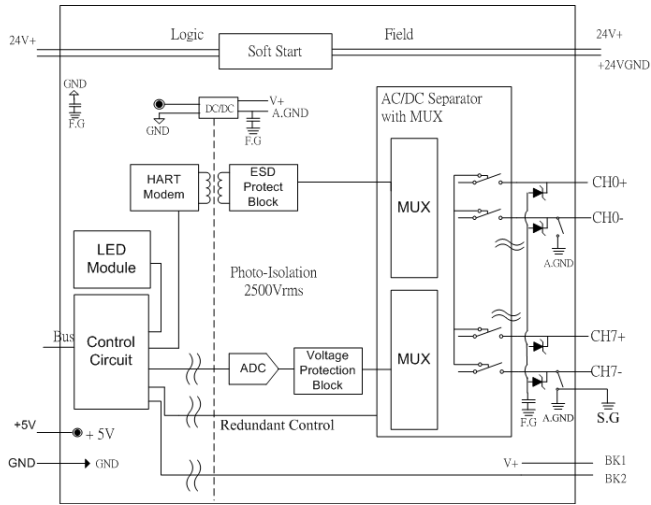
F-8017C1 is a 16-bit 8-channel analog differential input module that provides a 500Hz sampling rate, a current input range of 4~20mA, an error value of $\pm 0.05\%$, enabling high-accuracy applications, and supports $\pm 25\%$ over-range measurements (accuracy not guaranteed). In addition to current input, F-8017CH also has a built-in HART master interface, which can remotely maintain equipment through HART. It also provides 3000 V_{DC} isolation between the power supply and the backplane bus, making it better able to prevent noise interference in industrial environments without affecting the iDCS-8000 system.

Specifications

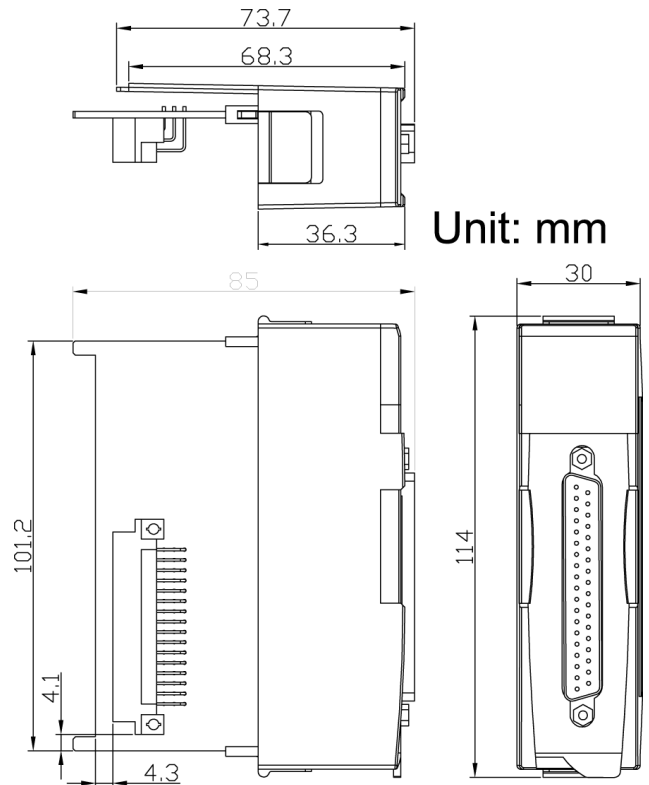
Feature	
Redundant	Yes (Switching time < 100us)
Termination board break off detection	Yes
Over-Current Protection	Yes
HART	Yes, Supports HART master
LED indicator	1 RUN, 1 ACT, 1 DUX
Analog Input	
Number of channels	8
Type	4~20 mA (Support $\pm 25\%$ overrange)
Max. Input Current	24 mA
Resolution	16 bit
Sampling Rate	500 Samples/Sec.
Accuracy	$\pm 0.05\%$ FSR
Zero Drift	$\pm 20 \mu\text{V}/^\circ\text{C}$
Span Drift	$\pm 25 \text{ ppm}/^\circ\text{C}$
Common Mode Rejection	86 dB
Normal Mode Rejection	100 dB
Input Impedance	120 Ω

Analog Input	
Date Range	-2500~12500 (0~24 mA)
Isolation	3000 V _{DC}
Certification	
Emission	IEC 61000-6-4
Immunity	IEC 61000-6-2
	IEC 61000-4-3
	IEC 61000-4-4
	IEC 61000-4-6
	IEC 61000-4-9
	IEC 61000-4-10
IEC 61000-4-12	
General	
Termination Board	DN-AIH-08
Max. Power Consumption	7.5 W
Operating Temp.	-25 ~ 75 $^\circ\text{C}$
Storage Temp.	-30 ~ 80 $^\circ\text{C}$
Humidity	5 ~ 95 % RH, Non-condensing
Weight	300g
Dimensions (WxLxH)	30mm x 85mm x 115mm

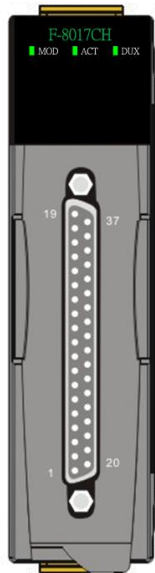
Internal I/O Structure



Dimension (unit: mm)



Pin Assignment



Pin Assignment Name	Terminal No.	Pin Assignment Name
+24V	19	37 BK2
X	18	36 24V.GND
X	17	35 X
X	16	34 X
X	15	33 X
X	14	32 X
X	13	31 X
X	12	30 X
X	11	29 X
X	10	28 X
CH7-	09	27 CH7+
CH6-	08	26 CH6+
CH5-	07	25 CH5+
CH4-	06	24 CH4+
CH3-	05	23 CH3+
CH2-	04	22 CH2+
CH1-	03	21 CH1+
CH0-	02	20 CH0+
BK1	01	

37-pin male D-Sub Connector

Ordering Information

F-8017CH CR	8-ch Isolated Current Input Redundant Module with HART master Interface (RoHS)
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Accessories

CA-3710AM CR	DB37 Male to Female, with Molded Cable, 45°, 1M (RoHS)
DN-AIH-08 CR	Termination board for HART analog input with EMS protection and over-current protected and isolated passive loop power (RoHS)