

F-8017CH

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



Model: F-8017CH

Features

- 8 current input channels
- Overrange measurement
- Built-in HART master interface
- RoHS compliance
- 3000 VDC isolation from output to backplane
- 3000 VDC isolation from output to frame ground
- Redundancy
- Fast redundant switching time (<100us)

Introduction

The F-8017CH is a 16-bit, 8-channel analog differential input module. This module accepts current input range 4~20mA and supports 25% over range measurement (Accuracy is not guaranteed). Besides, it has $\pm 0.05\%$ accuracy for highly accurate application. Moreover, this module provides 500Hz sampling rate for some application. In addition to current input, F-8017CH is also built-in HART master interface to remotely maintain devices via HART. The F-8017CH provides 3000VDC optical isolation between channels and backplane bus. If any high voltage or current damages these channels, this module won't affect other component in iDCS-8000 system.

Applications

- Building Automation
- Factory Automation
- Machine Automation
- Remote Maintenance
- Remote Diagnosis
- Testing Equipment

Specifications

Feature	
HART interface	Yes, supports HART master
Over-Current Protection	Yes (Switching time < 100us)
Over-Current Protection	Yes
Termination board break off detection	Yes
LED indicator	1 RUN, 1 ACT, 1 DUX
Analog Input	
Number of channels	8
Type	4 ~ 20 mA (Support $\pm 25\%$ overrange)
Maximum Allowable Input Current	25 mA
Resolution	16 bit
Sampling Rate	500 Samples/sec(Total)
Accuracy	$\pm 0.05\%$ FSR
Zero Drift	$\pm 20 \mu\text{V}/^\circ\text{C}$

Common Mode Rejection	86 dB
Normal Mode Rejection	100 dB
Input Impedance	120 Ω
Data Range	-2500~12500
Isolation	3000 VDC
HART	
Mode	Master, Monodrop (Point-to-Point)
Certification	
EMC	EN61000-6-2, EN61000-6-4, IEC/EN 61000-4-2, IEC/EN 61000-4-4
General	
Termination board	DN-AIH-08
Maximum power consumption	1.2 W + 7.5W ¹
Operating temperature	-25°C~ +75°C
Humidity	5 ~ 95 % RH, Non-condensing
Weight	300 g
Dimensions (W x L x H)	30 mm x 85 mm x 115 mm

1. F-8017CH provides the power for the passive loop, so there will be an extra power for the transmitter in the field. The amount of power consumption depends on the number of transmitters.

Ordering Information

F-8017C1 CR	8-channel Isolated Current Input Redundant Module with HART Master Interface(Gray Cover)(RoHS)
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Accessories

DN-37-A	I/O Connector Block with DIN-Rail Mounting and 37-pin D-sub Connector (pitch: 5.08 mm)
DN-37-381-A	I/O Connector Block with DIN-Rail Mounting and 37-pin D-sub Connector (pitch: 3.81 mm)
DN-AIH-08	Termination board for current input with HART master interface modules
CA-01	D-Sub 37pin Female-Male 1m Cable
CA-02	D-Sub 37pin Female-Male 2m Cable
CA-03	D-Sub 37pin Female-Male 3m Cable
CA-05	D-Sub 37pin Female-Male 5m Cable