



R-9017C1H

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
- Channel disconnection detection
- Termination board disconnection detection
- Redundant switching time (< 1 ms)



Introduction

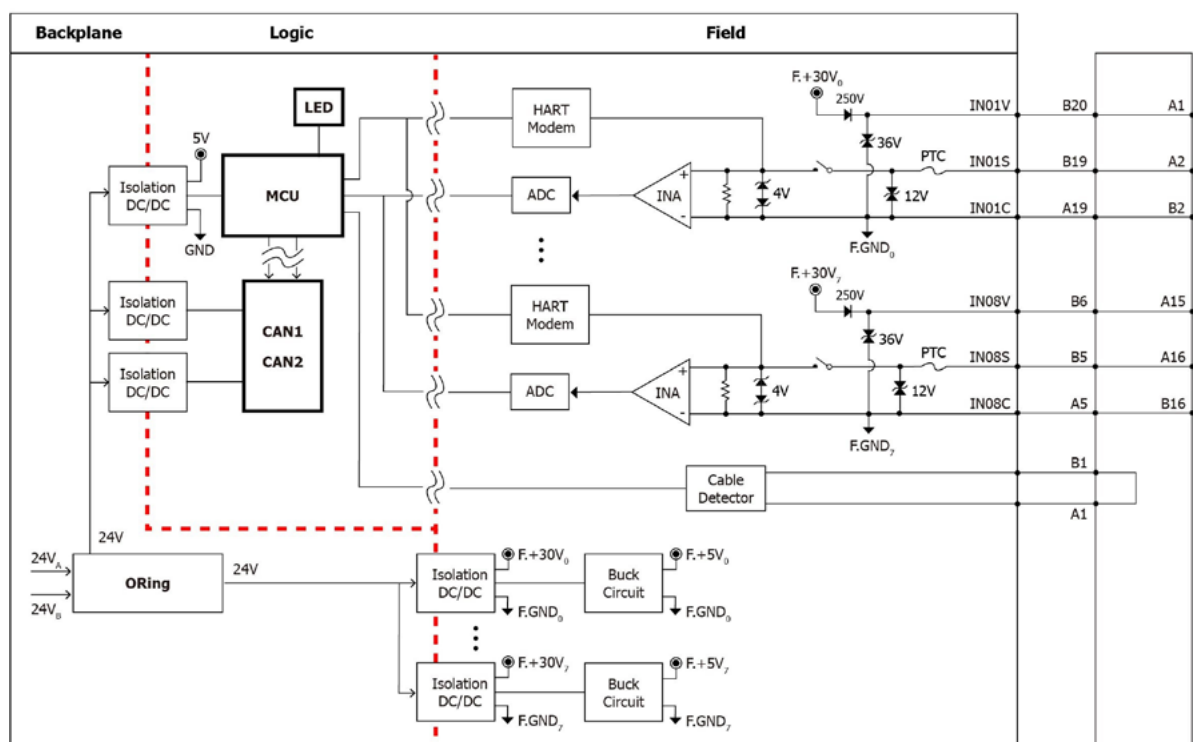
R-9017C1H is a 16-bit 8-channel isolated analog input module that provides a 100Hz sampling rate, a current input range of 4~20mA, an error value of $\pm 0.05\%$, enabling high-accuracy applications, and supports $\pm 25\%$ over-range measurements (accuracy not guaranteed). In addition to current input, R-9017C1H also has a built-in HART master interface, which can remotely maintain equipment through HART. It also provides 3000 VDC isolation between the power supply and the backplane bus, making it better able to prevent noise interference in industrial environments without affecting the RIO-98x0 system.

Specifications

Features	
Redundant	Yes (Switching time < 1 ms)
Disconnection Detection	Yes
Over-Current Protection	Yes
HART	Yes, supports HART master
LED Indicator	1 PWR, 1 MOD, 1 ACT, 1 DX, 1 ERR
	LED 0~7 for CH Hi/Lo Alarm LED 16~23 for CH Break Line
Analog Input	
Number of Channels	8
Type	4~20 mA (Support $\pm 25\%$ overrange)
Max. Input Current	24 mA
Resolution	16 bit
Sampling Rate	100 Samples/Sec.
Accuracy	$\pm 0.05\%$ FSR
Zero Drift	± 0.002 LBS/°C
Span Drift	± 5 ppm/°C
Common Mode Rejection	86 dB
Normal Mode Rejection	100 dB

Analog Input	
Input Impedance	105.3 Ω $\pm 1\%$ (Single/Duplex)
Date Range	-2500~12500 (0~24 mA)
Isolation	3000 VDC
HART	
Mode	Master, Monodrop (Point-to-Point)
Certification	
EMC	EN 61000-6-2 (EMS) EN 61000-6-4 (EMI) IEC/EN 61000-4-2 (ESD) IEC/EN 61000-4-4 (EFT)
General	
Termination Board	RDB-S09 / RDB-D09
Max. Power Consumption	4.6 W
Operating Temp.	-25 ~ 70 °C
Storage Temp.	-30 ~ 75 °C
Humidity	5 ~ 95 % RH, Non-condensing
Weight	350 g
Dimensions (WxLxH)	33 mm x 129 mm x 130 mm

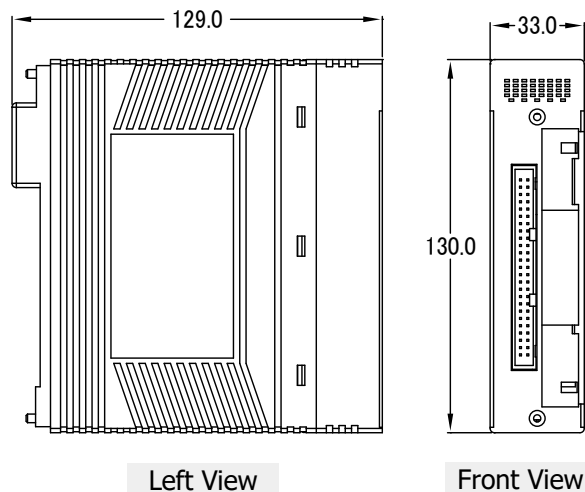
I/O Structure



Pin Assignment

Pin Assignment Name	Terminal No.	Pin Assignment Name
IN01_V (V)	A1	B1
IN01_S (S)	A2	B2
IN02_V (V)	A3	B3
IN02_S (S)	A4	B4
IN03_V (V)	A5	B5
IN03_S (S)	A6	B6
IN04_V (V)	A7	B7
IN04_S (S)	A8	B8
IN05_V (V)	A9	B9
IN05_S (S)	A10	B10
IN06_V (V)	A11	B11
IN06_S (S)	A12	B12
IN07_V (V)	A13	B13
IN07_S (S)	A14	B14
IN08_V (V)	A15	B15
IN08_S (S)	A16	B16
X	A17	B17
X	A18	B18
X	A19	B19
BK	A20	B20

Dimensions (Units: mm)



Ordering Information

R-9017C1H CR	8-ch Isolated Current Input Redundant Module with HART master Interface (RoHS)
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Accessories

RDB-S09 CR	Termination board for single isolated analog modules and single pulse input modules (RoHS)
RDB-D09 CR	Termination board for duplex isolated analog modules and duplex pulse input modules (RoHS)