



R-9041

32-ch Isolated DO Redundant Module

Features

- 32 digital output (sink) channels
- Safety value (Preset/Hold)
- Power-on value
- Input channel LED indication
- Termination board disconnection detection
- Digital output diagnostic function
- Redundant switching time (<1 ms)



Introduction

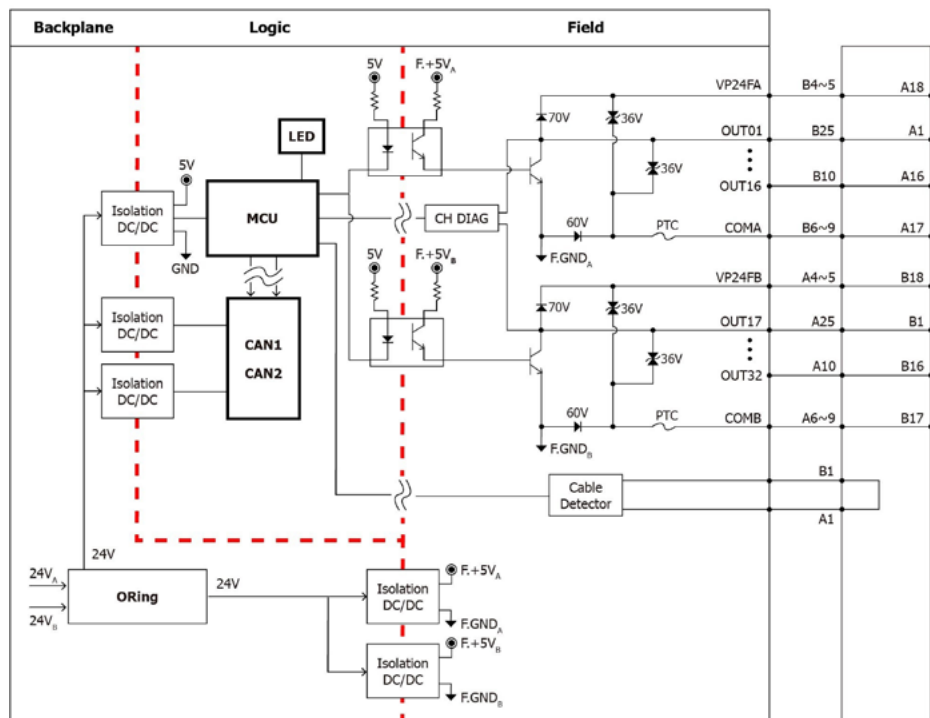
R-9041 is equipped with 32 NPN digital output channels (sink mode), each capable of driving a 0.1A load. It provides LED indicators for the ON/OFF status of each output channel and supports disconnection detection between the module and terminal board. Additionally, it features 3000VDC isolation between channels and backplane bus, enhancing its ability to resist noise interference in industrial environments without affecting the operation of the RIO-98x0 system.

Specifications

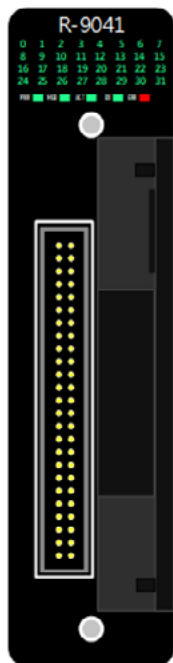
Features	
Redundant	Yes (Switching time < 1ms)
Disconnection Detection	Yes
Safety Value	Yes (Preset/Hold)
Power-on Value	Yes
LED Indicator	1 PWR, 1 MOD, 1 ACT, 1 DX, 1 ERR
I/O Indicator	32 as channel 0~31 status
Digital Output	
Number of Channels	32 (NPN) (P-COM) (Ch00~15 : GNDG1 ; Ch16~31 : GNDG2)
Type	Current Sinking, Open-Collector
Output Load Current	100 mA/Channel @24 VDC
Output Switching	100 us
Output Impedance	< 1 Ω
Channel Protection	Over-current Protection
Isolation	3000 VDC

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-S05, RDB-D05
Max. Power Consumption	1.7 W
Operating Temperature	-25 ~ 70 °C
Storage Temperature	-30 ~ 75 °C
Humidity	5 ~ 95 % RH, Non-condensing
Weight	200g
Dimensions (WxLxH)	33mm x 129mm x 130mm

I/O Structure

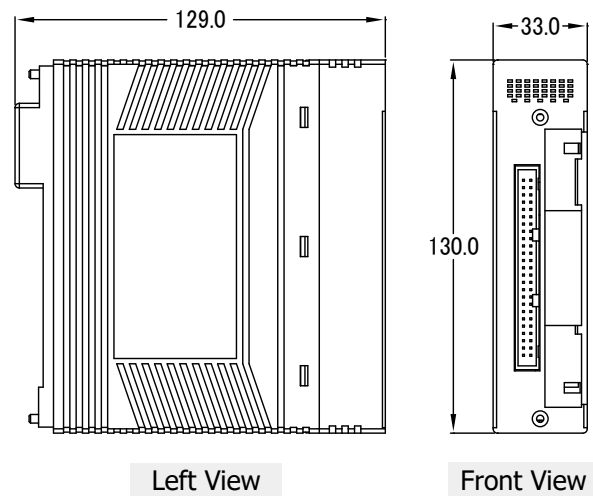


Pin Assignment



Pin Assignment Name	Terminal No.	Pin Assignment Name
DO_0	A1	B1
DO_1	A2	B2
DO_2	A3	B3
DO_3	A4	B4
DO_4	A5	B5
DO_5	A6	B6
DO_6	A7	B7
DO_7	A8	B8
DO_8	A9	B9
DO_9	A10	B10
DO_10	A11	B11
DO_11	A12	B12
DO_12	A13	B13
DO_13	A14	B14
DO_14	A15	B15
DO_15	A16	B16
COM_A	A17	B17
COM_A	A18	B18
COM_A	A19	B19
COM_A	A20	B20
Ext. 24V_A	A21	B21
Ext. 24V_A	A22	B22
X	A23	B23
X	A24	B24
BK	A25	B25

Dimensions (Units: mm)



Ordering Information

R-9041 CR	32-ch Isolated DO Redundant Module (RoHS)
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Accessories

RDB-S05 CR	Termination board for single digital output modules (RoHS)
RDB-D05 CR	Termination board for duplex digital output modules (RoHS)