

FR-2057iT/iTA/iTW

16-channel Isolated Digital Output and Isolated Communication Line Distributed I/O Module

Features

- Built-in Wire-saving FRnet DI/DO control
- Simple synchronization mechanism
- No software overhead on protocol processing
- Supporting broadcasting (1:n data transmission)
- Duplicating output easily
- Fixed I/O scan-time and I/O synchronization
- High/Low-speed transmission reliability

Introduction

The FR-2057iT/iTA/iTW I/O module has an FRnet interface. The users can daisy chain several FR-2057iT/iTA/iTW modules together. Via FRnet, the FR-2057iT/iTA/iTW modules can extend the remote I/O control of PC, PAC and PLC easily.

Further information about the networking of FR-2057iT/2057iTA/2057iTW; refer to literature related to I-8172W, FRB-100U/200U. According to different applications, the users can choose suitable modules.

The FR-2057iTA has 16-channel isolated source output.

The FR-2057iT/FR-2057iTW has 16-channel isolated sink output.

Specifications

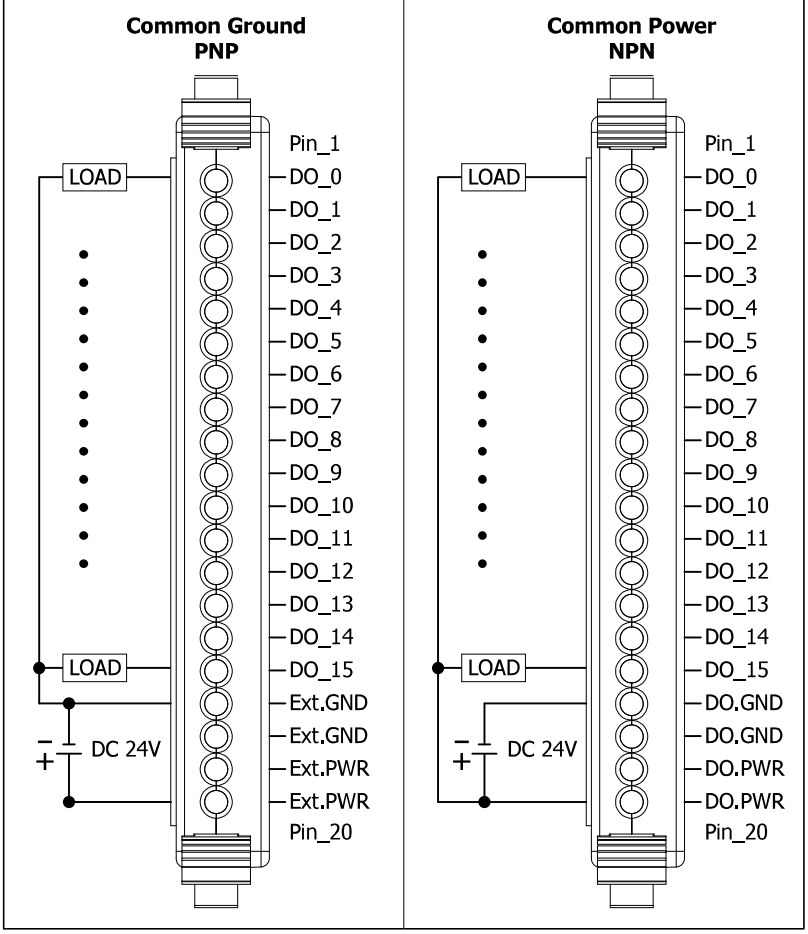
Models	FR-2057iT	FR-2057iTA	FR-2057iTW
Isolation			
Intra-module Isolation	3750 Vrms		
EMS Protection			
EFT (IEC 61000-4-4)	Yes		
ESD (IEC 61000-4-2)	Yes		
Surge (IEC 61000-4-5)	Yes		
LED Indicators			
Status	Power, Communication Run, Communication Error, Terminal Resistor, Digital Output		
Digital Output			
Channels	16		
Type	Open-Collector		
Sink/Source (NPN/PNP)	Source (PNP)	Sink (NPN)	
Load Voltage	30 VDC Max.		
Max. Load Current	100 mA Max.		250 mA Max.
Isolation	3750 Vrms		
FRnet			
Wire Cable	2-wire cabling Belden 9841 (2P twisted-pair cable), When different cables are used, the transmission distance may change		
Transfer Speed	250 kbps and 1 Mbps (Default) DIP Switch Settings		
Transfer Distance	Max. 400 m for speed 250 kbps Max. 100m for speed 1Mbps (Default)		
Cyclic Time	2.88 ms for speed 250 kbps 0.72 ms for speed 1 Mbps (Default)		
Communication Line	Isolation		
Power			
Reverse Polarity Protection	Yes		
Input Range	+10 ~ +30 VDC (Isolation)		
Consumption	2.4 W Max.		

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Models	FR-2057iT	FR-2057iTA	FR-2057iTW
Mechanical			
Casing	Plastic		
Dimensions (mm)	33 x 102 x 110 (W x L x H)		
Installation	DIN-Rail Mounting		
Environment			
Operating Temperature	-25 to +75°C		
Storage Temperature	-30 to +85°C		
Humidity	10 to 90% RH, Non-condensing		

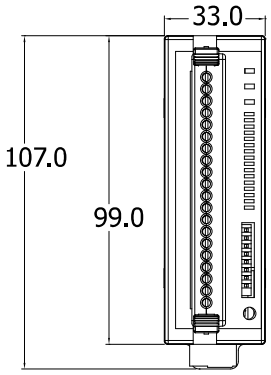
Pin Assignments and Wire Connections

FR-2057iTA	FR-2057iT/FR-2057iTW

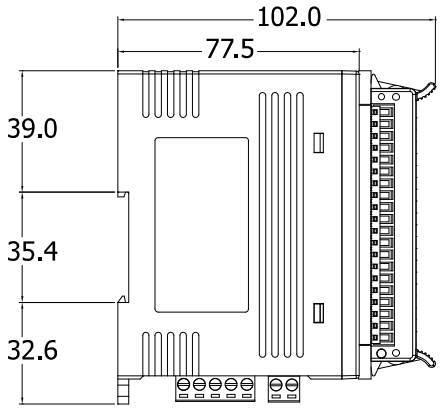


Dimensions (Units: mm)

FR-2057iT/FR-2057iTA/FR-2057iTW



Front View



Left View

Ordering Information

FR-2057iT CR	FRnet I/O Module with 16-channel Isolated DO (Sink, NPN, 5~30 VDC) and Isolated Communication Line (RoHS)
FR-2057iTA CR	FRnet I/O Module with 16-channel Isolated DO (Source, PNP, 30 VDC) (250 kbps, Max. 400 m) and Isolated Communication Line (RoHS)
FR-2057iTW CR	FRnet I/O Module with 16-channel Isolated High Current DO (Sink, NPN, 30 VDC, 250 mA, Max) and Isolated Communication Line (RoHS)

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