

FR-2053iT/iTA

16-channel Isolated Digital Input 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-speed transmission reliability

Introduction

The FR-2053iT/iTA series I/O module has an FRnet interface. The users can daisy chain several FR-2053iT/iTA modules together. Via FRnet, the FR-2053iT/iTA modules can extend the remote I/O control of PC, PAC and PLC easily. Further information about the networking of FR-2053iT/iTA; refer to literature related to I-8172W, FRB-200U. According to different applications, the users can choose suitable modules.

The FR-2053iT/FR-2053iTA has 16-channel isolated Sink/Source input.

Specifications

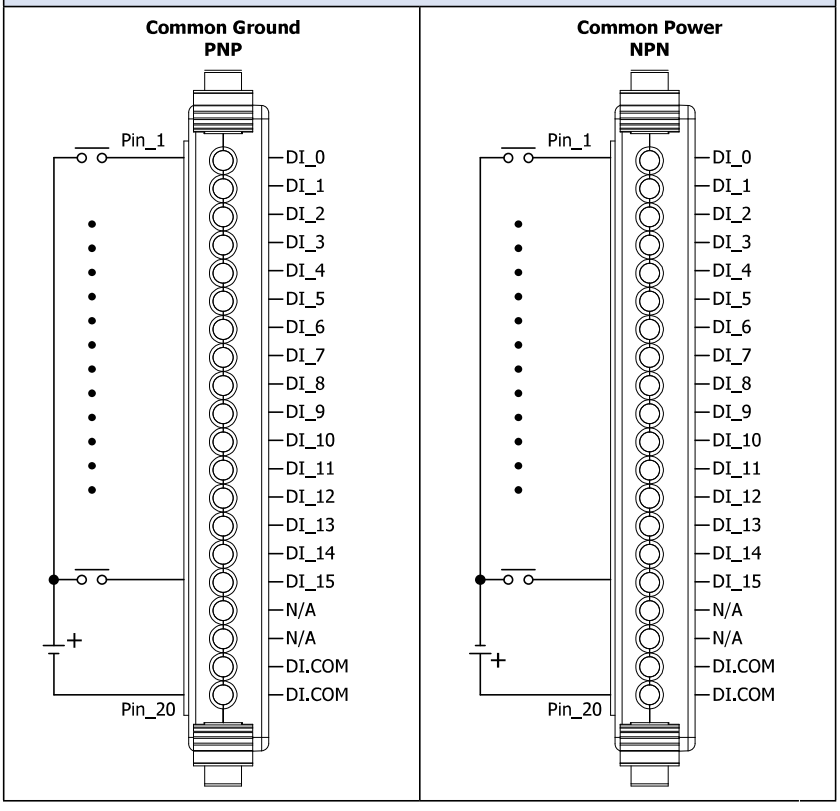
Models	FR-2053iT	FR-2053iTA
Isolation		
Intra-module Isolation	3000 Vrms	
EMS Protection		
EFT (IEC 61000-4-4)	Yes	
ESD (IEC 61000-4-2)	Yes	
Surge (IEC 61000-4-5)	Yes	
LED Indicators		
Status	Power, Communication Run, Communication Error, Terminal Resistor, Digital Input	
Digital Input		
Channels	16	
Type	Wet Contact	
Sink/Source (NPN/PNP)	Sink/Source (NPN/PNP)	
ON Voltage Level	+19 ~ +30 VDC	+3.5 ~ +30 VDC
OFF Voltage Level	+11 VDC Max.	+1 VDC Max.
Isolation	3750 Vrms	
Input Impedance	3.25 KΩ, 0.25 W	3 KΩ
Connection	20-Pin Removable Terminal Block	
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 1Mbps (Default) DIP Switch Settings	
Transfer Distance	Max. 400 m for speed 250 kbps Max. 100 m for speed 1M (Default)	
Cyclic Time	2.88 ms for speed 250 K 0.72 ms for speed 1M (Default)	
Connector	Isolation	

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Models	FR-2053iT	FR-2053iTA
Power		
Reverse Polarity Protection	Yes	
Input Range	+10 ~ +30 VDC (Isolation)	
Consumption	2.4 W Max.	
Power LED Indicator	5-Pin Removable Terminal Block	
Mechanical		
Casing	Plastic	
Flammability	UL 94V-0 materials	
Dimensions (mm)	33 x 102 x 107 (W x L x H)	
Installation	DIN-Rail Mounting	
Environment		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-30 ~ +85 °C	
Humidity	10 ~ 90% RH, Non-condensing	

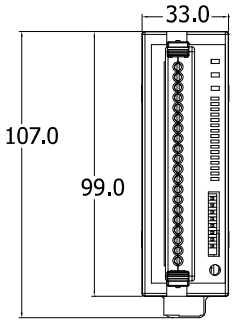
Pin Assignments and Wire Connections

FR-2053iT/ FR-2053iTA

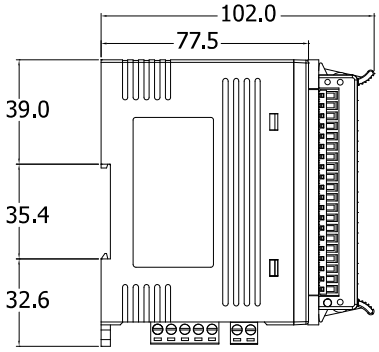


Dimensions (Units: mm)

FR-2053iT/FR-2053iTA



Front View



Left View

Ordering Information

FR-2053iT CR	FRnet I/O Module with 16-channel Isolated DI (19 ~ 30 VDC) and Isolated Communication Line (RoHS)
FR-2053iTA CR	FRnet I/O Module with 16-channel Isolated DI (3.5 ~ 30 VDC) and Isolated Communication Line (RoHS)

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