MN-3253/MN-3253T

Distributed Motionnet 32-ch Isolated DI Module

Features:
- Maximum communication speed: 20 Mbps
- 32-ch isolated digital inputs
- Each Motionnet transfer Line: connect modules up to 64
- Designing isolation protection: power, communication, I/O
- LED Diagnostics for communication and I/O status
- Each port can be specified as NPN or PNP (12~24 V)

Introduction:
The MN-3253(T) is an I/O expansion device for Motionnet systems, and is equipped with 32 isolated digital input channels. Each Motionnet communication line can be connected to up to 64 modules, meaning that the I/O can be expanded to up to 2048 input channels. The communication time required by each MN-3253(T) is 15.1 us. If 64 modules have been connected, signals for 2048 points on 64 modules can be sent and received within 0.97 msec. The update of the I/O status is completed automatically through the Motionnet system at a constant interval, and setting interrupts for specific input points that the customer wants to monitor can help prevent CPU time from being wasted by repetitive polling when there is nothing else for the issuing process to do. Each input port can be specified as either NPN or PNP (12~24 V).

Specifications:

| Digital Input	
Input Channels	32
Input Type	Sink/Source (NPN/PNP)
On Voltage Level	+10 ~ 30 VDC
Off Voltage Level	+3 VDC max.
Input Impedance	4.7K Ohm
Isolation Voltage	3000 Vrms
Interface	
LED Indicators	Communication state (Link, Error) Input/output state Internal 3.3 V Power Termination resistor switch
Communication Speed	Selectable 2.5, 5, 10 or 20 Mbps by DIP Switch.
Cyclic Scan Time	15.1 µs per device (20 Mbps)
Communication Connector	MN-3253: RJ-45 x 2 MN-3253T: 5-pin terminal block
I/O Connector	13-Pin pluggable Terminal block x 4

Power	
Voltage Range	24 VDC (1000 V isolated)
Power Consumption	2 W max.
Protection	Reverse voltage and overcurrent protection
Connection	7-pin removable terminal block
Mechanical	
Case	Plastic
Dimensions (W x H x D)	31 mm x 140 mm x 126.6 mm
Installation	DIN-Rail mounting
Environmental	
Operating Temperature	0 ~ + 60°C
Storage Temperature	-20 ~ +80°C
Operating Humidity	10 ~ 85%; Non-condensing
Storage Humidity	5 ~ 95%; Non-condensing

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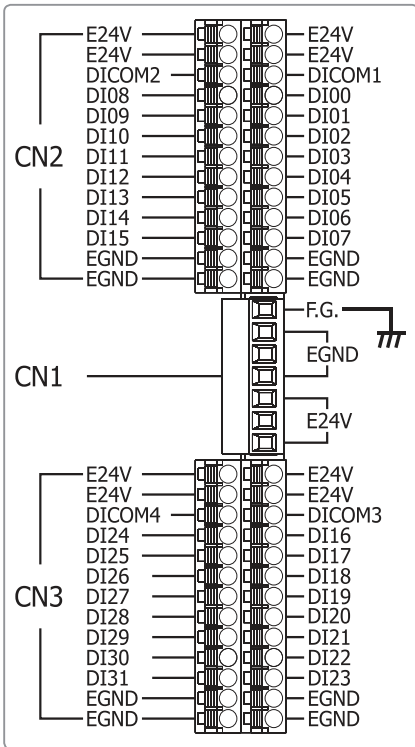
Pin Assignments:

NO.	Pin Define	Specifications	I/O Define
CN1 Pin Assignments			
1	FG	Frame Ground	-
2 ~ 4	EGND	External Ground	Input
5 ~ 7	E24V	External 24V(+)	Input
CN2A (Right) Pin Assignments			
1 ~ 2	E24V	External 24V(+)	Connect to CN1
3	DICOM1	Common terminal of DI00~DI07	Input
4 ~ 11	DI00~DI07	Digital input channels 00~07	Input
12 ~ 13	EGND	External Ground	Connect to CN1
CN2B (Left) Pin Assignments			
1 ~ 2	E24V	External 24V(+)	Connect to CN1
3	DICOM2	Common terminal of DI08~DI15	Input
4 ~ 11	DI08~DI15	Digital input channels 08~15	Input
12 ~ 13	EGND	External Ground	Connect to CN1
CN3A (Right) Pin Assignments			
1 ~ 2	E24V	External 24V(+)	Connect to CN1
3	DICOM3	Common terminal of DI16~DI23	Input
4 ~ 11	DI16~DI23	Digital input channels 16~23	Input
12 ~ 13	EGND	External Ground	Connect to CN1
CN3B (Left) Pin Assignments			
1 ~ 2	E24V	External 24V(+)	Connect to CN1
3	DICOM4	Common terminal of DI24~DI31	Input
4 ~ 11	DI24~DI31	Digital input channels 24~31	Input
12 ~ 13	EGND	External Ground	Connect to CN1

Dimensions: (Units: mm)

Front View

Right Side View

Top View
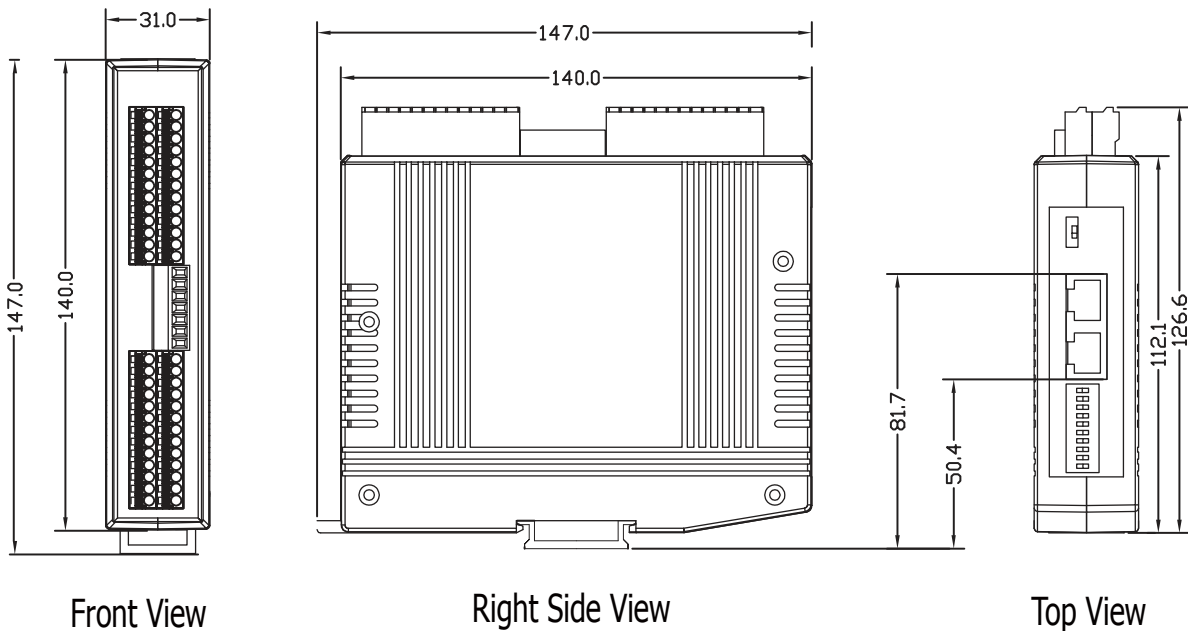
Ordering Information/Accessories:

Model No.	Description
MN-3253 CR	Distributed Motionnet 32-ch Isolated DI Module with RJ-45 Connector (RoHS)
MN-3253T CR	Distributed Motionnet 32-ch Isolated DI Module with Terminal Block (RoHS)
PISO-MN200(T/EC) CR	PCI Bus, Dual-Line Motionnet Master Control Card (RoHS)
MN-SERVO Series CR MN-SERVO -EC Series CR	Distributed Motionnet Single-axis Motion Control Modules (with Spring Type Terminal Blocks; EC: with e-CON Mini-Clamp Connector) (RoHS)
MN-2091U CR MN-2091U-T CR	Distributed Motionnet Single-axis Universal Motion Control Module (RoHS)

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