



## 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

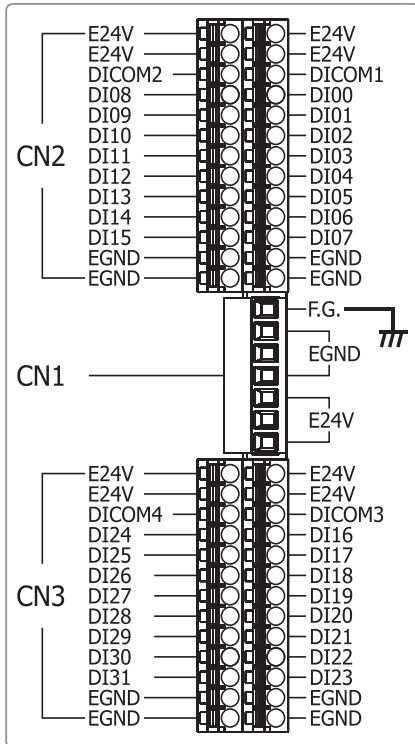
The **MN-3253(T)** is an I/O expansion device for Motionnet systems, and is equipped with 32 isolated digital input channels. Each Motionnet communication line can be connected to up to 64 modules, meaning that the I/O can be expanded to up to 2048 input channels. The communication time required by each MN-3253(T) is 15.1  $\mu$ s. 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

Model	MN-3253	MN-3253T
<b>Digital Input</b>		
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	
<b>Interface</b>		
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 $\mu$ s 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	

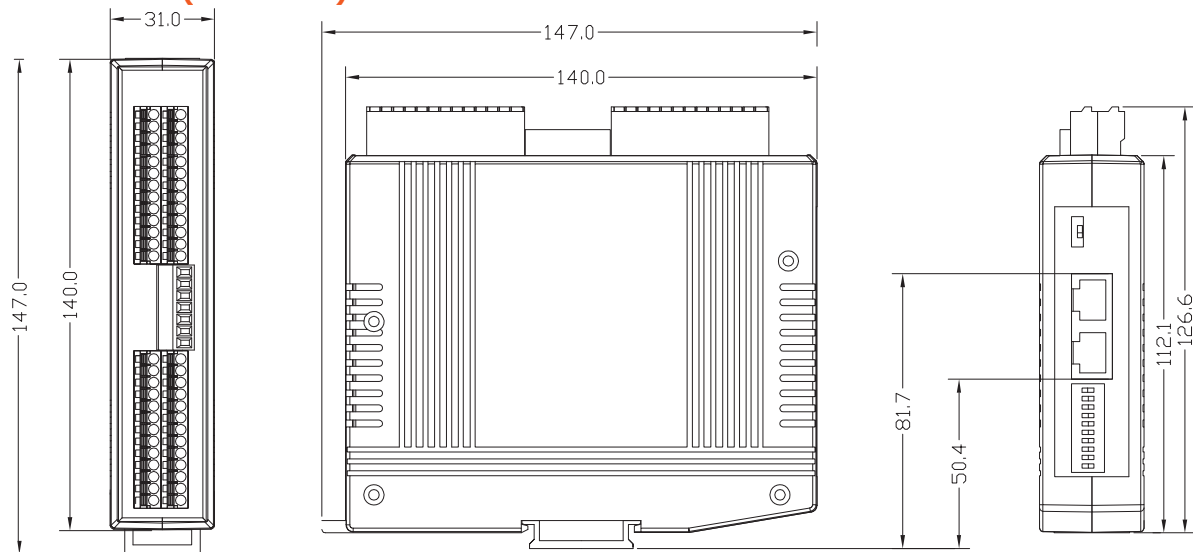
Model	MN-3253	MN-3253T
<b>Power</b>		
Voltage Range	24 VDC (1000 V isolated)	
Power Consumption	2 W max.	
Protection	Reverse voltage and overcurrent protection	
Connection	7-pin removable terminal block	
<b>Mechanical</b>		
Case	Plastic	
Dimensions (W x H x D)	31 mm x 140 mm x 126.6 mm	
Installation	DIN-Rail mounting	
<b>Environmental</b>		
Operating Temperature	0 ~ + 60°C	
Storage Temperature	-20 ~ +80°C	
Operating Humidity	10 ~ 85%; Non-condensing	
Storage Humidity	5 ~ 95%; Non-condensing	

## Pin Assignments



NO.	Pin Define	Specifications	I/O Define
<b>CN1 Pin Assignments</b>			
1	FG	Frame Ground	-
2 ~ 4	EGND	External Ground	Input
5 ~ 7	E24V	External 24V(+)	Input
<b>CN2A (Right) Pin Assignments</b>			
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
<b>CN2B (Left) Pin Assignments</b>			
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
<b>CN3A (Right) Pin Assignments</b>			
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
<b>CN3B (Left) Pin Assignments</b>			
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

<b>MN-3253 CR</b>	Distributed Motionnet 32-ch Isolated DI Module with RJ-45 Connector (RoHS)
<b>MN-3253T CR</b>	Distributed Motionnet 32-ch Isolated DI Module with Terminal Block (RoHS)

## Related Products

PISO-MN200(T/EC) CR	PCI Bus, Dual-line Motionnet Master Card (RoHS)
MN-SERVO-xxx(-EC) Series CR	Distributed Motionnet Single-axis Motion Control Modules (MJ3 / PA4 / YSV / DAA) (RoHS)
MN-2091U(-T) CR	Distributed Motionnet Single-axis Universal Motion Control Module (RoHS)
MN-MP4U-DIN CR	Distributed Motionnet Four-axis Universal Motion Control Module (RoHS)
MN-3254(T) CR / MN-D622-DIN CR	Distributed Motionnet 16-ch Isolated DI 16-ch Isolated DO Module (RoHS)
MN-D640-DIN CR	Distributed Motionnet 32-ch Isolated DI Module (RoHS)
MN-3257(T) CR / MN-D604-DIN CR	Distributed Motionnet 32-ch Isolated DO Module (RoHS)
MN-AD8-DIN CR	Distributed Motionnet 8-ch Analog Input Module (RoHS)
MN-DA2-DIN CR	Distributed Motionnet 2-ch Analog Output Module (RoHS)
MN-HUB4(EC) CR	Distributed Motionnet 4 Port Hub Module (RoHS)