ICP DAS

Features

- Maximum communication speed: 20 Mbps
- 32-ch isolated digital outputs
- Each Motionnet transfer Line: connect modules up to 64
- Designing isolation protection: power, communication, I/O
- LED Diagnostics for communication and I/O status
- The internal flywheel diode of each output ports can be connect to different sources of power individually.
- High current sinking capability (200 mA)

CE FC RoHS

MN-3257/MN-3257T
Distributed Motionnet 32-ch Isolated DO Module
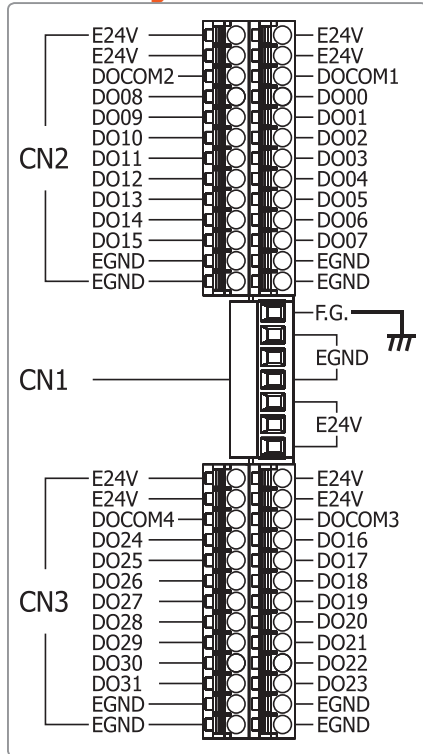
Introduction

The **MN-3257(T)** is an I/O expansion device for Motionnet systems, and is equipped with 32 isolated digital output channels. Each Motionnet communication line can be connected to up to 64 modules, meaning that the I/O can be expanded to 2048 output channels. The communication time required by each MN-325x 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. The internal flywheel diodes of each output port can be individually connected to different sources of power (each port is comprised of 8 I/O signals).
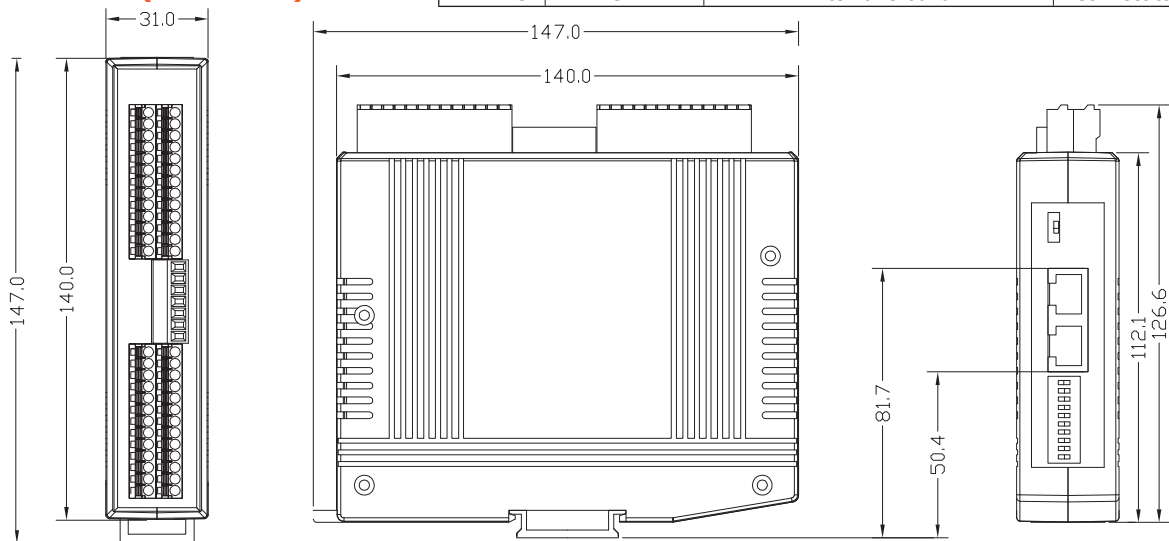
Specifications

Model	MN-3257	MN-3257T
Digital Output		
Output Channels	32	
Output Type	Open Collector (Sink), with internal flywheel diode	
Load Voltage	+30 VDC max.	
Load Current	200 mA max. for each channel	
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-3257: RJ-45 x 2 MN-3257T: 5-pin terminal block	
I/O Connector	13-pin pluggable Terminal block x 4	

Model	MN-3257	MN-3257T
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	

■ Pin Assignments

CN2
- E24V — E24V
- E24V — E24V
- DOCOM2 — DOCOM1
- DO08 — DO00
- DO09 — DO01
- DO10 — DO02
- DO11 — DO03
- DO12 — DO04
- DO13 — DO05
- DO14 — DO06
- DO15 — DO07
- EGND — EGND
- EGND — EGND

CN1
- F.G.
- EGND
- E24V

CN3
- E24V — E24V
- E24V — E24V
- DOCOM4 — DOCOM3
- DO24 — DO16
- DO25 — DO17
- DO26 — DO18
- DO27 — DO19
- DO28 — DO20
- DO29 — DO21
- DO30 — DO22
- DO31 — DO23
- EGND — EGND
- EGND — EGND

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	DOCOM1	Common Anode for Flywheel Diode of DO00~DO07	Input
4 ~ 11	DO00~DO07	Digital output channels 00~07	Output
12 ~ 13	EGND	External Ground	Connect to CN1
CN2B (Left) Pin Assignments			
1 ~ 2	E24V	External 24V(+)	Connect to CN1
3	DOCOM2	Common Anode for Flywheel Diode of DO08~DO15	Input
4 ~ 11	DO08~DO15	Digital output channels 08~15	Output
12 ~ 13	EGND	External Ground	Connect to CN1
CN3A (Right) Pin Assignments			
1 ~ 2	E24V	External 24V(+)	Connect to CN1
3	DOCOM3	Common Anode for Flywheel Diode of DO16~DO23	Input
4 ~ 11	DO16~DO23	Digital output channels 16~23	Output
12 ~ 13	EGND	External Ground	Connect to CN1
CN3B (Left) Pin Assignments			
1 ~ 2	E24V	External 24V(+)	Connect to CN1
3	DOCOM4	Common Anode for Flywheel Diode of DO24~DO31	Input
4 ~ 11	DO24~DO31	Digital output channels 24~31	Output
12 ~ 13	EGND	External Ground	Connect to CN1

■ Dimensions: (Units: mm)

Front View

Right Side View

Top View

■ Ordering Information

MN-3257 CR	Distributed Motionnet 32-ch Isolated DO Module with RJ-45 Connector (RoHS)
MN-3257T CR	Distributed Motionnet 32-ch Isolated DO 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-3253(T) CR / MN-D640-DIN CR	Distributed Motionnet 32-ch Isolated DI Module (RoHS)
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)