

MN-D640-DIN

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

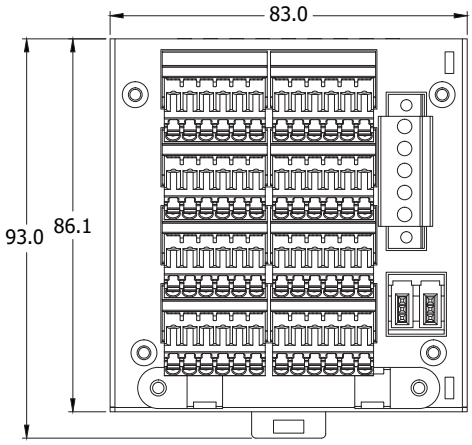
Introduction

The **MN-D640-DIN** 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-D640-DIN 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.

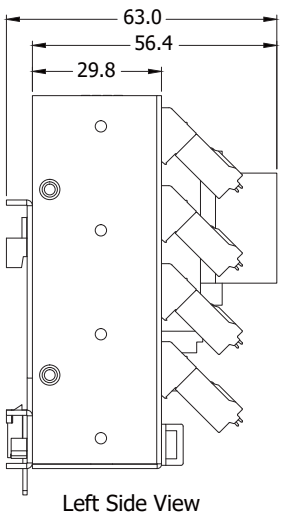
Specifications

Model	MN-D640-DIN
Hardware	
Connector	6-pin pluggable terminal block x 8
LED Indicators	
Status	Communication state (Link, Error) Internal 3.3 V Power Termination Resistor Switch Input/Output state
Digital Input	
Channels	32
Type	Wet Contact
Sink/Source (NPN/PNP)	NPN
ON Voltage Level	+10 ~ 24 VDC
OFF Voltage Level	+3 VDC max.
Isolation	2500 Vrms
Input Impedance	4.7 KΩ
Motionnet	
Communication Connectors	Mini-clamp Connector x 2
Transfer Speed	Selectable 2.5, 5, 10 or 20 Mbps by DIP Switch
Cyclic Time	15.1 µs per device (20 Mbps)
Power	
Input Range	24 VDC (1000 V isolated)
Consumption	2 W Max.
Mechanical	
Casing	Aluminum
Dimensions (mm)	83 mm x 93 mm x 63 mm
Installation	DIN-Rail mounting
Environment	
Operating Temperature	0 ~ +60 °C
Storage Temperature	-20 ~ +80°C
Humidity	10 ~ 90% RH, Non-condensing

Dimensions: (Units: mm)



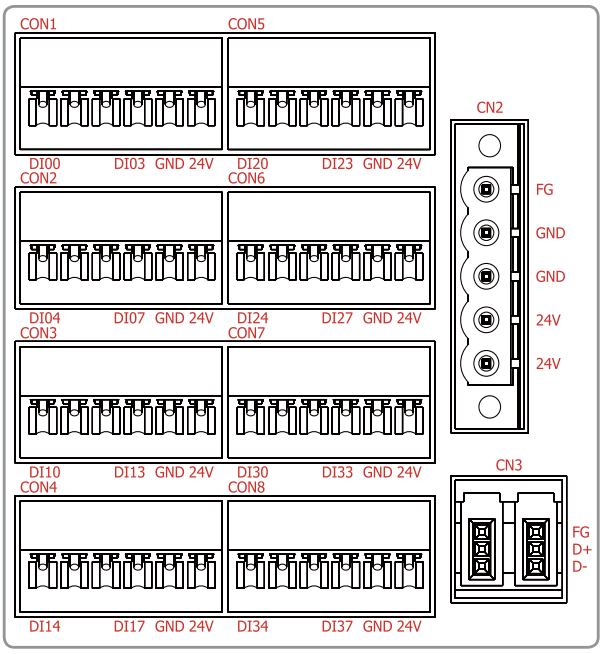
Front View



Left Side View

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Pin Assignments



NO.	Pin Define	Specifications	I/O Define
CN3			
1	F.G.	Frame Ground	-
2	Data+	Positive terminal of differential communication signal	Bidirectional
3	Data−	Negative terminal of differential communication signal	Bidirectional
CN2			
1	F.G.	Frame Ground	-
2 ~ 3	GND	External Ground	Input
4 ~ 5	24V	External 24V (+)	Input
CON1 ~ 8			
1 ~ 4	DIxx	Digital input channels 00 ~ 31	Input
5	GND	External Ground	Connect to CN2
6	24V	External 24V (+)	Connect to CN2

Ordering Information

MN-D640-DIN CR	Distributed Motionnet 32-ch Isolated DI Module with Mini-clamp Connector (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	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)

Accessories

Mini Clamp Wiremount Plug			Applicable Wire			
ICP DAS Part No.	Cover Color	3M Part No.	AWG No.	Cross-sectional Area (mm2)	Finished External Diameter Φ (mm)	
4PKD1O0000001	Gray	37103-2206-000FL	20 – 22	0.3 – 0.5	1.6 – 2.0	
4PKD1O0000002	Red	37103-3101-000FL	24 – 26	0.14 – 0.3	0.8 – 1.0	
4PKD1O0000003	Orange	37103-3163-000FL	24 – 26	0.14 – 0.3	1.2 – 1.6	

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