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PROTECH Group

SI-X608

Quick Reference Guide

Ver. Q1

Specifications
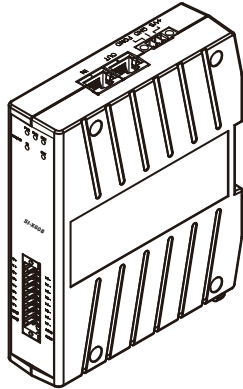
System

Controller	EtherCAT Slave Controller
Communication Interface	Ethernet
Connector	2 x RJ45 (Support Daisy Chain)
Protocol	EtherCAT
Distance between Stations	Max. 100m, 100 BASE-TX
Power Supply	9~48 V DC with 3-pin terminal block
LED Indicator	Power LED, Green / RUN LED, Green / Link IN/OUT, Green / Error LED, Red
Installation	DIN-Rail
Net Weight	220g
Dimensions (WxHxD)	139.97 x 116.97 x 33mm (without connectors)
Certificate	CE/FCC

I/O (Analog Input)

|	
No. of Channels	8
Wire Connection	Differential
Input Type	Voltage, Current (software selectable)
Range	0~5V, 0~10V, ±10V, ±5V 0~20mA, ±20mA, 4~20mA
Resolution	16-bit
Sample Rate	1k Hz per channel
Accuracy	< ±0.2% of FSR
Overvoltage Protection	± 35 VDC

Environment

Operating Temp. (with airflow)	-25°C ~ 75 °C (-13 °F ~ 167°F)
Storage Temp.	-40°C ~ 85°C (-40°F ~ 185°F)
Humidity	20% ~ 90%

Pin Assignment
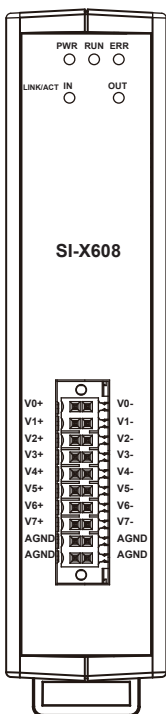
I/O Connector (JIO1)

Pin No.	Signal	Pin No.	Signal
2	V0+	1	V0-
4	V1+	3	V1-
6	V2+	5	V2-
8	V3+	7	V3-
10	V4+	9	V4-
12	V5+	11	V5-
14	V6+	13	V6-
16	V7+	15	V7-
18	AGND	17	AGND
20	AGND	19	AGND

+VS GND FGND   OUT   IN
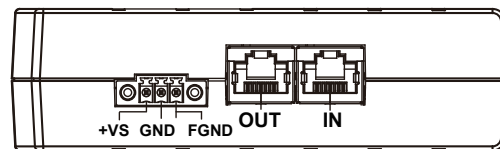
LAN1 and LAN2 Port (IN, OUT)

Pin No.	Signal
1	TX1+
2	TX1-
3	RX1+
4	NC
5	NC
6	RX1-
7	NC
8	NC

DC-IN Connector (JPWR1)

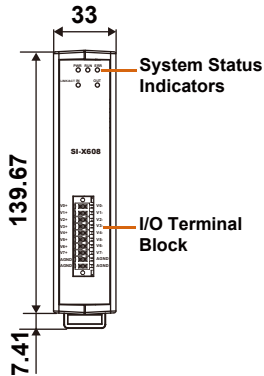| Pin No.	Signal
1	DC-IN
2	GND
3	GND_Shield

SI-X608

8-Channel Isolated Analog Input EtherCAT Slave I/O Module

Overview

(Unit: mm)

Front View

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System Status Indicators

SI-X608

139.67

I/O Terminal Block

7.41

Rear View

Side View

35.22

Top View

116.38

EtherCAT Ports

OUT   IN

+VS   GND   FGND

DC In
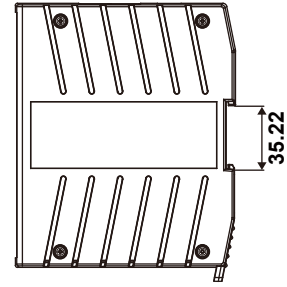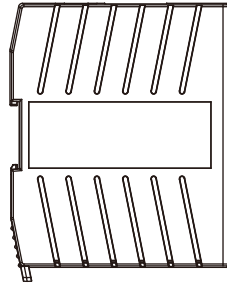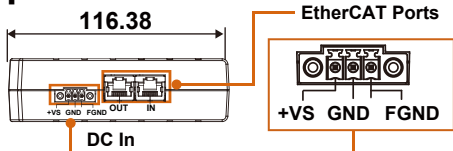
See the notes below and connect the pins of the terminal block properly.

Bottom View

**Notes:**
1. It is recommended connecting **FGND PIN** to functional earth via a cable.
2. **DO NOT** connect **GND PIN** and **FGND PIN** of the terminal block together as they might have potential differences which might cause signal interferences.

I/O Terminal Block Pin Assignment

V0+	V0-
V1+	V1-
V2+	V2-
V3+	V3-
V4+	V4-
V5+	V5-
V6+	V6-
V7+	V7-
AGND	AGND
AGND	AGND

The I/O pins are located on the lower front section of SI-X608.

Quick Setup

Installing DIN-RAIL Mount

1

2
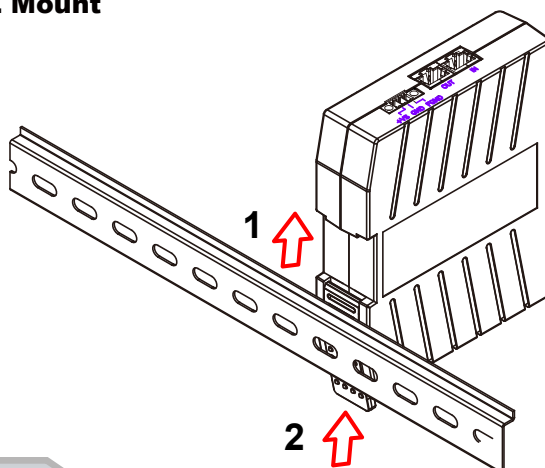
Step 1. Use 35mm DIN-RAIL and install it into the groove located on the rear side of the system.

Step 2. Push the bottom hinge upwards to secure DIN-RAIL onto the system.

The DIN-RAIL Mount installation is then completed.

Safety Precaution

The following messages are reminders for safety on how to protect SI-X608 from damages and extend a long life for SI-X608.

1. Check the Cable Voltage
- The range of operating voltage should be DC 9~48V. Otherwise, the SI-X608 module could be damaged.

2. Environmental Conditions
- Install DIN-Rail Mount on SI-X608. Be sure to allow enough space to have easy access around SI-X608.
- Avoid exposure to sunlight for a long period of time or in an airtight space.
- Avoid SI-X608 from any heating device or using SI-X608 when it's been left outdoors in a cold winter day.
- Avoid moving SI-X608 rapidly from a hot place to a cold place and vice versa because condensation may come from inside of SI-X608.
- Don't place SI-X608 close to any radio-active device in case of signal interference.

3. Handling
- Avoid putting heavy objects on top of SI-X608.

- Do not turn SI-X608 upside down.

4. Good Care
- When the outside of the case is stained, remove the stain with a neutral washing agent with a dry cloth.
- Never use strong agents such as benzene and thinner to clean SI-X608.
- If heavy stains are present, moisten a cloth with diluted neutral washing agent or with alcohol and then wipe thoroughly with a dry cloth.
- If dust has been accumulated on the outside, remove it by using a special vacuum cleaner for computers.

WARNING! Some internal parts of SI-X608 may have high electrical voltage. And therefore we strongly recommended that qualified engineers can open and disassemble SI-X608.