



ET-2215H
PET-2215H



ET-2215H-16
PET-2215H-16

Ethernet I/O Module with 8/16-ch
High Speed RTD Input

Features

- Web Server for Configuration
- Support Modbus TCP/UDP, MQTT, and SNMP V2c Protocols
- 2-port Ethernet Switch (LAN Bypass) for Daisy-chain Wiring
- 3-wire RTD Lead Resistance Compensation
- Supports Firmware Update via Ethernet
- 90Hz High-speed Sampling Rate for each Channel
- Open Wire Detection
- Built-in I/O
 - (P)ET-2215H: 8-ch RTD Input
 - (P)ET-2215H-16: 16-ch RTD Input
- Individual Channel Configuration



Introduction

(P)ET-2215H / (P)ET-2215H-16 is an 8/16-channel RTD input module that provides 90Hz high-speed measurement and open wire detection for each channel. Each channel can be connected to different types of RTD sensors and supports 3-wire RTD lead wire compensation, ensuring accurate measurements regardless of wire length. The module includes a built-in 2-port Ethernet switch, facilitating a daisy-chain topology. This feature offers flexibility in device configuration, simplifies installation, and reduces infrastructure costs. Additionally, it also provides EMS (EFT/ESD/Surge) protection and 3000 VDC I/O isolation to enhance noise protection capabilities in industrial environments.

System Specifications

Model	ET-2215H	ET-2215H-16	PET-2215H	PET-2215H-16
Software				
Built-in Web Server	Yes			
CPU Module				
CPU	32-bit ARM			
Watchdog Timer	Module, Communication (Programmable)			
Isolation				
2-way Isolation	Ethernet: 1500 VDC, I/O: 3000 VDC		I/O: 3000 VDC	
EMS Protection				
EFT (IEC 61000-4-4)	±4 kV for Power Line			
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal, ±8 kV Air for Random Point			
Surge (IEC 61000-4-5)	±2 kV for Power Line			
LED Indicators				
Status	Run, Ethernet		Run, Ethernet, PoE	
Ethernet				
Ports	2 x RJ-45, 10/100 Base-Tx, Switch Ports			
PoE	-		Yes	
LAN bypass	Yes			
Access Control	Password and IP Filter			
Protocol	Modbus TCP, Modbus UDP, MQTT, SNMP V2c			
Power				
Reverse Polarity Protection	Yes			
Consumption	1.7 W (max.)	1.9 W (max.)	1.8 W (max.)	2.0 W (max.)
Powered from PoE	-		IEEE 802.3af, Class1	
Powered from Terminal Block	+10 ~ +48 VDC			
Mechanical				
Casing	Metal			
Dimensions (mm)	31 x 159 x 137 (W x L x H)			
Installation	DIN-Rail Mounting / Wall mounting			
Environment				
Operating Temperature	-25 ~ +75 °C			
Storage Temperature	-40 ~ +80 °C			
Humidity	10 ~ 90% RH, Non-condensing			

I/O Specifications

Model	ET-2215H PET-2215H	ET-2215H-16 PET-2215H-16
Analog Input		
Channels	8	16
Sensor Type	Pt100, Ni120, Cu50, Cu100	
Resolution	16-bit	
Accuracy	Normal Mode	±0.05% FSR (25°C)
	Fast Mode	±0.1% FSR (25°C)
Sampling Rate	Normal Mode	1.5 Hz (per channel)
	Fast Mode	90 Hz (per channel)
Input Impedance	>1M Ω	
Individual Channel Configuration	Yes	
3-wire RTD Lead Resistance Elimination	Yes	
Open Wire Detection	Yes	

Applications

- Building Automation
- Machine Automation
- Remote Diagnosis
- Factory Automation
- Remote Maintenance
- Testing Equipment

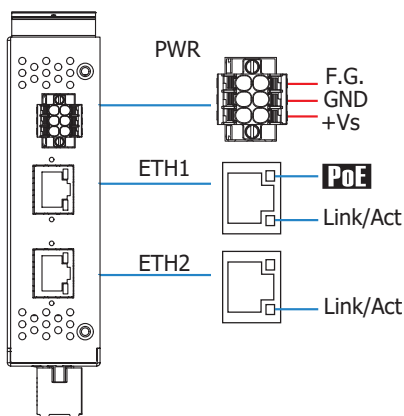
RTD Type Code Table

Type Code	RTD Type	Temperature
0x20	Pt 100, α = 0.00385	-100 ~ + 100 °C
0x21	Pt 100, α = 0.00385	0 ~ + 100 °C
0x22	Pt 100, α = 0.00385	0 ~ + 200 °C
0x23	Pt 100, α = 0.00385	0 ~ + 600 °C
0x24	Pt 100, α = 0.003916	-100 ~ + 100 °C
0x25	Pt 100, α = 0.003916	0 ~ + 100 °C
0x26	Pt 100, α = 0.003916	0 ~ + 200 °C
0x27	Pt 100, α = 0.003916	0 ~ + 600 °C
0x28	Ni 120	-80 ~ + 100 °C
0x29	Ni 120	0 ~ + 100 °C
0x2B	Cu 100, α = 0.00421	-20 ~ + 150 °C
0x2C	Cu 100, α = 0.00427	0 ~ + 200 °C

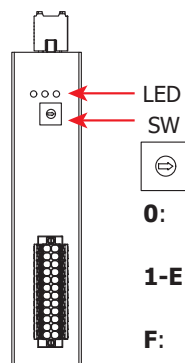
Type Code	RTD Type	Temperature
0x2E	Pt 100, α = 0.00385	-200 ~ + 200 °C
0x2F	Pt 100, α = 0.003916	-200 ~ + 200 °C
0x80	Pt 100, α = 0.00385	-200 ~ + 600 °C
0x81	Pt 100, α = 0.003916	-200 ~ + 600 °C
0x82	Cu 50	-50 ~ + 150 °C
0x83	Ni 100	-60 ~ 180 °C
0x84	Ni 120	-80 ~ 150 °C
0x85	Cu 100, α = 0.00428	0 ~ 150 °C
0x86	Pt 100, α = 0.00385	-100 ~ 300 °C
0x87	Pt 100, α = 0.003916	-100 ~ 300 °C
0x2B	Cu 100, α = 0.00421	-20 ~ + 150 °C
0x2C	Cu 100, α = 0.00427	0 ~ + 200 °C

Appearance

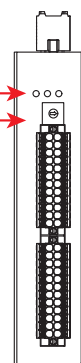
▼ Only the PET series supports PoE (Power over Ethernet)



▼ ET-2215H / PET-2215H



▼ ET-2215H-16 / PET-2215H-16



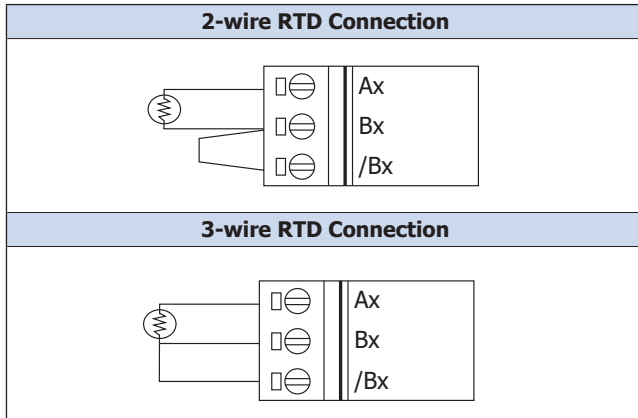
- 0:** Run (User specified IP or DHCP)
- 1-E:** Run IP (Default IP, 192.168.255.1 - 14)
- F:** Init (Factory default, Firmware Update)

Pin Assignments

ET-2215H/PET-2215H				
Pin Assignment	Terminal No.		Terminal No.	Pin Assignment
A1	13		01	A0
B1	14		02	B0
/B1	15		03	/B0
A3	16		04	A2
B3	17		05	B2
/B3	18		06	/B2
A5	19		07	A4
B5	20		08	B4
/B5	21		09	/B4
A7	22		10	A6
B7	23		11	B6
/B7	24		12	/B6

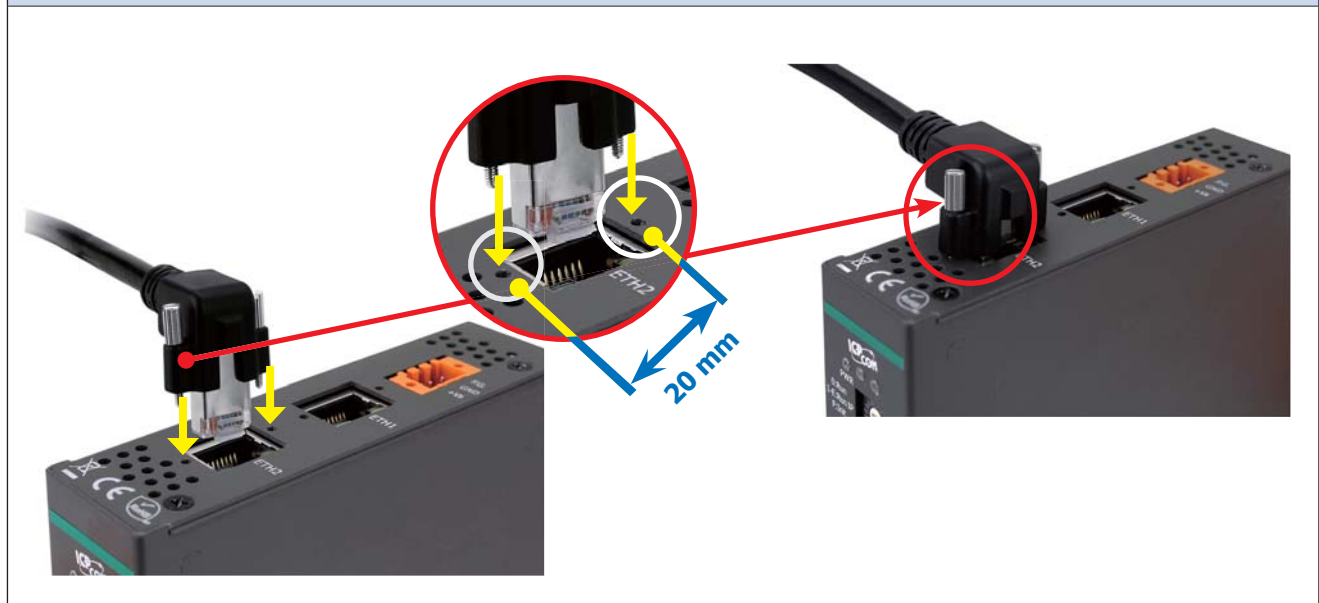
ET-2215H-16/PET-2215H-16				
Pin Assignment	Terminal No.		Terminal No.	Pin Assignment
A1	13		01	A0
B1	14		02	B0
/B1	15		03	/B0
A3	16		04	A2
B3	17		05	B2
/B3	18		06	/B2
A5	19		07	A4
B5	20		08	B4
/B5	21		09	/B4
A7	22		10	A6
B7	23		11	B6
/B7	24		12	/B6
A9	37		25	A8
B9	38		26	B8
/B9	39		27	/B8
A11	40		28	A10
B11	41		29	B10
/B11	42		30	/B10
A13	43		31	A12
B13	44		32	B12
/B13	45		33	/B12
A15	46		34	A14
B15	47		35	B14
/B15	48		36	/B14

Wire Connections



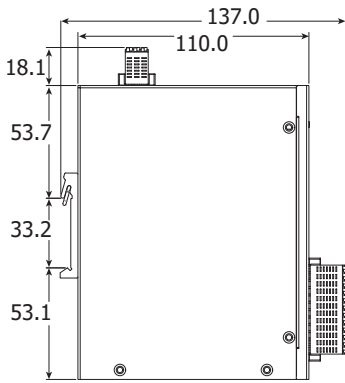
Ethernet Cable Locking Hole

(P)ET-2215H / (P)ET-2215H-16 series include the locking holes for the Ethernet cable to prevent accidental loosening.

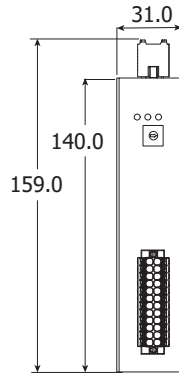


Dimensions (Units: mm)

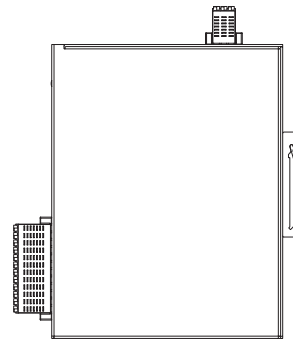
(P)ET-2215H



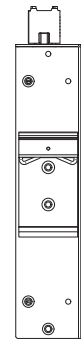
Left Side View



Front View

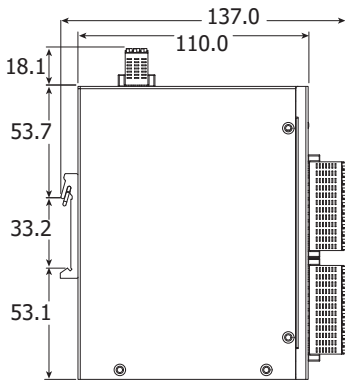


Right Side View

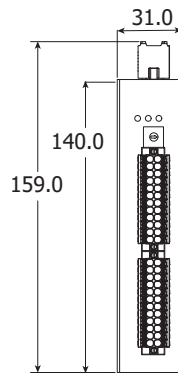


Rear View

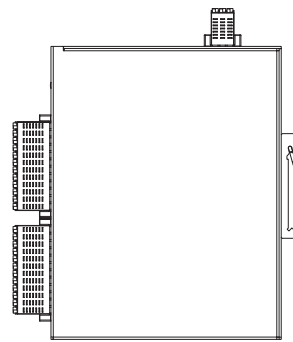
(P)ET-2215H-16



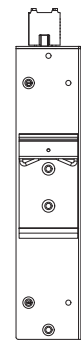
Left Side View



Front View



Right Side View



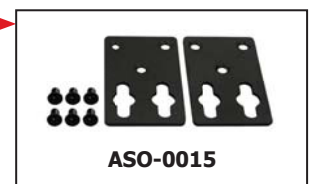
Rear View

Ordering Information

ET-2215H CR	Ethernet I/O Module with 2-port Ethernet Switch, 8-ch High Speed RTD Input, 90 S/s (RoHS)
ET-2215H-16 CR	Ethernet I/O Module with 2-port Ethernet Switch, 16-ch High Speed RTD Input, 90 S/s (RoHS)
PET-2215H CR	PoE I/O Module with 2-port Ethernet Switch, 8-ch High Speed RTD Input, 90 S/s (RoHS)
PET-2215H-16 CR	PoE I/O Module with 2-port Ethernet Switch, 16-ch High Speed RTD Input, 90 S/s (RoHS)

Accessories

ASO-0015 CR	Wall Mount Kit (W: 28 mm) (RoHS)
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(P)ET-2000 + ASO-0015