NEW

Ethernet Remote I/O Modules

OME-ET-7000/
OME-PET-7000 Series

1 YEAR WARRANTY

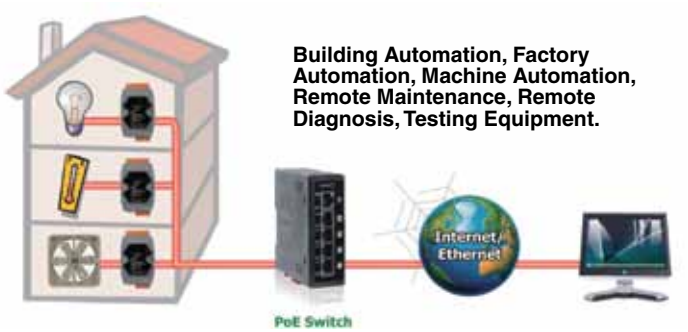
- **Multi-Function Web Based Ethernet I/O Modules–Models Available For Thermocouple, RTD, Analog Voltage and Current Input**
- **Built-In Web Server for Remote Configuration and I/O Monitoring/Control**
- **Web HMI**
- **Communications Security**
- **Supports MODBUS® TCP and UDP Protocols**
- **OME-PET-7000 Series Features PoE (Power-over-Ethernet)**

The OME-ET-7000/OME-PET-7000 Series, a web-based Ethernet I/O module, features a built-in web server which allows configuration, I/O monitoring and I/O control by simply using a regular web browser. Remote control is as easy as browsing the Internet.

With the web HMI function, programming or HTML skills are not required; creating dynamic and attractive web pages for I/O monitoring and I/O control is easy. The OME-ET-7000/OME-PET-7000 Series offers easy and safe access for users at any time, from any location. In addition, the OME-ET-7000/OME-PET-7000 Series also supports MODBUS TCP protocol that makes perfect integration to SCADA software.

OME-PET-7000 features “PoE” where not only data but also power is carried through an Ethernet cable. This feature makes installation of OME-PET-7000 easy. No more unnecessary wires; only an ethernet cable that takes care of everything in the field.

Applications



Building Automation, Factory Automation, Machine Automation, Remote Maintenance, Remote Diagnosis, Testing Equipment.

OMEGA CARE℠ Extended Warranty Program

OMEGACARE℠ extended warranty program is available for this series. Ask your sales representative for full details when placing an order. OMEGACARE℠ covers parts, labor and equivalent loaners.

OME-ET-7002 shown smaller than actual size.

Features

1. Power over Ethernet (PoE)

The OME-PET-7000 series module can be powered by an IEEE802.3af compliant PoE switch. Both data and power can be carried by an Ethernet cable eliminating the need for additional wiring and power supply.

2. Built-in Web Server

Each OME-ET-7000/OME-PET-7000 module has a Built-in web server that allows the users to easily configure, monitor and control the module from a remote location using a regular web browser.

3. Web HMI

The Web HMI function allows the users to create dynamic and attractive web pages to monitor and control the I/O points. Users can upload specific I/O layout pictures (bmp, jpg, gif format) and define a description for each I/O point. No HTML or Java skills are needed to create the web pages.

4. Communication Security

Account and password are needed when logging into the OME-ET-7000 web server. An IP address filter is also included, which can be used to allow or deny connections with specific IP addresses.

5. Support for both MODBUS® TCP and MODBUS UDP Protocols

The MODBUS TCP, MODBUS UDP slave function on the Ethernet port can be used to provide data to remote SCADA software. A free MODBUS software development toolkit is included on the utility software CD that is supplied with the OME-ET-7000/ OME-PET-7000 Series modules.

6. Built-in I/O

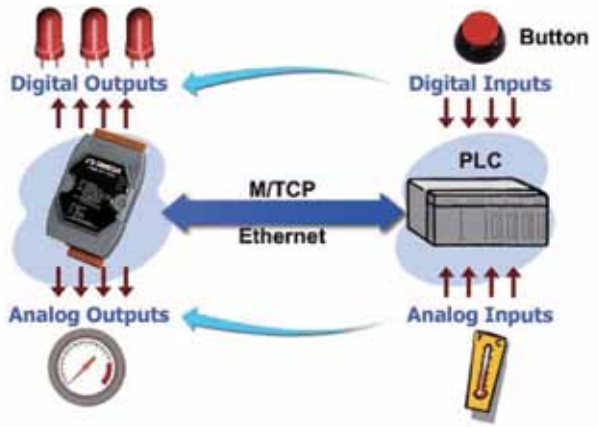
Various I/O components are mixed with multiple channels in a single module, which provides the most cost effective I/O usage and enhances performance of the I/O operations.

7. Dual Watchdog

The Dual Watchdog consists of a module Watchdog and a communication Watchdog. The action of AO/DO are also associated with the Dual Watchdog.

Module Watchdog is a Built-in hardware circuit to monitor the operation of the module and will reset the CPU if a failure occurs in the hardware or the software. Then the power-on value of AO/DO will be loaded.

Communication Watchdog is a software function to monitor the communication between the host and the OME-ET-7000/OME-PET-7000 module. The timeout of the communication Watchdog is programmable, when the OME-ET-7000/OME-PET-7000 doesn't receive commands from the host for a while, the watchdog forces the AO/DO to pre-programmed Safe Value to prevent unpredicatable damage of the connected devices.



8. Power-on Value and Safe Value

Besides setting by the set AO/DO commands, the AO/DO can be set under two other conditions.

Power-on Value: The Power-on Value is loaded into the AO/DO under 3 conditions: Power-on, reset by Module Watchdog, reset by reset command.

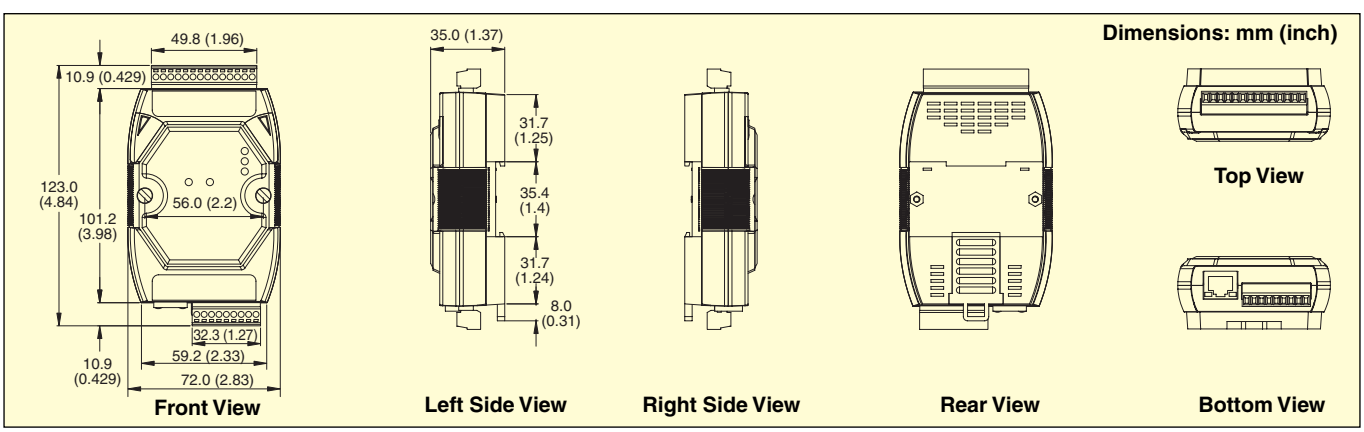
Safe Value: When the Communication Watchdog is enabled and a Communication Watchdog timeout occurs, the "safe value" is loaded into the AO/DO.

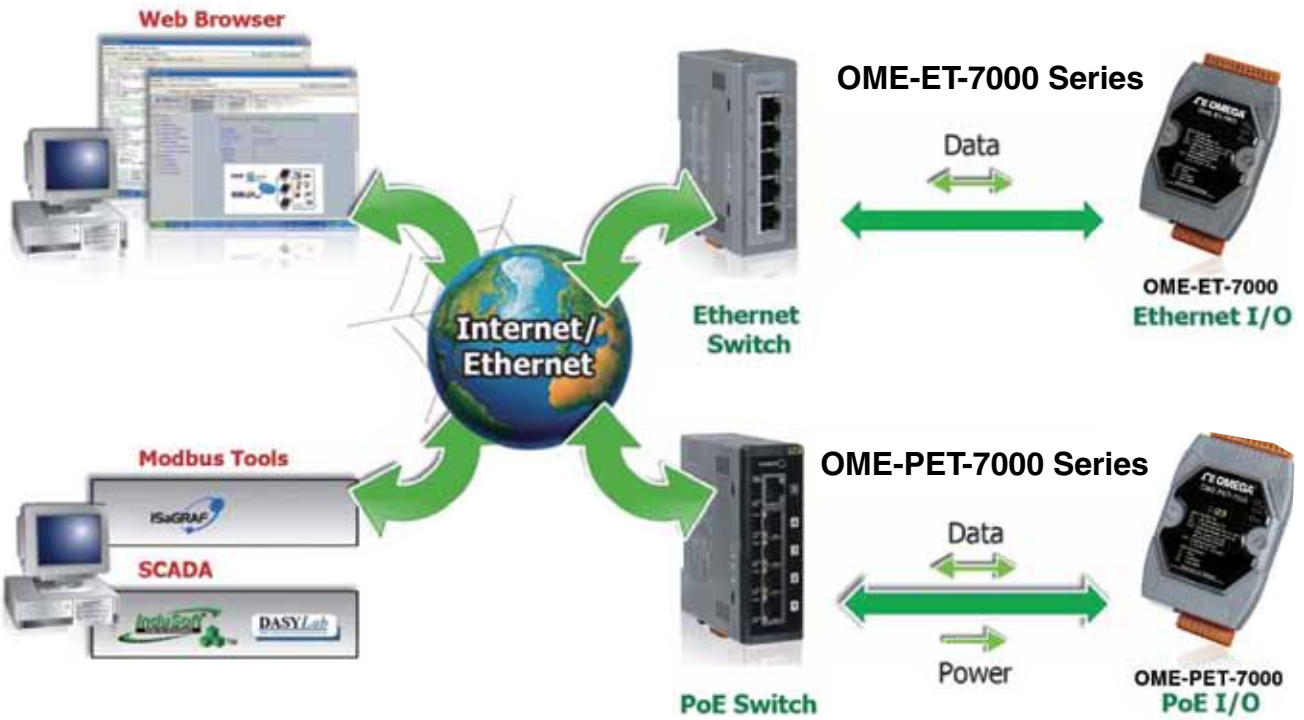
9. I/O Pair Connection

This function is used to create a AI/DI to AO/DO pair through the Ethernet. Once the configuration is completed, the OME-ET-7000/OME-PET-7000 module can poll the status of remote AI/DI devices and then use the MODBUS TCP protocol to continuously write to local AO/DO channels in the background.

10. Highly Reliable Under Harsh Environments

- Wide Operating Temperature Range: -25 to 75°C (-13 to 167°F)
- Storage Temperature: -30 to 80°C (-22 to 176°F)
- Humidity 10 to 90% RH (non-condensing)





Analog Input Models

Model No.	AI			DO		
	Channel	Voltage and Current Input	Sensor Input	Channel	Type	Sink/ Source
OME-ET-7015 OME-PET-7015	7	—	RTD: Pt100, Pt1000, Ni120, Cu100, Cu1000	—	—	—
OME-ET-7017 OME-PET-7017	8	±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, ±20 mA, 0 to 20 mA, 4 to 20 mA	—	4	Open collector	Sink
OME-ET-7017-10 OME-PET-7017-10	10/20	±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, ±20 mA, 0 to 20 mA, 4 to 20 mA	—	—	—	—
OME-ET-7018Z OME-PET-7018Z	10	±15 mV, ±50 mV, ±100 mV, ±500 mV, ±1 V, ±2.5 V ±20 mA, 0 to 20 mA, 4 to 20 mA	Thermocouple: J, K, T, E, R, S, B, N, C, L, M, and LDIN43710	6	Open collector	Sink
OME-ET-7019Z OME-PET-7019Z	10	±15 mV, ±50 mV, ±100 mV, ±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V ±20 mA, 0 to 20 mA, 4 to 20 mA	Thermocouple: J, K, T, E, R, S, B, N, C, L, M, and LDIN43710	6	Open collector	Sink

Note: *Use OME-ET-7018Z/OME-PET-7018Z and OME-ET-7019Z/OME-PET-7019Z for extremely accurate thermocouple measurement.*

Multifunction I/O

Model No.	AI			AO		DI/Counter		DO	
	Channel	Voltage and Current Input	Sensor Input	Channel	Voltage and Current Output	Channel	Contact	Channel	Type
OME-ET-7002 OME-PET-7002	3	±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, +0 mA to 20 mA, ±20 mA, 4 to 20 mA	—	—	—	6	Wet (sink, source)	3	Power relay (form A)
OME-ET-7026 OME-PET-7026	6	±150 mV, ±500 mV, ±1 V, ± 5 V, ±10 V, 0 to 20 mA, ±20 mA, 4 to 20 mA	—	2	0 to 5 V, ±5 V, 0 to 10 V, ±10 V, 0 to 20 mA, 4 to 20 mA	2	Dry (source), wet (sink, source)	2	Open collector (sink)

Digital I/O

Model No.	DI/Counter			DO			
	Channel	Contact	Sink/Source	Channel	Type	Sink/Source	Maximum Load Current @ 25°C
OME-ET-7042 OME-PET-7042	—	—	—	16	Open collector	Sink	100 mA/channel
OME-ET-7044 OME-PET-7044	8	Wet	Sink, source	8	Open collector	Sink	300 mA/channel
OME-ET-7050 OME-PET-7050	12	Wet	Sink, source	6	Open collector	Sink	100 mA/channel
OME-ET-7051 OME-PET-7051	16	Wet	Sink, source	—	—	—	—
OME-ET-7052 OME-PET-7052	8	Wet	Sink, source	8	Open collector	Source	650 mA/channel
OME-ET-7053 OME-PET-7053	16	Dry	Source	—	—	—	—

Relay Output and Digital Input

Model No.	Relay Output				DI/Counter		
	Channel	Relay	Type	Maximum Load Current @ 25°C	Channel	Contact	Sink/Source
OME-ET-7060 OME-PET-7060	6	Power relay	Form A (SPST N.O.)	5.0 A/channel	6	Wet	Sink, source
OME-ET-7067 OME-PET-7067	8	Power relay	Form A (SPST N.O.)	5.0 A/channel	—	—	—

NEW

3-Channel Analog Input and DIO Modules

OME-ET-7002/OME-PET-7002

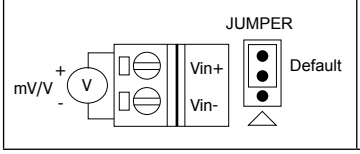
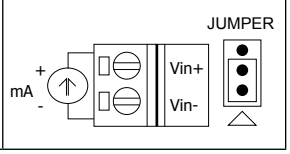
1 YEAR WARRANTY

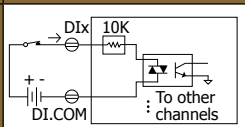
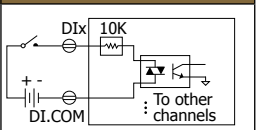
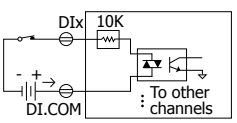
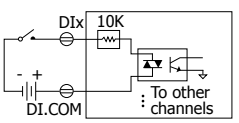
- Built-In Web Server
- Web HMI
- Support for both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to 75°C (-13 to 167°F)
- I/O Pair Connection
- Built-In I/O
  - AI: 3 Channels with 240 Vrms Overvoltage Protection
  - DI/Counter: 6 Channels
  - Power Relay: 3 Channels

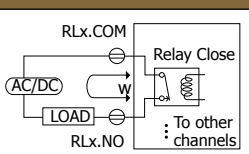
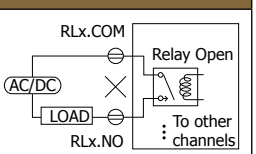
Applications

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

OME-PET-7002 shown actual size.

Voltage Input	Current Input
	

Digital Input/ Counter	Readback as 1	Readback as 0
	10 to 50 Vdc	OPEN or <4 Vdc
Sink		
	10 to 50 Vdc	OPEN or <4 Vdc
Source		

Power Relay	ON State Readback as 1	OFF State Readback as 0
Relay Output		

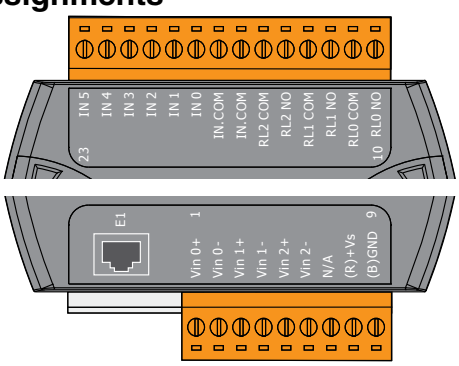
The OME-ET-7002/OME-PET-7002 is a web-based Ethernet I/O module that features a built-in web server which allows remote configuration, I/O monitoring and I/O control simply by using a regular web browser. Remote control is as easy as browsing the Internet. In addition, the web HMI function means that programming or HTML skills are no longer required so creating dynamic and attractive web pages for I/O monitoring and I/O control purposes is easy. The OME-ET-7002/OME-PET-7002 offers easy and safe access for users at anytime and from any location, and also supports the MODBUS TCP protocol that ensures perfect integration with SCADA software. Furthermore, the OME-PET-7002 features "PoE", meaning that not only is data transmitted through an Ethernet cable but also power making installation of the OME-PET-7002 easy. No more unnecessary wires with only an ethernet cable being required to take care of everything in the field.

The OME-ET-7002/OME-PET-7002 is a multi-function module; there are 3-channel analog inputs, 6-channel digital inputs and 3-channel relay outputs module. It provides programmable input range on all analog inputs (±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, ±20 mA, 0 to 20 mA and 4 to 20 mA). Each analog input is allowed to configure an individual range and has 240 Vrms high overvoltage protection. Jumper selectable for voltage or current inputs, OME-ET-7002/OME-PET-7002 is fully RoHS-compliant and has qualification for 4 kV ESD protection as well as 2500 Vdc intra-module isolation.

System Specifications

Models	OME-ET-7002	OME-PET-7002
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 base-TX with Auto MDI/MDI-X	
PoE	—	Yes
Protocol	MODBUS TCP, MODBUS UDP	
Security	ID, password and IP filter	
Dual Watchdog	Yes, module (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	2500 Vdc	2500 Vdc
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal and 8 kV air for random point	
EFT (IEC 61000-4-4)	±4 kV for power	
Surge (IEC 61000-4-5)	±4 kV for power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, Class1
Consumption	1.7 W	
Mechanical		
Dimensions (W x L x D)	72 x 123 x 35 mm (2.8 x 4.8 x 1.4)	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Storage Temperature	-30 to 80°C (-22 to 176°F)	
Humidity	10 to 90% RH, non-condensing	

Pin Assignments



I/O Specifications

Analog Input		
Channels		3 (differential)
Type		±150 mV, ±500 mV, ±1V, ±5 V, ±10 V + 0 mA to + 20 mA, ±20 mA, 4 to 20 mA (jumper selectable)
Individual Channel Configuration		Yes
Resolution	Normal Mode	16-bit
	Fast Mode	12-bit
Sampling Rate	Normal Mode	10 samples/second (total)
	Fast Mode	60 samples/second (total)
Accuracy	Normal Mode	±0.1%
	Fast Mode	±0.5% or better
Zero Drift		±20 µV/°C
Span Drift		±25 ppm/°C
Overvoltage Protection		240 Vrms
Overcurrent Protection		50 mA maximum at 110 Vdc/Vac maximum
Input Impedance	Voltage	2 MΩ
	Current	124 Ω
Common Mode Rejection		86 dB minimum
Normal Mode Rejection		100 dB
Digital Input/Counter		
Channels		6
Contact		Wet contact
Sink/Source (NPN/PNP)		Sink/source
On Voltage Level		10 Vdc to 50 Vdc
Off Voltage Level		4 Vdc maximum
Input Impedance		10 kΩ, 0.5W
Counters	Channels	6
	Maximum Count	4,294,967,285 (32-bit)
	Maximum Input Frequency	100 Hz
	Minimum Pulse Width	5 ms
Overvoltage Protection		50 Vdc
Power Relay		
Channels		3
Type		Power relay, Form A (SPST N.O.)
Operating Voltage Range		250 Vac/30 Vdc
Maximum Load Current		5.0A/channel at 25°C
Operate Time		6 ms (typical)
Release Time		3 ms (typical)
Electrical Life (Resistive Load)	VDE:	5 A @ 250 Vdc 30,000 ops (10 ops/minute) at 75°C
		5 A @ 30 Vdc 70,000 ops (10 ops/minute) at 75°C
	UL:	5 A @ 250 Vac/30 Vdc 6000 ops
		3 A @ 250 Vac/30 Vdc 100,000 ops
Mechanical Life		20,000,000 ops. at no load (300 ops./minute)
Intra-module Isolation, Field-to-Logic		3750 Vdc
Power-on Value		Yes, programmable
Safe Value		Yes, programmable

Model No.	Description
OME-ET-7002	3-channel analog input and DIO module
OME-PET-7002	3-channel analog input and DIO module with PoE
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.

Ordering Example: OME-ET-7002 *3-channel analog input and DIO module and* ***OCW-1*** *OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*

NEW

7-Channel RTD Input Modules

OME-ET-7015/OME-PET-7015

1 YEAR WARRANTY

- Built-In Web Server
- Web HMI
- Support for both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to 75°C (-13 to 167°F)
- I/O Pair Connection
- Built-In I/O
  - RTD Input: 7 Channels

Applications

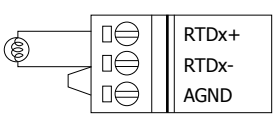
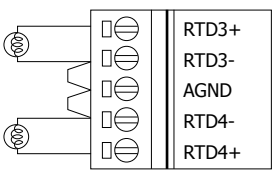
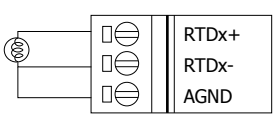
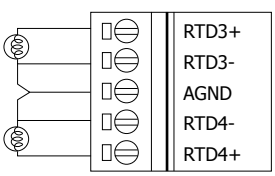
- Building Automation
- Factory Automation
- Machine Automation
- Remote Maintenance
- Remote Diagnosis
- Testing Equipment

OME-ET-7015 shown actual size.

The OME-ET-7015/OME-PET-7015 is a web-based ethernet I/O module that features a built-in web server which allows remote configuration, I/O monitoring and I/O control simply by using a regular web browser. Remote control is as easy as browsing the Internet. In addition, the web HMI function means that programming or HTML skills are no longer required so creating dynamic and attractive web pages for I/O monitoring and I/O control purposes is easy. The OME-ET-7015/OME-PET-7015 offers easy and safe access for users at anytime and from any location, and also supports the MODBUS TCP protocol that ensures perfect integration with SCADA software. Furthermore, the OME-PET-7015 features "PoE", meaning that not only is data transmitted through an ethernet cable but also power making installation of the OME-PET-7015 easy. No more unnecessary wires with only an Ethernet cable being required to take care of everything in the field.

OME-ET-7015/OME-PET-7015 is specifically designed for long-distance RTD measurement. It features automatic compensation for three-wire RTD so that it can measure correctly regardless of the length of wires and provide open wire detection for RTD measurement. OME-ET-7015/OME-PET-7015 offers 7 channels, each of which could be connected with different kinds of RTD (Pt100, Pt1000, Ni120, Cu100, Cu1000). Also, OME-ET-7015/OME-PET-7015 is fully RoHS-compliant and has qualification for 4 kV ESD protection as well as 2500 Vdc intra-module isolation.

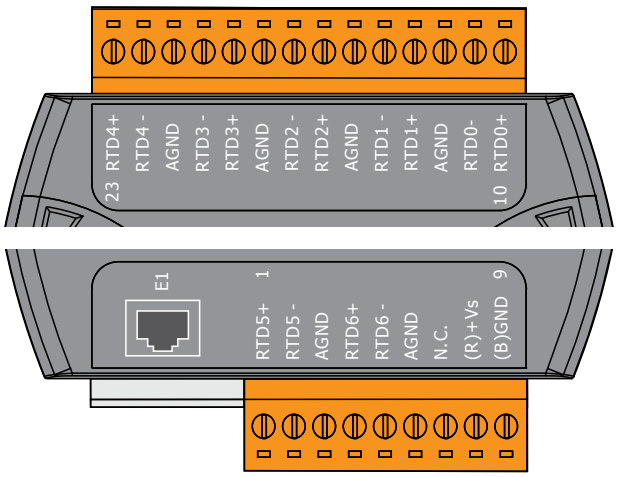
Wire Connections

Open Collector (Sink)	CH0, 1, 2, 5 and 6	CH3 and CH4
2-Wire of RTD		
3-Wire of RTD		

System Specifications

Model No.	OME-ET-7015	OME-PET-7015
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 Base-TX with Auto MDI/ MDI-X	
PoE	—	Yes
Protocol	MODBUS TCP, MODBUS UDP	
Security	ID, password and IP filter	
Dual Watchdog	Yes, module (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	2500 Vdc	2500 Vdc
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal and 8 kV air for random point	
EFT (IEC 61000-4-4)	±4 kV for power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, class1
Consumption	2.0 W	2.6 W
Mechanical		
Dimensions (W x L x D)	72 x 123 x 35 mm (2.8 x 4.84 x 1.37")	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Storage Temperature	-30 to 80°C (-22 to 176°F)	
Humidity	10 to 90% RH, non-condensing	

Pin Assignments



I/O Specifications

RTD Input	
Channels	7 (differential)
Sensor Type	Pt100, Pt1000, Ni120, Cu100, Cu1000
Wire Connections	2/3 wire
Individual Channel Configuration	Yes
Resolution	16-bit
Sampling Rate	12 samples/second (total)
Accuracy	±0.05%
Zero Drift	±0.5 µV/°C
Span Drift	±20 µV/°C
Common Mode Rejection	150 dB
Normal Mode Rejection	100 dB
Input Impedance	>1 MΩ
Open Wire Detection	Yes
3-wire RTD Lead Resistance Elimination	Yes

To Order *Visit omega.com/ome-et-7000_ome-pet-7000 for Pricing and Details*

Model No.	Description
OME-ET-7015	7-channel RTD input module
OME-PET-7015	7-channel RTD input module with PoE
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.

Ordering Example: OME-ET-7015 *7-channel analog input module and* ***OCW-1*** *OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*

NEW

8-Channel Analog Input and DO Modules

OME-ET-7017/OME-PET-7017

1 YEAR WARRANTY

- Built-In Web Server
- Web HMI
- Support for both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to 75°C (-13 to 162°F)
- I/O Pair Connection
- Built-In I/O
  - AI: 8 Channels with 240 Vrms Overvoltage Protection
  - DO: 4 Channels

Applications

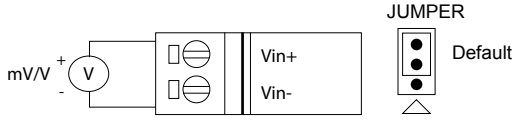
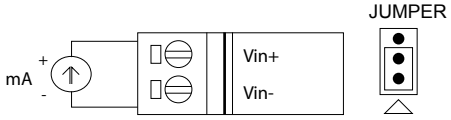
- Building Automation
- Factory Automation
- Machine Automation
- Remote Maintenance
- Remote Diagnosis
- Testing Equipment

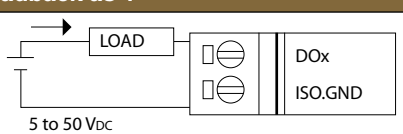
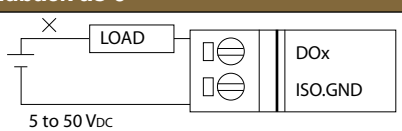
OME-ET-7017 shown actual size.

The OME-ET-7017/OME-PET-7017 is a web-based Ethernet I/O module that features a built-in web server which allows remote configuration, I/O monitoring and I/O control simply by using a regular web browser. Remote control is as easy as browsing the Internet. In addition, the web HMI function means that programming or HTML skills are no longer required so creating dynamic and attractive web pages for I/O monitoring and I/O control purposes is easy. The OME-ET-7017/OME-PET-7017 offers easy and safe access for users at anytime and from any location, and also supports the MODBUS TCP protocol that ensures perfect integration with SCADA software. Furthermore, the OME-PET-7017 features "PoE", meaning that not only is data transmitted through an Ethernet cable but also power making installation of the OME-PET-7017 easy. No more unnecessary wires with only an Ethernet cable being required to take care of everything in the field.

The OME-ET-7017/OME-PET-7017 is a 16-bit, 8-channel differential analog input and 4-channel digital ouput module that provides programmable input range on all analog channels (±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, ±20 mA, 0 to 20 mA and 4 to 20 mA) and digital output can be set as alarm output with short-circuit protection and overload protection. Each analog channel is allowed to configure an individual range and has 240 Vrms high overvoltage protection. Modules are jumper selectable for voltage or current input. The sampling rate of OME-ET-7017/OME-PET-7017 is selectable; fast mode or normal mode. OME-ET-7017/OME-PET-7017 also has qualification for 4 kV ESD protection as well as 3000 Vdc intra-module isolation.

Wire Connections

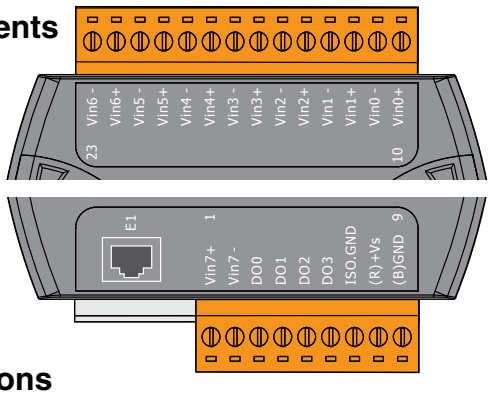
Voltage Input	Current Input
	

Digital Output	ON State Readback as 1	OFF State Readback as 0
Open Collector (Sink)		

System Specifications

Models	OME-ET-7017	OME-PET-7017
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 base-TX with auto MDI/MDI-X	
PoE	—	Yes
Protocol	MODBUS TCP, MODBUS UDP	
Security	ID, password and IP filter	
Dual Watchdog	Yes, module (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	2500 Vdc	2500 Vdc
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal and 8 kV air for random point	
EFT (IEC 61000-4-4)	±4 kV for power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, class1
Consumption	2.6 W	3.1 W
Mechanical		
Dimensions (W x L x D)	72 x 123 x 35 mm (2.83 x 4.84 x 1.38")	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Storage Temperature	-30 to 80°C (-22 to 176°F)	
Humidity	10 to 90% RH, non-condensing	

Pin Assignments



I/O Specifications

Analog Input		
Channels		8 (differential)
Type		±150 mV, ±500 mV, ±1V, ±5V, ±10V, ±20 mA, 0 to 20 mA, 4 to 20 mA (jumper selectable)
Individual Channel Configuration		Yes
Resolution	Normal Mode	16-bit
	Fast Mode	12-bit
Sampling Rate	Normal Mode	10 samples/second (total)
	Fast Mode	60 samples/second (total)
Accuracy	Normal Mode	±0.1%
	Fast Mode	±0.5% or better
Zero Drift		±20 µV/°C
Span Drift		±25 ppm/°C
Overvoltage Protection		240 Vrms
Input Impedance	Voltage	2 MΩ
	Current	125 Ω
Common Mode Rejection		86 dB minimum
Normal Mode Rejection		100 dB
Digital Output		
Channels		4
Type		Isolated open collector
Sink/Source (NPN/PNP)		Sink
Maximum Load Current		700 mA/channel
Load Voltage		5 Vdc to 50 Vdc
Overvoltage Protection		60 Vdc
Overload Protection		1.4 A
Short-Circuit Protection		Yes
Power-On Value		Yes, programmable
Safe Value		Yes, programmable

To Order *Visit omega.com/ome-et-7000_ome-pet-7000 for Pricing and Details*

Model No.	Description
OME-ET-7017	8-channel analog input and DO module
OME-PET-7017	8-channel analog input and DO module with PoE
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.

Ordering Example: OME-ET-7017 *8-channel analog input and DO module and* ***OCW-1*** *OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*

10 Differential/20 Single-Ended Channel Analog Input Modules

OME-ET-7017-10/OME-PET-7017-10

1 YEAR WARRANTY

- Built-In Web Server
- Web HMI
- Support for Both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range -25 to 75°C (-13 to 167°F)
- I/O Pair Connection
- Built-In I/O
  - AI: 10 Differential/20 Single-Ended Channels with 240 Vms Overvoltage Protection

Applications

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

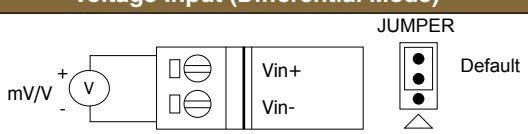
OME-ET-7017-10 shown actual size.

The OME-ET-7017-10/OME-PET-7017-10 is a web-based Ethernet I/O module that features a built-in web server which allows remote configuration, I/O monitoring and I/O control simply by using a regular web browser. Remote control is as easy as browsing the Internet. In addition, the web HMI function means that programming or HTML skills are no longer required so creating dynamic and attractive web pages for I/O monitoring and I/O control purposes is easy. The OME-ET-7017-10/OME-PET-7017-10 offers easy and safe access for users at anytime and from any location, and also supports the MODBUS TCP protocol that ensures perfect integration with SCADA software. Furthermore, the OME-PET-7017-10 features “PoE”, meaning that not only is data transmitted through an Ethernet cable but also power making installation of the OME-PET-7017-10 easy. No more unnecessary wires with only an Ethernet cable being required to take care of everything in the field.

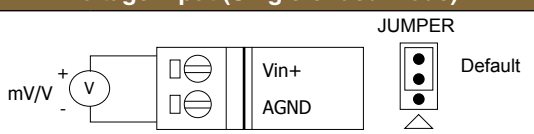
The OME-ET-7017-10 is a 16-bit, 10-channel differential or 20-channel single-ended analog input module that provides programmable input range on all analog channels (±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, ±20 mA, 0 to 20 mA and 4 to 20 mA). Each analog channel is allowed to configure an individual range and has 240 Vrms high overvoltage protection. Modules are jumper selectable for voltage or current input. The sampling rate of OME-ET-7017/OME-PET-7017 is selectable; fast mode or normal mode. OME-ET-7017/OME-PET-7017 also has qualification for 4 kV ESD protection as well as 3000 Vdc intra-module isolation.

Wire Connections

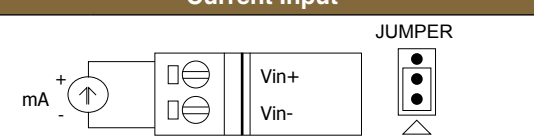
Voltage Input (Differential Mode)



Voltage Input (Single-ended Mode)



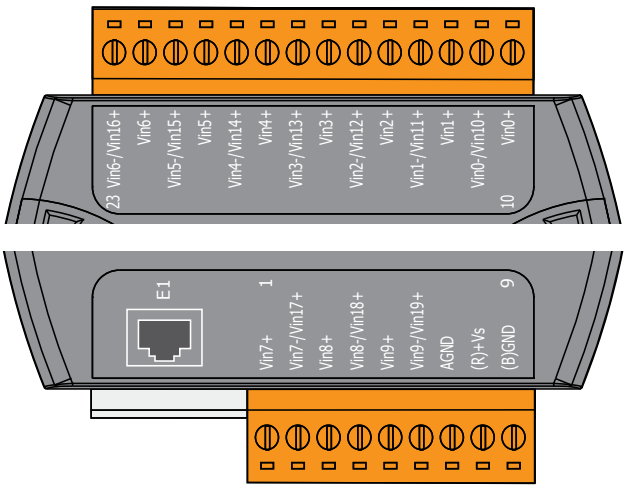
Current Input



System Specifications

Models	OME-ET-7017-10	OME-PET-7017-10
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 Base-TX with Auto MDI/MDI-X	
PoE	—	Yes
Protocol	MODBUS® TCP, MODBUS UDP	
Security	ID, password and IP filter	
Dual Watchdog	Yes, module (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	2500 Vdc	2500 Vdc
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal and 8 kV air for random point	
EFT (IEC 61000-4-4)	±4 kV for power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, class1
Consumption	2.6 W	3.8 W
Mechanical		
Dimensions (W x L x D)	72 x 123 x 35 mm (2.83 x 4.84 x 1.38")	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C	
Storage Temperature	-30 to 80°C	
Humidity	10 to 90% RH, non-condensing	

Pin Assignments



I/O Specifications

Analog Input		
Channels		10 differential or 20 single-ended*, software selectable
Type		±150 mV, ±500 mV, ±1V, ±5V, ±10V, ±20 mA, 0 to 20 mA, 4 to 20 mA (Jumper Selectable)
Individual Channel Configuration		Yes
Resolution	Normal Mode	16-bit
	Fast Mode	12-bit
Sampling Rate	Normal Mode	10 samples/second (total)
	Fast Mode	60 samples/second (total)
Accuracy	Normal Mode	±0.1%
	Fast Mode	±0.5% or better
Zero Drift		±20 µV/°C
Span Drift		±25 ppm/°C
Overvoltage Protection	Differential	240 Vrms
	Single-Ended	150 Vrms
Input Impedance	Voltage	2 MΩ (differential), 1 MΩ (single-ended)
	Current	125 Ω
Common Mode Rejection		86 dB minimum
Normal Mode Rejection		100 dB

Model No.	Description
OME-ET-7017-10	10 differential/20 single-ended channel analog input module
OME-PET-7017-10	10 differential/20 single-ended channel analog input module with PoE
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

** Differential mode can be used for voltage input and current input. Single-ended mode can be used for voltage input only.*
Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.
***Ordering Example: OME-ET-7017-10** 10 differential/20 single-ended channel analog input module and **OCW-1** OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*

NEW

10-Channel Thermocouple Input Modules with OME-DB-1820 Daughter Board

OME-ET-7018Z/OME-PET-7018Z

1 YEAR WARRANTY

- Built-In Web Server
- Web HMI
- Support for Both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to 75°C (-13 to 167°F)
- I/O Pair Connection
- Built-In I/O
  - Thermocouple Input: 10 Channels
  - DO: 6 Channels

Applications

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

OME-ET-7018Z shown actual size.

The OME-ET-7018Z/OME-PET-7018Z is a web-based Ethernet I/O module that features a built-in web server which allows remote configuration, I/O monitoring and I/O control simply by using a regular web browser. Remote control is as easy as browsing the Internet. In addition, the web HMI function means that programming or HTML skills are no longer required so creating dynamic and attractive web pages for I/O monitoring and I/O control purposes is easy. The OME-ET-7018Z/ OME-PET-7018Z offers easy and safe access for users at anytime and from any location, and also supports the MODBUS TCP protocol that ensures perfect integration with SCADA software. Furthermore, the OME-PET-7018Z features “PoE”, meaning that not only is data transmitted through an Ethernet cable but also power making installation of the OME-PET-7018Z easy. No more unnecessary wires with only an Ethernet cable being required to take care of everything in the field.

The OME-ET-7018Z/OME-PET-7018Z is specifically designed for extremely accurate thermocouple measurement and features automatic cold-junction compensation for each channel to ensure temperature output consistency and stable temperature output in the field. Current input and voltage input are both supported. Another feature is that the ten input channels can be individually configured for different kinds of analog input. Open thermocouple detection and ESD/EFT/Surge protection mechanisms are also included. The six digital output channels can be set as alarm outputs with short-circuit protection and overload protection.

System Specifications

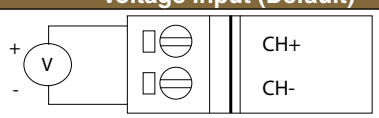
Model No.	OME-ET-7018Z	OME-PET-7018Z
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 Base-TX with Auto MDI/MDI-X	
PoE	—	Yes
Protocol	MODBUS® TCP, MODBUS UDP	
Security	ID, password and IP filter	
Dual Watchdog	Yes, module (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	2500 Vdc	2500 Vdc
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal and 8 kV air for random point	
EFT (IEC 61000-4-4)	±4 kV for Power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, class1
Consumption	2.0 W	3.0 W
Mechanical		
Dimensions (W x L x D)	72 x 116 x 35 mm (2.83 x 4.5 x 1.37")	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Storage Temperature	-30 to 80°C (-22 to 176°F)	
Humidity	10 to 90% RH, non-condensing	

I/O Specifications

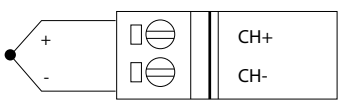
Thermocouple Input	
Channels	10 (differential)
Sensor Type	±15 mV, ±50 mV, ±100 mV, ±500 mV, ±1 V, ±2.5 V
	±20 mA, 0 to 20 mA, 4 to 20 mA (Requires Optional External 125 Ω Resistor)
	Thermocouple (J, K, T, E, R, S, B, N, C, L, M, and LDIN43710)
Individual Channel Configuration	Yes
Resolution	16-bit
Sampling Rate	10 samples/second (total)
Accuracy	±0.1% of FSR or better
Zero Drift	±0.5 µV/°C
Span Drift	±25 ppm/°C
Over Voltage Protection	240 Vrms
Input Impedance	>300 kΩ
Common Mode Rejection	150 dB minimum
Normal Mode Rejection	100 dB
Temperature Output Consistency	Yes
Stable Temperature Output in the Field	Yes
Open Wire Detection	Yes
Digital Output	
Channels	6
Type	Isolated open collector
Sink/Source (NPN/PNP)	Sink
Max. Load Current	700 mA/channel
Load Voltage	5 to 50 Vdc
Overvoltage Protection	60 Vdc
Overload Protection	1.4 A
Short-circuit Protection	Yes
Power-on Value	Yes, programmable
Safe Value	Yes, programmable

Wire Connections

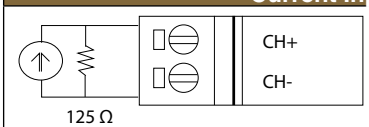
Voltage Input (Default)



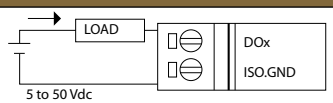
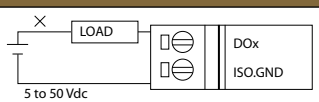
Thermocouple Input (Default)

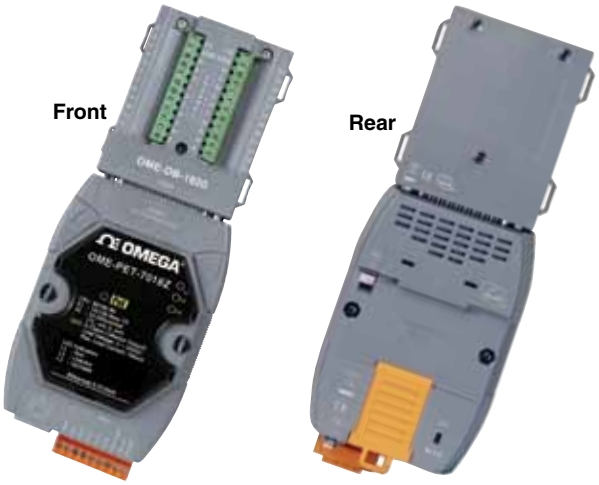


Current Input



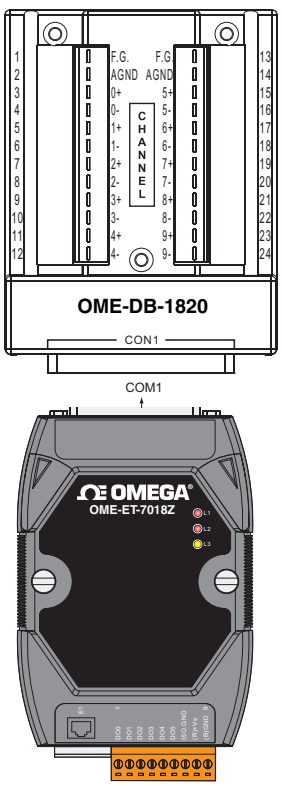
Note: When connecting to a current source, an optional external 125 Ω resistor is required.

Digital Output	ON State Readback as 1	OFF State Readback as 0
Open Collector (Sink)		

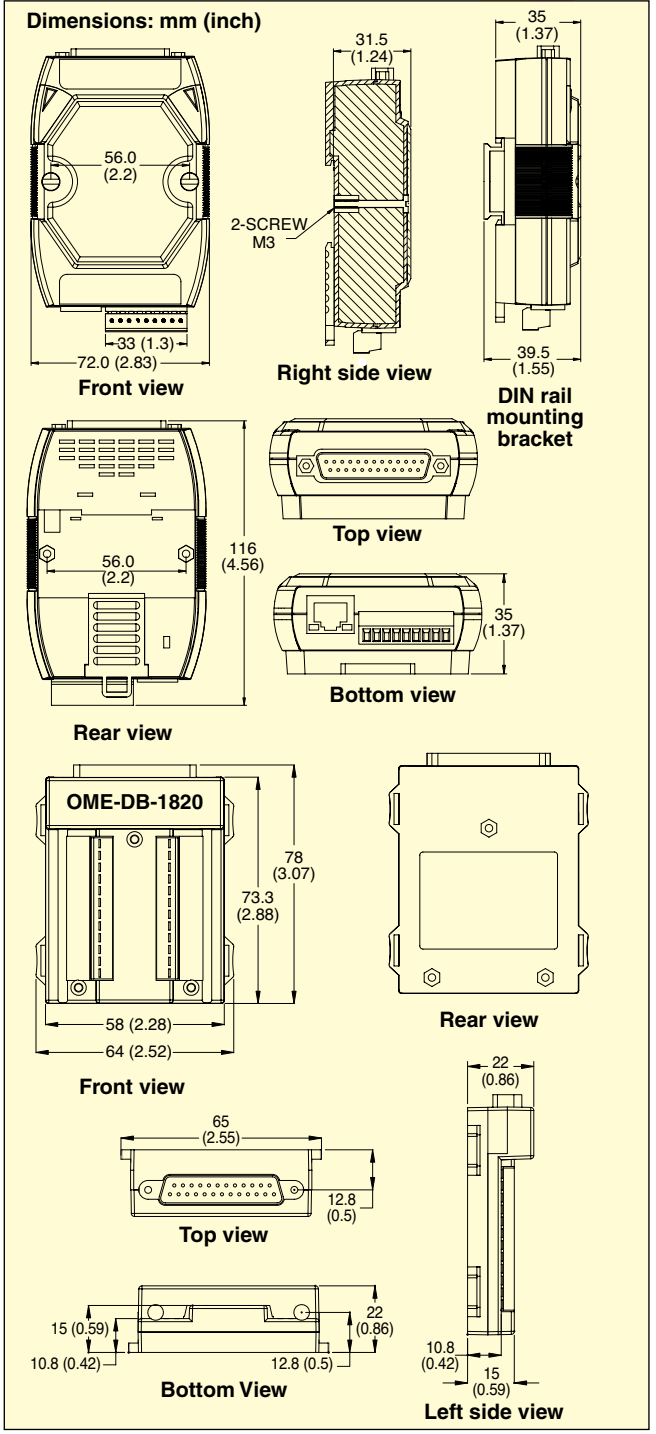


The OME-DB-1820 daughter board (terminal panel) connects directly to the OME-ET-7018Z or OME-PET-7018Z Ethernet module.

Pin Assignments



Dimensions: mm (inch)



To Order *Visit omega.com/ome-et-7000_ome-pet-7000 for Pricing and Details*

Model No.	Description
OME-ET-7018Z	10-channel thermocouple input module with OME-DB-1820 daughter board
OME-PET-7018Z	10-channel thermocouple input module with OME-DB-1820 daughter board with PoE
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.

***Ordering Example: OME-ET-7018Z** 10-channel thermocouple input module with **OME-DB-1820** daughter board and **OCW-1** OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*

10-Channel Thermocouple Input Modules with OME-DB-1820 Daughter Board

OME-ET-7019Z/OME-PET-7019Z

- Built-In Web Server
- Web HMI
- Support for both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to 75°C (-13 to 167°F)
- I/O Pair Connection
- Built-In I/O
  - AI: 10 Channels with 240 Vrms Overvoltage Protection
  - DO: 6 Channels

Applications

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

OME-ET-7019Z shown actual size.

The OME-ET-7019Z/OME-PET-7019Z is a web-based Ethernet I/O module that features a built-in web server which allows remote configuration, I/O monitoring and I/O control simply by using a regular web browser. Remote control is as easy as browsing the Internet. In addition, the web HMI function means that programming or HTML skills are no longer required so creating dynamic and attractive web pages for I/O monitoring and I/O control purposes is easy. The OME-ET-7019Z/OME-PET-7019Z offers easy and safe access for users at anytime and from any location, and also supports the MODBUS TCP protocol that ensures perfect integration with SCADA software. Furthermore, the OME-PET-7019Z features "PoE", meaning that not only is data transmitted through an Ethernet cable but also power making installation of the OME-PET-7019Z easy. No more unnecessary wires with only an Ethernet cable being required to take care of everything in the field.

The OME-ET-7019Z/OME-PET-7019Z is specifically designed for extremely accurate thermocouple measurement and features automatic cold-junction compensation for each channel to ensure temperature output consistency and stable temperature output in the field. Current input and voltage input are both supported. Another feature is that the ten input channels can be individually be configured for different kinds of analog input. Open thermocouple detection and ESD/EFT/Surge protection mechanisms are also included. The six digital output channels can be set as alarm outputs with short-circuit protection and overload protection.

System Specifications

Models	OME-ET-7019Z	OME-PET-7019Z
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 Base-TX with Auto MDI/MDI-X	
PoE	—	Yes
Protocol	MODBUS TCP, MODBUS UDP	
Security	ID, Password and IP Filter	
Dual Watchdog	Yes, module (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	2500 Vdc	2500 Vdc
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal and 8 kV air for random point	
EFT (IEC 61000-4-4)	±4 kV for power	
Surge (IEC 61000-4-5)	±3 kV for power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, Class1
Consumption	2.5 W	3.5 W
Mechanical		
Dimensions (W x L x D)	72 x 116 x 35 mm (2.83 x 4.56 x 1.37")	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Storage Temperature	-30 to 80°C (-22 to 176°F)	
Humidity	10 to 90% RH, non-condensing	

I/O Specifications

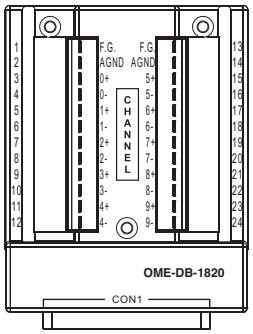
Analog Input	
Channels	10 (differential)
Sensor Type	±15 mV, ±50 mV, ±100 mV, ±150 mV, ±500 mV, ±1 V, ±2.5 V, ±5 V, ±10 V,
	±20 mA, 0 to 20 mA, 4 to 20 mA (jumper selectable)
	Thermocouple (J, K, T, E, R, S, B, N, C, L, M, and LDIN43710)
Individual Channel Configuration	Yes
Resolution	16-bit
Sampling Rate	10 samples/second (total)
Accuracy	±0.1% of FSR or better
Zero Drift	±0.5 µV/°C
Span Drift	±25 ppm/°C
Over Voltage Protection	240 Vrms
Input Impedance	>300 kΩ
Common Mode Rejection	86 dB minimum
Normal Mode Rejection	100 dB
Temperature Output Consistency	Yes
Stable Temperature Output in the Field	Yes
Open Wire Detection	Yes
Digital Output	
Channels	6
Type	Isolated open collector
Sink/Source (NPN/PNP)	Sink
Maximum Load Current	700 mA/channel
Load Voltage	5 to 50 Vdc
Overvoltage Protection	60 Vdc
Overload Protection	1.4 A
Short-Circuit Protection	Yes
Power-On Value	Yes, programmable
Safe Value	Yes, programmable

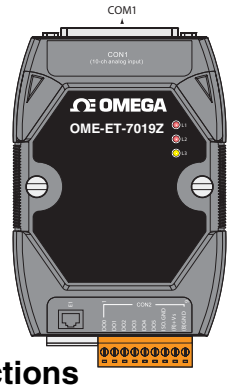
Front

Rear

The OME-DB-1820 daughter board (terminal panel) connects directly to the OME-ET-7019Z or OME-PET-7019Z Ethernet module.

Pin Assignments

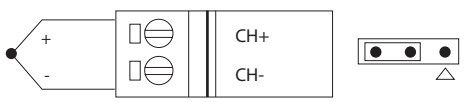




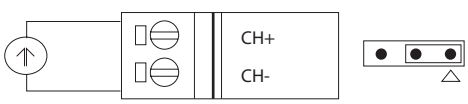
Wire Connections

Voltage Input (Default)

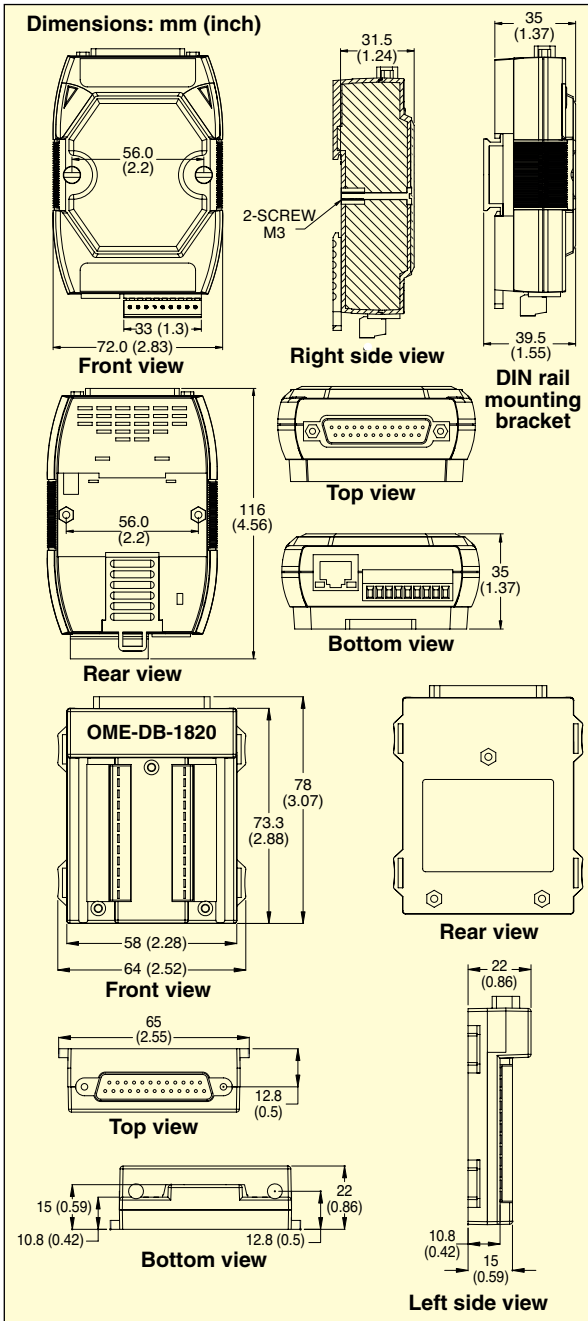
Thermocouple Input (Default)

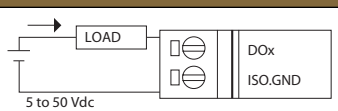
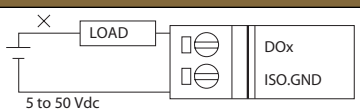


Current Input



Dimensions: mm (inch)



Digital Output	ON State Readback as 1	OFF State Readback as 0
Open Collector (Sink)		

Model No.	Description
OME-ET-7019Z	10-channel thermocouple input module with OME-DB-1820 daughter board
OME-PET-7019Z	10-channel thermocouple input module with OME-DB-1820 daughter board with PoE
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.

Ordering Example: OME-ET-7019Z *10-channel thermocouple input module with* ***OME-DB-1820*** *daughter board and* ***OCW-1*** *OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*

Multifunction Analog/Digital I/O Modules

OME-ET-7026/OME-PET-7026

1 YEAR WARRANTY

- Built-In Web Server
- Web HMI
- Support for Both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to 75°C (-13 to 167°F)
- I/O Pair Connection
- Built-In I/O
  - AI: 6 Channels with 240 Vrms Overvoltage Protection
  - AO: 2 Channels
  - DI/Counter: 2 Channels
  - DO: 2 Channels

Applications

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

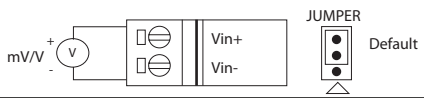
The OME-ET-7026/OME-PET-7026 is a web-based Ethernet I/O module that features a built-in web server which allows remote configuration, I/O monitoring and I/O control simply by using a regular web browser. Remote control is as easy as browsing the Internet. In addition, the web HMI function means that programming or HTML skills are no longer required so creating dynamic and attractive web pages for I/O monitoring and I/O control purposes is easy. The OME-ET-7026/OME-PET-7026 offers easy and safe access for users at anytime and from any location, and also supports the MODBUS TCP protocol that ensures perfect integration with SCADA software. Furthermore, the OME-PET-7026 features “PoE”, meaning that not only is data transmitted through an Ethernet cable but also power making installation of the OME-PET-7026 easy. No more unnecessary wires with only an Ethernet cable being required to take care of everything in the field.

The OME-ET-7026/OME-PET-7026 is a multi-function module; there are 6-channel analog inputs, 2-channel analog output, 2-channel digital inputs and 2-channel digital outputs. It provides programmable input range on all analog inputs (±500 mV, ±1 V, ±5 V, ±10 V, ±20 mA, 0 to 20 mA and 4 to 20 mA), analog outputs are 12 bit with ±5 V, ±10 V, 0 to 20 mA and 4 to 20 mA and digital output can be set as alarm output. Each analog input is allowed to configure an individual range and has 240 Vrms high overvoltage protection. Modules are jumper selectable for voltage or current inputs/outputs.

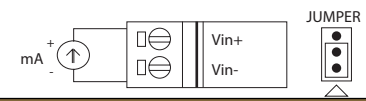
OME-PET-7026 shown smaller than actual size.

Wire Connections

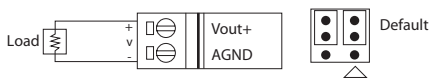
Voltage Input



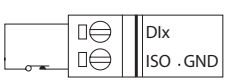
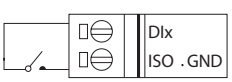
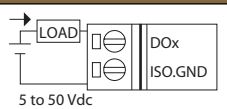
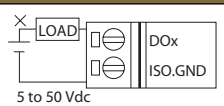
Current Input



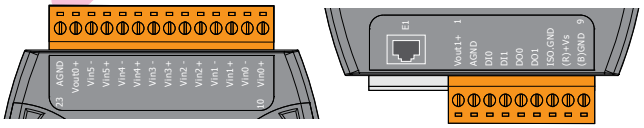
Voltage Output



Current Output

Digital Input/ Counter	ON State Readback as 1	OFF State Readback as 0
Dry Contact		
Digital Output	**ON State Readback as 1**	**OFF State Readback as 0**
Open Collector (Sink)		

Pin Assignments



System Specifications

Models	OME-ET-7026	OME-PET-7026
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 base-TX with auto MDI/MDI-X	
PoE	—	Yes
Protocol	MODBUS TCP, MODBUS UDP	
Security	ID, password and IP filter	
Dual Watchdog	Yes, module (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	2500 Vdc	2500 Vdc
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal and 8 kV air for random point	
EFT (IEC 61000-4-4)	±4 kV for power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, class1
Consumption	3.1 W	4.2 W
Mechanical		
Dimensions (W x L x D)	72 x 123 x 35 mm (2.83 x 4.84 x 1.37")	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Storage Temperature	-30 to 80°C (-22 to 176°F)	
Humidity	10 to 90% RH, non-condensing	

Model No.	Description
OME-ET-7026	Multifunction analog/digital I/O module
OME-PET-7026	Multifunction analog/digital I/O PoE module
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.

Ordering Example: OME-ET-7026 *multifunction analog/digital I/O module and* ***OCW-1*** *OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*

I/O Specifications

Analog Input		
Channels		6 (differential)
Type		±500 mV, ±1V, ±5 V, ±10 V 0 to 20 mA, ±20 mA, 4 to 20 mA (jumper selectable)
Individual Channel Configuration		Yes
Resolution	**Normal Mode**	16-bit
	Fast Mode	12-bit
Sampling Rate	**Normal Mode**	10 samples/second (total)
	Fast Mode	60 samples/second (total)
Accuracy	**Normal Mode**	±0.1%
	Fast Mode	±0.5% or better
Zero Drift		±20 µV/°C
Span Drift		±25 ppm/°C
Overvoltage Protection		240 Vrms
Input Impedance		2 MΩ
Common Mode Rejection		86 dB minimum
Normal Mode Rejection		100 dB
Analog Output		
Channels		2
Type		0 to 5 Vdc, ±5 Vdc, 0 Vdc to 10 Vdc, ±10 Vdc, 0 to 20 mA, 4 to 20 mA (jumper selectable)
Individual Channel Configuration		Yes
Resolution		12-bit
Accuracy		±0.1% of FSR
Voltage Output Capability		20 mA @ 10 V
Current Load Resistance		500 Ω
Open Wire Detection		Yes, for 4 to 20 mA only
Power-on Value		Yes, programmable
Safe Value		Yes, programmable
Digital Input/Counter		
Channels		2
Dry Contact (Source)	**On Voltage Level**	Close to GND
	Off Voltage Level	Open
	Effective Distance for Dry Contact	500 M maximum
Wet contact (Sink/ Source)	**On Voltage Level**	1 Vdc maximum
	Off Voltage Level	3.5 to 30 Vdc
Counters	**Channels**	2
	Maximum Count	4,294,967,285 (32-bit)
	Maximum Input Frequency	100 Hz
	Minimum Pulse Width	5 ms
Overvoltage Protection		30 Vdc
Digital Output		
Channels		2
Type		Isolated open collector
Sink/Source (NPN/PNP)		Sink
Maximum Load Current		700 mA/channel
Load Voltage		5 to 50 Vdc
Overvoltage Protection		60 Vdc
Overload Protection		1.4 A
Short-Circuit Protection		Yes
Power-on Value		Yes, programmable
Safe Value		Yes, programmable

NEW

16-Channel Isolated Digital Output Modules

OME-ET-7042/OME-PET-7042

1 YEAR WARRANTY

- Built-In Web Server
- Web HMI
- Support for both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to 75°C (-13 to 167°F)
- I/O Pair Connection
- Built-In I/O
  - DO: 16 Channels

Applications

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

OME-ET-7042
shown actual size.

OME-PET-7042
shown actual size.

The OME-ET-7042/OME-PET-7042 is a web-based Ethernet digital output module that features a built-in web server which allows configuration, I/O monitoring and I/O control by simply using a web browser. Using the web HMI function, no more programming or HTML skills are required. The user can create dynamic and attractive web pages easily. The module offers easy and safe access for users at anytime and from any location. It also supports MODBUS TCP protocol that makes perfect integration to SCADA software.

The module provides 16 sink-type digital output channels. It features optical isolation for 3750 Vrms of transient overvoltage protection and doesn't have channel-to-channel isolation. The power-on value and safe value of digital output channel are programmable.

System Specifications

Models	OME-ET-7042	OME-PET-7042
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 base-TX with auto MDI/MDI-X	
PoE	—	Yes
Protocol	MODBUS TCP, MODBUS UDP	
Security	ID, password and IP filter	
Dual Watchdog	Yes, module (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	3750 Vrms	3750 Vrms
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal	
EFT (IEC 61000-4-4)	±2 kV for power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, class1
Consumption	2.7 W	3.0 W
Mechanical		
Dimensions (W x L x D)	72 x 123 x 35 mm (2.83 x 4.84 x 1.37")	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Storage Temperature	-30 to 80°C (-22 to 176°F)	
Humidity	10 to 90% RH, non-condensing	

To Order *Visit omega.com/ome-et-7000_ome-pet-7000 for Pricing and Details*

Model No.	Description
OME-ET-7042	16-channel isolated digital output module
OME-PET-7042	16-channel isolated digital output module with PoE
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

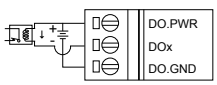
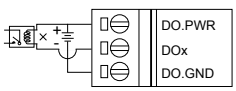
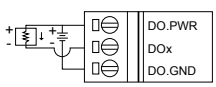
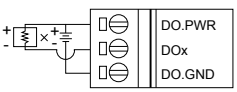
Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.

Ordering Example: OME-ET-7042 *16-channel isolated digital output module and* ***OCW-1*** *OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*

I/O Specifications

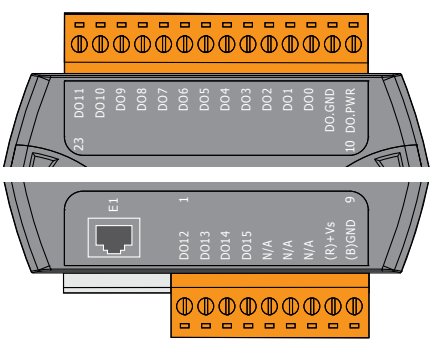
Models	OME-ET-7042	OME-PET-7042
Digital Output		
Channels	16	
Type	Isolated open collector	
Sink/Source (NPN/PNP)	Sink	
Maximum Load Current	100 mA/channel at 25°C direct drive power relay module	
Load Voltage	5 Vdc to 30 Vdc	
Overvoltage Protection	—	60 Vdc
Overload Protection	—	1.3 A
Short-circuit Protection	—	Yes
Power-on Value	Yes, programmable	
Safe Value	Yes, programmable	

Wire Connections

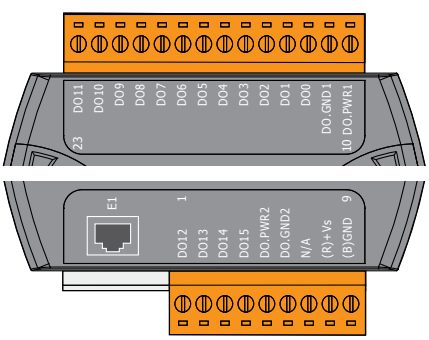
Output Type	ON State Readback as 1	OFF State Readback as 0
Drive Delay		
Resistance Load		

Pin Assignments

OME-ET-7042



OME-PET-7042



NEW

8-Channel DI and 8-Channel Isolated Digital Output Modules

OME-ET-7044/OME-PET-7044

1 YEAR WARRANTY

- Built-In Web Server
- Web HMI
- Support for both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to 75°C (-13 to 167°F)
- I/O Pair Connection
- Built-In I/O
  - DI/Counter: 8 Channels
  - DO: 8 Channels

OME-ET-7044 shown smaller than actual size.

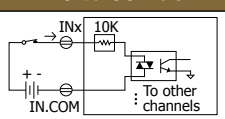
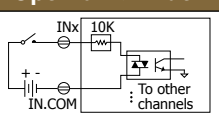
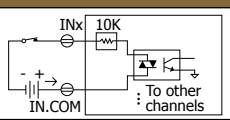
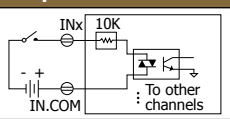
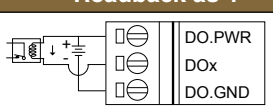
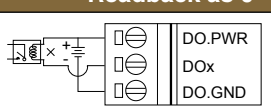
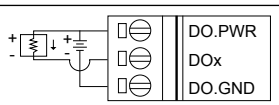
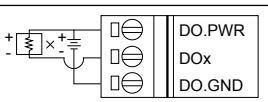
Applications

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

The OME-ET-7044/OME-PET-7044 is a web-based Ethernet digital I/O module that features a built-in web server which allows configuration, I/O monitoring and I/O control by simply using a web browser. Using the web HMI function, no more programming or HTML skills are required. The user can create dynamic and attractive web pages easily. The module offers easy and safe access for users at anytime and from any location. It also supports MODBUS TCP protocol that makes perfect integration to SCADA software.

The module provides 8 wet contact digital input channels and 8 sink-type digital output channels. It features optical isolation for 3750 Vrms of transient overvoltage protection but doesn't provide channel-to-channel isolation. Each input channel can be used as a 32-bit counter and each output channel can drive 300 mA load. The power-on value and safe value of digital output channel are programmable. It can safely be used in applications where hazardous voltages are present.

Wire Connections

Digital Input/Counter	Readback as 1	Readback as 0
Sink	10 to 50 Vdc	Open or < 4 Vdc
		
Source	10 to 50 Vdc	Open or < 4 Vdc
		
Output Type	**ON State Readback as 1**	**OFF State Readback as 0**
Drive Relay		
Resistance Load		

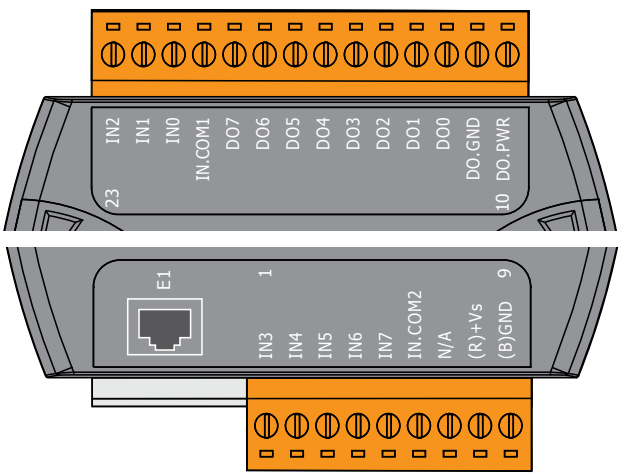
System Specifications

Models	OME-ET-7044	OME-PET-7044
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 base-TX with auto MDI/MDI-X	
PoE	—	Yes
Protocol	MODBUS TCP, MODBUS UDP	
Security	ID, password and IP filter	
Dual Watchdog	Yes, module (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	3750 Vdc	3750 Vdc
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal	
EFT (IEC 61000-4-4)	±2 kV for power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, class1
Consumption	2.4 W	3.0 W
Mechanical		
Dimensions (W x L x D)	72 x 123 x 35 mm (6.77 x 4.84 x 1.38")	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Storage Temperature	-30 to 80°C (-22 to 176°F)	
Humidity	10 to 90% RH, non-condensing	

I/O Specifications

Digital Input/Counter		
Channels		8
Contact		Wet contact
Sink/Source (NPN/PNP)		Sink/source
On Voltage Level		10 to 50 Vdc
Off Voltage Level		4 Vdc maximum
Input Impedance		10 kΩ
Counters	Maximum Count	4,294,967,285 (32 bits)
	Maximum Input Frequency	500 Hz
	Minimum Pulse Width	1 ms
Overvoltage Protection		70 Vdc
Digital Output		
Channels		8
Type		Isolated open collector
Sink/Source (NPN/PNP)		Sink
Maximum Load Current		300 mA/channel at 25°C (77°F) direct drive power relay module
Load Voltage		10 to 40 Vdc
Overvoltage Protection		60 Vdc
Overload Protection		1.1 A
Short-circuit Protection		Yes
Power-on Value		Yes, programmable
Safe Value		Yes, programmable

Pin Assignments



To Order *Visit omega.com/ome-et-7000_ome-pet-7000 for Pricing and Details*

Model No.	Description
OME-ET-7044	8-channel DI and 8-channel DO module
OME-PET-7044	8-channel DI and 8-channel DO module with PoE
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.

Ordering Example: OME-ET-7044 *8-channel DI and 8-channel DO module and* ***OCW-1*** *OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*

NEW

12-Channel DI and 6-Channel Isolated Digital Output Modules

OME-ET-7050/OME-PET-7050

1 YEAR WARRANTY

- Built-In Web Server
- Web HMI
- Support for both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to 75°C (-13 to 167°F)
- I/O Pair Connection
- Built-In I/O
  - DI/Counter: 12 Channels
  - DO: 6 Channels

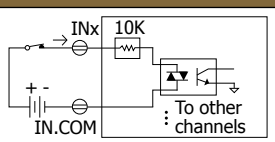
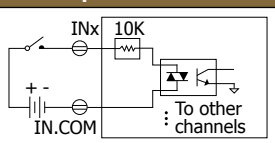
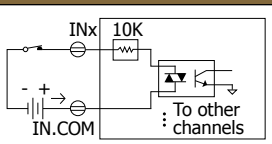
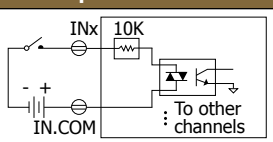
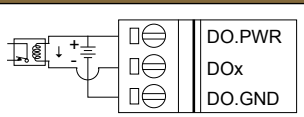
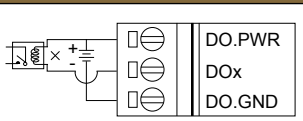
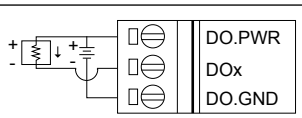
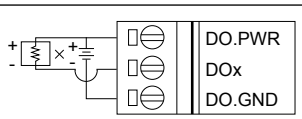
OME-ET-7050 shown smaller than actual size.

Applications

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

The OME-ET-7050/OME-PET-7050 is a web-based Ethernet digital I/O module that features a built-in web server which allows configuration, I/O monitoring and I/O control by simply using a web browser. Using the web HMI function, no more programming or HTML skills are required. The user can create dynamic and attractive web pages easily. The module offers easy and safe access for users at anytime and from any location. It also supports MODBUS TCP protocol that makes perfect integration to SCADA software.

Wire Connections

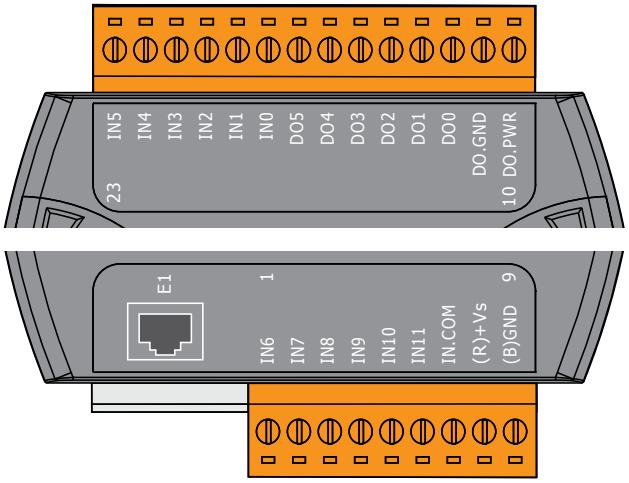
Digital Input/Counter	Readback as 1	Readback as 0
	10 to 50 Vdc	Open or < 4 Vdc
Sink		
	10 to 50 Vdc	Open or < 4 Vdc
Source		
Output Type	ON State Readback as 1	OFF State Readback as 0
Drive Relay		
Resistance Load		

The module provides 12 wet contact digital input channels and 6 sink-type digital output channels. It features optical isolation for 3750 Vrms of transient overvoltage protection but doesn't provide channel-to-channel isolation. Each input channel can be used as a 32-bit counter and each output channel can drive 100 mA load. The power-on value and safe value of digital output channel are programmable.

System Specifications

Models	OME-ET-7050	OME-PET-7050
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 base-TX with auto MDI/MDI-X	
PoE	—	Yes
Protocol	MODBUS TCP, MODBUS UDP	
Security	ID, password and IP filter	
Dual Watchdog	Yes, module (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	3750 Vrms	3750 Vrms
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal	
EFT (IEC 61000-4-4)	±2 kV for power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, class1
Consumption	2.4 W	3.0 W
Mechanical		
Dimensions (W x L x D)	72 x 123 x 35 mm (2.83 x 4.84 x 1.37")	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Storage Temperature	-30 to 80°C (-22 to 176°F)	
Humidity	10 to 90% RH, non-condensing	

Pin Assignments



I/O Specifications

Models		OME-ET-7050	OME-PET-7050
Digital Input/Counter			
Channels		12	
Contact		Wet contact	
Sink/Source (NPN/PNP)		Sink/source	
On Voltage Level		10 to 50 Vdc	
Off Voltage Level		4 Vdc maximum	
Input Impedance		10 kΩ	
Counters	Maximum Count	4,294,967,285 (32 bits)	
	Maximum Input Frequency	500 Hz	
	Minimum Pulse Width	1 ms	
Overvoltage Protection		70 Vdc	
Digital Output			
Channels		6	
Type		Isolated open collector	
Sink/Source (NPN/PNP)		Sink	
Maximum Load Current		100 mA/channel at 25°C (77°F) Direct drive power relay module	
Load Voltage		5 to 30 Vdc	
Overvoltage Protection		—	60 Vdc
Overload Protection		—	1.3 A
Short-circuit Protection		—	Yes
Power-on Value		Yes, programmable	
Safe Value		Yes, programmable	

Model No.	Description
OME-ET-7050	12-channel DI and 6-channel DO module
OME-PET-7050	12-channel DI and 6-channel DO module with PoE
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.

Ordering Example: OME-ET-7050 *12-channel DI and 6-channel DO module and* ***OCW-1*** *OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*

NEW

16-Channel Isolated Digital Input Modules

OME-ET-7051/OME-PET-7051

1 YEAR WARRANTY

- Built-In Web Server
- Web HMI
- Support for Both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to 75°C (-13 to 167°F)
- I/O Pair Connection
- Built-In I/O
  - DI/Counter: 16 Channels

Applications

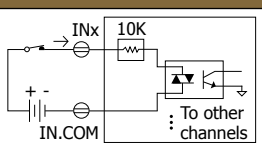
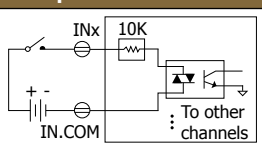
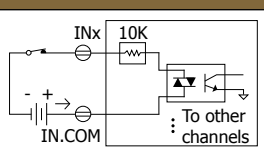
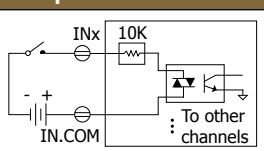
- Building Automation
- Factory Automation
- Machine Automation
- Remote Maintenance
- Remote Diagnosis
- Testing Equipment

OME-ET-7051 shown actual size.

The OME-ET-7051/OME-PET-7051 is a web-based Ethernet digital input module that features a built-in web server which allows configuration, I/O monitoring and I/O control by simply using a web browser. Using the web HMI function, no more programming or HTML skills are required. The user can create dynamic and attractive web pages easily. The module offers easy and safe access for users at anytime and from any location. It also supports MODBUS TCP protocol that makes perfect integration to SCADA software.

The module provides 16 wet contact digital input channels. Each input channel can be used as a 32-bit counter. It features optical isolation for 3750 Vrms of transient overvoltage protection but doesn't provide channel-to-channel isolation. It can safely be used in applications where hazardous voltages are present.

Wire Connections

Digital Input/Counter	Readback as 1	Readback as 0
Sink	10 to 50 Vdc	Open or < 4 Vdc
		
Source	10 to 50 Vdc	Open or < 4 Vdc
		

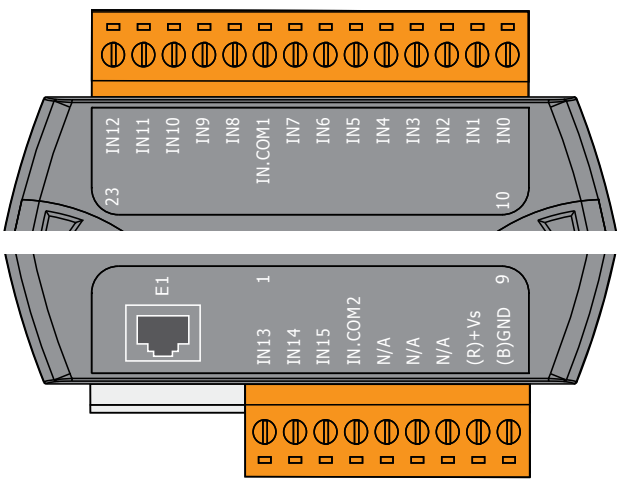
System Specifications

Models	OME-ET-7051	OME-PET-7051
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 base-TX with auto MDI/MDI-X	
PoE	—	Yes
Protocol	MODBUS TCP, MODBUS UDP	
Security	ID, password and IP filter	
Dual Watchdog	Yes, module (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	3750 Vrms	3750 Vrms
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal	
EFT (IEC 61000-4-4)	±2 kV for power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, class1
Consumption	2.4 W	3.0 W
Mechanical		
Dimensions (W x L x D)	72 x 123 x 35 mm (2.83 x 4.84 x 1.37")	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Storage Temperature	-30 to 80°C (-22 to 176°F)	
Humidity	10 to 90% RH, non-condensing	

I/O Specifications

Digital Input/Counter		
Channels		16
Contact		Wet contact
Sink/Source (NPN/PNP)		Sink/source
On Voltage Level		10 to 50 Vdc
Off Voltage Level		4 Vdc maximum
Input Impedance		10 kΩ
Counters	Maximum Count	4,294,967,285 (32 bits)
	Maximum Input Frequency	500 Hz
	Minimum Pulse Width	1 ms
Overvoltage Protection		70 Vdc

Pin Assignments



To Order *Visit omega.com/ome-et-7000_ome-pet-7000 for Pricing and Details*

Model No.	Description
OME-ET-7051	16-channel isolated digital input module
OME-PET-7051	16-channel isolated digital input module with PoE
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.

Ordering Example: OME-ET-7051 *16-channel isolated digital input module and* ***OCW-1*** *OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*

NEW

8-Channel DI and 8-Channel DO Modules

OME-ET-7052/OME-PET-7052

1 YEAR WARRANTY

- Built-In Web Server
- Web HMI
- Support for Both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to 75°C (-13 to 167°F)
- I/O Pair Connection
- Built-In I/O
  - DI/Counter: 8 Channels
  - DO: 8 Channels

OME-ET-7052 shown actual size.

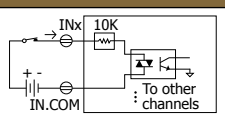
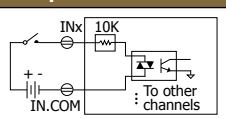
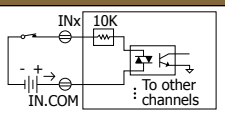
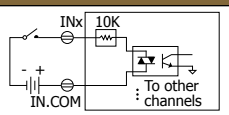
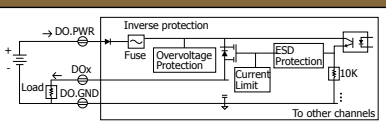
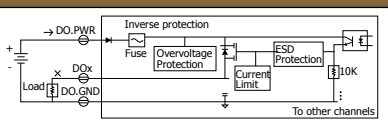
Applications

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

The OME-ET-7052/OME-PET-7052 is a web-based Ethernet digital I/O module that features a built-in web server which allows configuration, I/O monitoring and I/O control by simply using a web browser. Using the web HMI function, no more programming or HTML skills are required. The user can create dynamic and attractive web pages easily. The module offers easy and safe access for users at anytime and from any location. It also supports MODBUS TCP protocol that makes perfect integration to SCADA software.

The module provides 8 wet contact digital input channels and 8 source-type digital output channels. It features optical isolation for 3750 Vrms of transient overvoltage protection but doesn't provide channel-to-channel isolation. Each input channel can be used as a 32-bit counter and each output channel can drive 650 mA load. The power-on value and safe value of digital output channel are programmable. It can safely be used in applications where hazardous voltages are present.

Wire Connections

Digital Input/Counter	Readback as 1	Readback as 0
Sink	10 to 50 Vdc	Open or < 4 Vdc
		
Source	10 to 50 Vdc	Open or < 4 Vdc
		
Digital Output	ON State Readback as 1	OFF State Readback as 0
Source		

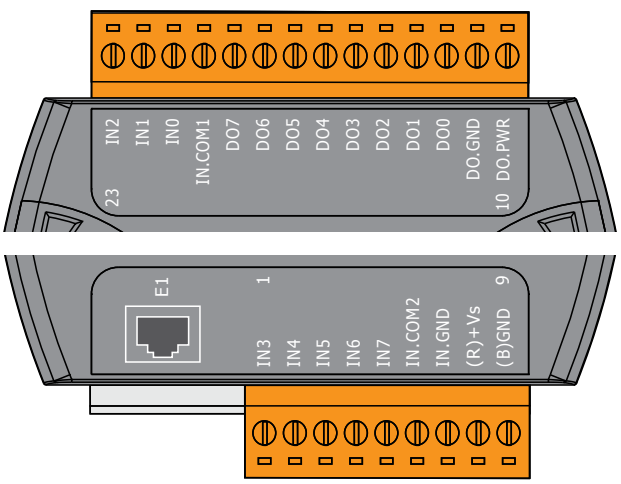
System Specifications

Models	OME-ET-7052	OME-PET-7052
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 base-TX with auto MDI/MDI-X	
PoE	—	Yes
Protocol	MODBUS TCP, MODBUS UDP	
Security	ID, password and IP filter	
Dual Watchdog	Yes, module (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	3750 Vrms	3750 Vrms
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal	
EFT (IEC 61000-4-4)	±2 kV for power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, class1
Consumption	2.4 W	3.0 W
Mechanical		
Dimensions (W x L x D)	72 x 123 x 35 mm (2.83 x 4.84 x 1.37")	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Storage Temperature	-30 to 80°C (-22 to 176°F)	
Humidity	10 to 90% RH, non-condensing	

I/O Specifications

Digital Input/Counter		
Channels		8
Contact		Wet contact
Sink/Source (NPN/PNP)		Sink/source
On Voltage Level		10 to 50 Vdc
Off Voltage Level		4 Vdc maxmium
Input Impedance		10 kΩ
Counters	Maximum Count	4,294,967,285 (32 bits)
	Maximum Input Frequency	500 Hz
	Minimum Pulse Width	1 ms
Overvoltage Protection		70 Vdc
Digital Output		
Channels		8
Type		Isolated open collector
Sink/Source (NPN/PNP)		Source
Max. Load Current		650 mA/channel at 25°C
Load Voltage		10 to 40 Vdc
Overvoltage Protection		47 Vdc
Overload Protection		—
Short-circuit Protection		Yes
Power-on Value		Yes, programmable
Safe Value		Yes, programmable

Pin Assignments



To Order *Visit omega.com/ome-et-7000_ome-pet-7000 for Pricing and Details*

Model No.	Description
OME-ET-7052	8-channel DI and 8-channel DO module
OME-PET-7052	8-channel DI and 8-channel DO module with PoE
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.

Ordering Example: OME-ET-7052 *8-channel DI and 8-channel DO module and* ***OCW-1*** *OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*

16-Channel Isolated Digital Input Modules

OME-ET-7053/OME-PET-7053

1 YEAR WARRANTY

OME-ET-7053 shown actual size.

- Built-In Web Server
- Web HMI
- Support for Both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to 75°C (-13 to 167°F)
- I/O Pair Connection
- Built-In I/O
  - DI/Counter: 16 Channels

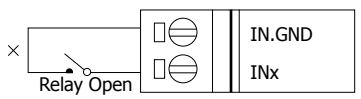
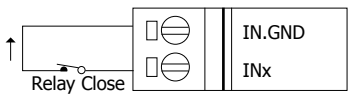
Applications

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

The OME-ET-7053/OME-PET-7053 is a web-based Ethernet digital input module that features a built-in web server which allows configuration, I/O monitoring and I/O control by simply using a web browser. Using the web HMI function, no more programming or HTML skills are required. The user can create dynamic and attractive web pages easily. The module offers easy and safe access for users at anytime and from any location. It also supports MODBUS TCP protocol that makes perfect integration to SCADA software.

The module provides 16 dry contact digital input channels. Each input channel can be used as a 32-bit counter. It features optical isolation for 3750 Vrms of transient overvoltage protection but doesn't provide channel-to-channel isolation. It can safely be used in applications where hazardous voltages are present.

Wire Connections

Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
Dry Contact		

System Specifications

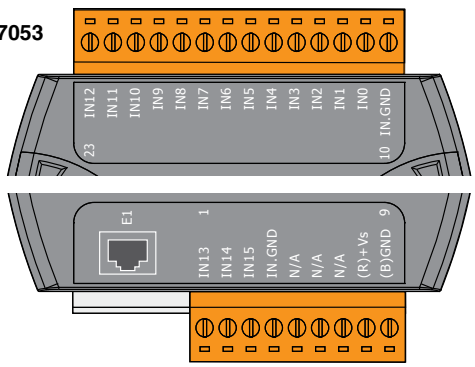
Models	OME-ET-7053	OME-PET-7053
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 base-TX with auto MDI/MDI-X	
PoE	—	Yes
Protocol	MODBUS TCP, MODBUS UDP	
Security	ID, password and IP filter	
Dual Watchdog	Yes, MODULE (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	3750 Vrms	3750 Vrms
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal	
EFT (IEC 61000-4-4)	±2 kV for power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, class1
Consumption	2.4 W	3.0 W
Mechanical		
Dimensions (W x L x D)	72 x 123 x 35 mm (2.83 x 4.84 x 1.37")	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Storage Temperature	-30 to 80°C (-22 to 176°F)	
Humidity	10 to 90% RH, non-condensing	

I/O Specifications

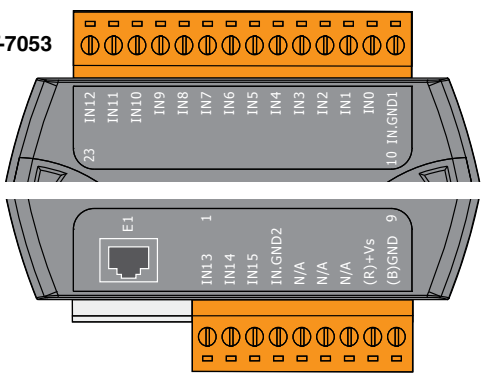
Digital Input/Counter		
Channels		16
Contact		Dry contact
Sink/Source (NPN/PNP)		Source
On Voltage Level		Open
Off Voltage Level		Close to GND
Counters	Maximum Count	4,294,967,285 (32 bits)
	Maximum Input Frequency	500 Hz
	Minimum Pulse Width	1 ms
Overvoltage Protection		—
Effective Distance		500 M maximum

Pin Assignments

OME-ET-7053



OME-PET-7053



To Order *Visit omega.com/ome-et-7000_ome-pet-7000 for Pricing and Details*

Model No.	Description
OME-ET-7053	16-channel isolated digital input module
OME-PET-7053	16-channel isolated digital input module with PoE
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.

Ordering Example: OME-ET-7053 *16-channel isolated digital input module and* ***OCW-1*** *OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*

NEW

6-Channel Power Relay Output and DI Modules

OME-ET-7060/OME-PET-7060

1 YEAR WARRANTY

OME-PET-7060
shown actual size.

- Built-In Web Server
- Web HMI
- Support for Both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to 75°C (-13 to 167°F)
- I/O Pair Connection
- Built-In I/O
  - DI/Counter: 6 Channels
  - Power Relay: 6 Channels

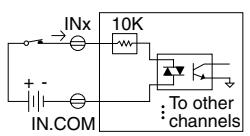
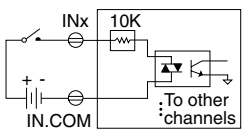
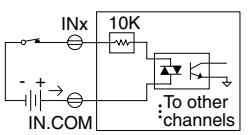
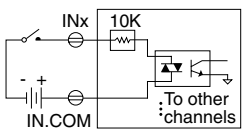
Applications

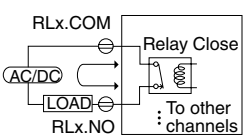
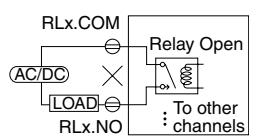
- Building Automation
- Factory Automation
- Machine Automation
- Remote Maintenance
- Remote Diagnosis
- Testing Equipment

OME-ET-7060/OME-PET-7060 is a web-based ethernet digital I/O module that features a built-in web server which allows configuration, I/O monitoring and I/O control by simply using a web browser. Using the web HMI function, no more programming or HTML skills are required. The user can create dynamic and attractive web pages easily. The module offers easy and safe access for users at anytime and from any location. It also supports MODBUS TCP protocol that makes perfect integration to SCADA software.

The module provides 6 wet contact digital input channels and 6 form A electromechanical relays. It features optical isolation for 3000 Vrms of transient overvoltage protection and doesn't have channel-to-channel isolation. Each input channel can be used as a 32-bit counter. The power-on value and safe value of relay are programmable.

Wire Connections

Digital Input/ Counter	Readback as 1	Readback as 0
Sink	10 to 50 Vdc	OPEN or <4 Vdc
		
Source	10 to 50 Vdc	OPEN or <4 Vdc
		

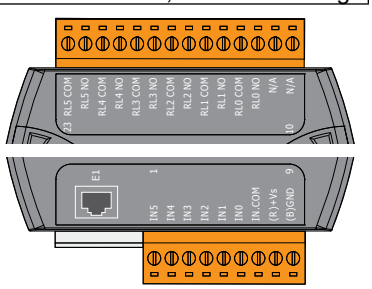
Power Relay	ON State Readback as 1	OFF State Readback as 0
Relay Output		

Note: *When inductive loads are connected to the relays, a large counter electromotive force may occur when the relay actuates because of the energy stored in the load. These flyback voltages can severely damage the relay contacts and greatly shorten the relay life. Limit these flyback voltages at your inductive load by installing a flyback diode for DC loads or a metal oxide varistor for AC loads.*

System Specifications

Models	OME-ET-7060	OME-PET-7060
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 base-TX with auto MDI/MDI-X	
PoE	—	Yes
Protocol	MODBUS TCP, MODBUS UDP	
Security	ID, password and IP filter	
Dual Watchdog	Yes, module (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	3000 Vrms	3000 Vrms
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal	
EFT (IEC 61000-4-4)	±2 kV for power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, class1
Consumption	2.9 W	3.5 W
Mechanical		
Dimensions (W x L x D)	72 x 123 x 35 mm (2.83 x 4.84 x 1.37")	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Storage Temperature	-30 to 80°C (-22 to 176°F)	
Humidity	10 to 90% RH, non-condensing	

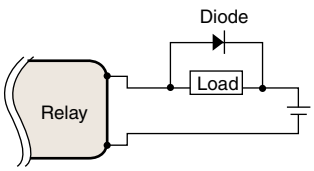
Pin Assignments



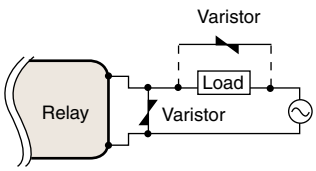
I/O Specifications

Digital Input/Counter		
Channels		6
Contact		Wet contact
Sink/Source (NPN/PNP)		Sink/source
On Voltage Level		10 to 50 Vdc
Off Voltage Level		4 Vdc maximum
Input Impedance		10 kΩ
Counters	Maximum Count	4,294,967,285 (32 bits)
	Maximum Input Frequency	500 Hz
	Minimum Pulse Width	1 ms
Overvoltage Protection		70 Vdc
Power Relay		
Channels		6
Type		Power relay, form A (SPST N.O.)
Operating Voltage Range		250 Vac/30 Vdc
Maximum Load Current		5.0A/channel at 25°C
Operate Time		6 ms (typical)
Release Time		3 ms (typical)
Electrical Life (Resistive Load)	VDE	5A 250 Vac 30,000 ops (10 ops/minute) at 75°C
		5A 30 Vdc 70,000 ops (10 ops/minute) at 75°C
	UL	5A 250 Vac/30 Vdc 6,000 ops.
		3A 250 Vac/30 Vdc 100,000 ops.
Mechanical Life		20,000,000 ops. at no load (300 ops./minute)
Power-on Value		Yes, programmable
Safe Value		Yes, programmable

For DC loads



For AC loads



Varistor Selection

Operating Voltage	Varistor Voltage	Maximum Peak Current
100 to 120 Vac	240 to 270 Vac	> 1000 A
200 to 240 Vac	440 to 470 Vac	> 1000 A

Model No.	Description
OME-ET-7060	6-channel power relay output and DI module
OME-PET-7060	6-channel power relay output and DI module with PoE
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.
Ordering Example: OME-ET-7060 *6-channel power relay output and DI module and* ***OCW-1*** *OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*

NEW

8-Channel Power Relay Output Modules

OME-ET-7067/OME-PET-7067

1 YEAR WARRANTY CE FC RoHS

OME-PET-7067
shown actual size.

- Built-In Web Server
- Web HMI
- Support for Both MODBUS® TCP and MODBUS UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 to 75°C (-13 to 167°F)
- I/O Pair Connection
- Built-In I/O
  - Power Relay: 8 Channels

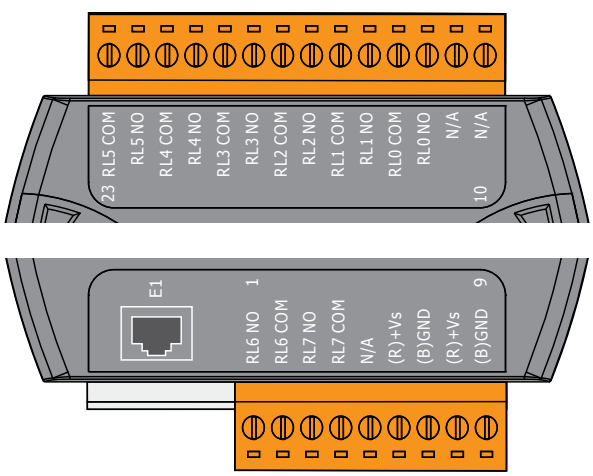
Applications

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

OME-ET-7067/OME-PET-7067 is a web-based ethernet relay module that features a built-in web server which allows configuration, I/O monitoring and I/O control by simply using a web browser. Using the web HMI function, no more programming or HTML skills are required. The user can create dynamic and attractive web pages easily. The module offers easy and safe access for users at anytime and from any location. It also supports MODBUS TCP protocol that makes perfect integration to SCADA software.

The module provides 8 form A electromechanical relays. It features optical isolation for 3000 Vrms of transient overvoltage protection and doesn't have channel-to-channel isolation. The power-on value and safe value of relay are programmable. It can safely be used in applications where hazardous voltages are present.

Pin Assignments



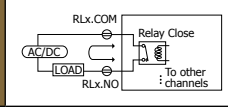
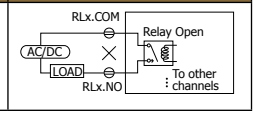
System Specifications

Models	OME-ET-7067	OME-PET-7067
Software		
Built-in Web Server	Yes	
Web HMI	Yes	
I/O Pair Connection	Yes	
Communication		
Ethernet Port	10/100 base-TX with auto MDI/MDI-X	
PoE	—	Yes
Protocol	MODBUS TCP, MODBUS UDP	
Security	ID, password and IP filter	
Dual Watchdog	Yes, module (0.8 seconds), communication (programmable)	
LED Indicators		
L1 (System Running)	Yes	
L2 (Ethernet Link/Act)	Yes	
L3 (Ethernet 10/100 M Speed)	Yes	
PoE Power	—	Yes
2-Way Isolation		
Ethernet	1500 Vdc	—
I/O	3000 Vrms	3000 Vrms
EMS Protection		
ESD (IEC 61000-4-2)	4 kV contact for each terminal	
EFT (IEC 61000-4-4)	±2 kV for power	
Power Requirements		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	Yes, 10 to 30 Vdc	Yes, 12 to 48 Vdc
Powered from PoE	—	Yes, IEEE 802.3af, class1
Consumption	2.9 W	3.5 W
Mechanical		
Dimensions (W x L x D)	72 x 123 x 35 mm (2.83 x 4.84 x 1.37")	
Installation	DIN-rail or wall mounting	
Environment		
Operating Temperature	-25 to 75°C (-13 to 167°F)	
Storage Temperature	-30 to 80°C (-22 to 176°F)	
Humidity	10 to 90% RH, non-condensing	

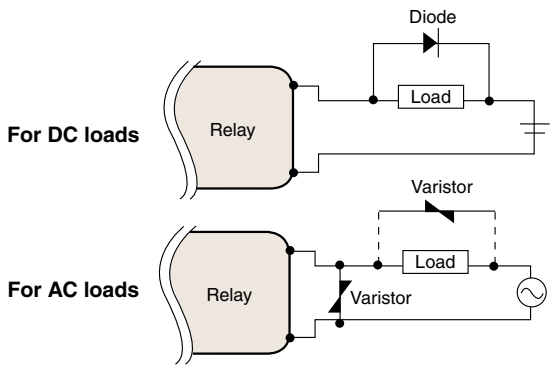
I/O Specifications

Power Relay		
Channels		8
Type		Power relay, form A (SPST N.O.)
Operating Voltage Range		250 Vac/30 Vdc
Max. Load Current		5.0A/channel at 25°C
Operate Time		6 ms (typical)
Release Time		3 ms (typical)
Electrical Life (Resistive Load)	VDE	5A 250 Vac 30,000 ops (10 ops/minute) at 75°C
		5A 30 Vdc 70,000 ops (10 ops/minute) at 75°C
	UL	5A 250 Vac/30 Vdc 6,000 ops
		3A 250 Vac/30 Vdc 100,000 ops
Mechanical Life		20,000,000 ops. at no load (300 ops/minute)
Power-on Value		Yes, programmable
Safe Value		Yes, programmable

Wire Connections

Power Relay	ON State Readback as 1	OFF State Readback as 0
Relay Output		

Note: *When inductive loads are connected to the relays, a large counter electromotive force may occur when the relay actuates because of the energy stored in the load. These flyback voltages can severely damage the relay contacts and greatly shorten the relay life.*



Varistor Selection

Operating Voltage	Varistor Voltage	Maximum Peak Current
100 to 120 Vac	240 to 270 Vac	> 1000 A
200 to 240 Vac	440 to 470 Vac	> 1000 A

Model No.	Description
OME-ET-7067	8-channel power relay output module
OME-PET-7067	8-channel power relay output module with PoE
RAIL-35-1	35 mm (1.4") DIN rail, 1 m (3.3') length
iDRN-PS-1000	DIN rail power supply, 95 to 240 Vac input, 24 Vdc output at 850 mA
OM-ESW-105	5-port unmanaged ethernet switch
OM-ESW-105-POE	5-port POE ethernet switch (four 10/100 base TX ports with POE and one 10/100 base TX uplink port)

Comes complete with wall mount bracket, quick start guide, utility software and operator's manual on CD.

Ordering Example: OME-ET-7067 *8-channel power relay output module and* ***OCW-1*** *OMEGACARE℠ extends standard 1-year warranty to a total of 2 years.*