

# ADAM-6100

## Real-time Ethernet I/O Modules

### Introduction

Advantech's ADAM-6100 EtherNet/IP and PROFINET Series can build a real-time distributed control system that is reliant on reliable and real-time communication among the controllers and devices. Improving safety, quality, and efficiency, a real-time system is expected to respond not just quickly, but also within a predictable period of time via industrial-grade EtherNet/IP and PROFINET protocols.

#### EtherNet/IP & PROFINET

Today, EtherNet/IP and PROFINET are two commonly used protocols in process control, manufacturing, and other industrial automation applications, ensuring multi-vendor system interoperability. EtherNet/IP is known as object-orientated organization, and allows ordinary office Ethernet to become a more versatile system; PROFINET is the open industrial Ethernet standard, including two modes - PROFINET IO and PROFINET CBA - and allowing combining distributed automation and distributed I/O flexibly.



### Features



#### Daisy Chain Connections

ADAM-6100 real-time Ethernet modules are equipped with daisy chain capability which is the easiest way to add more I/O modules into an existing network. That is, data acquisition modules are connected in series to the next and then bounce the signal along in sequence until it reaches the destination, helping improve scalability and improving resistance against interference common in factory settings.



#### Ethernet-based Configuration Tool

Like other ADAM-4000 and ADAM-6000 models, the ADAM-6100 series comes bundled with ADAM.NET Utility. With ADAM.NET Utility, users can remotely configure, set and test ADAM-6100 modules through Ethernet.



#### 2,500 Vdc Isolation Protection

With three-way isolation protection between power supply, input/output, and Ethernet communication, ADAM-6100 series ensures I/O data to be controlled correctly, and prevents devices from breaking down.



# ADAM-6100 Series Selection Table



Model		ADAM-6117	ADAM-6118	ADAM-6150
Description		8-ch Isolated Analog Input Real-time Ethernet Module	8-ch Thermocouple Input Real-time Ethernet Module	15-ch Isolated Digital I/O Real-time Ethernet Module
Interface		10/100 Mbps Ethernet		
Support Protocol		ADAM-6100EI: EtherNet/IP; ADAM-6100PN: PROFINET		
Analog Input	Resolution	16 bit	16 bit	-
	Channels	8	8	-
	Sampling Rate	10 S/s	10 S/s	-
	Voltage Input	±150 mV ±500 mV ±1 V ±5 V ±10 V	±150 mV ±500 mV ±1 V ±5 V ±10 V	-
	Current Input	0 ~ 20 mA 4 ~ 20 mA ±20 mA	0 ~ 20 mA 4 ~ 20 mA ±20 mA	-
	Direct Sensor Input	-	J, K, T, E, R, S, B Thermocouple	-
Digital Input and Output	Input Channels	-	-	8
	Output Channels	-	-	7
Isolation Protection		2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>
Connectors		2 x RJ-45 LAN (Daisy Chain) Plug-in screw terminal block (I/O and power)		



Model		ADAM-6151	ADAM-6156	ADAM-6160
Description		16-ch Isolated Digital Input Real-time Ethernet Module	16-ch Isolated Digital Output Real-time Ethernet Module	6-ch Relay Output Real-time Ethernet Module
Interface		10/100 Mbps Ethernet		
Support Protocol		ADAM-6100EI: EtherNet/IP; ADAM-6100PN: PROFINET		
Analog Input	Resolution	-	-	-
	Channels	-	-	-
	Sampling Rate	-	-	-
	Voltage Input	-	-	-
	Current Input	-	-	-
	Direct Sensor Input	-	-	-
Digital Input and Output	Input Channels	16	-	-
	Output Channels	-	16	6 (Power Relay)
Isolation Protection		2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>	2,500 V <sub>DC</sub>
Connectors		2 x RJ-45 LAN (Daisy Chain) Plug-in screw terminal block (I/O and power)		