

# Robust RS-485 I/O Module

Module	ADAM-4117	ADAM-4118	ADAM-4150	ADAM-4168	
Resolution	16 bit		-	-	
Analog Input	Input Channels	8 differential		-	
	Sampling Rate	10/100 Hz (total)		-	
	Voltage Input	0 ~ 150 mV, 0 ~ 500 mV, 0 ~ 1 V, 0 ~ 5 V, 0 ~ 10 V, 0 ~ 15 V, ±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, ±15V	±15 mV, ±50 mV, ±100 mV, ±500 mV, ±1 V, ±2.5V	-	-
	Current Input	0 ~ 20 mA, ±20 mA, 4 ~ 20 mA	±20 mA, 4 ~ 20 mA	-	-
	Direct Sensor Input	-	J, K, T, E, R, S, B Thermocouple	-	-
	Burn-out Detection	Yes (mA)	Yes (mA and All T/C)	-	-
Digital Input and Output	Channel Independent Configuration	Yes		-	
	Digital Input Channels	-	-	7	
Counter	Digital Output Channels	-	-	8	
	Channels	-	-	7	
Counter	Input Frequency	-	-	3 kHz	
	Isolation Voltage	3000 V <sub>DC</sub>			
Digital LED Indicator	Communication and Power				
Watchdog Timer	Yes (System & Communication)				
Safety Setting	-	Yes			
Communication Protocol	ASCII Command/Modbus				
Power Requirement	10 ~ 48 V <sub>DC</sub>				
Operating Temperature	-40 ~ 85° C				
Storage Temperature	-40 ~ 85° C				
Humidity	5 ~ 95% RH				
Power Consumption	1.2 W @ 24 V <sub>DC</sub>	0.5 W @ 24 V <sub>DC</sub>	0.7 W @ 24 V <sub>DC</sub>	1.8 W @ 24 V <sub>DC</sub>	

Module	ADAM-4510I	ADAM-4520I
Network	RS-422/485	RS-232 to RS-422/485
Communication Speed (bps)	From 1200 to 115.2k	
Communication Distance	Serial: 1.2 km	
Interface Connectors	RS-422/485: plug-in screw terminal	RS-232: female DB9 RS-422/485: plug-in screw terminal
Digital LED Indicators	Communication and Power	
Auto Data Flow Control	Yes	
Isolation Voltage	3000 V <sub>DC</sub>	
Power Requirement	10 ~ 48 V <sub>DC</sub>	
Operating Temperature	-40 ~ 85° C	
Storage Temperature	-40 ~ 85° C	
Humidity	5 ~ 95%	
Power Consumption	1.4 W @ 24 V <sub>DC</sub>	1.2 W @ 24 V <sub>DC</sub>

# Ethernet I/O Modules: ADAM-6000

Module Spec.	ADAM-6015	ADAM-6017	ADAM-6018	ADAM-6022	ADAM-6024	ADAM-6050	ADAM-6051	ADAM-6052	ADAM-6060	ADAM-6066	ADAM-6050W	ADAM-6051W	ADAM-6060W	
Interface	10/100 Mbps Ethernet										802.11b wireless LAN			
Peer-to-Peer*	Yes		No	Receiver Only**	Yes									
GCL*	Yes		No	Receiver Only**	Yes						No			
Resolution	16 bit			16 bit for AI 12 bit for AO		-	-	-	-	-	-	-	-	
Analog Input	Channels	7	8	8	6	6	-	-	-	-	-	-	-	
	Sampling Rate	10 sample/second										-	-	-
	Voltage Input	-	±150 mV ±500 mV ±1 V ±5 V ±10 V	-	±10 V	±10 V	-	-	-	-	-	-	-	-
	Current Input	-	0 ~ 20 mA 4 ~ 20 mA	-	0 ~ 20 mA 4 ~ 20 mA	0 ~ 20 mA 4 ~ 20 mA	-	-	-	-	-	-	-	-
	Direct Sensor Input	Pt, Balco and Ni RTD	-	J,K,T,E,R,S,B Thermocouple	-	-	-	-	-	-	-	-	-	-
	Burn-out Detection	Yes	-	Yes	-	-	-	-	-	-	-	-	-	-
Math. Functions	Max. Min. Avg.	Max. Min. Avg.	Max. Min. Avg.	-	-	-	-	-	-	-	-	-	-	
Analog Output	Channels	-	-	-	2	2	-	-	-	-	-	-	-	
	Current Output	-	-	-	0 ~ 20 mA, 4 ~ 20 mA with 15 V <sub>DC</sub>	0 ~ 20 mA, 4 ~ 20 mA with 15 V <sub>DC</sub>	-	-	-	-	-	-	-	
	Voltage Output	-	-	-	0 ~ 10 V <sub>DC</sub> with 30 mA	0 ~ 10 V <sub>DC</sub> with 30 mA	-	-	-	-	-	-	-	
Digital Input and Output	DI Channels	-	-	-	2	2	12	12	8	6	6	12	12	
	DO Channels	-	2 (Sink)	8 (Sink)	2 (Sink)	2 (Sink)	6 (Sink)	2 (Sink)	8 (Source)	6-channel relay	6-channel power relay	6 (Sink)	2 (Sink)	
	Extra Counter Channels	-	-	-	-	-	-	2	-	-	-	-	2	
	Counter Input	-	-	-	-	-	3 kHz	4.5 kHz	3 kHz			4.5 kHz	3 kHz	
Frequency Input	-	-	-	-	-	3 kHz	4.5 kHz	3 kHz			4.5 kHz	3 kHz		
Pulse Output	-	-	-	-	-	Yes								
High/Low Alarm Settings	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	
Isolation Protection	2000 V <sub>DC</sub>			2000 V <sub>DC</sub> ***		2000 V <sub>DC</sub>								
Remark	-	-	-	Built-in Dual Loop PID Control Algorithm	-	-	-	-	-	-	-	-	-	

\* : Peer-to-Peer and GCL cannot run at the same time, only one feature is enabled at one time.

\*\* : ADAD-6024 can only play the receiver and generate analog output when using Peer-to-Peer or GCL.

\*\*\* : Only for analog input and analog output channels.