



# 10

## Data Acquisition & Control

I/O Modules	158
ADAM-4000 Series	160
ADAM-6000 Series	162

# Data Acquisition & Control

## I/O Modules

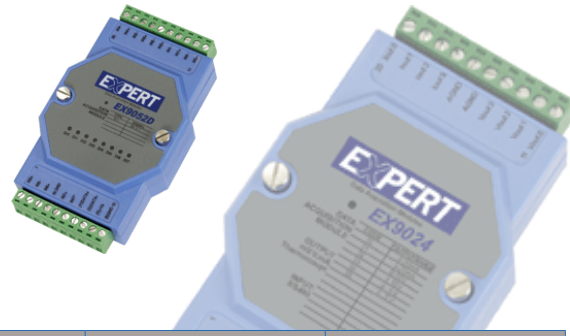


	Models/ Features	Input Channels	Digital Level 0	Digital Level 1	Resolution
Digital I/O Module	Anewtech EX 9041D	14	+1v	+4 to +30v	-
	Anewtech EX 9044D	4	+1v	4 to 30v	-
	Anewtech EX 9052D	8	+1v	+4 to +30v	-
	Anewtech EX 9060D	4	+1v	+4 to +30v	-
	Anewtech EX 9063D	8	+1v	+4 to +30v	-
	Anewtech EX 9065D	4	+1v	+4 to +30v	-
Digital Output Module	Anewtech EX 9043D	Non	Non	Non	-
Digital Input Module	Anewtech EX 9053D	16	+2v	+4 to +30v	-
EX 9000 series Analog I/O Module	Anewtech EX 9017F	8 diff	-	-	12 bit
	Anewtech EX 9018P	8 diff	-	-	16 bit
	Anewtech EX 9024	-	-	-	14 bit
	Anewtech EX 9033D	3 diff	-	-	16 bit
	Anewtech EX 9012D	1 diff	-	-	16 bit
	Anewtech EX9012FD	1 diff	-	-	12 bit
	Anewtech EX 9013D	1 diff	-	-	16 bit
	Anewtech EX 9014D	1 diff	-	-	16 bit
	Anewtech EX 9016D	2 diff	-	-	16 bit
	Anewtech EX 9017	8 diff	-	-	16 bit
	Anewtech EX 9017F/17FR	8 diff	-	-	12 bit
	Anewtech EX 9018/18BL	8 diff	-	-	16 bit
	Anewtech EX 9050D	7	+1v	+4 to +30v	-
	Anewtech EX 9066D	-	-	-	-
	Anewtech EX 9067D	-	-	-	-
	Anewtech EX 9080RD	2	+1v	+3.5 to +30v	32 bit
	Anewtech EX 9080D	2	0.8v	2.4v	32 bit
	Anewtech EX 9017F/17FR-M	8 diff	-	-	12 bit
	Anewtech EX 9018BL-M	8 diff	-	-	16 bit
	Anewtech EX 9024-M	-	-	-	12 bit
	Anewtech EX 9036-M	3 diff	-	-	16 bit
	Anewtech EX 9041D-M	14	+1v	+4 to +30v	-
	Anewtech EX 9043D-M	-	-	-	-
	Anewtech EX 9044D-M	4	+1v	+4 to +30v	-
	Anewtech EX 9052D-M	8	1v	4 to 30v	-
	Anewtech EX 9053D-M	16	2v	4 to 30v	-

	Models/ Features	Support RS 232/485	Watchdog Timer	CPU	SRAM	
EX 9188 series	Embedded Controller	Anewtech EX 9188XD	4/5/8	Yes	80188,40MHZ	256KB
	RS-485 to 232 Converter	Anewtech EX 952N	-	Yes	80188,40MHZ	256KB
	Ethernet Com Controller	Anewtech EX 9188END	1/2/3/4/5/8	Yes	80188,40MHZ	256KB
	Modbus/TCP Embedded Controller	Anewtech EX 9188END-MTCP	1/2/3/4/5/8	Yes	80188,40MHZ	512KB
	Micro PLC w/Ethernet	Anewtech EX 9188EX	1/1	Yes	80188,40MHZ	512KB
		E Anewtech X9188EX-MTCP	1/1	Yes	80188,40MHZ	512KB

# Data Acquisition & Control

## I/O Modules



Sampling Rate	Isolation Voltage	Input Resistance	Dual Watchdog Timer	Operating Environment
-	Non	3K Ohms	-	-25~+75C
-	3750Vrms	3K Ohms	-	-25~+75C
-	Non	3K Ohms	-	-25~+75C
-	3750Vrms	3K Ohms	-	-25~+75C
-	3750Vrms	3K Ohms	-	-25~+75C
-	3750Vrms	3K Ohms	-	-25~+75C
-	Non	Non	-	-25~+75C
-	Non	820 Ohms	-	-25~+75C
75Hz	3000v	-	Yes	-25~+75C
10Hz	3000v	-	Yes	-25~+75C
10Hz	3000v	-	Yes	-25~+75C
15Hz	3000v	-	Yes	-25~+75C
10Hz	3000v	-	Yes	-25~+75C
100Hz	3000v	-	Yes	-25~+75C
15Hz	3000v	-	Yes	-25~+75C
10Hz	3000v	-	Yes	-25~+75C
10Hz	3000v	-	Yes	-25~75C
10Hz	3000v	-	Yes	-25~75C
75Hz	3000v	-	Yes	-25~75C
10Hz	3000v	-	Yes	-25~75C
-	-	3K Ohms	-	-25~75C
-	5000v	-	Yes	-25~75C
-	-	-	Yes	-25~+75C
-	3750Vrms	-	Yes	-25~+75C
-	3750Vrms	-	Yes	-25~+75C
75Hz	3000v	-	Yes	-25~+75C
10Hz	3000v	-	Yes	-25~+75C
-	-	-	Yes	-25~+75C
15Hz	3000v	-	Yes	-25~+75C
10Hz	3750v	3K Ohms	Yes	-25~+75C
-	-	-	Yes	-25~75C
-	3750v	3K Ohms	Yes	-25~75C
-	5000v	3K Ohms	Yes	-25~75C
-	-	820 Ohms	Yes	-25~75C

FLASH ROM	EEPROM	EMBEDDED OS	Isolation Voltage	Operating Environment
512KB	2KB	RomDos(Datalight)	3000v	-25~+75C
512KB	2KB	RomDos(Datalight)	-	-40~+80C
512KB	2KB	RomDos(Datalight)	-	-25~+75C
512KB	2KB	RomDos(Datalight)	-	-25~+75C
512KB	2KB	RomDos(Datalight)	-	-25~+75C
512KB	2KB	RomDos(Datalight)	-	-25~+75C

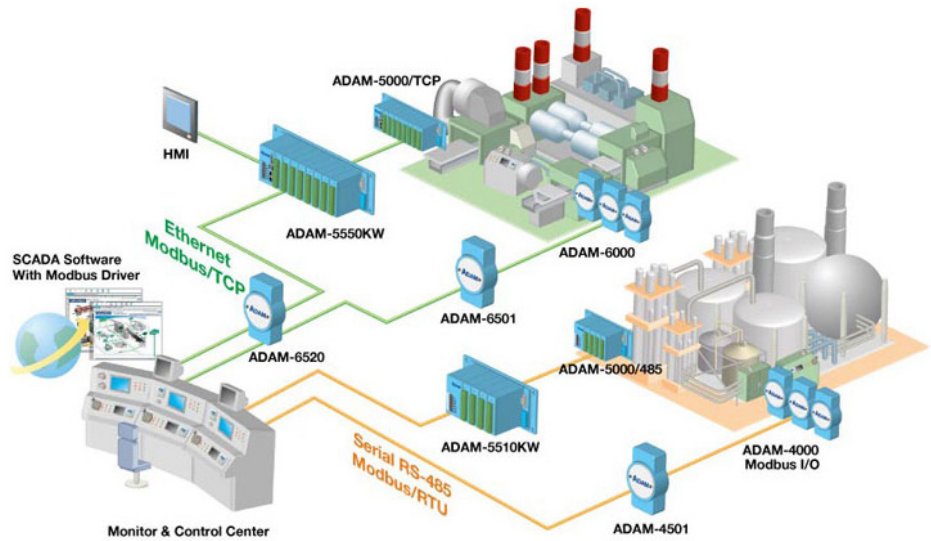
- 1 Industrial Computer
- 2 Compact PCI
- 3 Embedded Computer
- 4 Panel PC/ LCD Monitor
- 5 Human Machine Interface
- 6 Digital Advertising
- 7 Serial & Wireless Connectivity
- 8 Digital Video Surveillance
- 9 Network Security Appliance
- 10 Data Acquisition & Control
- 11 Industrial RFID
- 12 Industrial Ethernet Switch
- 13 Medical PC
- 14 Power Supply
- 15 Accessories

# Data Acquisition & Control

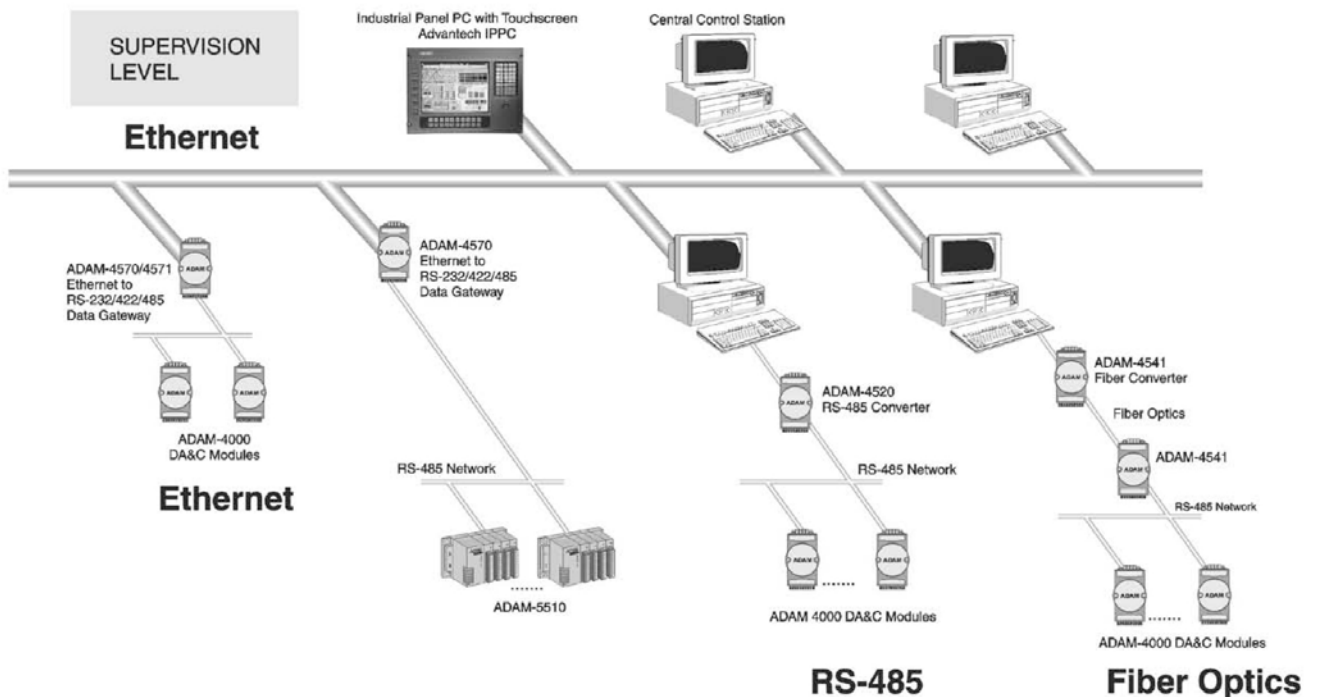
## ADAM-4000 Series

### Applications:

- Remote data acquisition
- Process monitoring
- Industrial process control
- Energy management
- Supervisory control
- Security systems
- Laboratory automation
- Building automation
- Product testing
- Direct digital control
- Relay control



### Data Acquisition & Control System



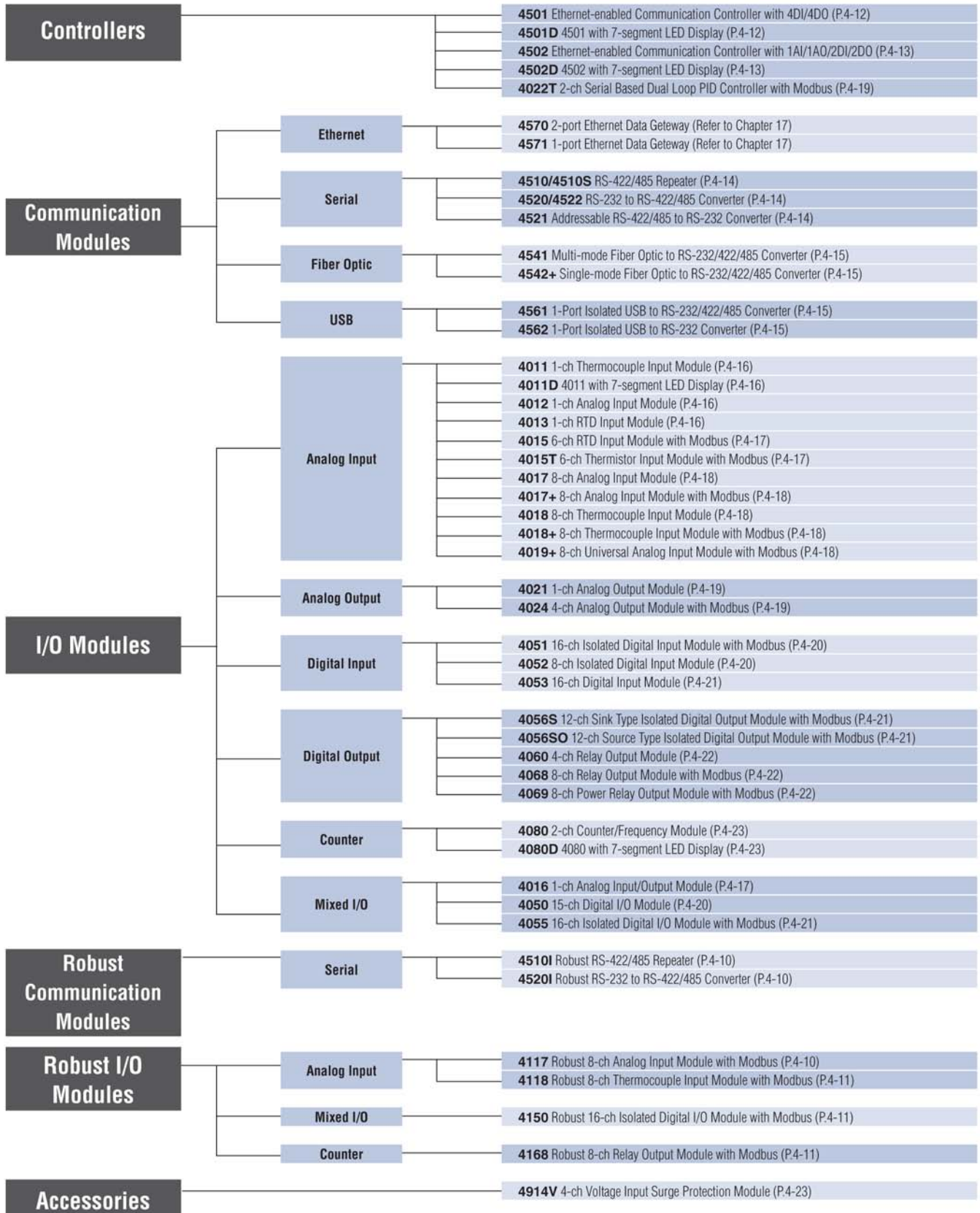
With many high-end industrial-grade features, Anewtech rugged ADAM-4000/4100 and ADAM-6000 Remote I/O Modules are designed specifically for reliable operation in harsh environments. The built-in microprocessors, encased with industrial-grade plastic, independently provide intelligent signal conditioning, Analog I/O, Data Display and Serial/Ethernet/Fieldbus communications. Additionally, ADAM-5000 Distributed DA&C allows remote configuration via Ethernet for Efficient management.

In order to meet the integration requirement of Environmental Monitoring Systems, Anewtech ADAM Remote I/O Series offers a diversified product range. Powerful networking and communication capabilities, rich analog measurements with noise immunity and wide operating temperature.

# Data Acquisition & Control

## ADAM-4000 Series

### Module Selection Chart



- 1 Industrial Computer
- 2 Compact PCI
- 3 Embedded Computer
- 4 Panel PC/LCD Monitor
- 5 Human Machine Interface
- 6 Digital Advertising
- 7 Serial & Wireless Connectivity
- 8 Digital Video Surveillance
- 9 Network Security Appliance
- 10 Data Acquisition & Control
- 11 Industrial RFID
- 12 Industrial Ethernet Switch
- 13 Medical PC
- 14 Power Supply
- 15 Accessories

# Data Acquisition & Control

## ADAM-6000 Series

Module Spec.	ADAM-6015	ADAM-6017	ADAM-6018	ADAM-6022	ADAM-6024	ADAM-6050	ADAM-6051	ADAM-6052	ADAM-6060	ADAM-6066
Interface	10/100 Mbps Ethernet									
Peer-to-Peer <sup>1</sup>	Yes		No		Receiver Only <sup>2</sup>		Yes			
GCL <sup>1</sup>	Yes		No		Receiver Only <sup>2</sup>		Yes			
Resolution	16 bit			16 bit for AI 12 bit for AO		-	-	-	-	-
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.	-	-	-	-	-	-	-
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	-	-	-	-	-
DI Channels	-	-	-	2	2	12	12	8	6	6
DO Channels	-	2 (Sink)	8 (Sink)	2 (Sink)	2 (Sink)	6 (Sink)	2 (Sink)	8 (Source)	6-channel relay	6-channel power relay
Extra Counter Channels	-	-	-	-	-	-	2	-	-	-
Counter Input	-	-	-	-	-	3 kHz	4.5 kHz	3 kHz		
Frequency Input	-	-	-	-	-	3 kHz	4.5 kHz	3 kHz		
Pulse Output	-	-	-	-	-	Yes				
High/Low Alarm Settings	Yes	Yes	Yes	-	-	-	-	-	-	-
Isolation Protection	2,000 V <sub>DC</sub>			2,000 V <sub>DC</sub> <sup>3</sup>		2,000 V <sub>DC</sub>				
Remark	-	-	-	Built-in Dual Loop PID Control Algorithm	-	-	-	-	-	-
Page	16-9			16-10		16-11			16-12	

Note 1: Peer-to-Peer and GCL cannot run simultaneously, only one feature is enabled at one time.

Note 2: ADAM-6024 can only act as a receiver and generate analog output when using Peer-to-Peer or GCL.

Note 3: Only for analog input and analog output channels.



Anewtech ADAM-6017

8-ch Isolated Analog Input with  
2-ch DO Module



Anewtech ADAM-6024

12-ch Isolated Universal Input/  
Output Module



Anewtech ADAM-6050

18-ch Isolated Digital I/O Module



Anewtech ADAM-6060

6-ch Digital Input and 6-ch  
Relay Module