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DAQ and Communication Gateways

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Vertrieb durch



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ADVANTECH iAutomation

Premier Partner

Intelligent Edge DAQ Devices

Introduction

In the Industrial IoT era, companies and government are seeking solutions that can help them to utilize data analytics to raise service levels, create better products, and reduce operational costs. Ideally, the first step is the digitalization of assets such as factory equipment and infrastructure facilities. This means that increasingly more data needs to be acquired and analyzed, and both the volume and diversity of such data from different assets are also increasing. Equipment manufacturers, owners, and maintainers require an easy and reliable way to collect and monitor data from all kinds of field sites.

Advantech's edge data acquisition solutions WISE-EdgeLink, Node-RED and Python are designed to simplify remote monitoring. These solutions can improve service quality by facilitating product care, enabling equipment operation monitoring, and allow for efficiency and energy consumption analysis. This allows manufacturers, rental services, and end users to obtain insights on usage behaviors by deriving intelligence through the analysis of big data.

Edge DAQ Solutions

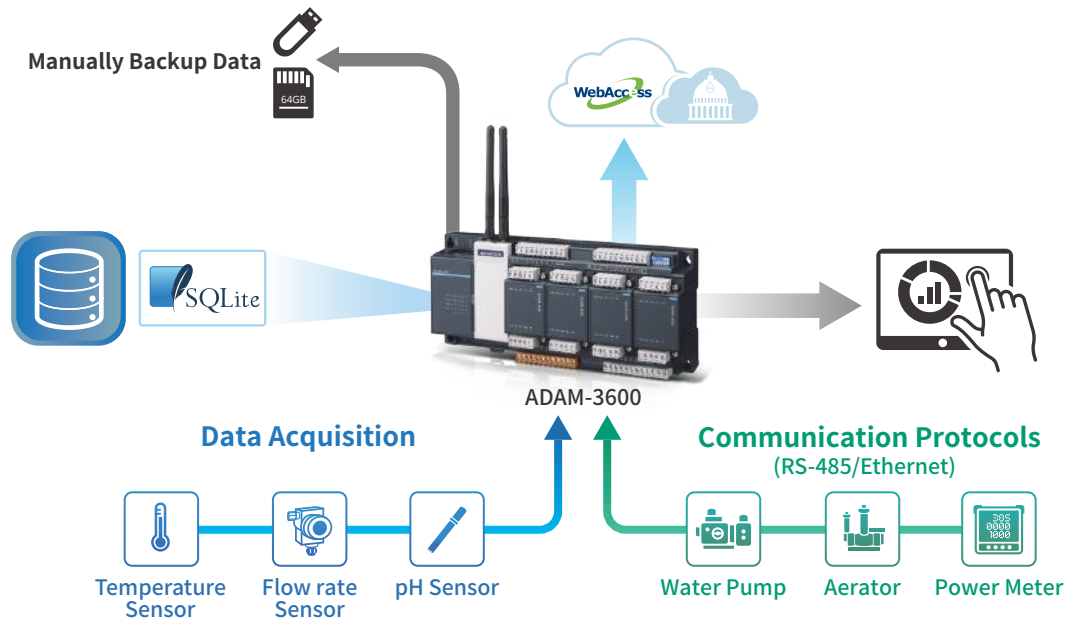
Advantech provides different types of edge data acquisition devices with various data monitoring software to meet your needs for data management.



ADAM-3600/ ECU-1155

Modular edge DAQ gateways

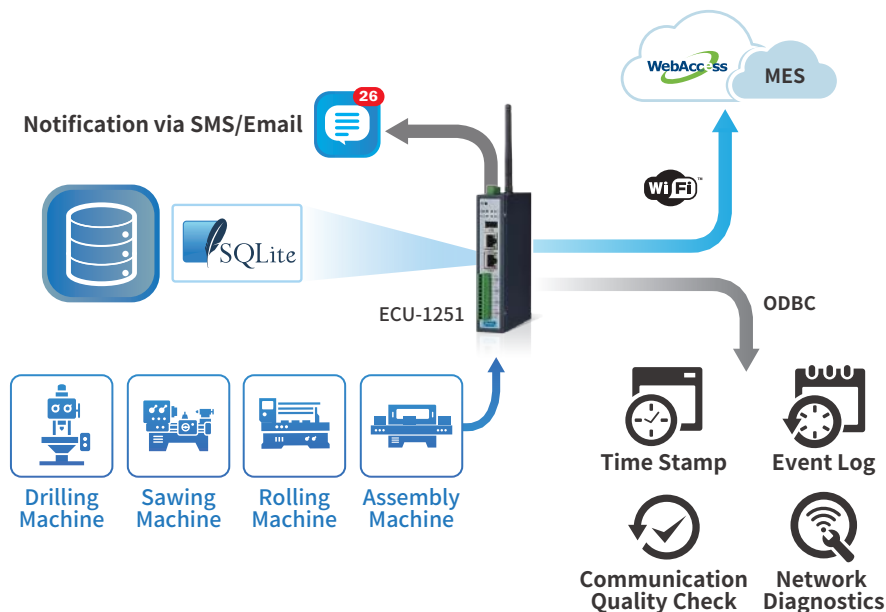
ADAM-3600 and ECU-1155 are intelligent Remote Terminal Units with multiple wireless function capability, multiple I/O selection, wide temperature range and support flexible communication protocols for oil, gas and water applications.



ECU-1000 Series

Intelligent communication gateways

ECU-1000 series is a RISC-based gateway with robust platform design, wireless and Ethernet communication, multiple protocol support and WISE-EdgeLink integration. It is especially designed for energy management and equipment monitoring applications related to building, smart manufacturing, and substations.

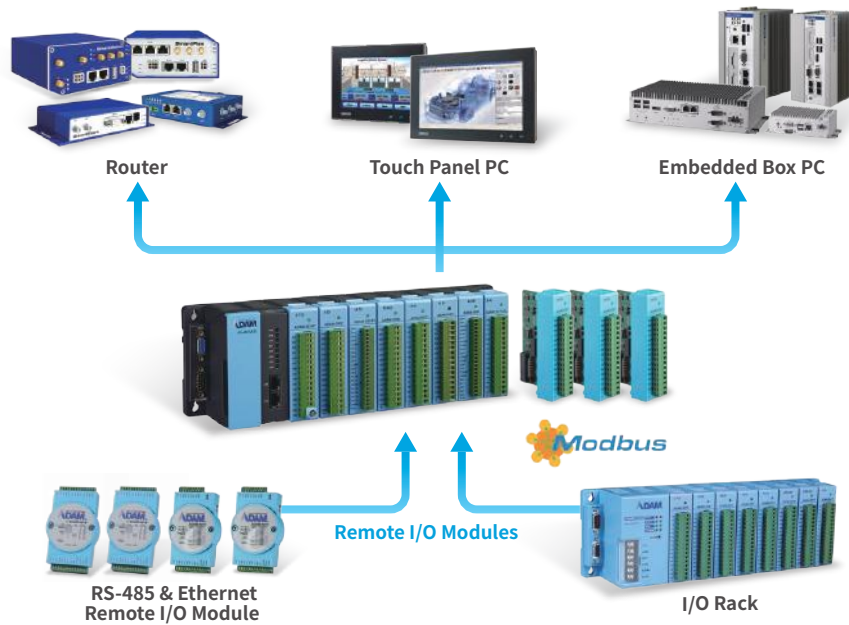


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- 3 Intelligent Systems
- 4 Machine Vision Solutions
- 5 Intelligent HMI and Monitors
- 6 Automation Computers
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- 8 Industrial Communication
- 9 Remote I/O, Wireless Sensing Modules and Converters
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- 11 EtherCAT Solutions and Automation Controllers
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- 14 Utility and Energy Solutions

ADAM-5630

Edge intelligent DAQ I/O racks

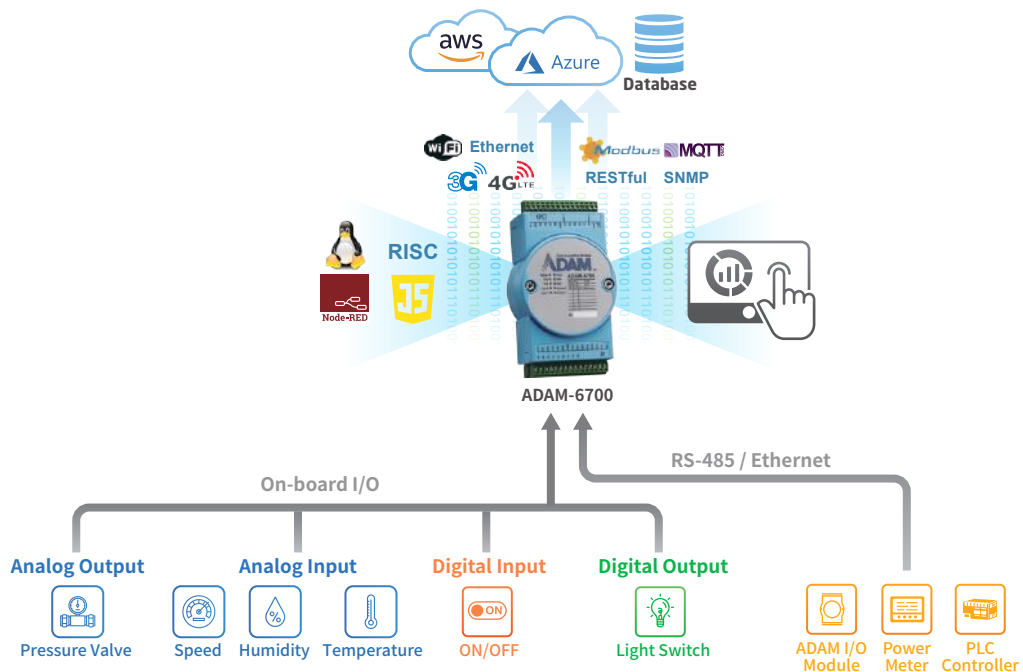
ADAM-5630 series is an edge intelligent I/O rack, featuring high performance open platform and able to develop various application programs. It also provides high expansion capability by supporting SNMP, Modbus/RTU and Modbus/TCP functions.



ADAM-6700

Intelligent I/O gateways

ADAM-6700 is the All-in-One intelligent I/O gateway offers an integrated solution in the form of a Linux-based gateway capable of performing multiple tasks at the edge. ADAM-6700 is equipped with a range of I/O for comprehensive data acquisition functionality.



Modular Edge DAQ Gateways



NEW



Expansion Modules



| Model Name | | ADAM-3600 | ECU-1155 |
|-----------------------|------------------------------------|--|---|
| Description | | Intelligent RTU | Container-Based Edge Intelligent Gateway |
| System | CPU | Cortex A8 | Cortex-A9 DualLite 1GHz |
| | Operating system | Linux RT 3.12 | Linux V4.19 |
| | Programming interface | C (Linux), IEC-61131-3 | C (Linux), IEC-61131-3 |
| | Communication protocols | Modbus/RTU, Modbus/TCP, DNP3, IEC-60970-104, OPCUA | Modbus/RTU, Modbus/TCP, TCP/IP, DHCP, IEC104, MQTT, OPCUA |
| | Wireless communication | Cellular, Wi-Fi, Zigbee | Zigbee, Wi-Fi, Cellular |
| Serial Port | Number of ports | 3 | 2 |
| | Type | 1 x RS-232/485, 2 x RS-485 | 2 x RS232/485, 2 x CAN |
| Network Port | Number of channels | 2 | 2 |
| | Number of independent IP addresses | 2 | 2 |
| | Speed | 10/100 Mbps | 10/100/1000 Mbps |
| | IP specifications | IPv4/IPv6 | IPv4/IPv6 |
| I/O | Onboard I/O | 8 analog inputs, 8 digital inputs, 4 digital outputs | - |
| | Expansion slots | 4 | 2 |
| USB | USB2.0 | 1 | 1 |
| Display Interface | VGA | 1 | - |
| | LED | System, serial, Ethernet, digital I/O, programmable | System, serial, Ethernet, digital I/O, programmable |
| Storage Interface | SD | 1 x SD slot | 1 x SD slot |
| Operating Temperature | | -40~70 °C | -20~70 °C |
| Certification | | CE/FCC | CE/FCC |
| Part Number | | ADAM-3600-C2GL1A1E | ECU-1155 |

| Model | Category | Channel | Part Number |
|-----------|-----------------------|-----------------|--------------|
| ADAM-3617 | Analog input module | 4 | ADAM-3617-AE |
| ADAM-3618 | Analog input module | 4, thermocouple | ADAM-3618-AE |
| ADAM-3624 | Analog output module | 4 | ADAM-3624-AE |
| ADAM-3651 | Digital input module | 8 | ADAM-3651-AE |
| ADAM-3656 | Digital output module | 8 | ADAM-3656-AE |
| ADAM-3613 | Analog input module | 4, RTD | ADAM-3613-AE |
| ADAM-3668 | Relay Module | 4 | ADAM-3668-AE |

| Analog Input | |
|---------------|--|
| Signal Input | Differential |
| Sampling Rate | 10 Hz |
| Voltage Input | +/- 10 V, +/- 2.5 V |
| Input Current | 0~20 mA, 4~20 mA |
| Sensor Input | Thermocouple (type J, K, T, E, R, S, B) RTD (Pt100, Pt1000, Balco 500, Ni 518) |
| Resolution | 16-bit |

| Analog Output | |
|----------------|------------------|
| Output Voltage | 0~10 V |
| Output Current | 0~20 mA, 4~20 mA |
| Resolution | 12-bit |

| Digital Input | |
|-------------------|-----------------------|
| Input Type | Sink |
| Rated Voltage | 12/24 V _{DC} |
| Logic "0" Voltage | 0~5 V _{DC} |
| Logic "1" Voltage | 11~30 V _{DC} |

| Digital Output | |
|----------------|-----------------------------------|
| Output Type | Open collect |
| Output Voltage | 8~30 V _{DC} @ max 200 mA |

Wireless Expansion Modules



96PD-RYUW131

Full/Half-sized mini card, supports 802.11bgn

- 1750006043 SMA(M) cable, 15 cm
- 1750000318 2-dBi antenna, 11 cm



96PD-EC25EFA

LTE CAT.4 Module with GNSS (Quectel EC25 series)

- 1750006264 SMA(F) cable, 15 cm
- 1750005865 Dipole antenna, 11 cm



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Intelligent Communication Gateways



| Model Name | | ECU-1152TL | ECU-1251TL | ECU-1051TL | ECU-1050TL |
|---------------------------------------|----------------------------------|---|--|--|--|
| Description | | Industrial communication gateway | Industrial communication gateway | Industrial communication gateway | Industrial communication gateway |
| System | CPU | Cortex A8 | Cortex A8 | Cortex A8 | Cortex A8 |
| | Operating system | Linux RT 3.12 | Linux RT 3.12 | Linux RT 3.12 | Linux RT 3.12 |
| | Programming interface | C (Linux) | C (Linux) | C (Linux) | C (Linux) |
| | Wireless communication protocols | Modbus/RTU, Modbus/TCP, IEC-60870-101/104 | Modbus/RTU, Modbus/TCP, IEC-60870-101/104 | Modbus/RTU, Modbus/TCP, IEC-60870-101/104 | Modbus/RTU, Modbus/TCP, IEC-60870-101/104 |
| | Wireless communication | GRPS, 3G, LTE, Wi-Fi | GRPS, 3G, LTE, Wi-Fi | GRPS, 3G, LTE, Wi-Fi | GRPS, 3G, LTE, Wi-Fi |
| | Special functions | Monitoring, data identification, breakpoint transmission, initiative reporting | Monitoring, data identification, breakpoint transmission, initiative reporting | Monitoring, data identification, breakpoint transmission, initiative reporting | Monitoring, data identification, breakpoint transmission, initiative reporting |
| Serial Port | Number of ports | 6 | 4 | 2 | - |
| | Type | RS-232/485 | RS-232/485 | RS-232/485 | - |
| Network Port | Number of channels | 2 | 2 | 2 | 1 |
| | Independent IP number | 2 | 2 | 2 | 1 |
| | Speed | 10/100 Mbps | 10/100 Mbps | 10/100 Mbps | 10/100 Mbps |
| | IP specifications | IPv4/IPv6 | IPv4/IPv6 | IPv4/IPv6 | IPv4/IPv6 |
| I/O | SIM card slot | 1 | 1 | 2 | 2 |
| | Expansion slots | 1 x mini-pcie | 1 x mini-pcie | 1 x mini-pcie | 2 x mini-pcie |
| USB | USB2.0 | 1 | 1 | - | - |
| Display Interface | LED | PWR/Serial/Prog/LAN | PWR/Serial/Prog/LAN | PWR/Prog/LAN | PWR/Prog |
| Storage Interface | SD | 1 x micro SD slot | 1 x micro SD slot | 1 x micro SD slot | 1 x micro SD slot |
| Industry communication protocol | | Modbus/ IEC-60870-104/BACnet IP/DNP3 | | | |
| Programmable logic controller support | | Siemens/Allen-Bradley/Schneider/Mitsubishi/Omron/Honeywell/Yokogawa/Delta/Panasonic | | | |
| Data logger | | Realtime data logger | | | |
| Programing Support | | Linux C, Web service API | | | |
| Operating Temperature | | -40 ~ 70 °C | -40 ~ 70 °C | -40 ~ 70 °C | -40 ~ 70 °C |
| Certification | | CE/FCC | CE/FCC | CE/FCC | CE/FCC |
| Part Number | | ECU-1152TL-R11ABE | ECU-1251TL-R10AAE | ECU-1051TL-R10AAE | ECU-1050TL-R10AAE |

Wireless Expansion Modules



96PD-RYUW131

Full/Half-sized mini card, supports 802.11bgn

1750006043 SMA(M) cable, 15 cm
1750000318 2-dBi antenna, 11 cm



96PD-EC25EFA

LTE CAT.4 Module with GNSS (Quectel EC25 series)

1750006264 SMA(F) cable, 15 cm
1750005865 Dipole antenna, 11 cm

Intelligent I/O Racks



| System | | ADAM-5630 | ADAM-5630E | ADAM-5560 |
|-------------------|-----------------------|--|--|---|
| CPU | | Cortex A8 600 MHz | Cortex A8 600 MHz | Intel Atom Z510P 1.1 GHz |
| RAM | | 512 MB DDR3L | 512 MB DDR3L | 1 GB DDR2 SDRAM |
| Flash ROM | | - | - | - |
| Flash Memory | | - | - | - |
| Flash Disk | | 1 GB | 1 GB | - |
| OS | | RT-Linux | RT-Linux | WinCE5.0/XP embedded |
| Control Software | | Linux C SDK KW Softlogic | Linux C SDK KW Softlogic | ADAM-5560CE: C/C++ and .NET ADAM-5560KW: KW SoftLogic |
| Real-time Clock | | ✓ | ✓ | ✓ |
| Watchdog Timer | | ✓ | ✓ | ✓ |
| COM1 | | RS-232/485 | RS-232/485 | RS-232/485 |
| COM2 | | RS-485 | RS-485 | RS-485 |
| COM3 | | RS-485 | RS-485 | RS-232/485 |
| COM4 | | RS-232/485 | RS-232/485 | RS-232/485 |
| I/O Slots | | 4 | 8 | 7 |
| Power Consumption | | 8W (for 5630 series only) | | 17 W |
| Isolation | Communication | 2500 V _{DC} (COM1~COM3) (for 5630 series only) | | 2,500 V _{DC} (COM2 RS-485) 1,500 V _{DC} (COM1, COM3, COM4 RS-485) |
| | Communication Power | 3,000 V _{DC} | | |
| | I/O Module | 3,000 V _{DC} | | |
| Diagnosis | Status Display | Power, RUN, Error, BAT, user define (for 5630 series only) | | Power, User Define |
| | Self Test | Yes, while ON | | |
| | Software Diagnosis | ✓ | | |
| Communication | Interface | RS-232/485 | | Ethernet (2 x RJ-45) |
| | Speeds | 300 bps ~ 115.2 kbps | | 10/100 Mbps |
| | Max. Distance | 4,000 feet (1.2 km) | | 100 m |
| | Max. Nodes | 32 | 32 | 256 for Ethernet, 32 for RS-485 |
| | Protocol | User Defined, Modbus/RTU Modbus/TCP, SNMP | User Defined, Modbus/RTU Modbus/TCP, SNMP | Modbus/RTU, Modbus/TCP |
| | Remote I/O | Modbus Device | | |
| | Power Requirements | 10 ~ +30 V _{DC} | | |
| Environment | Operating Temperature | -20 ~ 70°C | | 0 ~ 55°C (32 ~ 131°F) |
| | Storage Temperature | -25 ~ 85°C (-13 ~ 185°F) | | |
| | Humidity | 5 ~ 95% | | |
| Dimensions (mm) | | 231 x 110 x 75 | 355 x 110 x 75 | 355 x 110 x 75 |

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Intelligent I/O Racks



| System | | ADAM-5000L/485 | ADAM-5000E | ADAM-5000L/TCP | ADAM-5000/TCP |
|-----------------------------|-----------------------|---|--|---|----------------|
| CPU | | 80188 | 80188 | | RISC CPU |
| RAM | | - | - | | 4 MB |
| Flash ROM (User AP) | | - | - | | 512 KB |
| Flash Memory (Data Storage) | | - | - | | - |
| Flash Disk | | - | - | | - |
| OS | | - | - | | Real-time OS |
| Timer BIOS | | - | - | | - |
| Real-time Clock | | - | - | | - |
| Watchdog Timer | | Yes | | | |
| I/O Slots | | 4 | 8 | 4 | 8 |
| Power Consumption | | 3 W | | 4.0 W | 5.0 W |
| Isolation | Communication | 2,500 V _{DC} | 3,000 V _{DC} | RS-485: 1,500 V _{DC} | |
| | Communication Power | 3,000 V _{DC} | | | |
| | I/O Module | 3,000 V _{DC} | | | |
| Diagnosis | Status Display | Power, CPU, Communication | | Power, CPU, Error Diagnostic, Communication | |
| | Self Test | Yes, while ON | | | |
| | Software Diagnosis | ✓ | | | |
| Communication | Interface | RS-232/485 (2-wire) | RS-232/485 (2-wire) | Ethernet | |
| | Speeds (bps) | 1,200, 2,400, 4,800, 9,600, 19.2 K, 38.4 K, 57.6 K, 115.2 K | 1,200, 2,400, 4,800, 9,600, 19.2 K, 38.4 K, 57.6 K, 115.2 K | 10 M, 100 M | |
| | Max. Distance | 4,000 feet (1.2 km) | 4,000 feet (1.2 km) | 100 m without repeater | |
| | Data Format | Advantech protocol: N, 8, 1 Modbus protocol: N, 8, 1 N, 8, 2 E, 8, 1 O, 8, 1 | Advantech protocol: N, 8, 1 Modbus protocol: N, 8, 1 N, 8, 2 E, 8, 1 | TCP/IP | |
| | Max. Nodes | 128 | 128 | Depend on IP address | |
| | Protocols | ADAM ASCII/Modbus Protocol | ADAM ASCII/Modbus Protocol | Modbus/TCP | |
| | Remote I/O | - | - | 20 nodes Modbus devices | |
| | Power Requirements | +10 ~ +30 V _{DC} | | | |
| Environment | Operating Temperature | -10 ~ 70°C (14 ~ 158°F) | | | |
| | Storage Temperature | -25 ~ 85°C (-13 ~ 185°F) | | | |
| | Humidity | 5 ~ 95% | | | |
| Dimensions (mm) | | 231 x 110 x 75 | 355 x 110 x 75 | 231 x 110 x 75 | 355 x 110 x 75 |



Analog Input/Output Modules



| Module | | ADAM-5013 | ADAM-5017 | ADAM-5017P | ADAM-5017UH | ADAM-5018 |
|---------------------|---------------|-----------------------|---------------------------------------|--|-----------------------|--|
| Analog Input | Resolution | 16 bit | 16 bit | 16 bit | 12 bit | 16 bit |
| | Input Channel | 3 | 8 | 8 | 8 | 7 |
| | Sampling Rate | 10 (total*) | 10 (total*) | 10 (total*) | 200K** | 10 (total*) |
| | Voltage Input | - | ±150 mV, ±500 mV ±1 V, ±5 V, ±10 V | ±150 mV, ±500 mV ±15V, ±10V, ±5 V, ±1 V 0 ~ 150mV, 0 ~ 500mV 0 ~ 1V, 0 ~ 5V, 0 ~ 10V 0 ~ 15V | ±10 V, 0 ~ 10 V | ±15 mV, ±50 mV ±100 mV, ±500 mV ±1 V, ±2.5 V |
| | Current Input | - | ±20 mA | ±20 mA, 4 ~ 20mA | 0 ~ 20 mA, 4 ~ 20 mA | ±20 mA |
| Direct Sensor Input | Pt or Ni RTD | - | - | - | J, K, T, E, R, S, B | |
| Isolation | | 3,000 V _{DC} | 3,000 V _{DC} | 3,000 V _{DC} | 3,000 V _{DC} | 3,000 V _{DC} |

*Sampling rate value depends on used channel number.
 Example: Using 5 channels on ADAM-5017, sampling rate for each used channel will be 10/5 = 2 samples/second.
 **The sampling rate varies with the controller.



| Module | | ADAM-5018P | ADAM-5024 | ADAM-5050 | ADAM-5051 ADAM-5051D ADAM-5051S | ADAM-5052 | ADAM-5053S |
|----------------------------------|-------------------------|--|------------------------|----------------------------------|--|------------------------|-----------------------|
| Analog Input | Resolution | 16 bit | - | - | - | - | - |
| | Input Channel | 7 | - | - | - | - | - |
| | Sampling Rate | 10 (total*) | - | - | - | - | - |
| | Voltage Input | ±15 mV, ±50 mV ±100 mV, ±500 mV ±1 V, ±2.5 V | - | - | - | - | - |
| | Current Input | 4 ~ 20 mA | - | - | - | - | - |
| Direct Sensor Input | J, K, T, E, R, S, B | - | - | - | - | - | |
| Analog Output | Output Channels | - | 4 | - | - | - | - |
| | Resolution | - | 12 bit | - | - | - | - |
| | Voltage Output | - | 0 ~ 10 V | - | - | - | - |
| | Current Output | - | 0 ~ 20 mA 4 ~ 20 mA | - | - | - | - |
| Digital Input and Digital Output | Digital Input Channels | - | - | 16 DI/O (bit-wise selectable) | 16 (ADAM-5051) 16w/LED (5051D/5051S) | 8 | 32 |
| | Digital Output Channels | - | - | - | - | - | - |
| Isolation | | 3,000 V _{DC} | 3,000 V _{DC} | - | 2,500 V _{DC} (5051S) | 5,000 V _{RMS} | 2,500 V _{DC} |

*Sampling rate value depends on used channel number.
 Example: Using 6 channels on ADAM-5017, sampling rate for each used channel will be 12/6 = 2 samples/second.

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Intelligent I/O Racks

Digital Input/Output Modules



| Module | | ADAM-5055S | ADAM-5056 ADAM-5056D | ADAM-5056S ADAM-5056SQ | ADAM-5057S | ADAM-5060 |
|----------------------------------|-------------------------|----------------------------|---|---|----------------------------|--------------------------------|
| Digital Input and Digital Output | Digital Input Channels | 8 w/LED | - | - | - | - |
| | Digital Output Channels | 8 w/LED | 16 (ADAM-5056) 16 w/LED (ADAM-5056D) | 16 w/LED | 32 | 6 relay (2 form A/4 form C) |
| Isolation | | 2,500 V _{DC} | - | 2,500 V _{DC} | 2,500 V _{DC} | - |



| Module | | ADAM-5069 | ADAM-5080 | ADAM-5081 | ADAM-5090 ADAM-5091 | ADAM-5191 | ADAM-5192 |
|----------------------------------|-------------------------|---------------------------|--|---|--|-----------------------|----------------------|
| Digital Input and Digital Output | Digital Input Channels | - | - | - | - | - | - |
| | Digital Output Channels | 8 power relay (form A) | - | - | - | - | - |
| Counter (32-bit) | Channels | - | 4 | 4/8 | - | - | - |
| | Input Frequency | - | 0.3 ~ 1000 Hz max. (frequency mode) 5000 Hz max. (counter mode) | 5 Hz ~ 1 MHz max. (frequency mode) 1 MHz max. (counter mode) | - | - | - |
| | Mode | - | Frequency, Up/Down Counter, Bi-direction Counter | Frequency, Counter (Up/Down, Bi-direction, Up, A/B Phase) | - | - | - |
| Communication | Channels | - | - | - | 4 | 4 (ADAM-5630 only) | 2 |
| | Type | - | - | - | RS-232/422/485 | RS-232/422/485 | LAN (ADAM-5630 only) |
| Isolation | | - | 1,000 V _{RMS} | 2,500 V _{DC} | - | 1,000 V _{DC} | - |

Vertrieb durch 

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Intelligent I/O Gateways



| | | ADAM-6750 | ADAM-6717 | ADAM-6760D |
|------------------------|---------------------------------|---|---|---|
| CPU | | ARM Cortex-A8 32-Bit 1GHz | | |
| Memory | | NAND flash 512MB | | |
| RAM | | DDR3L 512MB | | |
| External storage | | microSD (Optional) | | |
| OS | | Real-time Linux V3.12 | | |
| Programming | | Node-Red(Graphic programming environment based on javascript),Linux C | | |
| Operation Temperature | | -40 ~ 70°C | | |
| Interface | RS-485 | 2 | 2 | 2 |
| | LAN | 2 | 2 | 2 |
| | USB | 1 x USB type A, 1 x Micro USB | | |
| Digital input | Channel | 12 | 5 | 14 |
| | Type | Dry contact logic 0 close to ground logic 1 Open Wet contact logic 0: 0 ~ 3 V _{DC} logic 1: 10 ~ 30 V _{DC} | Dry contact logic 0 close to ground logic 1 Open Wet contact logic 0: 0 ~ 3 V _{DC} logic 1: 10 ~ 30 V _{DC} | Dry contact logic 0 close to ground logic 1 Open Wet contact logic 0: 0 ~ 3 V _{DC} logic 1: 10 ~ 30 V _{DC} |
| | Counter input | 3kHz | - | - |
| | Channel | 12 | 4 | 6 |
| Digital Output | Voltage | Sink 30 V _{DC} , 0.1A max. per channel | Sink 30 V _{DC} , 0.1A max. per channel | Sink 30 V _{DC} , 0.1A max. per channel |
| | Pulse output | 3kHz | - | - |
| Analog input | Channel | - | 8 | - |
| | Sampling rate | 100kHz (total) | | |
| Relay output | Channel | - | - | 8 |
| | Contact rating (Resistive Load) | - | - | 60 V _{DC} @ 0.6 A |
| Dimensions (W x L x H) | | 70 x 122 x 38 mm | | |

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Intelligent I/O Gateways



| | | ADAM-6715 | ADAM-6718 | ADAM-6724 |
|------------------------|--------------|---|---|---|
| CPU | | ARM Cortex-A8 32-Bit 1GHz | | |
| Memory | | NAND flash 512MB | | |
| RAM | | DDR3L 512MB | | |
| External storage | | microSD (Optional) | | |
| OS | | Real-time Linux V3.12 | | |
| Programming | | Node-Red(Graphic programming environment based on javascript),Linux C | | |
| Operation Temperature | | -40 ~ 70°C | | |
| Interface | RS-485 | 2 | 2 | 2 |
| | LAN | 2 | 2 | 2 |
| | USB | 1 x USB type A, 1 x Micro USB | | |
| Digital input | Channel | 4 | 4 | 5 |
| | Type | Dry contact logic 0 close to ground logic 1 Open Wet contact logic 0: 0 ~ 3 V _{DC} logic 1: 10 ~ 30 V _{DC} | Dry contact logic 0 close to ground logic 1 Open Wet contact logic 0: 0 ~ 3 V _{DC} logic 1: 10 ~ 30 V _{DC} | Dry contact logic 0 close to ground logic 1 Open Wet contact logic 0: 0 ~ 3 V _{DC} logic 1: 10 ~ 30 V _{DC} |
| Digital Output | Channel | 4 | 7 | 6 |
| | Voltage | Sink 30 V _{DC} , 0.1A max. per channel | Sink 30 V _{DC} , 0.1A max. per channel | Sink 30 V _{DC} , 0.1A max. per channel |
| | Pulse output | 3kHz | - | - |
| RTD | Channel | 6 | - | - |
| | Type | Pt100,Pt1000 | - | - |
| Thermocouple | Channel | - | 7 | - |
| | Type | - | J, K, T, E, R, S, B type | - |
| Analog Output | Channel | - | - | 3 |
| | Type | - | - | Voltage,Current |
| Analog Input | Channel | - | - | 3 |
| | Type | - | - | Voltage,Current |
| Dimensions (W x L x H) | | 70 x 122 x 38 mm | | |

Vertrieb durch


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