

# HX-RIO3 Series

Remote I/O meets intelligence with the new HX-RIO3



## HIGHLIGHTS

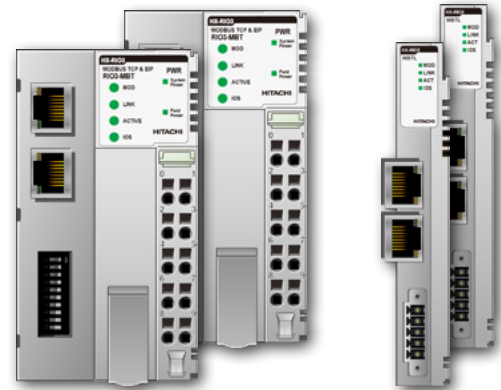
- Maximum on flexibility with more than 50 available I/O modules
- Standard and Light Network Adapter for cost sensitive applications
- CODESYS based Modbus Adapter for enhanced and intelligent remote I/O systems
- Webserver and Web visualization for remote maintenance and data monitoring
- OPC UA and MQTT capability for demand in high grade IoT applications
- Spring Type and Connector Type modules in regards of customers wiring preference
- Connector Type Module up to 32-points allows creating a highly economic solution

## Fieldbus Communication Capability

A wide range of communication protocols such as Modbus TCP/RTU, EtherCAT, PROFINET and many more facilitates the system integration.

Network adapters are available as standard and light version.

Light Network Adapter design has been designed for small and cost-sensitive applications. The small and modern appearance allows the installation into a cabinet with a reduced size.



EtherNet/IP

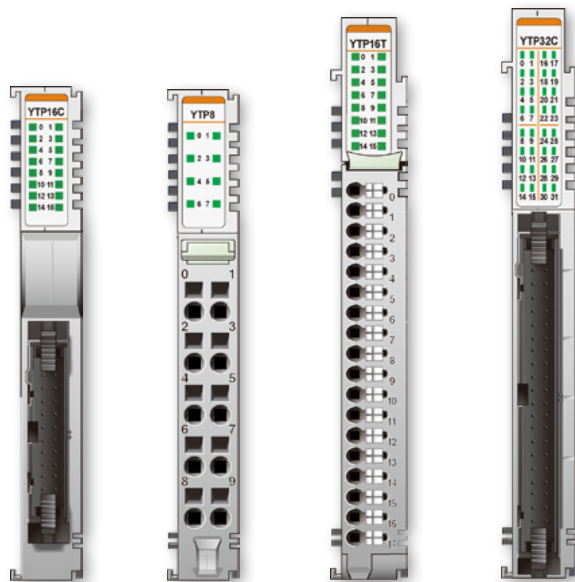
EtherCAT  
Technology Group

Modbus

PROFINET

PROFIBUS

CANopen



## Digital & Analog I/O

The flexibility results from the variety of available I/O modules. Modules are selectable with spring type or connector type up to 32-Points. The intuitive design allows the rewiring or exchange of modules without interrupting the subsequent modules or the entire system.

The broad range of modules allows the integration into solutions in various industry sectors. Besides well-known standard I/O modules the HX-RIO3 offers high precision analog modules up to 16 bits and special modules such as load cell for weight measurement application.

## Programmable Network Adapter RIO3-CP3MBT

Expand your system with the CODESYS programmable Network Adapter out of the HX-RIO3 series.

Meet the IoT demands with the integration of the CODESYS environment into a Modbus TCP/RTU network Adapter. Use OPC UA connecting to cloud services and create your remote maintenance idea by visualizing and monitoring your application by using the web visualization function.

Extend your solution by using the entire range of the available HX-RIO3 I/O portfolio.



CODESYS

OPC UA



## Fieldbus Interface Modules

|             |   |
|-------------|---|
| RIO3-PBA    | Profibus Adapter                                  |
| RIO3-PNA    | Profinet Adapter                                  |
| RIO3-ECA    | EtherCAT Adapter                                  |
| RIO3-MBR    | Modbus RTU RS485 Adapter                          |
| RIO3-MBT    | Modbus TCP Ethernet Adapter                       |
| RIO3-CAN    | CANopen Adapter                                   |
| RIO3-CP3MBT | CODESYS Programmable, Modbus TCP Ethernet Adapter |
| RIO3-PNAL   | Profinet Adapter, light version                   |
| RIO3-ECAL   | EtherCAT Adapter, light version                   |
| RIO3-MBRL   | Modbus RTU RS485 Adapter, light version           |
| RIO3-MBTL   | Modbus TCP Ethernet Adapter, light version        |

## Digital Input Modules

|             |   |
|-------------|---|
| RIO3-XDP8   | 24VDC 8-channel sink input module                               |
| RIO3-XDP16C | 24VDC 16-channel sink input module, connector type              |
| RIO3-XDP16T | 24VDC 16-channel sink input module, terminal block              |
| RIO3-XDP32C | 24VDC 32-channel sink input module, connector type              |
| RIO3-XY16T  | 24VDC 8-channel input + 8 channel output module, terminal block |
| RIO3-XAH4   | 230VAC 4 channel Input module                                   |

## Digital Output Modules

|             |   |
|-------------|---|
| RIO3-YTP8   | 24VDC 8-channel source output module                  |
| RIO3-YTP16C | 24VDC 16-channel source output module, connector type |
| RIO3-YTP16T | 24VDC 16-channel source output module, terminal block |
| RIO3-YTP32C | 24VDC 32-channel source output module, connector type |
| RIO3-YS4    | 240V AC/DC 0,5A 4 channel solid state relay module    |
| RIO3-YS8    | 240V AC/DC 0,5A 8 channel solid state relay module    |
| RIO3-YR4    | 24VDC/2A 240VAC/2A 4 channel relay module             |

## High Function Modules

|            |  |
|------------|--|
| RIO3-CU24L | 2-channel, 1-phase counter module 24V DC, 100kHz |
| RIO3-RS232 | 1-channel, RS232 ASCII Communication module      |
| RIO3-RS485 | 1-channel, RS485 ASCII Communication module      |
| RIO3-PWM2  | 2-channel, PWM Output, 0,5A, 24VDC               |
| RIO3-SMD   | 2-Phase Bipolar Stepping Motor Driver, 24Vdc/1A  |
| RIO3-PO2   | 2-channel, Pulse Output, 0,5A, 24VDC             |



### Analog Input Modules

|             |  |
|-------------|--|
| RIO3-LDC2   | 2-channel Load Cell, Strain Guage, -150~150mV, 24Bits                |
| RIO3-AX4I   | 4-channel 20 mA current analog input module, 12 Bit                  |
| RIO3-AXH4I  | 4-channel 20 mA current analog input module, 16 Bit                  |
| RIO3-AX8I   | 8-channel 20 mA current analog input module, 12 Bit                  |
| RIO3-AXH8I  | 8-channel 20 mA current analog input module, 16 Bit                  |
| RIO3-AX16IC | 16-channel 20 mA current analog input module, 12 Bit, connector type |
| RIO3-AX16IT | 16-channel 20 mA current analog input module, 12 Bit, terminal block |
| RIO3-AX4V   | 4-channel 0-10V voltage analog input module, 12 Bit                  |
| RIO3-AXH4V  | 4-channel 0-10V voltage analog input module, 16 Bit                  |
| RIO3-AX8V   | 8-channel 0-10V voltage analog input module, 12 Bit                  |
| RIO3-AXH8V  | 8-channel 0-10V voltage analog input module, 16 Bit                  |
| RIO3-AX16VC | 16-channel 0-10V voltage analog input module, 12 Bit, connector type |
| RIO3-AX16VT | 16-channel 0-10V voltage analog input module, 12 Bit, terminal block |
| RIO3-RTD4T  | 4-channel RTD input module, terminal block                           |
| RIO3-RTD8C  | 8-channel RTD input module, connector type                           |
| RIO3-TC4T   | 4-channel isolated thermocouple module, terminal block               |
| RIO3-E3AC   | 3-Phase, AC Measurement, Lx-Ly 500Vac/1A                             |

### Analog Output Modules

|             |   |
|-------------|---|
| RIO3-AY4I   | 4-channel 4-20 mA current analog output module, 12 Bit                |
| RIO3-AYH4I  | 4-channel 4-20 mA current analog output module, 16 Bit                |
| RIO3-AY8I   | 8-channel 4-20 mA current analog output module, 12 Bit                |
| RIO3-AY4V   | 4-channel 0-10V voltage analog output module, 12 Bit                  |
| RIO3-AYH4V  | 4-channel 0-10V voltage analog output module, 16 Bit                  |
| RIO3-AY8V   | 8-channel 0-10V voltage analog output module, 12 Bit                  |
| RIO3-AY16VC | 16-channel 0-10V voltage analog output module, 12 Bit, connector type |
| RIO3-AY16VT | 16-channel 0-10V voltage analog output module, 12 Bit, terminal block |

### Power Supply Modules & Accessories

|            |  |
|------------|--|
| RIO3-SHD   | Shield Module  |
| RIO3-0VDC  | Common 0V DC   |
| RIO3-24VDC | Common 24V DC  |
| RIO3-VDC   | Common 0V/24V DC                                     |
| RIO3-PSD   | Expansion Power supply, Input 24V DC, Output 1,0A/5V |
| RIO3-PS    | Field distributor 5V, 24V, 48V DC, 110V, 230V AC     |
| RIO3-END   | HX-RIO3 End cover, 7pcs.                             |
| RIO3-RTB10 | HX-RIO3 10pole terminal block, 14pcs.                |
| RIO3-RTB18 | HX-RIO3 18pole terminal block, 12pcs.                |