Introducing Mitsubishi Electric’s smartRTU
Reliable control & surveillance of remote assets

Monitor your assets in realtime
Reliable Store-and-Forward of your data
Integration of network data into business systems
Small to large sites – tens to many thousands of I/Os
Secure management of remote assets and infrastructure

Communicate securely to SCADA systems, the smartRTU addresses requirements for 100% reliable remote surveillance and control of distributed assets, even in extreme climates. With powerful functions like diagnostics, alarm and event-storage and time trend data buffering, it meets the challenges of managing massively distributed assets such as data security, interfacing issues, data continuity and reliable communications.

Mitsubishi Electric’s meets these demands with the smartRTU. It supports protocols such as DNP3 and IEC 60870. The smartRTU combines the reliability and robustness of our standard PLC technology with a smart communication gateway, the ME-RTU gateway. Depending on the size and complexity of the application, select the required smartRTU power, pairing the ME-RTU with either an FX-, L-, or Q-Series PLC.

Mitsubishi Electric’s smartRTU is available in 3 variants, depending on the size and type of application – use FX-PLC for small, L-PLC for medium and Q-PLCs for large redundancy applications.

Monitor the condition of your assets in real time.
Your benefits
Mitsubishi Electric's smartRTU combines the needs of a large number of industries into a single device that is simpler than conventional RTUs, yet provides powerful capabilities that can be easily deployed and administered, even by staff with low skill levels. The smartRTU is scalable from a handful of sites to many hundreds with remote configuration management.

The Mitsubishi Electric smartRTU:
- Minimizes your engineering costs through central engineering
- Deployable in brownfield applications due to multiple fieldbus support
- Copes with demands of small up to large sites
- Very low power consumption
- Stores and forwards your data by an embedded historian that allows time-stamped event logging and data sampling for extended periods of time
- Communicates your data-packets via hacker proof SSL-encrypted VPN tunnels

Water and Waste-water industry:
- Reliable collection of your data in your water distribution and collection stations
- Complete surveillance for pump networks, wells, booster and filter stations, holding ponds, tanks, flow meters, etc.
- Integration of water network data into corporate and business systems
- Manpower savings with even larger networks
- Redundant, hardened, cyber-secure communications

Power Distribution industry:
- Robust, secure substation automation
- Integration of legacy equipment as well as latest generation IEDs
- Fast fault localisation and protection
- Smart grid ready transmission and distribution networks

Infrastructure & Management:
- High reliability and availability, remote road, rail, waterway and tunnel management
- Integration of remote sensors, actuators and Closed Circuit Television (CCTV), along with variable traffic signage
- Higher infrastructure utilisation factors, safety and performance

Monitor the condition of your assets in real time

Water & Wastewater

Oil & Gas

Energy generation & Power distribution

Communications across all applications via
DNP3 slave (IEEE 1815)
IEC 60870-5-104 slave
IEC 60870-5-104 Master
IEC 60870-5-101 slave
IEC 60870-5-104 Master
IEC 61850-5-104 Master

Water & Wastewater

Oil & Gas

Energy generation & Power distribution

IEC 60870-5-104 Master available in next version
IEC 61850 available in an upcoming release
smartRTU

Specifications

**Function**

**Specification**

**Supplementary Information**

- I/O capacity
  - smartRTU – FX (CPU 14) 194 max
  - smartRTU – L (CPU 24) 406 max
  - smartRTU – Q (CPU 32) 812 max
  - Controllable I/Os

- Power Consumption
  - smartRTU – FX (CPU 12) 0.14W
  - smartRTU – L 0.17W
  - smartRTU – Q 0.19W
  - 16 digital I/O version (8Do, 8Ao)
  - 24 digital I/O version (16Do, 16Ao)
  - 32 digital I/O version (16Do, 16Ao)
  - Voltage: 24VDC
  - Transistor: sink or source (5 – 24VDC), Relay (up to 240VAC)

- Analog I/Os
  - Input: 0-5V, 0-10V, -10V-10V, 0/4-20mA
  - 0-5V, 0-10V, -10V-10V, 0/4-20mA

- Digital I/Os
  - Input: Output.
  - Voltage: 24VDC
  - Voltage: 24VDC, differential line drivers
  - Frequencies: 50Hz ~ 20kHz ranges available
  - 10 ~ 100,000 pulse/sec outputs

- Additional I/Os
  - Pulse output (Gate / Source Positioning Modules):
  - Celluar network (GPRS, EDGE) – Quad-Band 850 / 900 / 1800 / 1900 MHz
  - Cellular network (GPRS, EDGE) – Quad-Band 850 / 900 / 1800 / 1900 MHz

- Communication channels
  - Cellular network (GPRS, EDGE) – Quad-Band 850 / 900 / 1800 / 1900 MHz
  - Ethernet (10/100 Mbps)
  - Ethernet (10/100 Mbps)

- Communication protocols (host-side)
  - DP3 (IEEE 1981)
  - EIC 60870-5-104
  - EIC 60870-5-104

- Communication protocols (field-side)
  - IEC 60870-5-104
  - IEC 60870-5-104

- Store and forward
  - Yes
  - Yes

- Bus Technology
  - Profibus-DP
  - Master X
  - Slave X
  - Modbus/TCP
  - Master X
  - Modbus/RTU (serial)
  - Master X
  - DeviceNET
  - Master X
  - CC-Link
  - Slave X
  - CC-Link IE field
  - Slave X
  - CANopen
  - Slave X

**Fieldbus support**

**European Offices**

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**Representatives**

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For more information contact your local customer technology centre