

STARDOM Wireless I/O

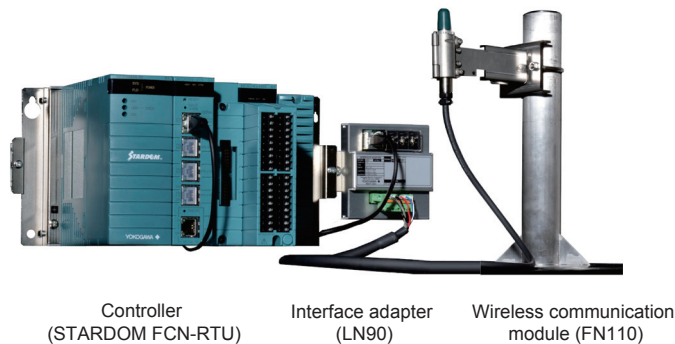
STARDOM Wireless I/O, an ISA100 Wireless-based field wireless I/O function, is added to the controller of the STARDOM network-based control system.

STARDOM Wireless I/O unwires the system and reduces the work and time required for introduction, and thus achieves a facility monitoring application with excellent cost effectiveness.

In particular, by using a wireless communication module that complies with the ISA100.11a wireless communication standard for industrial automation and a controller that comes with a library that complies with IEC 61131-3, field wireless can be introduced in small sites with the equivalent amount of setting work as for a wired system.

MAJOR FEATURES

- ISA100 Wireless-based field wireless can be easily applied
- ISA 100 Wireless-based field devices can be used as I/O devices of the controller by connecting a wireless communication module (FN110) to a controller (STARDOM FCN-RTU) via an interface adapter (LN90).
- A library that complies with IEC 61131-3 is offered for STARDOM Wireless I/O as standard. Users can create a program for the controller by using this library. By simply setting the tags of wireless devices and data update cycle, users can start wireless communication immediately.
- In parallel with collecting process data from wireless field devices, users can check the quality of wireless communication and the battery status of wireless field devices, and thus can efficiently monitor abnormality and perform daily checks from a remote place.
- Configuration suitable for small-scale monitoring applications
 - Since the hardware can operate in a wide range of temperatures from -40 to 70°C, it can be used in oil and gas production fields and other places with harsh climate conditions.
 - Since the hardware can operate with a low power of less than 3.5 W, it can operate only with power supply from photovoltaic panels in areas where it is difficult to secure power lines.
- Single controller for integrating wireless and wired I/O devices
 - Since the controller (STARDOM FCN-RTU) can handle a wireless communication module and a wired I/O module simultaneously, monitoring/control applications can be built with a single controller that integrates wired and wireless I/O functions.
 - A wireless communication module can be added to the controller that has already built a network with wired I/O modules.



Controller (STARDOM FCN-RTU) Interface adapter (LN90) Wireless communication module (FN110)

MAJOR SPECIFICATIONS

- Major hardware specifications and wireless communication specifications of STARDOM Wireless I/O are shown below.

Major hardware specifications

Item	Specifications
Installation environment	-40 to 70°C, altitude: up to 3,000 m
Power consumption	3.5 W or less
Explosion-proof	IECEX Type n*

* For details, see the specifications and installation guide of each product.

Major wireless communication specifications

Item	Specifications
Communication protocol	ISA100.11a (IEEE802.15.4)
Frequency band	2.4 GHz
Number of connectable devices	Max. 20 units
Communication distance	Max. 500 m (with a good line of sight)*
Network topology	Star
Communication data	Input only
Data update cycle	1 sec to 60 min
Communication redundancy	N/A

* No obstacles on the path of the wireless communication between antennas.

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