MITSUBISHI ELECTRIC

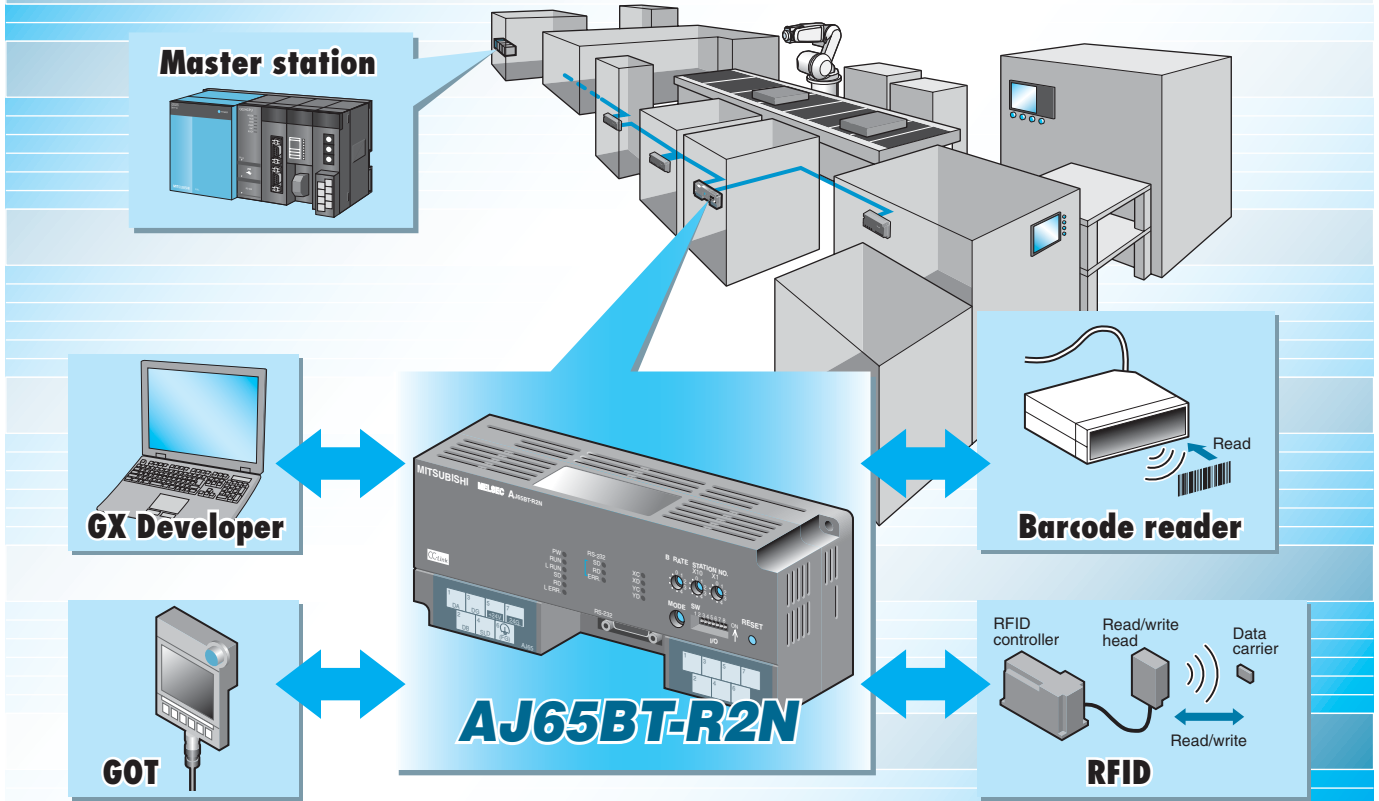Open Field Network CC-Link

CC-Link

AJ65BT-R2N
RS-232 Interface Module

Improved operability with new functions!

- **Program startup and modification available on site!**
  Online operations are available by connecting GX Developer or GOT, improving debug and maintenance efficiency.

- **Supports transmission speed of 115.2 kbps!**

- **Easy to set up when connecting multiple modules!**
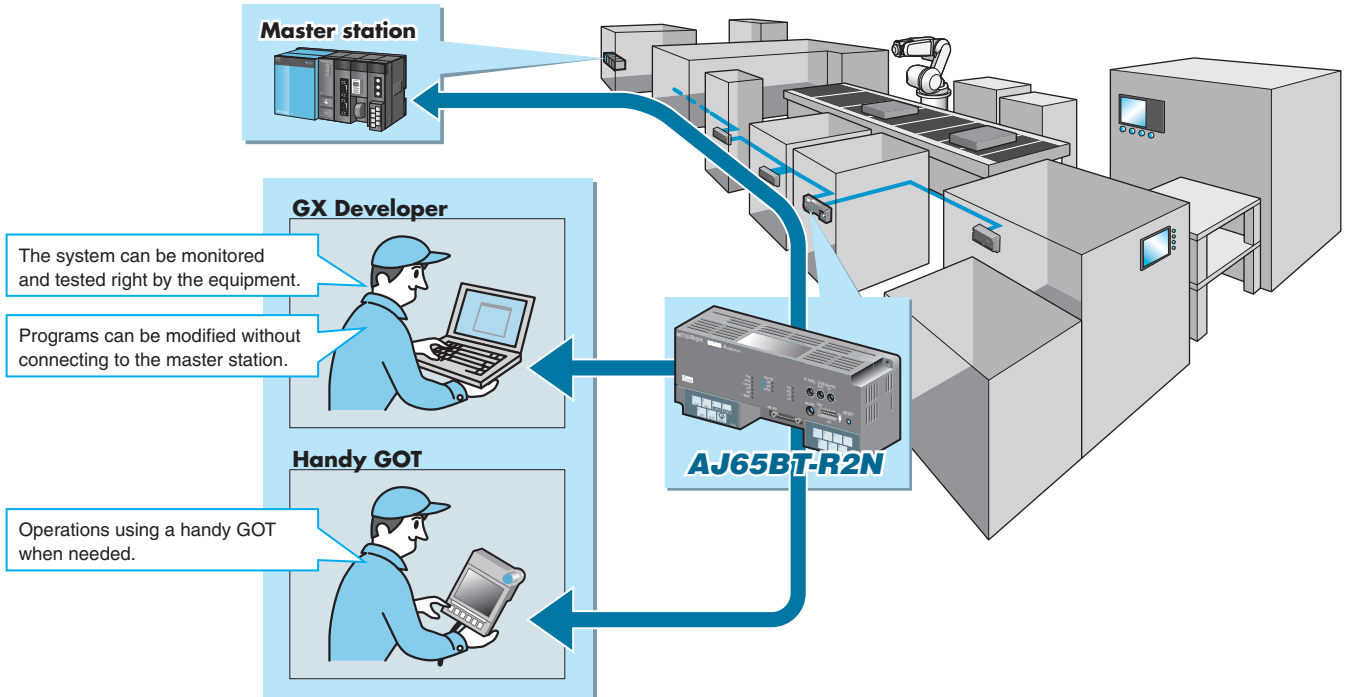 Sequence program is simplified, improving program development efficiency.

Master station

GX Developer

GOT

AJ65BT-R2N

Barcode reader

Read

RFID controller
Read/write head
Data carrier
Read/write

RFID

Mitsubishi Electric Corporation Nagoya Works is a factory certified for ISO14001 (standards for environmental management systems) and ISO9001(standards for quality assurance managememt systems)

ISO 14001
JACO
UKAS ENVIRONMENTAL MANAGEMENT
EC97J1113
051

ISO 9001
BUREAU VERITAS Certification
BUREAU VERITAS
1828
UKAS QUALITY MANAGEMENT
008

1. Program startup and modification available on site MELSOFT connection mode
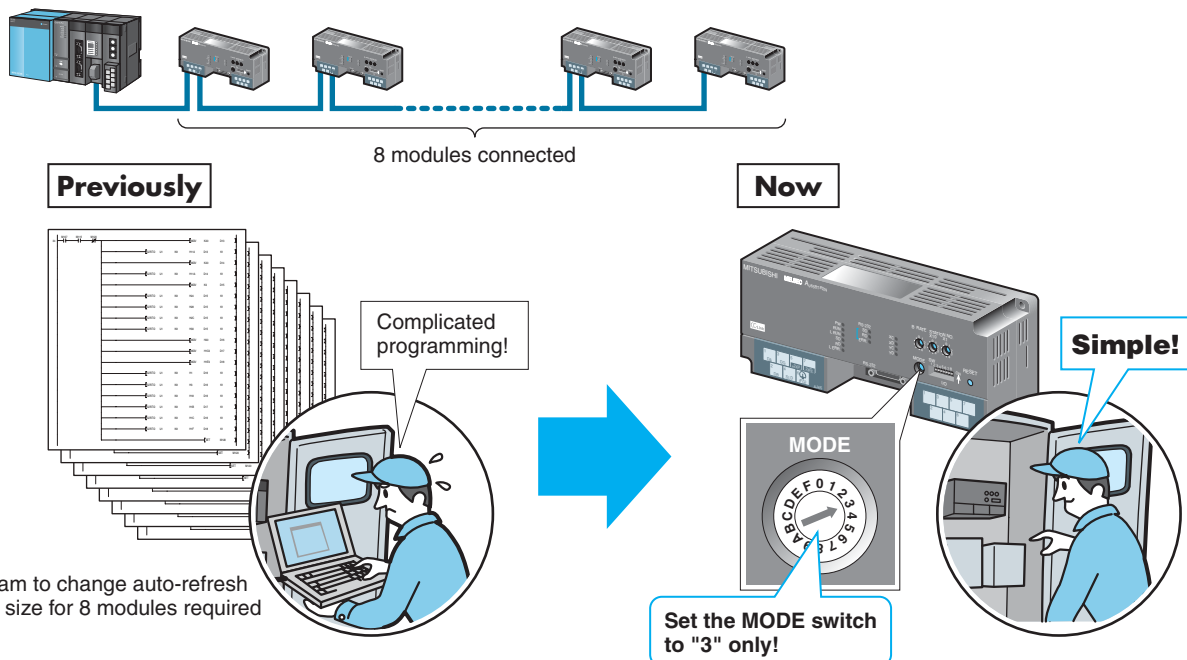
Online operations such as monitoring and testing are available by connecting AJ65BT-R2N to GX Developer or GOT. The program can be started and modified right by the AJ65BT-R2N module (away from the master station), improving work efficiency.

Master station

GX Developer

The system can be monitored and tested right by the equipment.

Programs can be modified without connecting to the master station.

Handy GOT

Operations using a handy GOT when needed.

AJ65BT-R2N

2. Easy to set up when connecting multiple modules! Nonprocedural protocol mode

When the buffer memory auto-refresh function is used, the auto-refresh buffer size needs to be changed to connect three or more modules. This can be easily carried out by setting the mode switch.

A program for initial settings is no longer required, enhancing development efficiency.

(E.g.) Configuring a system with 8 modules

8 modules connected

Previously

Now

Complicated programming!

Program to change auto-refresh buffer size for 8 modules required

Simple!

MODE

Set the MODE switch to "3" only!

Performance specifications

Item		AJ65BT-R2N (New model)	AJ65BT-R2 (Previous model)
RS-232	Interface	RS-232 compliant (D-Sub 9P)	
	Communication method	Full-duplex communication method	
	Synchronization method	Asynchronous method	
	Transmission speed	300, 600, 1200, 2400, 4800, 9600, 19200, **38400, 57600**[*1], **115200**[*1] bps	300, 600, 1200, 2400, 4800, 9600, 19200 bps
	Transmission distance	Up to 15 m	
	Data format — Start bit	1	
	Data format — Data bit	7/8	
	Data format — Parity bit	1 (vertical parity)/No	
	Data format — Stop bit	1/2	
	Error detection — Parity check	Yes (even/odd number)/No	
	Communication control (flow control)	DTR/DSR (ER/DR) control / DC1/DC3 control	
	OS reception area	5120 bytes	
	Protocol	**Nonprocedural protocol** / **MELSOFT connection (equivalent to AJ65BT-G4-S3 Q mode)**	Nonprocedural protocol
CC-Link	Transmission path	Bus (RS-485)	
	CC-Link station type	Intelligent device station	
	CC-Link version	Ver.1	
	Connection cable	CC-Link dedicated cable/CC-Link high-performance cable/CC-Link Ver. 1.10-compatible cable	
	Number of occupied stations	1 station (RX/RY: 32 points each, RWw/RWr: 4 points each)	
Number of writes to E²PROM		Up to 100,000 times	
Dielectric withstand voltage		Between all external DC terminals and ground: 500 V AC for 1 minute	
Insulation resistance		Between all external DC terminals and ground: 10 MΩ or more by 500 V DC insulation resistance tester	
Noise immunity		By noise simulator of 500 Vp-p noise voltage, 1 μs pulse width, and 25 to 60 Hz noise frequency	
Module mounting screw		M4 x 0.7 mm x 16 mm or larger, also mountable with DIN rail	
Applicable DIN rail		TH35-7.5Fe, TH35-7.5AI, TH35-15Fe (conforms to IEC 60715)	
External power supply		24 V DC (20.4 to 26.4 V DC, ripple ratio: within 5%) / Current consumption: 0.11 A (TYP. 24 V DC)	
Allowable momentary power failure time		1ms	
General-purpose I/O	Number of input points	2 points	
	Isolation method	Photocoupler	
	Rated input voltage	24 V DC	
	Rated input current	Approx. 7 mA	
	Operating voltage range	19.2 to 28.8 V DC (ripple ratio: within 5%)	
	Max. number of simultaneous input points	100%	
	ON voltage/ON current	14 V or higher/3.5 mA or higher	
	OFF voltage/OFF current	6 V or lower/1.7 mA or lower	
	Input resistance	Approx. 3.3 kΩ	
	Response time — OFF to ON	10 ms or less	
	Response time — ON to OFF	10 ms or less	
	Wiring method for common	2 points/common, positive/negative common (sink/source)	
	Number of output points	2 points	
	Isolation method	Photocoupler	
	Rated load voltage	12 to 24 V DC (+20/-15%)	
	Operating load voltage range	10.2 to 28.8 V DC (ripple ratio: within 5%)	
	Max. load current	0.1A/point, 0.2A/common	
	Max. inrush current	**0.7 A, 10 ms or less**	0.4 A, 10 ms or less
	Leakage current at OFF	0.1 mA or less	
	Max. voltage drop at ON	**0.1 V DC (TYP.) at 0.1 A** / **0.2 V DC (MAX.) at 0.1 A**	1.5 V DC or lower (MAX.) at 0.1 A
	Output type	Sink	
	Response time — OFF to ON	**1 ms or less**	2 ms or less
	Response time — ON to OFF	**1 ms or less (resistance load)**	2 ms or less (resistance load)
	External power supply for output — Voltage	10.2 to 28.8 V DC (ripple ratio: within 5%)	
	External power supply for output — Current	**10 mA (at 24 V DC)** / **(MAX all points ON)**	50 mA or lower (TYP. 24 V DC/common) / excluding external load current
	Surge suppressor	Zener diode	
	Wiring method for common	2 points/common	
	Protection function	**Yes**	No
	External connections	7-point terminal block (M3.5 screw)	
	Applicable wire size	0.75 to 2 mm²	
	Applicable crimping terminal	RAV1.25-3.5, RAV2-3.5 (conforms to JIS C 2805)	
External dimensions		80 (H) x 170 (W) x **47 (D)** [mm]	80 (H) x 170 (W) x 63.5 (D) [mm]
Weight		0.40 kg	

*1: Unless data are sent concurrently from the AJ65BT-R2N and external-device sides in Nonprocedural protocol mode, communication at 57600 bps or 115200 bps is available.
In the event of concurrent transmission, an RS-232 receive overrun error (BB23H) may occur.

AJ65BT-R2N

Unit: mm (inch)

2-ø4.5 mounting hole (M4 mounting screw)

4.5 (0.18)

MITSUBISHI MELSEC AJ65BT-R2N

CC-Link

PW
RUN
L RUN
SD
RD
L ERR.

RS-232
SD
RD
ERR.

XC
XD
YC
YD

B RATE STATION NO.
x10   x1

MODE   SW
1 2 3 4 5 6 7 8

RESET

RS-232

I/O

71 (2.79)

80 (3.14)

4.5 (0.18)

161 (6.33)

170 (6.69)

47.5 (1.87)

DIN rail center

Product list

Product name	Model	Model code
RS-232 interface module	AJ65BT-R2N	1W5312

Manuals

Manual name	Manual supply status	IB/SH No.	Model code
CC-Link System RS-232 Interface Module User's Manual (Hardware)	Included	IB-0800381-A	13JY30
CC-Link System RS-232 Interface Module User's Manual (Nonprocedural Protocol Mode)	Sold separately	SH-080685ENG-A	13JZ00
CC-Link System RS-232 Interface Module User's Manual (MELSOFT Connection Mode)	Sold separately	SH-080687ENG-A	13JZ01

MITSUBISHI ELECTRIC CORPORATION

Specifications subject to change without notice.
Printed in Japan on recycled paper.