MITSUBISHI ELECTRIC

TECHNICAL BULLETIN

FA-A-0300-B

Production Discontinuation of MELSEC-QS Series Safety Programmable Controllers

■Date of Issue

June 2020 (Ver. B: April 2021)

■Relevant Models

QS001CPU, QS001CPU-K, QS061P-A1, QS061P-A1-K, QS061P-A2, QS061P-A2-K, QS034B, QS034B-K, QS0J61BT12, QS0J61BT12-K, QS0J71GF11-T2, QS0J65BTB2-12DT, QS0J65BTB2-12DT-K, QS0J65BTS2-8D, QS0J65BTS2-4T

Thank you for your continued support of Mitsubishi Electric safety programmable controllers, MELSEC-QS series.
Production of the following MELSEC-QS series models will be discontinued.

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1 LIST OF MODELS TO BE DISCONTINUED

Product	Model
Safety CPU module	QS001CPU, QS001CPU-K
Safety power supply module	QS061P-A1, QS061P-A1-K, QS061P-A2, QS061P-A2-K
Safety main base unit	QS034B, QS034B-K
CC-Link Safety system master module	QS0J61BT12, QS0J61BT12-K
CC-Link IE Field Network master/local module	QS0J71GF11-T2
CC-Link Safety System Remote I/O Module	QS0J65BTB2-12DT, QS0J65BTB2-12DT-K, QS0J65BTS2-8D, QS0J65BTS2-4T

2 SCHEDULE

- Transition to made-to-order: September 30, 2021
- Order acceptance: Until June 30, 2023
- Production discontinuation: September 29, 2023

Point

- The Declaration of Conformity to Machinery Directive for the MELSEC-QS series will be revised in September 30, 2021 with the transition to made-to-order. The declaration is required to distribute the products and system on the European market, which includes Iceland, Norway, Liechtenstein, and Turkey as well as EU member states. (☞ Page 9 PRECAUTIONS FOR THE REVISION OF THE DECLARATION OF CONFORMITY TO MACHINERY DIRECTIVE)
- For the MELSEC-QS series, December 2, 2021 is the expiration date of the certificate issued by TUV Rheinland of a third-party certification body. (☞ Page 9 PRECAUTIONS FOR THE EXPIRATION OF THE TUV RHEINLAND CERTIFICATE)

3 REASON FOR DISCONTINUATION

Some parts of the above product are now obsolete, and we will have difficulty to maintain our production system.

4 REPAIR SUPPORT

Repair support period: September 30, 2030 (for seven years after the discontinuation of production)

5 LIST OF ALTERNATIVE MODELS

Please replace the models to be discontinued with alternative models as follows.

Model to be discontinued		Alternative models	
Product	**Model**	**Product**	**Model**
Safety CPU module	QS001CPU	Safety CPU	R08SFCPU-SET*1
	QS001CPU-K		*2
Safety power supply module	QS061P-A1	Power supply module	R61P
	QS061P-A2		
	QS061P-A1-K		*2
	QS061P-A2-K		
Safety main base unit	QS034B	Base unit	R35B
	QS034B-K		*2
CC-Link Safety system master module	QS0J61BT12	CC-Link IE TSN master/local module	RJ71GN11-T2
	QS0J61BT12-K		*2
CC-Link IE Field Network master/local module	QS0J71GF11-T2	CC-Link IE TSN master/local module	RJ71GN11-T2
CC-Link Safety system remote I/O module	QS0J65BTB2-12DT	CC-Link IE TSN remote I/O module (with safety function)	NZ2GNSS2-16DTE + NZ2GNSS2-8D
	QS0J65BTS2-8D		NZ2GNSS2-8D + NZ2GNSS2-8D
	QS0J65BTS2-4T		NZ2GNSS2-8TE
	QS0J65BTB2-12DT-K		*2

*1 The R08SFCPU-SET shall be used with R08SFCPU and R6SFM.

*2 The alternative models for the module with the S mark will be supported in the future. For details, please consult our specified representative.

6 RECOMMENDED MODELS FOR REPLACING THE MODELS TO BE DISCONTINUED

To replace the models to be discontinued, refer to the following depending on the model used.

☞ Page 4 Safety CPU Module
☞ Page 4 Safety Power Supply Module
☞ Page 4 Safety Main Base Unit
☞ Page 5 CC-Link Safety System Master Module
☞ Page 5 CC-Link IE Field Network Master/Local Module
☞ Page 6 CC-Link Safety System Remote I/O Module

The replacement may require some products to be replaced at the same time, require programs to be modified, and restrict some functions.

For details, refer to the following.

☞ Page 8 REFERENCE DOCUMENTS FOR REPLACEMENT

6.1 Safety CPU Module

The following table lists the models for replacing the MELSEC-QS series safety CPU modules.

Item	Model to be discontinued	Alternative models
	QS001CPU	R08SFCPU-SET
Program capacity	14K steps	80K steps (for the safety program: 40K steps)
Instruction processing time (LD instruction)	0.10μs	0.98ns
Communication interface	USB (connector type: B)*1	USB (connector type: miniB)/Ethernet

*1 Since the connector type of USB differs, replacement of the cable or a conversion adapter is required. For cables and conversion adapters, refer to the following.
📖 List of cables and converters for connection with peripheral devices (recommended product) (FA-A-0036)

6.2 Safety Power Supply Module

The following table lists the models for replacing the MELSEC-QS series safety power supply modules.

Item	Model to be discontinued	Alternative models
	QS061P-A□	R61P
Input power supply voltage	QS061P-A1: 100 to 120VAC +10%/-15% (85 to 132VAC) QS061P-A2: 200 to 240VAC +10%/-15% (170 to 264VAC)	100 to 240VAC (85 to 264VAC)
Maximum input apparent power	125VA	130VA
Rated output current	6A	6.5A
Overcurrent protection	6.6A or higher	7.1A or higher
Efficiency	70% or higher	76% or higher
Withstand voltage	QS061P-A1: 1,780VACrms/3 cycles (elevation: 2000m) QS061P-A2: 2,830VACrms/3 cycles (elevation: 2000m)	2,300VACrms/1min (elevation: 0 to 2000m)

6.3 Safety Main Base Unit

The following table lists the models for replacing the MELSEC-QS series safety main base units.

Model to be discontinued	Alternative models
QS034B	R35B

6.4 CC-Link Safety System Master Module

When replacing the CC-Link Safety system master module, use the CC-Link IE TSN master/local module.

Item	Model to be discontinued	Alternative models
	QS0J61BT12	RJ71GN11-T2
Maximum number of connectable stations (standard station)	65 (master station: 1, slave station: 64)	121*1 (master station: 1, slave station: 120)
Maximum number of connectable stations (safety station)	43 (master station: 1, slave station: 42)*2	121*1 (master station: 1, slave station: 120)
Communication cable	Ver.1.10-compatible CC-Link dedicated cable	Ethernet cable (straight cable of the category 5e or higher (shielded STP))

*1 When the MELSEC iQ-R series are used, both standard stations and safety stations can be used in one network. When both standard stations and safety stations are used, the maximum number of connectable stations are 121 in total. (One of the standard stations and safety stations should be used as a master station.)

*2 Depending on the system configuration, the maximum number of connectable modules differs. For details, refer to the following.
CC-Link Safety System Master Module User's Manual (SH-080600ENG)

6.5 CC-Link IE Field Network Master/Local Module

When replacing the CC-Link IE Field Network master/local module, use the CC-Link IE TSN master/local module.

Item	Model to be discontinued	Alternative models
	QS0J71GF11-T2	RJ71GN11-T2
Maximum number of connectable stations (standard station)	121 (master station: 1, slave station: 120)	121*1 (master station: 1, slave station: 120)
Maximum number of connectable stations (safety station)	32 (master station: 1, slave station*2: 31)	121*1 (master station: 1, slave station: 120)

*1 When the MELSEC iQ-R series models are used, both standard stations and safety stations can be used in one network. When both standard stations and safety stations are used, the maximum number of connectable stations are 121 in total. (One of the standard stations and safety stations should be used as a master station.)

*2 The QS0J71GF11-T2 can connect to local stations as safety stations.

6.6 CC-Link Safety System Remote I/O Module

When replacing the CC-Link Safety system remote I/O module, use the CC-Link IE TSN remote I/O module (with safety functions).

QS0J65BTB2-12DT

Item	Model to be discontinued	Alternative models
	QS0J65BTB2-12DT	**NZ2GNSS2-16DTE** **NZ2GNSS2-8D**
Number of input points*1	16 points (single wiring), 8 points (double wiring)	NZ2GNSS2-16DTE: 8 points (single wiring), 4 points (double wiring) NZ2GNSS2-8D: 8 points (single wiring), 4 points (double wiring)
Number of output points	4 points (source + sync type), 2 points (source + source type)	NZ2GNSS2-16DTE: 8 points (single wiring), 4 points (double wiring, source + source type) NZ2GNSS2-8D: —
External interface (module power supply part)	Screw terminal block	Spring clamp terminal block
External interface (communication part)	Screw terminal block	RJ45 connector
External interface (external power supply part, I/O part)	Screw terminal block	Spring clamp terminal block
Communication cable	Ver.1.10-compatible CC-Link dedicated cable	Ethernet cable complied with the 1000BASE-T (straight cable of the category 5e or higher (double shielded STP))

*1 Depending on the number of input points to be used in the QS0J65BTB2-12DT, the NZ2GNSS2-16DTE and the NZ2GNSS2-8D shall be combined.

QS0J65BTS2-8D

Item	Model to be discontinued	Alternative models
	QS0J65BTS2-8D	NZ2GNSS2-8D
Number of input points*1	16 points (single wiring), 8 points (double wiring)	8 points (single wiring), 4 points (double wiring)
External interface (module power supply part)	Screw terminal block	Spring clamp terminal block
External interface (communication part)	Screw terminal block	RJ45 connector
External interface (external power supply part, I/O part)	Spring clamp terminal block	Spring clamp terminal block
Communication cable	Ver.1.10-compatible CC-Link dedicated cable	Ethernet cable complied with the 1000BASE-T (straight cable of the category 5e or higher (double shielded STP))

*1 Depending on the number of input points to be used in the QS0J65BTS2-8D, two NZ2GNSS2-8D shall be required.

QS0J65BTS2-4T

Item	Model to be discontinued	Alternative models
	QS0J65BTS2-4T	NZ2GNSS2-8TE
Number of output points	4 points (source + sync type), 2 points (source + source type)	8 points (single wiring), 4 points (double wiring, source + source type)
External interface (module power supply part)	Screw terminal block	Spring clamp terminal block
External interface (communication part)	Screw terminal block	RJ45 connector
External interface (external power supply part, I/O part)	Spring clamp terminal block	Spring clamp terminal block
Communication cable	Ver.1.10-compatible CC-Link dedicated cable	Ethernet cable complied with the 1000BASE-T (straight cable of the category 5e or higher (double shielded STP))

Point

Since the number of I/O points and external dimensions differ, redesigning the control panel and resizing the mounting holes are required. Since the terminal blocks for the module power supply part, I/O part, and external power supply part differ, change the solderless terminals of cables. The alternative models are not available for the source + sink type. Change the wiring to the output for the source + source type.

7 REFERENCE DOCUMENTS FOR REPLACEMENT

Refer to the following for replacement.

Point

This bulletin describes the overview of recommended models for replacing the MELSEC-QS series models. For the detail change points before and after replacement and replacement methods, refer to the following.
📖 Replacement of MELSEC-QS Series Safety Programmable Controller With MELSEC iQ-R Series Safety Programmable Controller Handbook (FA-A-0302-A)

• When replacing the safety CPU module, safety power supply module, or safety main base unit

Document name	Document number
Mitsubishi Electric Safety Programmable Controller MELSEC iQ-R Series Machinery Directive (2006/42/EC) Compliance	BCN-P5999-0502
MELSEC iQ-R Module Configuration Manual	SH-081262ENG
MELSEC iQ-R CPU Module User's Manual (Startup)	SH-081263ENG
MELSEC iQ-R CPU Module User's Manual (Application)	SH-081264ENG

• When replacing the CC-Link Safety system master module

Document name	Document number
MELSEC iQ-R CC-Link IE TSN User's Manual (Startup)	SH-082127ENG
MELSEC iQ-R CC-Link IE TSN User's Manual (Application)	SH-082129ENG

• When replacing the CC-Link IE Field Network master/local module (with safety communication function)

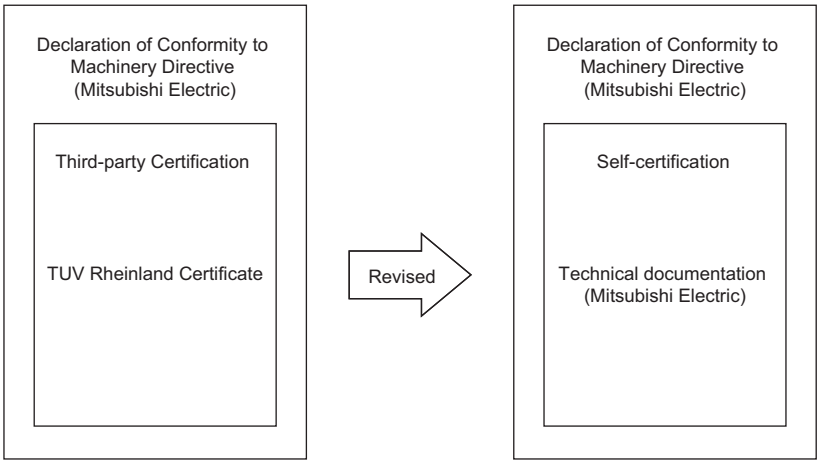
Document name	Document number
MELSEC iQ-R CC-Link IE TSN User's Manual (Startup)	SH-082127ENG
MELSEC iQ-R CC-Link IE TSN User's Manual (Application)	SH-082129ENG

• When replacing the CC-Link Safety system remote I/O module

Document name	Document number
NZ2GNSS2-16DTE Before Using the Product	BCN-P5999-1256
NZ2GNSS2-8D Before Using the Product	BCN-P5999-1252
NZ2GNSS2-8TE Before Using the Product	BCN-P5999-1254
CC-Link IE TSN Remote I/O Module (With Safety Functions) User's Manual	SH-082227ENG

8 PRECAUTIONS FOR THE REVISION OF THE DECLARATION OF CONFORMITY TO MACHINERY DIRECTIVE

For the MELSEC-QS series, the declaration issued by Mitsubishi Electric based on self-certification is included with the made-to-order product after September 30, 2021, instead of the declaration issued by the third-party certification body TUV Rheinland.



The declaration is required to distribute products on the European market.
Before distributing your equipment or system with the MELSEC-QS series models on the European market, check the declaration and description.
There is no impact on the hardware and software of the MELSEC-QS series due to the revision of declaration.

Point

- The third-party certification has the same meaning as the conformity assessment by a notified body defined in the Machinery Directive (2006/42/EC) Annex IX EC type-examination.
- The self-certification has the same meaning as the conformity assessment defined in the Machinery Directive (2006/42/EC) Annex VIII Assessment of conformity with internal checks on the manufacture of machinery.

9 PRECAUTIONS FOR THE EXPIRATION OF THE TUV RHEINLAND CERTIFICATE

The TUV Rheinland Certificate will expire on December 2, 2021. When the third-party certification for the MELSEC-QS series is required after the expiration date, consult the third-party certification body for the safety of your equipment or system.

REVISIONS

Version	Date of Issue	Revision
A	June 2020	First edition
B	April 2021	Addition of the precautions for the revision of the declaration of conformity to Machinery Directive and for the expiration of the TUV Rheinland certificate

TRADEMARKS

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