Mitsubishi General-Purpose Programmable Controller Renewal Tool

Conversion Adapter

Model ERNT-ASQTB20

User's Manual

50CM-D180201-A(1509)

MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED

HEAD OFFICE: Hulic KUDAN BLDG.1-13-5, KUDANKITA CHIYODA-KU, TOKYO 102-0073, JAPAN NAGOYA ENGINEERING OFFICE:139 SHIMOYASHIKICHO-SHIMOYASHIKI, KASUGAI, AICHI 486-0906, JAPAN

● SAFETY PRECAUTIONS ●

(Always read these precautions prior to use.)

Before using this product, please read this manual carefully and pay full attention to safety to ensure that the product is used correctly

The precautions presented in this manual are concerned with this product only. For Programmable Controller system safety precautions, refer to the user's manual of the MELSEC-Q series CPU module to be used.

In this manual, the safety precautions are ranked as "WARNING" and "CAUTION."



Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.

Indicates that incorrect handling may cause hazardous conditions, resulting in medium or minor injury and/or property damage. _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Note that failure to observe the A CAUTION level instructions may lead to a serious consequence according to the circumstances. Always follow the precautions of both levels because they are important to personal safety.

Please keep this manual in an easy-to-access location for future reference, and be sure to provide the manual to the end user.

[Precautions before using]

▲ CAUTION

When making a switch to the MELSEC-Q Series, be sure to consult user's manual supplied with individual module under the MELSEC-Q Series to confirm differences in various aspects including performance, function, CPU input/output signals between the two modules.

[Installation Precautions]

- Use the Conversion Adapter in the environmental conditions that are specified in the general specification. If the Products are used in any environment beyond the bounds of the general specification, electric shock, fire, malfunction, or damage to or degradation of the Products will result.
- Do not directly touch any conductive parts of Conversion Adapter. Contact will cause malfunction or failure in the system
- Fasten the Conversion Adapter and the Mounting Bracket securely with retaining screws, and tighten the screws by applying torque within specified limits. Loose screws can lead to the dropping of the Conversion Adapter or Mounting Bracket, possibly causing breakage thereof. Excessive tightness of the screws can lead to breakage of the screws, Conversion Adapter, Mounting Bracket, or MELSEC-Q Series Module, possibly causing the dropping, shorting, and malfunction thereof
- When installing the Conversion Adapter, take care not to get your hand snagged on the Mounting Bracket or the like. Injury may result.
- When installing or removing the MELSEC-Q Series Module complete with a Converter Adapter, be sure to hold it with both hands. Dropping may lead to breakage.

[Wiring Precautions]

M WARNING

- Before attempting to install the Unit or carry out the necessary wiring, make certain that the external power supply, used in the system, is shut off on all three phases. Failure to do so may result in electric shock or damage to the product.
- After installation and wiring, close the terminal block cover before turning on the module for operation. Failure to do so may result in electric shock

▲ CAUTION

- Carry out wiring for the Conversion Adapter correctly after checking the specification and terminal arrangement for the module used. Connecting a power supply with a different voltage rating or incorrect wiring may cause a fire or failure.
- Tighten the terminal installation screws and terminal screw securely by applying torque within the specified limits. Loose screws will cause short circuit, fire or malfunction Excessive tightening will damage the screws or the Conversion Adapter which in turn will cause dropping of parts, short circuit or malfunction.

[Wiring Precautions]

• Use care to prevent foreign materials including cuttings and wiring debris from entering the Conversion Adapter or the MELSEC-Q Series Module. These will be cause for fire, failure or malfunction

▲ CAUTION

[Startup and Maintenance Precautions]

- ₼ WARNING
- Do not touch live terminals. There is a danger of electric shock or malfunction Shut off the external power supply for the system in all phases before cleaning or retightening the terminal screws. Failure to do so may result in electric shock or cause the MELSEC-Q Series module to fail or malfunction. Loose screws can lead to dropping, shorting, and malfunction. Excessive tightness of the screws can lead to breakage of the screws, Conversion Adapter, Mounting Bracket, or MELSEC-Q Series Module, possibly causing the dropping, shorting, and malfunction thereof.

▲ CAUTION

- Do not modify the Conversion Adapter or take it apart. Doing so will cause failure malfunction, personal injury, or fire,
- Do not drop the Conversion Adapter and Mounting Bracket or do not give a strong impact to it. This will cause damage.

[Disposal Precautions]

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▲ CAUTION	
When disposing of the product, treat it as industrial waste.	

EMC AND LOW VOLTAGE DIRECTIVES

- Compliance to the EMC Directive, which is one of the EU Directives, has been a legal obligation for the products sold in European countries since 1996 as well as the Low Voltage Directive since 1997.
- Manufacturers who recognize their products are compliant to the EMC and Low Voltage Directives are required to declare that print a "CE mark" on their products.
- Authorized representative in Europe
- Authorized representative in Europe is shown below.
- Name: Mitsubishi Electric Europe BV Address: Gothaer strasse 8, 40880 Ratingen, Germany

Overview

This manual describes specifications, handling and other information about the Conversion Adapter "ERNT-ASQTB20" available as Renewal Tools for the Mitsubishi General-Purpose Programmable Controller

Before attempting to make a switch to MELSEC-Q Series in your installation, consult the user's manual supplied with individual module under the latter series to learn about how they differ in various aspects including performance and function.

Once you have opened the packaging, verify that it contains the following products



2. General Specifications

Item		Specifications				
Operating ambient temperature		0 to 55°C(Maximum surrounding air temperature 55°C)				
Storage ambient temperature		-25 to 75°C				
Operating ambient humidity			5 to 05% PU	non condonsi	20	
Storage ambient humidity		5 to 95%RH, non-condensing				
			Frequency	Constant acceleration	Half amplitude	Sweep count
	Compliant with JIS B 3502 and	Under	5 to 8.4Hz	-	3.5mm	10 times each in
Vibration resistance			intermittent vibration	8.4 to 150Hz	9.8m/s ²	Ι
	IEC 61131-2	Under	5 to 8.4Hz	-	1.75mm	
		continuous vibration	8.4 to 150Hz	4.9m/s ²	-	-
Shock resistance			ant with JIS B ² , 3 times eac			
Operating atmosphere			No corro	sive gases		
Operating altitude *1	0 to 2000m					
Installation location	Inside a control panel					
Overvoltage category *2	II or less					
Pollution degree *3	2					

- *1: Do not use or store under pressure higher than the atmospheric pressure of altitude 0m.
 *2: This indicates the section of the power supply to which the equipment is assumed to be connected between the public electrical power distribution network and the machinery within premises. Category II applies to equipment for which electrical power is supplied from fixed facilities.
 *3: This index indicates the degree to which conductive material is generated in terms of the environment in which the equipment is used.
 Pollution level 2 is when only non-conductive pollution occurs. A temporary conductivity caused by condensing must be expected occasionally.

3. Product Specifications

For the details of specifications of the MELSEC-Q series modules not described herein, refer to the user's manual of the applicable MELSEC-Q series module. Also, check that the specifications of the connected devices meet the specifications of the MELSEC-Q series module

(1) MELSEC-Q Series module

The conversion adapter can be used in combination with the following MELSEC-Q series modules.

Input/Output	MELSEC-Q Series module model					
Input	QX10	QX28	QX40	QX40-S1	QX40H	QX50
input	QX70	QX70H	QX80	QX80H	QX90H	
Outrut	QY10	QY18A	QY22	QY40P	QY50	QY68A
Output	QY70	QY80				
I/O Combined	QX48Y57					

(2) Specifications of the terminal block (conversion adapter accessory)



%The minimum length is 5.0 mm when the solderless terminal is attached up side down as shown below







(3) Internal connection







0238			
QX28	QX40H, QX70H, QX80H, QX90H		
No. name TB1 X00	Terminal		
Terminal block TB3 X01	block TB3 X02		
TB4 Open Open TB3 TB5 X02	TB1 0 TB4 X03 TB2 X01 TB3 0 TB5 X04		
TB4 X01 Open TB5 TB7 X02	TB4 X02 0 TB6 X05 X03TB5 TB7 X06		
Open TB7 TB8 Open	TB6 X04 TB7 X06 X05TB7 TB8 X07		
Open TB10 Open TB10 X04	TB8 X06 Supply(%) TB9 COM1 TB10 COM1 5 TB10 X08		
Open TB11 Open TB11 X05 TB12 X05 TB12 Open	X08TB11 Common TB11 X09 TB12 X09 TB12 X0A		
Open TB13 TB13 X06 TB14 X06 TB13 X06 Open TB15 TB14 Open TB15 TB14 Open TB15	X0A (TB13) Image: Constraint of the second sec		
TB16 X07 TB15 X07 Open TB17 TB16 Open	TB16 X0D TB15 X0D		
Open TB19 TB17 COM	TB18 X0F COM2TB19 TB17 X0F		
Open TB19 Open	TB20 Open supply(%) TB18 COM2 Open TB19 Open		
TB20 Open	TB20 Open %Power supply		
	QX40H QX70H QX80H QX90H		
	24VDC 5VDC 24VDC 5VDC		
QY10, QY22	QY40P, QY50, QY70		
Terminal Signal No. name	Terminal Signal No. name		
Terminal TB1 Y00 block TB2 Y01	Terminal TB1 Y00 block TB2 Y01		
TB1 TB4 Y02	TB1 TB4 Y02		
TB2 Y00 IB4 103 Y01 TB3 I TB5 Y04 TB4 Y02 I TB6 Y05	TB2 Y00 Y01TB3 L TB5 Y04		
Y03TB5 TB6 Y04 TB7 Y06	TBC		
V07TR0	<u>Y05</u> TB7 TB8 Y06 L TB9 Y08		
TB10 Y08 Y09TB11 TB11 Y0A	Y07TB9 TB10 Y09TB11 TB10 TB11 TB11 TB11 TB11 TB11 TB11		
TB12 Y0A Y0B TB13 TB12 Y0B			
TB14 YOC TB13 TOC YOD TB15 - - TB14 YOD TB16 YOE - - TB15 YOE	TB14 YOC YOD TB15 TB14 YOD		
TB18 COM	YOF TB17 TB18 DC TB16 YOF		
Open TB19 TB17 COM TB20 Open Isupply(%) TB18 Open	COMTB19 TB20 Open supply(%) TB18 COM		
TB19 Open TB20 Open	Open TB19 Open TB20 Open		
*Power supply	*Power supply		
QY10 QY22	QY50 QY70		
	12/24VDC 5/12VDC		
L			
100/200VAC or			
100/200VAC			
100/200VAC or 24VDC QY80	QY18A		
QY80	QY18A		
QY80 Terminal UL TB1 Y00 Terminal UL TB1 Y00 TB2 Y01	QY18A Terminal Signal No. name TB1 V00		
100/200VAC or 24VDC QY80 Terminal block Terminal TB2 Signal name TB2 TB1 Y00 TB2 Y01 TB3 Y02 TB1 Y00 TB2 Y01 TB4 Y03 TB2 Y04	QY18A Terminal Signal No. name TB1 Prover supply (%) TB2 V00 block TB1 Prover supply (%) TB3 V01		
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U00/200 vAC 24VDC QY80 Terminal block Signal 184 190/1810 190/	QY18A Terminal block Terminal block Terminal fill Signal result T82 Y00 TB3 Y01 T84 Y01 TB3 Y01 T86 Y02 TB3 Y01 T84 Y01 TB6 Y02 Y00F83 TB1 Y03 Y01F85 TB1 Y03 Y01F85 TB1 Y04 Y00F810 TB1 Y05 T816 Open TB13 Y06 T816 Open TB14 Y06 T818 Open T818 Open T818 Open T818 Open T818 Open T818 Open		
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U00/2007 24VDC QY80 Terminal block Signal Ha Signal Ha 184 Y00 185 Y04 185 Y04 184 Y00 185 Y04 184 Y00 184 Y00 184 Y00 184 Y00 184 Y00 184 Y00 1812 Y06 1814 Y00 1815 Y00 1816 Y00 1817 TB10 1818 Y00 1819 Open 1810 Y00 1810 Y00 1810 Y00 1810 Y00 1810 Y00 1810 Y00	QY18A Terminal block Terminal Signal No. n and Block Tel: TB2 Y00 TB3 Y01 TB2 Y00 TB3 Y01 TB4 Y01 TB3 Y01 TB4 Y01 TB4 Y01 TB4 Y01 TB5 Y02 TB4 Y01 TB6 Y02 TB4 Y03 TB6 Y02 TB4 Y03 TB1 Y05 Y06 TB1 Y05 TB1 Y05 Y06 TB1 Y05 TB1 Y05 Y06 TB1 Y06 TB1 Y06 Y06 TB10 Y06 TB13 Y06 Y06 TB16 Y07 TB16 Y07 TB18 Open TB16 Y07 TB18 Open TB16 Y07 TB18 Open TB17 Open TB18 Open TB14 Y00		

 Input model 	ndule							
Specification	Mo	del QX10)			Q	X28	
Number of i		16 points			8 points			
Isolation me		Photocoupler isolation			Photocouple	r isolatio	n	
Rated input	voltage	100 to 120VAC(+10/-15	50/ 50/				AC (+10/-15%) 50/60Hz(±3Hz)	
		Approx. 8mA(100VAC,			Approx.17m Approx.14m			
Rated input	current	Approx. 7mA(100VAC,			Approx. 1411 Approx.8mA			
			,		Approx.7mA			
Inrush curre		Max. 200mA within 1ms					ms (264VAC)	
ON voltage/		80VAC or higher/5mA of					A or higher(50Hz,60Hz	
	e/OFF current	30VAC or lower/1.7mA Approx. 12kΩ(60Hz)	OF IOWE	er(50HZ,60HZ)	Approx. 12k		A or lower(50Hz,60Hz	
Input imped	ance	Approx. 12kΩ(00Hz) Approx. 15kΩ(50Hz)			Approx. 12k			
Response	OFF to ON	15ms or less (100VAC			10ms or less	s (100VA	C 50Hz,60Hz)	
time	ON to OFF	20ms or less (100VAC		0Hz)			C 50Hz,60Hz)	
Internal curr Common ter	ent consumpti rminal		N)		50mA(TYP.		(UN)	
arrangemen		16 points/common			8 points/con	nmon		
_	Madel						QX50	
	Model	QX40		QX40-S1		(Positi	QX50 ive/Negative shared	
Specification		(Positive common)	\bot	(Positive com	mon)		common, AC)	
Number of ir		16 points		oints		16 points		
Isolation me	thod	Photocoupler isolation	Pho	tocoupler isolat			pler isolation	
Rated input	voltage	24VDC (+20/-15%)	24V	DC (+20/-15%)		48VDC	48VAC (+10/-15% 50/60Hz(±3Hz)	
Rated input	current	Approx. 4mA	App	Approx. 6mA		(+20/-15%) 50/60Hz(±3Hz) Approx. 4mA		
ON voltage/		19V or higher/3mA or higher				28V or higher/2.5mA or higher		
	OFF current	11V or lower/1.7mA or lower				10V or lower/1.0mA or lower		
Input resista		Approx. 5.6kΩ				Approx. 11.2kΩ		
	OFF to ON	1/5/10/20/70ms or less				5ms or less 15ms or less 20ms o		
time Internal curr	ON to OFF ent	1/5/10/20/70ms or less						
consumptior	1 I	50mA(TYP. all points ON)	0011			JUNIA(11	P. all points ON)	
Common ter arrangemen		16 points/common	16 p	16 points/common		16 points	/common	
	Model	OX70		0)	(80	1	OX40H	
Specification		(Positive/Negative shared co	mmon)		common)	(Positive common)	
Number of ir		16 points		16 points		16 pc		
Isolation met		Photocoupler isolation		Photocoupler isolation			ocoupler isolation	
Rated input		5VDC(+20/-10%) 12VDC(+20					C (+20/-15%)	
Rated input		Approx. 1.2mA Approx. 3.3	mΑ	Approx. 4mA			ox. 6mA	
ON voltage/	ON current /OFF current	3.5V or higher/1mA or higher 1V or lower/0.1mA or lower		19V or higher. 11V or lower/			or higher/3mA or higher lower/1.6mA or lower	
Input resista		Approx. 3.3kΩ		Approx. 5.6k0			ox. 3.9kΩ	
Response	OFF to ON	1/5/10/20/70ms or less		1/5/10/20/70m			.2/0.4/0.6/1ms or less	
time	ON to OFF	1/5/10/20/70ms or less		1/5/10/20/70m	ns or less	0.1/0.	.2/0.4/0.6/1ms or less	
Internal curre consumptior		55mA(TYP. all points ON)		50mA(TYP. a	Il points ON)	80mA	A(TYP. all points ON)	
Common ter	minal	16 points/common		16 points/com	mon	8 poir	nts/common	
arrangement To points/common To points/common a points/common								
	Model	QX70H		QX80H			QX90H	
Specification		(Positive common)		(Negative cor	nmon)		egative common)	
Number of in		16 points		points		16 point		
solation met Rated input v		Photocoupler isolation 5VDC(+20/-15%)		btocoupler isola /DC(+20/-15%)			oupler isolation -20/-15%)	
Rated input (Approx. 6mA		DC(+20/-15%) prox. 6mA	1	Approx.		
ON voltage/		3.5V or higher/3mA or higher		or higher/3m/	A or higher		higher/3mA or higher	
		1V or lower/1mA or lower		or lower/1.6m/			ower/1mA or lower	
Input resistance Approx.		Approx 4700	Anr	Approx. 3.9kΩ		Approx.	4700	
nput resista				0.1/0.2/0.4/0.6/1ms or less				
Input resista Response	OFF to ON	0.1/0.2/0.4/0.6/1ms or less	0.1	/0.2/0.4/0.6/1m		0.1/0.2	/0.4/0.6/1ms or less	
Input resista	OFF to ON ON to OFF		0.1 0.1		is or less	0.1/0.2		

②Output	module
---------	--------

8 points/common

Model		QY10	QY18A
Number of ou	utput points	16 points	8 points
Isolation met	hod	Relay isolation	Relay isolation
Rated switching voltage, current		24VDC 2A(resistive load)/point 240VAC 2A(COSΦ=1)/point 8A/common	24VDC 2A(resistive load)/point 240VAC 2A(COSΦ=1)/point 8A/module
Minimum swi	tching load	5VDC 1mA	5VDC 1mA
Maximum sw	itching load	264VAC 125VDC	264VAC 125VDC
Response	OFF to ON	10ms or less	10ms or less
time	ON to OFF	12ms or less	12ms or less
Surge suppre	essor	No	No
Fuse		No	No
Internal current consumption		430mA(TYP. all points ON)	240mA(TYP. all points ON)
Common terminal arrangement		16 points/common	All points independent
Model		QY22	

8 points/common

8 points/common

Specification				
Number of output points		16 points		
Isolation me	ethod	Photocoupler isolation		
Rated load	voltage	100 to 240VAC 50/60Hz±5%		
Maximum lo	oad current	0.6A/point, 4.8A/common		
Maximum in	nrush current	20A cycle or less		
Leaked cur	rent at OFF	3mA or lower (240V 60Hz) 1.5mA or lower (120V 60Hz)		
Maximum v	oltage drop at ON	1.5V or lower		
Response	OFF to ON	1ms + 0.5 cycles or less		
time	ON to OFF	1ms + 0.5 cycles or less (rated load, resistive load)		
Surge suppressor		CR absorber		
Fuse		No		
Internal current consumption		250mA(MAX. all points ON)		
Common te	rminal arrangement	16 points/common		

	Model	QY40P	QY50	QY70
Specificatio	on	(Sink type)	(Sink type)	(Sink type)
Number of	output points	16 points	16 points	16 points
Isolation m	ethod	Photocoupler isolation	Photocoupler isolation	Photocoupler isolation
Rated load	voltage	12 to 24VDC (+20/-15%)	12 to 24VDC (+20/-15%)	5 to 12VDC (+25/-10%)
Maximum I	oad current	0.1A/point, 1.6A/common	0.5A/point, 4A/common	16mA/point, 256mA/common
Maximum i	nrush current	0.7A 10ms or less	4A 10ms or less	40mA 10ms or less
Leaked current at OFF		0.1mA or less	0.1mA or less	Voн:3.5VDC (Vcc=5VDC, Ioн=0.4mA)
Maximum v	voltage drop at ON	0.1VDC(TYP.)0.1A 0.2VDC(MAX.)0.1A	0.2VDC(TYP.)0.5A 0.3VDC(MAX.)0.5A	Vol.: 0.3VDC
Response	OFF to ON	1ms or less	1ms以下	0.5ms以下
time	ON to OFF	1ms or less (rated load, resistive load)	1ms or less (rated load, resistive load)	0.5ms or less (resistive load)
Surge supp	oressor	Zener diode	Zener diode	No
Fuse		No	6.7A(unchangeable) (fuse capacity: 50A)	1.6A(unchangeable) (fuse capacity:50A)
Protection function		Yes(overload protection, overheat protection)	No	No
	rent consumption	65mA(TYP. all points ON)	80mA(TYP. all points ON)	95mA(TYP. all points ON)
Common te	erminal arrangement	16 points/common	16 points/common	16 points/common

Model		QY68A	QY80
Specification		(Sink/Source type)	(Source type)
Number of output points		8 points	16 points
Isolation me	ethod	Photocoupler isolation	Photocoupler isolation
Rated load	voltage	5 to 24VDC (+20/-10%)	12 to 24VDC(+20/-15%)
Maximum Ic	oad current	2A/point, 8A/module	0.5A/point, 4A/common
Maximum in	nrush current	8A 10ms or less	4A 10ms or less
Leaked current at OFF		0.1mA or less	0.1mA or less
Maximum v	oltage drop at ON	0.3VDC (MAX.)2A	0.2VDC (TYP.)0.5A 0.3VDC (MAX.)0.5A
Response	OFF to ON	3ms or less	1ms or less
time	ON to OFF	10ms or less(resistive load)	1ms or less(rated load, resistive load)
Surge suppl	ressor	Zener diode	Zener diode
Fuse		No	6.7A(unchangeable)(fuse capacity: 50A)
Protection function		No	No
Internal curr	rent consumption	110mA(TYP. all points ON)	80mA(TYP. all points ON)
Common te	rminal arrangement	All points independent	16 points/common

3I/O Combined module

QX48Y57 <Input specification>

Model		QX48Y57		
Specification	n	(Positive common)		
Number of it	nput points	8 points		
Isolation me	thod	Photocoupler isolation		
Rated input	voltage	24VDC (+20/-15%)		
Rated input	current	Approx. 4mA		
ON voltage/	ON current	19V or higher/3mA or higher		
OFF voltage	e/OFF current	11V or lower/1.7mA or lower		
Input resista	ince	Approx. 5.6kΩ		
Response	OFF to ON	1/5/10/20/70ms or less		
time	ON to OFF	1/5/10/20/70ms or less		
Internal current consumption		80mA(TYP. all points ON)		
Common terminal arrangement		8 points/common		
<output sp<="" td=""><td>pecification></td><td></td></output>	pecification>			
	Model	QX48Y57		

	IVIOUEI	QA40137	
Specification		(Sink type)	
Number of o	output points	7 points	
Isolation me	ethod	Photocoupler isolation	
Rated load	voltage	12 to 24VDC (+20/-15%)	
Maximum Io	oad current	0.5A/point, 2A/common	
Maximum ir	nrush current	4A 10ms or less	
Leaked current at OFF		0.1mA or less	
Maximum v	oltage drop at ON	0.2VDC(TYP.)0.5A 0.3VDC(MAX.)0.5A	
Response	OFF to ON	1ms or less	
time	ON to OFF	1ms or less(rated load, resistive load)	
Surge suppressor		Zener diode	
Fuse		4A(unchangeable)(fuse capacity:50A)	
Protection function		No	
Common te	rminal arrangement	7 points/common	

4. Mounting and Installation

4.1 Handling Precautions

- (1) Before attempting to install the Unit or carry out the necessary wiring, make certain that the external power supply, used in the system, is shut off on all three phases. Failure to do so may result in electric shock or damage to the product.
- (2) Do not touch live terminals. There is a danger of electric shock or malfunction.
 (3) Do not modify the Conversion Adapter or take it apart. Doing so will cause failure, malfunction,
- personal injury, or fire.(4) Do not touch the energized part of the Conversion Adaptor directly. Contact will cause malfunction
- or failure in the system. (5) Fasten the Conversion Adapter and the Mounting bracket securely with retaining screws, and tables the secure by security and the secure of t
- tighten the screws by applying torque within specified limits. Loose screws can lead to the dropping of the Conversion Adapter, or Mounting bracket, possibly causing breakage thereof. Excessive tightness of the screws can lead to breakage of the screws, Converter Adaptor, Mounting bracket, or MELSEC-Q Series Module, possibly causing the dropping, shorting, and malfunction thereof.
- (6) Use care to prevent foreign materials including cuttings and wiring debris from entering the Conversion Adapter or the MELSEC-Q Series Module. These will be cause for fire, failure or malifunction.
- (7) Do not drop the Conversion Adapter and Mounting Bracket or do not give a strong impact to it. This will cause damage.

4.2 Use Precautions



4.3 Installation Environment

The installation environment is the same as MELSEC-Q series CPU Module to use. Refer to the user's manual of the MELSEC-Q Series CPU Module to be used.

5. Part Names and Installation Method

[Installation with the Control panel]





conversion Adapters with a fixture >	<disconnection cable="" connector="" conversion="" detector=""></disconnection>
RNT-ASQT68AD-G	 ERNT-ASQT64TCTTBW
RNT-ASQT68TD-H01	 ERNT-ASQT64TCRTBW
RNT-ASQT68TD-H02	 ERNT-ASQT62TCTTBW
RNT-ASQTD61	 ERNT-ASQT62TCRTBW
RNT-ASQTD62	
RNT-ASQTD62D	

5.1 Installation Method



5.2 Tightening Torque

Tighten the installation screws to the specified torque below. An inappropriate tightening torque could cause the product to fall or result in a short circuit, product failure or malfunction.

Screw Location	Tightening Torque Range
Mounting bracket fixing screw (M3.5×6)	0.68 to 0.92N ⋅ m
Conversion Adapter installation screw (M3×25)	0.43 to 0.57N ⋅ m
Terminal block installation screw (M4 screw)	1.02 to 1.38N m
Terminal block screw (M3.5 screw)	0.59 to 0.88N · m

6. External Dimensions



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Product Warranty Details

Please confirm the following product warranty details prior to product use

Gratis Warranty Terms and Gratis Warranty Range

If any fault or defect (hereinafter referred to as "Failure") attributable to Mitsubishi Electric Engineering Company Limited (hereinafter referred to as "MEE") should occur within the gratis warranty period, MEE shall repair the product free of charge via the distributor from whom you made your purchase.

Gratis Warranty Period

The gratis warranty period of this product shall be one (1) year from the date of purchase or delivery to the designated place. Note that after manufacture and shipment from MEE, the maximum distribution period shall be

six (6) months, and the gratis warranty period after manufacturing shall be limited to eighteen (18) months.

In addition, the gratis warranty period for repaired products shall not exceed the gratis warranty period established prior to repair.

Gratis Warranty Range

The gratis warranty range shall be limited to normal use based on the usage conditions, methods and environment, etc., defined by the terms and precautions, etc., given in the instruction manual, user's manual and caution labels on the product.

Warranty Period after Discontinuation of Production

 MEE shall offer product repair services (fee applied) for seven (7) years after production of the product has been discontinued. Discontinuation of production shall be reported via distributors.
 Product supply (including spare parts) is not possible after production has been discontinued.

Exclusion of Opportunity Loss and Secondary Loss from Warranty Liability

Regardless of the gratis warranty period, MEE shall not be liable for compensation for damages arising from causes not attributable to MEE, opportunity losses or lost profits incurred by the user due to Failures of MEE products, damages or secondary damages arising from special circumstances, whether foreseen or unforeseen by MEE, compensation for accidents, compensation for damages to products other than MEE products, or compensation for other work carried out by the user.

Changes in Product Specifications

The specifications given in the catalogs, manuals and technical documents are subject to change without notice.

This document is a new publication, effective September 2015. Specifications are subject to change without notice.