Mitsubishi General-Purpose Programmable Controller

Renewal Tool

Conversion Adapter

Models:

ERNT-ASQTXY10 ERNT-ASQTX40 ERNT-ASQTX80 ERNT-ASQTY22 ERNT-ASQTY40 ERNT-ASQTY50 ERNT-ASQTY80

User's Manual



50CM-D180020-D (1409)

■ SAFETY INSTRUCTIONS

(Always read these precautions prior to use.)

Before attempting to use the Conversion Adapter (or the Products), read all instructions contained in this manual carefully to ensure safe and correct operation.

The safety instructions appearing in this manual are limited to those that apply to the Products. For safety instructions to be heeded in regard to your programmable controller system as a whole, refer to the user's manual supplied with the MELSEC-Q Series CPU module you use. In this manual, the safety precautions are ranked as "Warning" and "Caution."

⚠ WARNING

Indicates an immediately hazardous situation which, if not properly dealt with, will result in death or serious injury.

Indicates a hazardous situation which, if not properly deal with. will result in moderate or mild injury, or property damage alone.

Even a safety instruction marked with " Caution" could have serious consequences under certain conditions. All the safety instructions, regardless of their classification of criticality, carry important points to be noted. Observe them without fail.

Save this manual for reference when needed while at the same time ensuring that it is always passed on to

[Precautions: Prior to use]

CAUTION

When making a switch from the MELSEC-Ans Series to the MELSEC-Q Series, be sure to consult user's manual supplied with individual module under the MELSEC-Q Series to confirm

- 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 with Do not touch live uninsulated part directly. Contact will cause malfunction or failure in the system
- Fasten the Conversion Adapter and the Fittings securely with retaining screws, and tighten the screws by applying torque within specified limits. Loose screws can lead to the dropping of the converter adapter or fittings, possibly causing breakage thereof. Excessive tightness of the screws can lead to breakage of the screws, converter adapter, fittings, or MELSEC-Q Series Module, possibly causing the dropping, shorting, and malfunction thereof.

 Always check for correct match between MELSEC-Q Series and the Conversion Adapter. Incorrect match because the MELSEC-Q Series medule.
- Amays cleak to contect mach between which series and the Conversion Adapter. Incorrect match can cause damage to the MELSEC-Q Series module.

 When installing the converter adapter, take care not to get your hand snagged on the fittings 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]

MARNING

- Before attempting to install the Unit or carry out the necessary wiring, make certain that the externs power supply, used in the system, is shut off on all three phases. Failure to do so may result i electric shock or damage to the product.
- When energizing the Products or putting them into operation after the completion of installation or wiring work, always have a cover placed over the terminal block for the MELSEC-AnS Series components. Without the cover placed in position, electric shock can result.

[Wiring Precautions]

CAUTION

- Carry out wiring for the Conversion Adapter correctly after checking the specification and termina arrangement for the module used. Connecting a power supply with a different voltage rating of
- 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 MELSEC-AnS Series terminal attaching screws and terminal screw secirely 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 the will be the screws or the Conversion. excessive tightening will damage the screws or the Conversion Adapter which in turn will cause dropping of parts, short circuit or malfunction.
- 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

[Startup and Maintenance Precautions]

MARNING

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 lightness of the screws can lead to breakage of the screws, converter adapter, fittings 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
- Do not modify the Conversion Adapter of take it apart boing so him acceptance injury, or fire.

 The Conversion Adapter comes in a resin case. Do not drop the Adapter or give a strong impact to it. This will cause damage to the Adapter.

A CAUTION

When you dispose of the Products, handle them 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

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Apr. 2011	50CM-D180041-A	The first version is printed.
Apr. 2011		Correction SAFETY INSTRUCTIONS, Section 2.1, 3.1, 3.3, Appendix 4,
		Section 4.1,5.1
Apr. 2014	50CW-D160041-C	Description of Base adapter deleted Correction SAFETY INSTRUCTIONS, Chapter 3, 4, 5, 6 Addition Chapter 2
September 2014	50CM-D180041-D	Correction Section 2.

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Dimensional Outline Drawing

1. General Description

This manual provides information about the Conversion Adapter (ERNT-ASQTXY10/-ASQTX40/-ASQTX80/-ASQTY22/-ASQTY40/-ASQTY50/-ASQTY50/-ASQTY80) available as Renewal Tools for the Mitsubishi

General-Purpose Programmable Controller.

The Conversion Adapter is a product for effecting conversion to transcend difference in pin assignment between the MELSEC-AnS Series and the MELSEC-Q Series.

Before attempting to make a switch from MELSEC-AnS Series 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

Upon unpacking your Adapters, check to see that the following items are included in their shipping carton.

Item name	Quantity
Adapter	1
Fittings	1
Fittings attaching screws (M3.5 x 6)	2
Terminal block cover	1

2. General Specifications

Item	Specifications						
Operating ambient temperature	0	0 to 55°C(Maximum surrounding air temperature 55°C)					
Storage ambient temperature			-25 to	75°C			
Operating ambient humidity Storage ambient humidity		5 to 95%RH, non-condensing					
•			Frequency	Constant acceleration	Half amplitude	Sweep count	
	Compliant with JIS B 3502 and IEC 61131-2	Under intermittent vibration	5 to 8.4Hz	_	3.5mm	10 times each in	
Vibration resistance			8.4 to 150Hz	9.8m/s ²	_	X, Y, Z directions	
	IEC 01131-2	Under continuous	5 to 8.4Hz	-	1.75mm	_	
		vibration	8.4 to 150Hz	4.9m/s ²	_		
Shock resistance	Compliant with JIS B 3502 and IEC 61131-2 (147 m/s², 3 times each in 3 directions X, Y, Z)						
Operating atmosphere	No corrosive gases						
Operating altitude *1	0 to 2000m						
Installation location	Inside a control panel						
Overvoltage category *2	II or less						
Pollution degree *3			2				

- 11. Do not use or store under pressure higher than the atmospheric pressure of altitude 0m.

 12. 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.

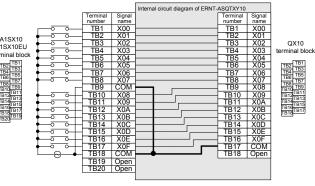
 13. This index indicates the degree to which conductive material is generated in terms of the environment in
- Pollution level 2 is when only non-conductive pollution occurs. A temporary conductivity caused by condensing must be expected occasionally.

3. Product Specifications

For detail specifications which do not appear in the specification comparison charts contained herein. see the user's manual supplied with the MELSEC-Q Series module you use. Those parts of the specification that differ between the MELSEC-AnS Series and the MELSEC-Q Series are where a switch from the first series to the second is subjected to specification-related restrictions. Check the specification of the devices to be connected for more details.

Conversion Adapter model name	MELSEC-AnS Series	Number of points	MELSEC-Q Series	Mass of Conversion Adapter (g)
	A1SX10	16 QX10	0.710	
ERNT-ASQTXY10	A1SX10EU		75	
	A1SY10	40		75
	A1SY10EU	16	QTIU	

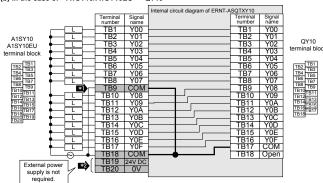
(a) In the case of $\,$ A1SX10/A1SX10EU \rightarrow QX10



<Specification Comparison Chart>

Model Specification	A1SX10	A1SX10EU	QK10
Number of input points	16	16	16
Insulation method	Photocoupler insulation	Photocoupler insulation	Photocoupler insulation
Rated input current	100 - 120VAC 50/60Hz	100 - 120VAC 50/60Hz	100 - 120VAC (+10/-15%) 50/60Hz (±3Hz)
Rated input voltage	About 6mA (100VAC, 60Hz)	About 7mA (120VAC, 60Hz)	About 8mA (100VAC, 60Hz) About 7mA (100VAC, 50Hz)
In-rush current	200mA maximum, within 1ms (132VAC)	200mA maximum, within 1ms (132VAC)	200mA maximum, within 1ms (132VAC)
ON voltage/ON current	More than 80VAC/more than 5mA	More than 80VAC/more than 5mA	More than 80VAC/more than 5mA
OFF voltage/OFF current	Less than 30VAC/less than 1.4mA	Less than 30VAC/less than 1.4mA	Less than 30VAC/less than 1.7mA
Input impedance	About 18kΩ (60Hz) About 21kΩ (50Hz)	About 18kΩ (60Hz) About 21kΩ (50Hz)	About 12kΩ (60Hz) About 15kΩ (50Hz)
Response OFF-ON	Less than 20ms	Less than 20ms	Less than 15ms
time ON-OFF	Less than 35ms	Less than 35ms	Less than 20ms
Internal power consumption	50mA (TYP, ON at all points)	50mA (TYP, ON at all points)	50mA (TYP, ON at all points)
"Common" method	16 points/common	16 points/common	16 points/common
External connection method	20-point terminal block	20-point terminal block	18-point terminal block

(b) In the case of $\,$ A1SY10/A1SY10EU \rightarrow QY10



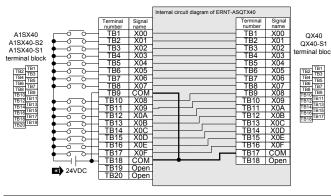
POINT

- Because the switch concerned causes the number of points per common to change from 8 (two circuits) to 16, an alteration to the wiring is required if the terminal numbers TB9 and TB18 on the MELSEC-AnS-side terminal block have been used in separation from each other.
- External power supply connected to the terminal numbers TB19 and TB20 on the MELSEC-AnS-sid

<Specification Comparison Chart>

Specification	Woder	A1SY10	A1SY10EU	QY10
Number of output	ut points	16	16	16
Insulation metho	ıd	Photocoupler insulation	Photocoupler insulation	Relay insulation
Rated open-dos		240VAC/2A (COSΦ=1)	240VAC/2A (COSΦ=1)	240VAC/2A (COSΦ=1)
voltage/current	e	24VDC/2A (resistive load)	24 VDC/2A (resistive load)	24VDC/2A (resistive load)
voilage/current		(8A/common)	(8A/common)	(8A/common)
Minimum open-o	close load	5VDC 1mA	5VDC 1mA	5VDC 1mA
Maximum open-		264VAC 125VDC	132VAC 125VDC	264VAC 125VDC
	OFF→ON	Less than 10ms	Less than 10ms	Less than 10ms
Response unie	ON→OFF	Less than 12ms	Less than 12ms	Less than 12ms
Surge killer		Not provided	Not provided	Not provided
Fuse		Not provided	Not provided	Not provided
Internal power o	onsumption	120mA (TYP, ON at all points)	120mA (TYP, ON at all points)	430mA (TYP, ON at all points)
"Common" meth		8 points/common	8 points/common	16 points/common
External connec	tion method	20-point terminal block	20-point terminal block	18-point terminal block

MELSEC-AnS MELSEC-Q Mass of Conversion Number of A1SX40 ERNT-ASQTX40 A1SX40-S2 75 A1SX40-S1 QX40-S1



POINT

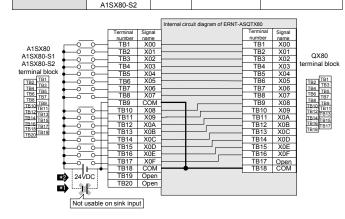
If your system is set to run on a rated input voltage of 12VDC when you make a switch from A1SX40 to QX40, it must be reset to run on 24VDC

<Module Specification Comparison Chart>

	Model	A1SX40	A1SX40-S2	QX40
Specification		(Sink type)	(Sink type)	(Positive common type)
Number of input p		16	16	16
Insulation method		Photocoupler insulation	Photocoupler insulation	Photocoupler insulation
		12VDC/24VDC	24VDC	24VDC
Rated input voltage			24100	(+20/-15%,ripple rate within 5%)
Rated input current		About 3mA/about 7mA	about 7mA	about 4mA
ON voltage/ON current		More than 8VDC/more than 2mA	More than 14VDC/more than 3.5mA	More than 19VDC/more than 3mA
OFF voltage/OFF	current	Less than 4VDC/less than 1mA	Less than 6.5VDC/less than 1.7mA	Less than 11VDC/less than 1.7mA
Input resistance		About 3.3kΩ	About 3.3kΩ	About 5.6kΩ
Response time	OFF→ON	Less than 10ms	Less than 10ms	Less than 1/5/10/20/70ms
	ON→OFF	Less than 10ms	Less than 10ms	Less than 1/5/10/20/70ms
Internal power co		50mA (TYP, ON at all points)	50mA (TYP, ON at all points)	50mA (TYP, ON at all points)
"Common" method		16 points/common	16 points/common	16 points/common
External connecti	on method	20-point terminal block	20-point terminal block	18-point terminal block
External connecti	on method	20-point terminal block	20-point terminal block	18-point terminal block

Model		A1SX40-S2	QX40-S1	
Specification		(Sink type)	(Positive common type)	
Number of input p	points	16	16	
Insulation method	i	Photocoupler insulation	Photocoupler insulation	
Rated input voltage		24VDC	24VDC (+20/-15%, ripple rate within 5%)	
Rated input current		About 7mA	about 6mA	
ON voltage/ON c		More than 14VDC/more than 4mA	More than 19VDC/more than 4mA	
OFF voltage/OFF	current	Less than 6.5VDC/less than 1.7mA	Less than 11VDC/less than 1.7mA	
Input resistance		About 3.3kΩ	About 3.9kΩ	
Deserves time	OFF→ON	Less than 0.1ms	Less than 0.1/0.2/0.4/0.6/1ms	
Response time ON→OFF		Less than 0.2ms	Less than 0.1/0.2/0.4/0.6/1ms	
Internal power consumption		50mA (TYP, ON at all points)	60mA (TYP, ON at all points)	
"Common" method		16 points/common	16 points/common	
External connection method		20-point terminal block	18-point terminal block	

MELSEC-Q Mass of Conversion model name points Adapter (q) A1SX80 ERNT-ASQTX80 QX80 75 A1SX80-S1



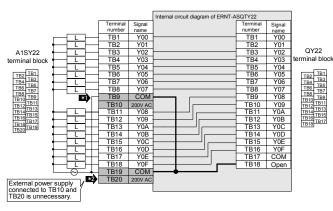
POINT

Use the Adapter to run on the source input. (The Adapter cannot be used to run on a sink input.)

If your system is set to run on a rated input voltage of 12VDC when you make a switch from A1SX80 to QX80, it must be reset to run on 24VDC.

<Module Specification Comparison Chart>

A1SX80			
	A1SX80-S1	A1SX80-S2	QX80
			(Negative Common type
	16	16	16
Photocoupler insulation	Photocoupler insulation	Photocoupler insulation	Photocoupler insulation
12VDC/24VDC	24VDC	24VDC	24VDC (+20/-15%, ripple rate within 5%)
About 3mA/about 7mA	about 7mA	about 7mA	about 4mA
More than 8VDC /more than 2mA	More than 17VDC /more than 5mA	More than 13VDC /more than 3.5mA	More than 19VDC /more than 3mA
Less than 4VDC /less than 1mA	Less than 5VDC /less than 1.7mA	Less than 6VDC /less than 1.7mA	Less than 11VDC /less than 1.7mA
About 3.3kΩ	About 3.3kΩ	About 3.3kΩ	About 5.6kΩ
Less than 10ms	Less than 0.4ms	Less than 10ms	Less than 1/5/10/20/70m
Less than 10ms	Less than 0.5ms	Less than 10ms	Less than 1/5/10/20/70m
50mA	50mA	50mA	50mA
(TYP, ON at all points)	(TYP, ON at all points)	(TYP, ON at all points)	(TYP, ON at all points)
16 points/common	16 points/common	16 points/common	16 points/common
20-point terminal block	20-point terminal block	20-point terminal block	18-point terminal block
	About 3mA/about 7mA More than 8VDC /more than 2mA Less than 4VDC /less than 1mA About 3.3kΩ Less than 10ms Less than 10ms (TYP, ON at all points) 16 points/common	16	16 16 16 16





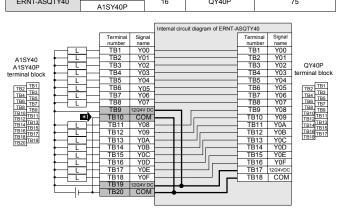
Because the switch concerned causes the number of points per common to change from 8 (two circuits) to 16, an alteration to the wiring is required if the terminal numbers TB9 and TB19 on the MELSEC-AnS-side terminal block have been used in separation from each other.

External power supply connected to the terminal numbers TB10 and TB20 on the MELSEC-AnS-side

<Module Specification Comparison Chart>

Model			
Specification	A1SY22	QY22	
Number of output points	16	16	
Insulation method	Photocoupler insulation	Photocoupler insulation	
Rated load voltage	100/240VAC	100-240VAC (+10-15%)	
Maximum load current	0.6A/point	0.6A/point	
viaximum load current	2.4A/common	4.8A/common	
	24VAC 100mA	24VAC 100mA	
Minimum load voltage/current	100VAC 10mA	100VAC 25mA	
-	240VAC 20mA	240VAC 25mA	
Maximum in-rush current	Less than 20A - 10ms,	l # 20A	
waximum in-rush current	less than 8A - 100ms	Less than 20A - one cycle	
_eak current at power-off	1.5mA (at 120V/60Hz)	1.5mA (at 120V/60Hz)	
Leak Culletit at power-on	3mA (at 240V/60Hz)	Less than 3mA (at 240V/60Hz)	
Maximum voltage drop	Less than 1.5VAC (0.1-0.6A)		
	Less than 1.8VAC (50-100mA)	Less than 1.5VAC	
at power-on	Less than 2VAC (10-50mA)		
Response time OFF→ON	Less than 1ms	Less than 1ms	
ON→OFF	Less than 0.5Hz+1ms	Less than 1ms+0.5 cycles	
Surge killer	CR absorber	CR absorber	
		Not provided	
use	5A (one/common), non-replaceable	(It is recommended that a fuse be installed	
		on the external wiring.)	
nternal power consumption	270mA (TYP, ON at all points)	250mA (TYP, ON at all points)	
'Common" method	8 points/common	16 points/common	
External connection method	20-point terminal block	18-point terminal block	

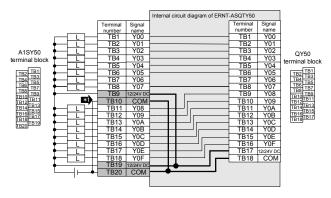
Conversion Adapter	MELSEC-AnS	Number of	MELSEC-Q	Mass of Conversion
model name	Series	points	Series	Adapter (g)
FRNT-ASOTY40	A1SY40	16	OY40P	75



Because the switch concerned causes the number of points per common to change from 8 (two circuits) to 16, an alteration to the wiring is required if the terminal numbers TB9 and TB19, and TB10 and TB20, on the MELSEC-AnS-side terminal block have been used in separation from each other.

	Model	A1SY40	A1SY40P	QY40P
Specification		(Sink type)	(Sink type)	(Sink type)
Number of outpu	it points	16	16	16
Insulation metho	d	Photocoupler insulation	Photocoupler insulation	Photocoupler insulation
Rated load voltage	ge	12/24VDC	12/24VDC	12-24VDC
Maximum load c	urrant	0.1A/point	0.1A/point	0.1A/point
waxiiiidiii load c	ulleik	0.8A/common	0.8A/common	1.6A/common
Maximum in-rusl	n current	Less than 0.4A - 10ms	Less than 0.7A - 10ms	Less than 0.7A - 10ms
Leak current at p	ower-off	Less than 0.1A	Less than 0.1A	Less than 0.1A
Maximum voltag	e drop	1.0VDC(TYP) 0.1A	0.1VDC(TYP) 0.1A	0.1VDC(TYP) 0.1A
at power-on		2.5VDC(MAX) 0.1A	0.2VDC(MAX) 0.1A	0.2VDC(MAX) 0.1A
	OFF → ON	Less than 2ms	Less than 1ms	Less than 1ms
Response time	ON→OFF	Less than 2ms (resistive load)	Less than 1ms	Less than 1ms
	ONTOFF	Less than 2ms (resistive load)	(rated load and resistive load)	(rated load and resistive load)
Surge killer		Zener diode	Zener diode	Zener diode
Fuse		1.6A (one/common), non-replaceable	Not provided	Not provided
Internal power co	onsumption	270mA (TYP, ON at all points)	79mA (TYP, ON at all points)	65mA (TYP, ON at all points)
Protective function		Not provided	Provided (overheat protection	Provided (overload protection
Flotective fullcut	JII .	Not provided	and short-circuit protection)	and overheat protection)
'Common" meth	od	8 points/common	8 points/common	16 points/common
External connect	ion method	20-point terminal block	20-point terminal block	18-point terminal block

Conversion Adapter	MELSEC-AnS	Number of	MELSEC-Q	Mass of Conversion
model name	Series	points	Series	Adapter (g)
ERNT-ASQTY50	A1SY50	16	QY50	



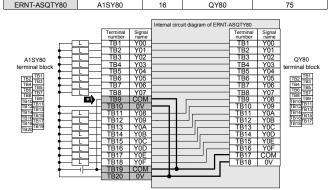
POINT

Because the switch concerned causes the number of points per common to change from 8 (two circuits) to 16, an alteration to the wiring is required if the terminal numbers TB9 and TB19, and TB10 and TB20, on the MELSEC-AnS-side terminal block have been used in separation from each other.

<Module Specification Comparison Chart>

	Model	A1SY50	QY50
Specification		(Sink type)	(Sink type)
Number of output points		16	16
Insulation method		Photocoupler insulation	Photocoupler insulation
Rated load voltage		12/24VDC	12-24VDC
Maximum load current		0.5A/point 2A/common	0.5A/point 4A/common
Maximum in-rush current		Less than 4A - 10ms	Less than 4A - 10ms
Leak current at power-off		Less than 0.1A	Less than 0.1A
Maximum voltage drop		0.9VDC(TYP) 0.5A	0.2VDC(TYP) 0.5A
at power-on		1.5VDC(MAX) 0.5A	0.3VDC(MAX) 0.5A
	OFF→ON	Less than 2ms	Less than 1ms
Response time	ON→OFF	Less than 2ms (resistive load)	Less than 1ms (rated load and resistive load)
Surge killer		Zener diode	Zener diode
Fuse		Provided	6.7A (non-replaceable)
Internal power consumption		120mA (TYP, ON at all points)	80mA (TYP, ON at all points)
"Common" method		8 points/common	16 points/common
External connection method		20-point terminal block	18-point terminal block

MELSEC-Q Conversion Adapter MELSEC-AnS Number of Mass of Conversion Adapter (g) Series points A1SY80



POINT

Because the switch concerned causes the number of points per common to change from 8 (two circuits) to 16, an alteration to the wiring is required if the terminal numbers TB9 and TB19, and TB10 and TB20, on the MELSEC-AnS-side terminal block have been used in separation from each other.

<Module Specification Comparison Chart>

	Model	A1SY80	QY80	
Specification		(Source type)	(Source type)	
Number of output points		16	16	
Insulation method		Photocoupler insulation	Photocoupler insulation	
Rated load voltage		12/24VDC	12-24VDC	
Maximum load current		0.8A/point	0.5A/point	
		3.2A/common	4A/common	
Maximum in-rush current		Less than 8A - 10ms	Less than 4A - 10ms	
Leak current at power-off		Less than 0.1A	Less than 0.1A	
Maximum voltage drop at power-on		1.5VDC(MAX) 0.8A	0.2VDC(TYP) 0.5A	
		1.5VDC(WAX) 0.8A	0.3VDC(MAX) 0.5A	
	OFF→ON	Less than 2ms	Less than 1ms	
Response time	ON→OFF	Less than 2ms (resistive load)	Less than 1ms	
		Less traff zitts (resistive load)	(rated load and resistive load)	
Surge killer		Zener diode	Zener diode	
Fuse		5A (one/common), non-replaceable	6.7A (one/common), non-replaceable	
Internal power consumption		120mA (TYP, ON at all points)	80mA (TYP, ON at all points)	
"Common" method		8 points/common	16 points/common	
External connection method		20-point terminal block	18-point terminal block	

4. Mounting and Installation

4.1 Handling Instructions

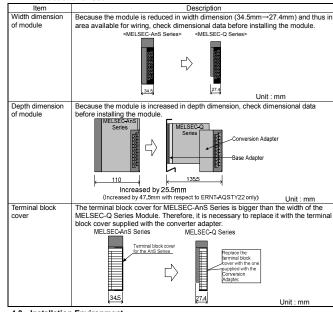
- Handling Instructions
 Before attempting to install the Unit or carry out the necessary wiring, make certain that the external power supply, used in the system, is shut off on all three phases. Failure to do so may result in electric shock or damage to the product.
 Do not touch live terminals. There is a danger of electric shock or malfunction.
 Do not modify the Conversion Adapter or take it apart. Doing so will cause failure, malfunction, personal injury or fire
- (3) Do not industry are conversion acquestion injury, or fire.
 (4) Do not touch the energized part of the Conversion Adapter directly. Contact will cause malfunction or
- (4) Do not touch the energized part of the Conversion Adapter directly. Contact will cause malfunction or failure in the system.
 (5) Fasten the Conversion Adapter and the Fittings securely with retaining screws, and tighten the screws by applying torque within specified limits. Loose screws can lead to the dropping of the converter adapter, or fittings, possibly causing breakage thereof. Excessive tightness of the screws can lead to breakage of the screws, converter adapter, fittings, or MELSEC-Q Series Module, possibly causing the dropping, shorting, and malfunction thereof.
- snorting, and manunction mereor.

 (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 malfunction.

 (7) Do not drop the Conversion Adapter and Fittings, and avoid giving a strong impact to them. Otherwise,
- breakage will result:

 (8) If the existing system is installed on a DIN rail, the Base Adaptor is not necessary. The MELSEC-Q Series Base Module you use can be mounted onto the DIN rail.

4.2 Instructions for Use

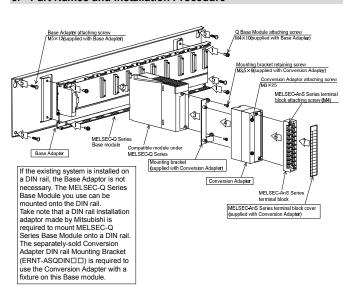


4.3 Installation Environment

For detail information, see the user's manual furnished with the MELSEC-Q Series CPU module you use.

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5. Part Names and Installation Procedure



5.1 Installation Procedure

- [1] Secure the MELSEC-Q Series Base Module to the Base Adapter with the supplied attaching screws (M4 x 10). (Secure it in four places.)
- [2] Mount a compatible module under the MELSEC-Q Series onto the MELSEC-Q Series Base
- [3] Secure the mounting bracket to a compatible module under the MELSEC-Q Series with retaining screws (M3.5 x 6). (Secure it in two places, top and bottom.)
- [4] Mount the Conversion Adapter onto the mounting bracket and secure it with the Conversion Adapter attaching screws (M3 x 25). (Secure it in two places, top and bottom.)

Precaution

Before tightening the installation screws, check that the Conversion Adapter has been securely stalled on the MELSEC-Q Series module. Tightening the screws in floating-off state or tilting state will damage the Conversion Adapter installation screws and the mounting bracket.

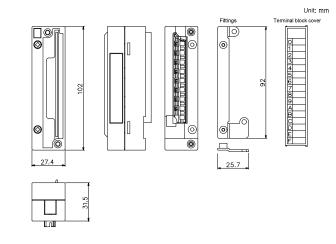
- [5] Secure the Base Adapter to the panel with the supplied attaching screws (M5 x 12).
- [6] Secure the MELSEC-AnS Series terminal block to the Conversion Adapter with the supplied attaching screws (M4).
- [7] Remove the terminal block cover from the MELSEC-AnS Series terminal block and fit the terminal block cover supplied with the Conversion Adapter in place.

5.2 Tightening Torque

Tighten the module attaching screws by applying torque listed in the table blow. Application of improper tightening torque will cause dropping, short-circuit, failure, or malfunction

Component attached with screw	Range of tightening torque	
Base Adapter attaching screw (M5)	2.75 to 3.63N·m	
Q Series module attaching screw (M4)	1.39 to 1.89N·m	
Mounting bracket securing screw (M3.5)	0.68 to 0.92N·m	
Conversion Adaptor attaching screw (M3)	0.43 to 0.57N·m	
MELSEC-AnS Series terminal block attaching screw (M4)	0.78 to 1.18N·m	

6. Dimensional Outline Drawing



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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 productions via the distributor from whom you made your purchase.

The gratis warranty period of this product shall be one (1) year from the date of purchase or delivery to

The grains warranty period or inspruduct shall be the (1) year from the date or published 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

■ 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.

- 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
- (2) 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. MFF shall not be liable for compensation for damages arising from causes not regardless of little grains warrainty period, whice shall not be flable for compensation for darlages alrising from causes in 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

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 2014. Specifications are subject to change without notice

Developed September 2014

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