

## Before Using the Product

Please read this document before use. Keep the document in a safe place for future reference. Make sure that the end users read the document.

### Relevant manuals

Before using the product, please read the Safety Guidelines included with the base unit used, especially the following sections.

- SAFETY PRECAUTIONS
- CONDITIONS OF USE FOR THE PRODUCT
- EMC AND LOW VOLTAGE DIRECTIVES
- WARRANTY

Details of the product are also described in the manual shown below (sold separately). Please read the manual and understand the functions and performance of the product to use it correctly.

- MELSEC-Q Multi Function Counter/Timer Module User's Manual SH-080964ENG (13JZ51)

### Manuels correspondants

Avant d'utiliser ce produit, prière de lire les "Safety Guidelines" (directive de sécurité) fournies avec l'unité de base, en particulier dans les sections suivantes.

- PRÉCAUTIONS DE SÉCURITÉ
- CONDITIONS D'UTILISATION DE PRODUIT
- DIRECTIVES CEM ET BASSE TENSION
- GARANTIE

### Packing list

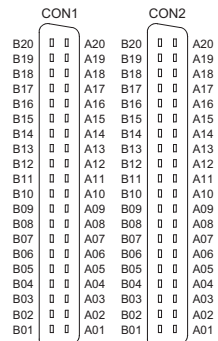
Check that the following items are included in the package.

| Item                                       | Quantity |
|--|----------|
| Module                                     | 1        |
| "Before Using the Product" (this document) | 1        |

### Terminal layout

#### Attribution des bornes

◆ 40-pin connector (module side)



Viewed from the front of the module

| CON1      |  |           |  | CON2      |  |           |  |
|-----------|--|-----------|--|-----------|--|-----------|--|
| CH1       |  |           |  | CH2       |  |           |  |
| Pin No.*1 | Signal name  | Pin No.*1 | Signal name  | Pin No.*1 | Signal name  | Pin No.*1 | Signal name  |
| B19       | Phase A pulse input 24V (+)                          | A19       | Phase A pulse input 12V (+)                              | B19       | Phase A pulse input 24V (+)                          | A19       | Phase A pulse input 12V (+)                              |
| B18       | Phase A pulse input 5V (+)                           | A18       | Phase A pulse input differential (+)                     | B18       | Phase A pulse input 5V (+)                           | A18       | Phase A pulse input differential (+)                     |
| B17       | Phase A pulse input common (-)                       | A17       | Phase B pulse input 24V (+)                              | B17       | Phase A pulse input common (-)                       | A17       | Phase B pulse input 24V (+)                              |
| B16       | Phase B pulse input 12V (+)                          | A16       | Phase B pulse input 5V (+)                               | B16       | Phase B pulse input 12V (+)                          | A16       | Phase B pulse input 5V (+)                               |
| B15       | Phase B pulse input differential (+)                 | A15       | Phase B pulse input common (-)                           | B15       | Phase B pulse input differential (+)                 | A15       | Phase B pulse input common (-)                           |
| B14       | Phase Z input 24V (+)                                | A14       | Phase Z input 12V (+)                                    | B14       | Phase Z input 24V (+)                                | A14       | Phase Z input 12V (+)                                    |
| B13       | Phase Z input 5V (+)                                 | A13       | Phase Z input differential (+)                           | B13       | Phase Z input 5V (+)                                 | A13       | Phase Z input differential (+)                           |
| B12       | Phase Z input common (-)                             | A12       | Function input 24V (-)                                   | B12       | Phase Z input common (-)                             | A12       | Function input 24V (-)                                   |
| B11       | Function input 12V (-)                               | A11       | Function input 5V (-)                                    | B11       | Function input 12V (-)                               | A11       | Function input 5V (-)                                    |
| B10       | Control input common (+)                             | A10       | Latch counter input 24V (-)                              | B10       | Control input common (+)                             | A10       | Latch counter input 24V (-)                              |
| B09       | Latch counter input 12V (-)                          | A09       | Latch counter input 5V (-)                               | B09       | Latch counter input 12V (-)                          | A09       | Latch counter input 5V (-)                               |
| B08       | General output 1                                     | A08       | Coincidence output 1 <sup>2</sup>                        | B08       | General output 5                                     | A08       | Coincidence output 5 <sup>2</sup>                        |
| B07       | General output 2                                     | A07       | Coincidence output 2 <sup>2</sup>                        | B07       | General output 6                                     | A07       | Coincidence output 6 <sup>2</sup>                        |
| B06       | General output 3                                     | A06       | Coincidence output 3 <sup>2</sup>                        | B06       | General output 7                                     | A06       | Coincidence output 7 <sup>2</sup>                        |
| B05       | General output 4                                     | A05       | Coincidence output 4 <sup>2</sup>                        | B05       | General output 8                                     | A05       | Coincidence output 8 <sup>2</sup>                        |
| B04       | Power supply for external output 12/24V <sup>3</sup> | A04       | Power supply for external output OUT_COM_0V <sup>3</sup> | B04       | Power supply for external output 12/24V <sup>3</sup> | A04       | Power supply for external output OUT_COM_0V <sup>3</sup> |

| CON1      |                          |           |                     | CON2      |                          |           |                     |
|-----------|--------------------------|-----------|---------------------|-----------|--------------------------|-----------|---------------------|
| CH1       |                          |           |                     | CH2       |                          |           |                     |
| Pin No.*1 | Signal name              | Pin No.*1 | Signal name         | Pin No.*1 | Signal name              | Pin No.*1 | Signal name         |
| B03       | General input common (+) | A03       | General input 1 (-) | B03       | General input common (+) | A03       | General input 4 (-) |
| B02       | General input 2 (-)      | A02       | General input 3 (-) | B02       | General input 5 (-)      | A02       | General input 6 (-) |

| English                             | French                    | English                          | French                                     | English                          | French                           |
|-------------------------------------|---------------------------|----------------------------------|--|----------------------------------|----------------------------------|
| Signal name                         | Nom de signal             | Phase * pulse input differential | Entrée des impulsions phase * Différentiel | Control input common             | Entrée de commande Commun        |
| Pin No.                             | Broche N°                 | Phase * pulse input common       | Entrée des impulsions phase * Commun       | Latch counter input              | Entrée compteur de verrouillage  |
| Viewed from the front of the module | Vue de l'avant du module  | Phase Z input differential       | Entrée phase Z Différentiel                | Power supply for external output | Alimentation pour sortie externe |
| 40-pin connector                    | Connecteur 40 broches     | Phase Z input common             | Entrée phase Z Commun                      | General input common             | Entrée ordinaire Commun          |
| module side                         | côté module               | General output *                 | Sortie ordinaire *                         | General input *                  | Entrée ordinaire *               |
| Phase * pulse input                 | Entrée impulsions phase * | Coincidence output *             | Sortie coïncidente *                       |                                  |                                  |
| Phase Z input                       | Entrée phase Z            | Function input                   | Entrée fonction                            |                                  |                                  |

- \*1 The A20, B20, A01, and B01 terminals are not used.  
 \*2 Assignment of these terminals for CH1 and CH2 can be changed.  
 \*3 These terminals are common to channels.  
 \*1 Les bornes A20, B20, A01 et B01 ne sont pas utilisées.  
 \*2 Il est possible de réaffecter différemment ces bornes pour CH1 et CH2.  
 \*3 Ces bornes sont communes aux canaux.

### Wiring products

#### Produits pour câblage

The table below shows applicable 40-pin connectors. When wiring, use applicable wires and an appropriate tightening torque.

| Mitsubishi 40-pin connector |                   | Wire         |          |          |                    |
|-----------------------------|-------------------|--------------|----------|----------|--------------------|
| Model                       | Tightening torque | Diameter     | Type     | Material | Temperature rating |
| A6CON1                      | 0.20 to 0.29N·m   | 22 AWG       | Stranded | Copper   | 75°C or more       |
| A6CON2                      |                   | 28 to 24 AWG |          |          |                    |
| A6CON4                      |                   | 22 AWG       |          |          |                    |

Le tableau ci-dessous indique quels connecteurs 40 broches sont à utiliser. Pour le câblage, utiliser les fils et couples de serrage prescrits.

| Connecteur 40-broches Mitsubishi |                   | Fil         |         |          |                      |
|----------------------------------|-------------------|-------------|---------|----------|----------------------|
| Modèle                           | Couple de serrage | Diamètre    | Type    | Matériau | Gamme de température |
| A6CON1                           | 0,20 à 0,29N·m    | 22 AWG      | Torsadé | Cuivre   | 75°C ou plus         |
| A6CON2                           |                   | 28 à 24 AWG |         |          |                      |
| A6CON4                           |                   | 22 AWG      |         |          |                      |

### Installation of the unit

Consider ease of operation, maintainability, and resistance to adverse environmental conditions when installing the product in a control panel, etc. Securely install all units in the MELSEC-Q series on the base unit. Also refer to the QCPU User's Manual (Hardware Design, Maintenance and Inspection) for details of installation.

### Installation de l'unité

Prendre en considération la commodité d'exploitation et de maintenance, ainsi que la bonne résistance aux facteurs environnementaux adverses lors de l'installation en tableau de commande, etc. Installer fermement toutes les unités de la série MELSEC-Q sur l'unité de base. Pour le détail de l'installation, voir aussi le "QCPU User's Manual (Hardware Design, Maintenance and Inspection)" (le Manuel de l'utilisateur QCPU (conception du matériel, maintenance et inspection)).

### Operating ambient temperature

Use the product within the range from 0°C to 55°C.

### Température ambiante de fonctionnement

Ce produit doit être utilisé entre 0 et 55°C.

### Information and services

For further information and services, please consult your local Mitsubishi representative.