

## Before Using the Product

Please read this document before use. Keep this for future reference and make sure that end users will read this.

### ■ Related manuals

Before using the product, please read the manuals that are supplied with the base unit and the servo amplifier.

Confirm the following descriptions:

- 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 iQ-R Simple Motion Module User's Manual (Startup) IB-0300245
- MELSEC iQ-R Simple Motion Module User's Manual (Application) IB-0300247
- MELSEC iQ-R Simple Motion Module User's Manual (Advanced Synchronous Control) IB-0300249

### ■ Manuels correspondants

Avant d'utiliser le produit, prendre la peine de lire les manuels fournis avec l'unité de base et le servo-amplificateur.

Revoir les points suivants :

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

### ■ Packing list

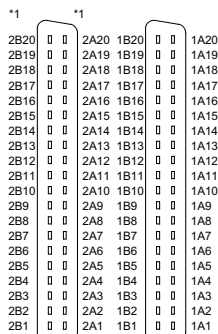
Check that the following items are included in the package.

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

### ■ Signal layout for external input connection connector

#### ■ Affectation des signaux au connecteur de raccordement d'entrée externe

◆ External input connection connector (module side)



Front view of the module

| Pin number | Signal name   | Pin number | Signal name   |
|------------|---|------------|---|
| 1B20       | Manual pulse generator/Incremental synchronous encoder B-phase/SIGN (HB) <sup>2,3,4</sup>   | 1A20       | Manual pulse generator power supply output (+5VDC) (5V) <sup>8</sup>                        |
| 1B19       | Manual pulse generator/Incremental synchronous encoder A-phase/PULSE (HA) <sup>2,3,4</sup>  | 1A19       | Manual pulse generator power supply output (+5VDC) (5V) <sup>8</sup>                        |
| 1B18       | Manual pulse generator/Incremental synchronous encoder B-phase/SIGN (HBL) <sup>2,3,5</sup>  | 1A18       | Manual pulse generator/Incremental synchronous encoder B-phase/SIGN (HBH) <sup>2,3,5</sup>  |
| 1B17       | Manual pulse generator/Incremental synchronous encoder A-phase/PULSE (HAL) <sup>2,3,5</sup> | 1A17       | Manual pulse generator/Incremental synchronous encoder A-phase/PULSE (HAH) <sup>2,3,5</sup> |
| 1B16       | No connect <sup>6</sup>   | 1A16       | No connect <sup>6</sup>   |
| 1B15       | Manual pulse generator power supply output (+5VDC) (5V) <sup>8</sup>                        | 1A15       | Manual pulse generator power supply output (+5VDC) (5V) <sup>8</sup>                        |
| 1B14       | Manual pulse generator power supply output (GND) (SG) <sup>9</sup>                          | 1A14       | Manual pulse generator power supply output (GND) (SG) <sup>9</sup>                          |
| 1B13       | No connect <sup>6</sup>   | 1A13       | No connect <sup>6</sup>   |
| 1B12       |   | 1A12       |   |
| 1B11       |   | 1A11       |   |
| 1B10       |   | 1A10       |   |
| 1B9        |   | 1A9        |   |
| 1B8        | Forced stop input signal common (EMI.COM)   | 1A8        | Forced stop input signal (EMI)  |
| 1B7        | Common (COM)  | 1A7        | Common (COM)  |
| 1B6        | Common (COM)  | 1A6        | Common (COM)  |
| 1B5        | Input signal (SIN10) <sup>7</sup>   | 1A5        | Input signal (SIN5) <sup>7</sup>  |
| 1B4        | Input signal (SIN9) <sup>7</sup>  | 1A4        | Input signal (SIN4) <sup>7</sup>  |
| 1B3        | Input signal (SIN8) <sup>7</sup>  | 1A3        | Input signal (SIN3) <sup>7</sup>  |
| 1B2        | Input signal (SIN7) <sup>7</sup>  | 1A2        | Input signal (SIN2) <sup>7</sup>  |
| 1B1        | Input signal (SIN6) <sup>7</sup>  | 1A1        | Input signal (SIN1) <sup>7</sup>  |

RD77MS2 does not have 2A20 to 2A1 terminals and 2B20 to 2B1 terminals.

<sup>1</sup> The 2A(B)20 to 2A(B)8 terminals are "No connect", 2A5 to 2A1 are "SIN15 to SIN11", and 2B5 to 2B1 are "SIN20 to SIN16".

<sup>2</sup> Input type from manual pulse generator/incremental synchronous encoder is switched in "[Pr.89] Manual pulse generator/Incremental synchronous encoder input type selection". (Only the value specified against the axis 1 is valid.)

0: Differential-output type  
1: Voltage-output/open-collector type (Default value)

<sup>3</sup> Set the signal input form in "[Pr.24] Manual pulse generator/Incremental synchronous encoder input selection".

<sup>4</sup> Voltage-output/open-collector type of manual pulse generator/Incremental synchronous encoder. Connect the A-phase/PULSE signal to HA, and the B-phase/SIGN signal to HB.

<sup>5</sup> Differential-output type of manual pulse generator/incremental synchronous encoder. Connect the A-phase/PULSE signal to HAH, and the A-phase/PULSE inverse signal to HAL. Connect the B-phase/SIGN signal to HBH, and the B-phase/SIGN inverse signal to HBL.

<sup>6</sup> Do not connect to any terminals explained as "No connect".

<sup>7</sup> Set the external command signal [DI, FLS, RLS, DOG, STOP] in "[Pr.116] FLS signal selection", "[Pr.117] RLS signal selection", "[Pr.118] DOG signal selection", "[Pr.119] STOP signal selection" and "[Pr.95] External command signal selection".

<sup>8</sup> Do not use 1A20, 1A19, 1A(B)15 and 1A(B)14 for other than the power supply of manual pulse generator.

| English  | French   | English  | French   |
|--|--|--|--|
| Signal name  | Nom de signal  | Manual pulse generator power supply output (+5VDC) | Sortie alimentation générateur d'impulsions manuel (+5VDC) |
| Pin number   | Broche N°  | Manual pulse generator power supply output (GND)   | Sortie alimentation générateur d'impulsions manuel (GND)   |
| External input connection connector (module side)                    | Connecteur de raccordement d'entrée externe (côté module)                    | Forced stop input signal common                    | Signal d'entrée d'arrêt forcé Commun                       |
| Front view of the module   | Vue de l'avant du module   | Common   | Commun   |
| Manual pulse generator/Incremental synchronous encoder *-phase/SIGN  | Générateur d'impulsions manuel/Encodeur synchrone incrémentiel Phase */SIGN  | Input signal                                       | Signal d'entrée  |
| Manual pulse generator/Incremental synchronous encoder *-phase/PULSE | Générateur d'impulsions manuel/Encodeur synchrone incrémentiel Phase */PULSE | Forced stop input signal                           | Signal d'entrée d'arrêt forcé                              |
| No connect   | Non connecté   |  |  |

| English  | French   |
|--|--|
| RD77MS2 does not have 2A20 to 2A1 terminals and 2B20 to 2B1 terminals.   | Les bornes 2A20 à 2A1 et 2B20 à 2B1 n'existent pas sur le RD77MS2.   |
| The 2A(B)20 to 2A(B)8 terminals are "No connect", 2A5 to 2A1 are "SIN15 to SIN11", and 2B5 to 2B1 are "SIN20 to SIN16".  | Les bornes 2A(B)20 à 2A(B)8 sont "Non connecté", 2A5 à 2A1 sont "SIN15 à SIN11", et 2B5 à 2B1 sont "SIN20 à SIN16".  |
| Input type from manual pulse generator/incremental synchronous encoder is switched in "[Pr.89] Manual pulse generator/Incremental synchronous encoder input type selection". (Only the value specified against the axis 1 is valid.)<br>0: Differential-output type<br>1: Voltage-output/open-collector type (Default value) | Le type d'entrée en provenance du générateur d'impulsions manuel/encodeur synchrone incrémentiel permute en "[Pr.89] Manual pulse generator/Incremental synchronous encoder input type selection". (Seule la valeur spécifiée pour axe 1 est valide.)<br>0: Type différentiel-sortie<br>1: Type tension-sortie/ouvert-collecteur (valeur par défaut) |
| Set the signal input form in "[Pr.24] Manual pulse generator/Incremental synchronous encoder input selection".   | Adopter une forme d'entrée de signal dans "[Pr.24] Manual pulse generator/Incremental synchronous encoder input selection".  |
| Voltage-output/open-collector type of manual pulse generator/Incremental synchronous encoder. Connect the A-phase/PULSE signal to HA, and the B-phase/SIGN signal to HB.   | Type tension-sortie/ouvert-collecteur du générateur d'impulsions manuel/encodeur synchrone incrémentiel: Raccorder le signal Phase A/PULSE sur HA, et le signal Phase B/SIGN sur HB.   |
| Differential-output type of manual pulse generator/incremental synchronous encoder. Connect the A-phase/PULSE signal to HAH, and the A-phase/PULSE inverse signal to HAL. Connect the B-phase/SIGN signal to HBH, and the B-phase/SIGN inverse signal to HBL.  | Type différentiel-sortie du générateur d'impulsions manuel/encodeur synchrone incrémentiel: Raccorder le signal Phase A/PULSE sur HAH, et le signal Phase A/PULSE inversé sur HAL. Raccorder le signal Phase B/SIGN sur HBH, et le signal Phase B/SIGN inversé sur HBL.  |
| Do not connect to any terminals explained as "No connect".   | Ne rien raccorder à aucune des bornes portant la mention "Non connecté".   |
| Set the external command signal [DI, FLS, RLS, DOG, STOP] in "[Pr.116] FLS signal selection", "[Pr.117] RLS signal selection", "[Pr.118] DOG signal selection", "[Pr.119] STOP signal selection" and "[Pr.95] External command signal selection".  | Régler le signal de commande externe [DI, FLS, RLS, DOG, STOP] dans "[Pr.116] FLS signal selection", "[Pr.117] RLS signal selection", "[Pr.118] DOG signal selection" et "[Pr.119] STOP signal selection" et "[Pr.95] External command signal selection".  |
| Do not use 1A20, 1A19, 1A(B)15 and 1A(B)14 for other than the power supply of manual pulse generator.  | Ne pas utiliser 1A20, 1A19, 1A(B)15 et 1A(B)14 dans un but autre que l'alimentation du générateur d'impulsions manuel.   |

The table below shows applicable external input wiring connector. When wiring, use applicable wires.

| External input wiring connector | Wire             |                   |          |        |              |
|---------------------------------|------------------|-------------------|----------|--------|--------------|
|                                 | Model            | Tightening torque | Diameter | Type   | Material     |
| A6CON1                          | 0.20 to 0.29 N·m | AWG22             | Stranded | Copper | 75°C or more |
| A6CON2                          |                  | AWG24             |          |        |              |
| A6CON4                          |                  | AWG22             |          |        |              |

Le tableau ci-dessous indique quels connecteurs on peut utiliser comme connecteur de câblage des entrées externes. Pour le câblage, utiliser les fils prescrits.

| Connecteur de câblage des entrées externes |                   | Fil      |         |          |                      |
|--|-------------------|----------|---------|----------|----------------------|
| Modèle                                     | Couple de serrage | Diamètre | Type    | Matériau | Gamme de température |
| A6CON1                                     | 0,20 à 0,29 N·m   | AWG22    | Torsadé | Cuivre   | 75 °C ou plus        |
| A6CON2                                     |                   | AWG24    |         |          |                      |
| A6CON4                                     |                   | AWG22    |         |          |                      |

### ■ Operating ambient temperature

Use the product within the following range.

- 0 to 55°C (when an extended temperature range base unit is not used)
- 0 to 60°C (when an extended temperature range base unit is used)

### ■ Température ambiante de fonctionnement

Ce produit doit être utilisé dans les conditions suivantes.

- 0 et 55 °C (quand une unité de base à gamme de température élargie n'est pas utilisée)
- 0 et 60 °C (quand une unité de base à gamme de température élargie est utilisée)