

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.

- Type QD70 Positioning Module User's Manual SH-080171 (13JR39)

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

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

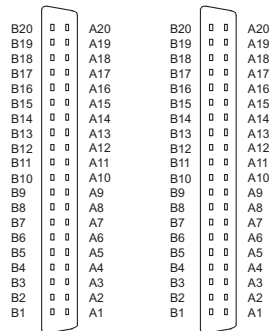
For further information and services, please consult your local Mitsubishi representative.

Wiring diagrams

Schémas de câblage

- ◆ 40-pin connector

CON2 (for axes 5 to 8)^{*1} CON1 (for axes 1 to 4)



Viewed from the front of the module

CON 2 (for Axes 5 to 8) ^{*1}				CON 1 (for Axes 1 to 4)			
Pin No.	Signal name	Pin No.	Signal name	Pin No.	Signal name	Pin No.	Signal name
B20	Zero signal common (PG06 COM) ^{*2}	A20	Zero signal common (PG08 COM) ^{*2}	B20	Zero signal common (PG02 COM) ^{*2}	A20	Zero signal common (PG04 COM) ^{*2}
B19	Zero signal (PG06)	A19	Zero signal (PG08)	B19	Zero signal (PG02)	A19	Zero signal (PG04)
B18	Zero signal common (PG05 COM) ^{*2}	A18	Zero signal common (PG07 COM) ^{*2}	B18	Zero signal common (PG01 COM) ^{*2}	A18	Zero signal common (PG03 COM) ^{*2}
B17	Zero signal (PG05)	A17	Zero signal (PG07)	B17	Zero signal (PG01)	A17	Zero signal (PG03)
B16	Deviation counter clear common (CLEAR6 COM) ^{*3}	A16	Deviation counter clear common (CLEAR8 COM) ^{*3}	B16	Deviation counter clear common (CLEAR2 COM) ^{*3}	A16	Deviation counter clear common (CLEAR4 COM) ^{*3}
B15	Deviation counter clear (CLEAR6)	A15	Deviation counter clear (CLEAR8)	B15	Deviation counter clear (CLEAR2)	A15	Deviation counter clear (CLEAR4)
B14	Deviation counter clear common (CLEAR5 COM) ^{*3}	A14	Deviation counter clear common (CLEAR7 COM) ^{*3}	B14	Deviation counter clear common (CLEAR1 COM) ^{*3}	A14	Deviation counter clear common (CLEAR3 COM) ^{*3}
B13	Deviation counter clear (CLEAR5)	A13	Deviation counter clear (CLEAR7)	B13	Deviation counter clear (CLEAR1)	A13	Deviation counter clear (CLEAR3)
B12	Speed-position switching signal (CHG6)	A12	Speed-position switching signal (CHG8)	B12	Speed-position switching signal (CHG2)	A12	Speed-position switching signal (CHG4)
B11	Speed-position switching signal (CHG5)	A11	Speed-position switching signal (CHG7)	B11	Speed-position switching signal (CHG1)	A11	Speed-position switching signal (CHG3)
B10	Near-point dog signal (DOG6)	A10	Near-point dog signal (DOG8)	B10	Near-point dog signal (DOG2)	A10	Near-point dog signal (DOG4)
B9	Near-point dog signal (DOG5)	A9	Near-point dog signal (DOG7)	B9	Near-point dog signal (DOG1)	A9	Near-point dog signal (DOG3)
B8	Common (COM5-6) ^{*4}	A8	Common (COM7-8) ^{*4}	B8	Common (COM1-2) ^{*4}	A8	Common (COM3-4) ^{*4}

CON 2 (for Axes 5 to 8) ^{*1}				CON 1 (for Axes 1 to 4)			
Pin No.	Signal name	Pin No.	Signal name	Pin No.	Signal name	Pin No.	Signal name
B7	Pulse output F (PULSE F6)	A7	Pulse output F (PULSE F8)	B7	Pulse output F (PULSE F2)	A7	Pulse output F (PULSE F4)
B6	Pulse output common (PULSE COM6) ^{*5}	A6	Pulse output common (PULSE COM8) ^{*5}	B6	Pulse output common (PULSE COM2) ^{*5}	A6	Pulse output common (PULSE COM4) ^{*5}
B5	Pulse output R (PULSE R6)	A5	Pulse output R (PULSE R8)	B5	Pulse output R (PULSE R2)	A5	Pulse output R (PULSE R4)
B4	Pulse output F (PULSE F5)	A4	Pulse output F (PULSE F7)	B4	Pulse output F (PULSE F1)	A4	Pulse output F (PULSE F3)
B3	Pulse output common (PULSE COM5) ^{*5}	A3	Pulse output common (PULSE COM7) ^{*5}	B3	Pulse output common (PULSE COM1) ^{*5}	A3	Pulse output common (PULSE COM3) ^{*5}
B2	Pulse output R (PULSE R5)	A2	Pulse output R (PULSE R7)	B2	Pulse output R (PULSE R1)	A2	Pulse output R (PULSE R3)
B1	Vacant	A1	Vacant	B1	External power input (+24V) (+24V) ^{*6}	A1	External power input (0V) (24G) ^{*6}

English	French	English	French
Signal name	Nom de signal	Zero signal	Signal zéro
Pin No.	Broche N°	Common	Commun
Viewed from the front of the module	Vue de l'avant du module	for axes * to *	pour axes * à *
40-pin connector	Connecteur 40 broches	External power input	Entrée de l'alimentation externe
Pulse output *	Sortie d'impulsions *	Near-point dog signal	Signal du capteur de proximité
Deviation counter clear common	Annulation compteur déviation Commun	Pulse output common	Sortie des impulsions Commun
Deviation counter clear	Annulation compteur déviation	Speed-position switching signal	Signal de commutation vitesse-position
Zero signal common	Signal zéro Commun	Vacant	Libre

- *1 These axes are not available for the QD70P4.
- *2 Common for PG0□. (Axis No. 1 to 8 goes into □).
- *3 Common for CLEAR□. (Axis No. 1 to 8 goes into □).
- *4 Common for DOG□, CHG□. (Axis No. 1 to 8 goes into □).
- *5 Common for PULSE F□, PULSE R□. (Axis No. 1 to 8 goes into □).
- *6 The external power source (24VDC) should be connected in order to output a command pulse. (When outputting a command pulse of axis 5 to 8, the external power source (24VDC) should be connected to A1 and B1 of the connector CON1 (for axis 1 to 4 use).)
- *1 Ces axes ne sont pas disponibles sur le QD70P4.
- *2 Commun pour PG0□. (□ étant un n° d'axe entre 1 et 8.)
- *3 Commun pour CLEAR□. (□ étant un n° d'axe entre 1 et 8.)
- *4 Commun pour DOG□, CHG□. (□ étant un n° d'axe entre 1 et 8.)
- *5 Commun pour PULSE F□, PULSE R□. (□ étant un n° d'axe entre 1 et 8.)
- *6 L'alimentation externe (24 V cc) doit être raccordée pour pouvoir émettre des impulsions de commande. (Pour l'émission des impulsions de commande des axes 5 à 8, la source d'alimentation externe (24 V cc) doit être raccordée sur A1 et B1 du connecteur CON1 (utilisé pour les axes 1 à 4).)

Wiring products

Produits pour câblage

The table below shows applicable 40-pin connectors and differential driver common terminal. 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	22AWG	Stranded	Copper	75°C or more
A6CON2		28 to 24AWG			
A6CON4		22AWG			

Le tableau ci-dessous indique quels connecteurs 40 broches sont à utiliser avec quelle borne commune de circuit d'attaque différentiel. 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	22AWG	Torsadé	Cuivre	75°C ou plus
A6CON2		28 à 24AWG			
A6CON4		22AWG			

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)).