

TECHNICAL BULLETIN

[Issue No.] T11-0012-A

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[Title] Product discontinuation of Q series digital-analog converter modules

[Date of Issue] Mar., '08

[Relevant Models] Q62DA, Q64DA, Q68DAV, Q68DAI

Thank you for your continued support of Mitsubishi programmable controllers, MELSEC-Q series. Production of the following MELSEC-Q series models will be discontinued.

1. Models to be discontinued

Table 1.1. List of models to be discontinued

| Product name | Model | Remarks |
|---------------------------------|--------|-----------------------------------|
| Digital-analog converter module | Q62DA | 2channels, Voltage/Current output |
| | Q64DA | 4channels, Voltage/Current output |
| | Q68DAV | 8channels, Voltage output |
| | Q68DAI | 8channels, Current output |

2. Schedule

- Transition to “made-to-order” End of September, 2007
- Order acceptance Through December, 2007
- Production Through December, 2007

3. Reasons for discontinuing production

Following alternative models have been released as upgrade products.

Table 3.1. List of alternative models

| Product name | Model | Remarks |
|---------------------------------|---------|-----------------------------------|
| Digital-analog converter module | Q62DAN | 2channels, Voltage/Current output |
| | Q64DAN | 4channels, Voltage/Current output |
| | Q68DAVN | 8channels, Voltage output |
| | Q68DAIN | 8channels, Current output |

4. Repair acceptance

- Repair acceptance Through December, 2014 (For 7 years after production discontinuation)

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5. Specification comparison with alternative models

Table 5.1. Specification comparison of discontinued and alternative models

| Item | Model | Discontinued model | | | | Alternative model | | | |
|---------------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|---------|
| | | Q62DA | Q64DA | Q68DAI | Q68DAV | Q62DAN | Q64DAN | Q68DAIN | Q68DAVN |
| Analog output | Voltage | No differences | | | | | | | |
| | Current | 0 to 20mADC (External load resistance value: see Section (1)) | | | | 0 to 20mADC (External load resistance value: 0 to 600Ω) | | | |
| Insulation method | | Between the I/O terminal and programmable controller power supply: Photo coupler insulation Between output channels: No insulation Between external supply power and analog output: No insulation | | | | Between the I/O terminal and programmable controller power supply: Photo coupler insulation Between output channels: No insulation Between external supply power and analog output: Transformer insulation | | | |
| Dielectric withstand voltage | | Between the I/O terminal and programmable controller power supply: 500VAC for 1 minute | | | | Between the I/O terminal and programmable controller power supply: 500VAC for 1 minute Between external supply power and analog output: 500VAC for 1 minute | | | |
| Insulation resistance | | Between the I/O terminal and programmable controller power supply: 500VDC 20MΩ or more | | | | Between the I/O terminal and programmable controller power supply: 500VDC 20MΩ or more Between external supply power and analog output: 500VDC 20MΩ or more | | | |
| Internal current consumption (5 V DC) | | 0.33A | 0.34A | 0.38A | 0.39A | 0.33A | 0.34A | 0.38A | 0.38A |
| External Dimension | | 98(H)×27.4(W)×90(D) [mm] | | | | 98(H)×27.4(W)×112(D) [mm] | | | |

(1) Releasing a limit of output current

In the discontinued models, when the voltage of the external power supply is less than 22.85V DC, the analog output current and the external load resistance value are limited as follows. However, the alternative models do not have the limit.

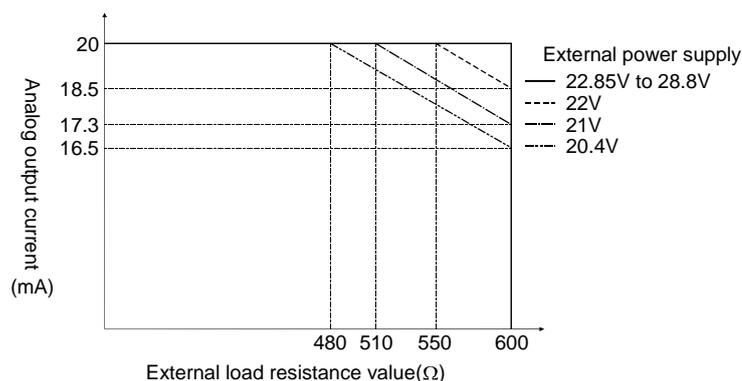


Fig 5.1. Limit of output current for the discontinued models

(2) Insulation between external power supply and analog output channel

For the alternative models, between the external power supply and the analog output channel is insulated.

Therefore, analog output can be executed without being susceptible to noise from the external power supply.

In addition, wrong wiring between the external power supply and the analog channel, and breakdown of module due to short are prevented.

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6. Transition to the alternative model

(1) Wiring precautions

- The external power supply can be used as before without change.
- Terminal assignments for the alternative models are the same as for the discontinued models. However, the depth is changed from 90mm to 112mm. Therefore, when using the wire used for the discontinued models, pay attention to the wiring distance.

(2) Program utilization

You can use the program created for function version A as-is with the D/A converter module of function version B or later.

(3) Intelligent function module switch setting*1

The module can be used without changing the intelligent function module switch setting except the following case.

- Please be aware that the setting value of the function version A, discontinued model, has been changed in executing offset/gain setting.

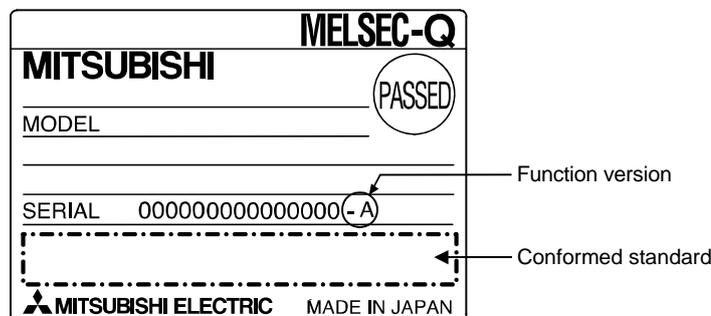
*1 : Set the intelligent function module switch with the I/O assignment settings of GX Developer.

Table 5.2. Comparison of switch 4 of the intelligent function module switch setting

| Discontinued model (function versions A) | Discontinued model (function version B, C/alternative model) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>00H : Normal mode (non-synchronized) 01H to FFH: Synchronized output mode</p> <p>00H : Normal mode (D/A conversion processing) 01H to FFH: Offset/gain setting mode</p> |  <p>00H : Normal mode (non-synchronized) 01 to FFH (numeric value other than 00H) : Synchronized output mode</p> <p>0H : Normal resolution mode 1 to FH (numeric value other than 0H) : High resolution mode</p> <p>0H : Normal mode (D/A conversion processing) 1 to FH (numeric value other than 0H) : Offset/gain setting mode</p> |

Function version can be checked with either the “SERIAL field of the rating nameplate” located on the side of the module or system monitor of GX Developer.

<Checking with the rating nameplate>



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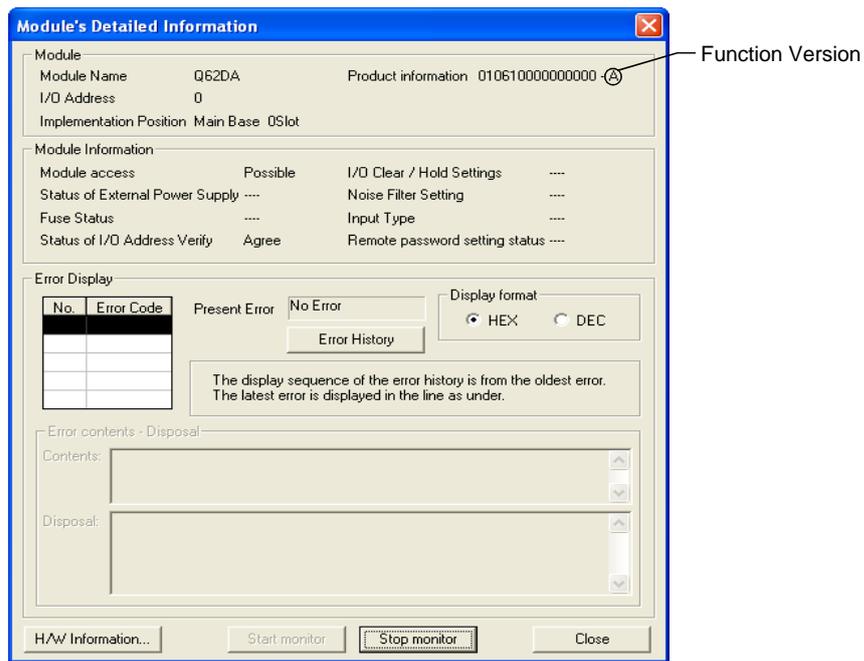
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<Checking with the system monitor of GX Developer>

[Diagnostics] → [System monitor] → "Select D/A converter module" → Module's Detailed Information →

Module's Detailed Information



(4) Using GX Configurator-DA Version 2.02C or earlier

Selecting a model name of the alternative models cannot be executed with GX Configurator-DA Version 2.02C or earlier. In this case, select each model name without "N".

Example) To use Q62DAN with GX Configurator-DA Version 2.02C, select "Q62DA" for a model name.

| Sub ID | Revision |
|--------|---------------------------------------------------------------------------------|
| A | 6(3): Modified the description of "Intelligent function module switch setting". |