

# TECHNICAL BULLETIN

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[Title] New functions for MELSEC-Q series load cell input module

[Date of Issue] January 2011

[Relevant Models] Q61LD

Thank you for your continued support of Mitsubishi programmable controllers, MELSEC-Q series.

The “conversion over automatic return function” and the “default setting registration function” have been added to the Q61LD.

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### 1. New functions

The following table shows the new functions.

Item	Description	Reference
Conversion over automatic return function	When an analog input (load cell output) exceeding the conversion range returns in the conversion range, whether to keep the conversion processing stopped or to automatically restart the conversion processing can be selected.	Section 1.1
Default setting registration function	A value stored in a buffer memory can be defaulted.	Section 1.2

#### 1.1 Conversion over automatic return function

##### (1) Addition of the error code 99

An error that occurs when an analog input (load cell output) exceeds the conversion range is defined as the error code 99.

The error can be cleared by turning on Error clear request (YF).

Previously, when the error occurred, the error code 1 was detected and the system had to be once stopped by resetting or powering off and then on the CPU module.

Addition of the error code will eliminate the need for stopping the system.

Also, the error can be distinguished from major hardware failure errors.

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## (2) Addition of conversion over automatic return mode

When an analog input (load cell output) exceeding the conversion range returns in the conversion range, whether to keep the conversion processing stopped or to automatically restart the conversion processing can be selected.

Configure this setting with the new buffer memory, Conversion over operation stop/automatic return (Un\G19).

Previously, when the error occurred, the error code 1 was detected and conversion processing stopped.

Addition of the buffer memory will allow the user to select either of the following operations.

Setting value	Description	Operation overview
0H	Operation stop	When an analog input (load cell output) exceeds the conversion range, the error code 99 is detected and the conversion processing stops. Even if the analog input returns in the conversion range, the conversion processing will not be automatically restarted.
1H	Automatic return	When an analog input (load cell output) exceeds the conversion range, the conversion processing stops. However, the error code 99 is not detected. When the analog input returns in the conversion range, the conversion processing will be automatically restarted.

## 1.2 Default setting registration function

When setting configured for the module is mistaken, an error occurs, or the used buffer memory is utilized for another system, the set value can be easily defaulted.

Values stored in the following buffer memories can be defaulted.

- Initial setting value (Un\G0 to Un\G7, Un\G19 to Un\G22, Un\G24 to Un\G31)
- Calibration control setting flag (Un\G40 to Un\G43, Un\G45, Un\G48)
- Two-point setting value (Un\G50 to Un\G54, Un\G56 to Un\G60, Un\G62 to Un\G71)
- Two-point calibration value (Un\G80 to Un\G87)

The following table shows the new buffer memories for the function.

New buffer memory	Description
Default setting registration (Un\G48)	Whether to enable or disable Default setting registration command (Un\G148) can be set.
Default setting registration command (Un\G148)	A value stored in a buffer memory can be defaulted.
Default value writing end flag (Un\G149)	When default setting registration is ended, "1H" is stored in this buffer memory.

For details on the conversion over automatic return function and the default setting registration function, refer to the Load Cell Input Module User's Manual, SH(NA)-080821ENG-B (issued in January 2011).

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### **2. Production information and product information of the supported module**

The following table shows the production information and product information of the module supporting the new functions.

<b>Model</b>	<b>Production information</b>	<b>Product information</b>
Q61LD	The first 5 digits is 12032 or later.	The first 5 digits is 12011 or later.

The production information can be checked on the rating plate on the module side.

The product information can be checked in the System Monitor screen of a programming tool.

For details on the check methods, refer to the Load Cell Input Module User's Manual (SH(NA)-080821ENG).