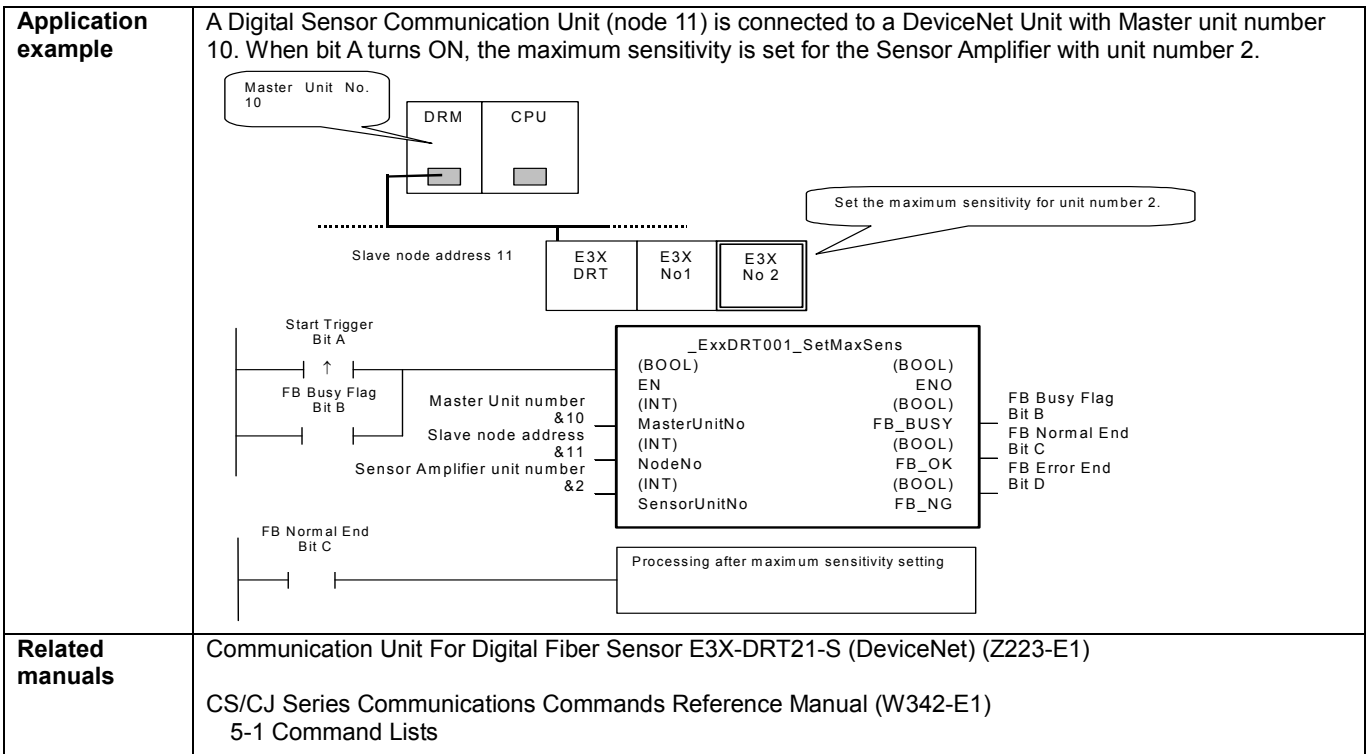


ExxDRT 001 **Maximum Sensitivity Setting: _ExxDRT001_SetMaxSens**

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---|--|-----------------------|--|--------|--------|----|-----|-------|--------|--------------|---------|-------|--------|--------|-------|-------|--------|--------------|-------|---|
| Basic function | Sets the Maximum Sensitivity of a Digital Type Sensor in the DeviceNet network. | | | | | | | | | | | | | | | | | | | | |
| Symbol | | <table border="1"> <tr> <td colspan="2" style="text-align: center;">_ExxDRT001_SetMaxSens</td> </tr> <tr> <td>(BOOL)</td> <td>(BOOL)</td> </tr> <tr> <td>EN</td> <td>ENO</td> </tr> <tr> <td>(INT)</td> <td>(BOOL)</td> </tr> <tr> <td>MasterUnitNo</td> <td>FB_BUSY</td> </tr> <tr> <td>(INT)</td> <td>(BOOL)</td> </tr> <tr> <td>NodeNo</td> <td>FB_OK</td> </tr> <tr> <td>(INT)</td> <td>(BOOL)</td> </tr> <tr> <td>SensorUnitNo</td> <td>FB_NG</td> </tr> </table> | _ExxDRT001_SetMaxSens | | (BOOL) | (BOOL) | EN | ENO | (INT) | (BOOL) | MasterUnitNo | FB_BUSY | (INT) | (BOOL) | NodeNo | FB_OK | (INT) | (BOOL) | SensorUnitNo | FB_NG | <ul style="list-style-type: none"> FB Busy Flag FB Normal End FB Error End |
| _ExxDRT001_SetMaxSens | | | | | | | | | | | | | | | | | | | | | |
| (BOOL) | (BOOL) | | | | | | | | | | | | | | | | | | | | |
| EN | ENO | | | | | | | | | | | | | | | | | | | | |
| (INT) | (BOOL) | | | | | | | | | | | | | | | | | | | | |
| MasterUnitNo | FB_BUSY | | | | | | | | | | | | | | | | | | | | |
| (INT) | (BOOL) | | | | | | | | | | | | | | | | | | | | |
| NodeNo | FB_OK | | | | | | | | | | | | | | | | | | | | |
| (INT) | (BOOL) | | | | | | | | | | | | | | | | | | | | |
| SensorUnitNo | FB_NG | | | | | | | | | | | | | | | | | | | | |
| File name | Lib\FBL\omronlib\DigitalTypeSensor\ExxDRT_ExxDRT001_SetMaxSens10.cxf | | | | | | | | | | | | | | | | | | | | |
| Applicable models | Applicable Master Units | CS1W-DRM21(-V1) and CJ1W-DRM21 | | | | | | | | | | | | | | | | | | | |
| | Applicable Slave Units | E3X-DRT21-S | | | | | | | | | | | | | | | | | | | |
| | Applicable Sensor Amplifiers | E3X Series: E3X-DA-S, E3X-MDA, E3X-DATW-S, and E3X-DARM-S E3C Series: Not supported. E2C Series: Not supported. | | | | | | | | | | | | | | | | | | | |
| | CPU Unit | CS1*-CPU** Unit version 3.0 or higher CJ1*-CPU** Unit version 3.0 or higher CJ1M-CPU** Unit version 3.0 or higher CP1H | | | | | | | | | | | | | | | | | | | |
| | CX-Programmer | Version 5.0 or higher | | | | | | | | | | | | | | | | | | | |
| Conditions for usage | <p>Sensor</p> <ul style="list-style-type: none"> • If a Mobile Console is connected when the power is turned ON, the function cannot be used because communications cannot be established with the Sensor. • The Sensor must be in RUN mode. The function cannot be used when the Sensor is in another mode, i.e., SET mode. <p>CPU Unit Settings</p> <p>PLC Setup: Shared Settings for Communications Instructions in FBs</p> <ul style="list-style-type: none"> • DeviceNet Response Timeout Time (default: 2 s): A Timeout time of 10 s or higher is recommended. • Number of retries (default: 0) <p>Shared Resources</p> <ul style="list-style-type: none"> • Communications ports (internal logical ports) <p>Other</p> <ul style="list-style-type: none"> • Communications must be within one network and cannot cross to another network. | | | | | | | | | | | | | | | | | | | | |
| Function description | Sets the Maximum Sensitivity of the Sensor Amplifier in the DeviceNet network with the specified Master Unit number, Slave node address, and Sensor Amplifier unit number. | | | | | | | | | | | | | | | | | | | | |
| FB precautions | <ul style="list-style-type: none"> • The FB is processed over multiple cycles. The FB_BUSY output variable can be used to check whether the FB is being processed. • FB_OK or FB_NG will be turned ON for one cycle only after processing is completed. Use these flags to detect the end of FB processing. <p>■ Timing Chart</p> | | | | | | | | | | | | | | | | | | | | |
| EN input condition | Connect EN to an OR between an upwardly differentiated condition for the start trigger and the FB_BUSY output from the FB. | | | | | | | | | | | | | | | | | | | | |
| Restrictions Input variables | <ul style="list-style-type: none"> • Always use an upwardly differentiated condition for EN. • If the input variables are out of range, the ENO Flag will turn OFF and the FB will not be processed. | | | | | | | | | | | | | | | | | | | | |
| Output variables | <ul style="list-style-type: none"> • This FB requires multiple cycles to process. Always connect an OR including the FB_BUSY output variable to the EN input variable to ensure that the FB is processed to completion (see <i>Symbol</i>). • Do not turn the FB_BUSY output variable ON or OFF outside the FB. | | | | | | | | | | | | | | | | | | | | |



Variable Tables**Input Variables**

| Name | Variable name | Data type | Default | Range | Description |
|------------------------------|---------------|-----------|---------|------------------------------|--|
| EN | EN | BOOL | | | 1 (ON): FB started 0 (OFF): FB not started. |
| Master Unit No. | MasterUnitNo | INT | &0 | &0 to &15 � to &#F | Specify the unit number of the DeviceNet Unit. |
| Slave node address | NodeNo | INT | &0 | &0 to &63 | Specify the node address of the slave. |
| Sensor Amplifier unit number | SensorUnitNo | INT | &1 | &1 to &13 or &1 to &16 | Depending on the communication mode setting, the maximum number of connectable Units is either 13 or 16 Units. Specify a unit number within the allowed range. Refer to the <i>Related Manuals</i> for details. |

Output Variables

| Name | Variable name | Data type | Range | Description |
|--------------------------|---------------|-----------|-------|---|
| ENO (May be omitted.) | ENO | BOOL | | 1 (ON): FB processed normally. 0 (OFF): FB not processed or ended in an error. |
| FB Busy Flag | FB_BUSY | BOOL | | Automatically turns OFF when processing is completed. |
| FB Normal End | FB_OK | BOOL | | Turns ON for one cycle when processing ends normally. |
| FB Error End | FB_NG | BOOL | | Turns ON for one cycle when processing ends in an error. |

Internal Variables

Internal variables are not output from the FB.

If the FB_NG Flag turns ON, the following internal variables can be monitored to obtain information on the error.

| Name | Variable name | Data type | Range | Description |
|-----------------------------|--------------------|-----------|-------|--|
| FINS error code | FINS_ErrorCode | WORD | | The FINS error code is output. A code of #0000 is output for a normal end. Refer to the <i>Related Manuals</i> for details on the error codes. |
| Explicit message error code | Explicit_ErrorCode | WORD | | Outputs the explicit message error code. A code of #0000 is output for a normal end. Refer to the <i>Related Manuals</i> for details on the error codes. |

Explicit Error Code Details

| Code | Contents | Meaning |
|-------|---------------------|--|
| #0000 | Normal end | --- |
| #16FF | No Sensor Amplifier | There is no Sensor Amplifier with the specified unit number. |
| #0CFF | Not executable | The specified command cannot be executed. <ul style="list-style-type: none"> • A Mobile Console is connected. • There is an error in communications with the Sensor Amplifier. • The Sensor Amplifier is in an operation mode other than RUN mode. • The FB was executed for a Sensor Amplifier that is not supported. |
| #20FF | Not supported. | The specified command is not supported. |

Version History

| Version | Date | Contents |
|---------|---------|---------------------|
| 1.00 | 2005.4. | Original production |

Note

This manual is a reference that explains the function block functions.

It does not explain the operational limitations of Units, components, or combinations of Units and components. Always read and understand the Operation Manuals for the system's Units and other components before using them.