

Micrologic Trip Units and Control Units

Firmware History

09/2018



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Firmware Upgrade Policy

Firmware Upgrade Policy

The Micrologic trip unit or control unit of a circuit breaker is the main component of the intelligent modular unit (IMU). The IMU includes the circuit breaker, the Micrologic trip unit or control unit and the associated optional Enerlin'X devices.

The primary reason for upgrading the firmware of a Micrologic trip unit or control unit is to obtain the latest IMU features. If the latest IMU features are not required, it is not mandatory to upgrade the firmware of the Micrologic trip unit or control unit and the Enerlin'X devices of the IMU.

If you notice a bug on the Micrologic trip unit or control unit, or on one of the Enerlin'X devices of the IMU, refer to the release note corresponding to the device to check if the bug is corrected in a later version of the firmware. Upgrade the firmware of the device to benefit from the correction. If there is no bug fix available, call the Customer Care Centre.

Use Ecoreach software to upgrade the firmware of a Micrologic trip unit or control unit, or an Enerlin'X device of the IMU.

After upgrading the firmware of one device, Schneider Electric recommends upgrading the firmware of the other devices in the IMU to maintain compatibility and avoid discrepancies between devices. Before proceeding, check the compatibility of the other devices with the new firmware.

The tables in this document provide information about the backward compatibility between Micrologic trip units or control units and Enerlin'X devices.

Firmware Upgrade with Ecoreach Software

Use the latest version of Ecoreach software:

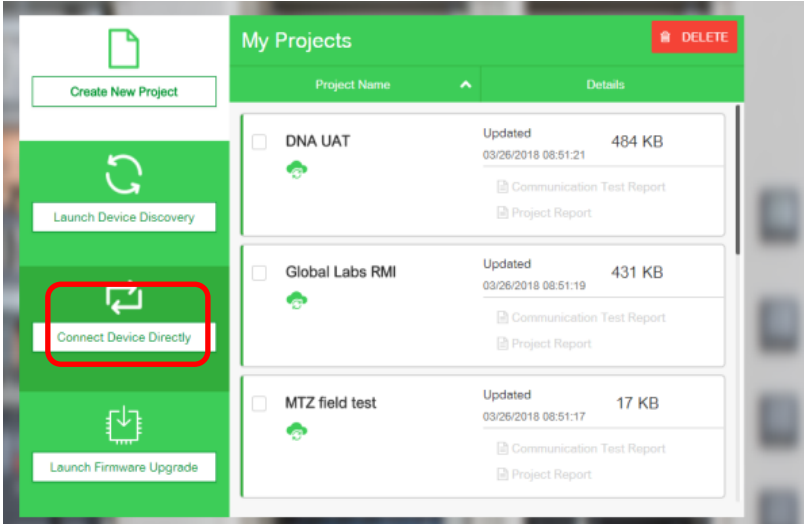
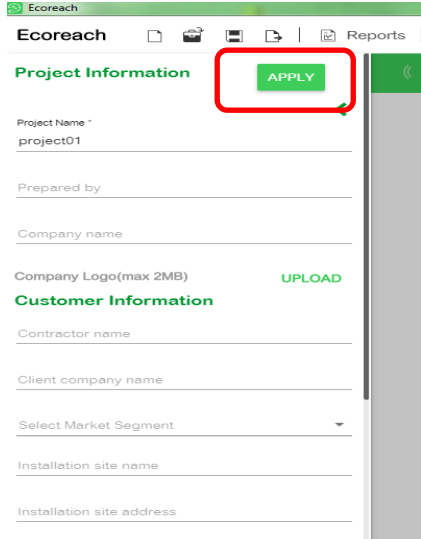
- To check the firmware compatibility between devices
- To find the firmware version of a Micrologic trip unit or control unit (refer to the following procedure)
- To upgrade the firmware of the devices

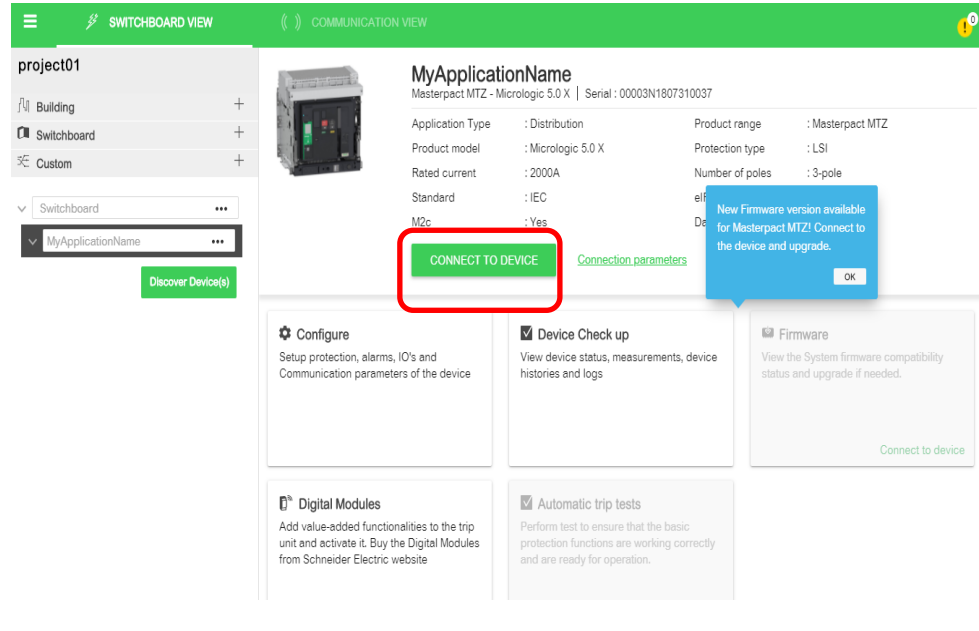
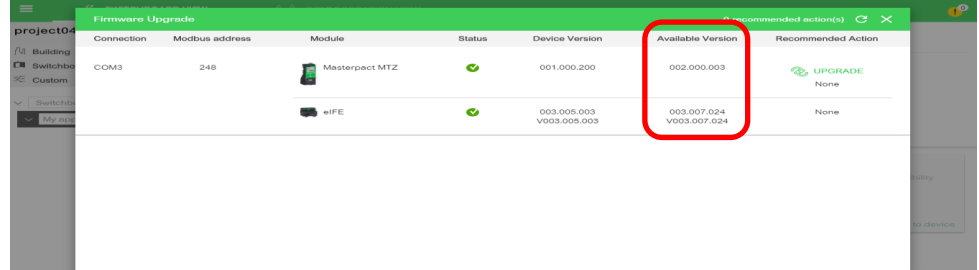
For more information, refer to *Ecoreach Online Help*.

The latest version of Ecoreach software is available at www.schneider-electric.com.

Procedure for Finding the Firmware Version of a Micrologic Trip Unit or Control Unit

Follow this procedure to find the firmware version of a Micrologic trip unit or control unit:

Step	Action
1	Connect the PC running Ecoreach software to the Micrologic trip unit or control unit.
2	Click Connect Device Directly . 
3	Fill in the required information about the Ecoreach project and click APPLY . 

Step	Action																					
4	<p>The device is displayed. Click CONNECT TO DEVICE.</p>  <p>The screenshot shows the 'MyApplicationName' configuration page for a Masterpact MTZ - Micrologic 5.0 X device. The 'CONNECT TO DEVICE' button is highlighted with a red box. A blue notification bubble states: 'New Firmware version available for Masterpact MTZ! Connect to the device and upgrade.' Below the button, there are sections for 'Configure', 'Device Check up', 'Firmware', 'Digital Modules', and 'Automatic trip tests'.</p>																					
5	<p>Click Firmware. Result: The firmware versions of the devices in the IMU are displayed.</p>  <p>The screenshot shows the 'Firmware Upgrade' table with the following data:</p> <table border="1" data-bbox="443 1055 1426 1323"> <thead> <tr> <th>Connection</th> <th>Modbus address</th> <th>Module</th> <th>Status</th> <th>Device Version</th> <th>Available Version</th> <th>Recommended Action</th> </tr> </thead> <tbody> <tr> <td>COM3</td> <td>248</td> <td>Masterpact MTZ</td> <td>✔</td> <td>001.000.200</td> <td>002.000.003</td> <td>UPGRADE</td> </tr> <tr> <td></td> <td></td> <td>eIFE</td> <td>✔</td> <td>003.005.003 V003.005.003</td> <td>003.007.024 V003.007.024</td> <td>None</td> </tr> </tbody> </table>	Connection	Modbus address	Module	Status	Device Version	Available Version	Recommended Action	COM3	248	Masterpact MTZ	✔	001.000.200	002.000.003	UPGRADE			eIFE	✔	003.005.003 V003.005.003	003.007.024 V003.007.024	None
Connection	Modbus address	Module	Status	Device Version	Available Version	Recommended Action																
COM3	248	Masterpact MTZ	✔	001.000.200	002.000.003	UPGRADE																
		eIFE	✔	003.005.003 V003.005.003	003.007.024 V003.007.024	None																

Firmware Release Notes

Release notes are documents that detail the history of the firmware versions of a device, including:

- Firmware version release dates
- New features
- Bug fixes
- Known issues and restrictions
- References of related documents

List of Firmware Release Notes

Title of Documentation	Reference number
Masterpact MTZ Micrologic X Firmware Release Note	<i>DOCA0144EN</i>
Enerlin'X IFM Firmware Release Note	<i>DOCA0146EN</i>
Enerlin'X IFE/EIFE Interface Firmware Release Note	<i>DOCA0147EN</i>
Enerlin'X IO Firmware Release Note	<i>DOCA0149EN</i>
Enerlin'X FDM121 Firmware Release Note	<i>DOCA0150EN</i>
Enerlin'X FDM128 Firmware Release Note	<i>DOCA0151EN</i>
BCM ULP Firmware Release Note	<i>DOCA0152EN</i>
Compact NSX/ PowerPact H-, J-, and L-frame Micrologic 5/6 Firmware Release Note	<i>DOCA0153EN</i>

NSX Micrologic Trip Units

NSX Micrologic 5 and 6 Firmware History

NSX Micrologic 5 and 6 trip units are designed for:

- Compact NSX circuit breakers
- PowerPact H-, J-, and L-frame circuit breakers

Each hardware version of an NSX Micrologic 5 and 6 trip unit is available with one or more firmware versions (see table below). You can upgrade an NSX Micrologic 5 or 6 trip unit to the latest firmware version compatible with its hardware. For more information, refer to [DOCA0153EN Compact NSX Micrologic 5/6 Trip Unit Firmware Release Note](#).

Date	Micrologic 5/6 hardware version	Micrologic 5/6 firmware version	Availability
June 2018	HW V001.000.000	FW V001.003.000	Release for manufacturing
December 2016	HW V001.000.000	FW V001.002.002	Obsolete
December 2015	HW V15*	FW V1.1.0	Obsolete
December 2014	HW V15	FW V1.0.3	Through Ecoreach software
July 2008	HW V15	FW V1.0.2	Obsolete

Example: An NSX Micrologic 5 trip unit with firmware version 1.0.2 can be upgraded to firmware version 1.0.3, which is compatible with hardware version 15. It cannot be upgraded to firmware version 001.003.000, for example, as this firmware version is designed for hardware version 001.000.000 only.

NSX Micrologic 7 Firmware History

NSX Micrologic 7 trip units are designed for Compact NSX circuit breakers only.

The hardware and firmware versions of NSX Micrologic 7 trip units are different from the hardware and firmware versions of NSX Micrologic 5 or 6 trip units.

Date	Micrologic 7 firmware version	Availability
July 2018	V002.001.001	Release for manufacturing

Enerlin'X Devices Compatible with NSX Micrologic 5/6 Trip Units

Use Ecoeach software to find the firmware version of an NSX Micrologic 5/6 trip unit:

- For NSX Micrologic 5/6 trip units with firmware version 1.0.2, use Ecoeach software to upgrade to firmware version 1.0.3 to maintain compatibility with all Enerlin'X devices.
- For NSX Micrologic 5/6 trip units with firmware version greater than or equal to V1.0.3, NSX Micrologic 5/6 trip unit is compatible with all Enerlin'X devices.

The following compatibility table shows the firmware versions of the Enerlin'X devices that are compatible with an NSX Micrologic trip unit.

Device	Part number	Firmware version of NSX Micrologic 5/6 trip unit	
		V1.0.2	≥ V1.0.3
IFM Modbus-SL interface for one circuit breaker with RJ45	LV434000	≥ V003.000.012	≥ V003.000.012
IFM Modbus-SL interface for one circuit breaker	TRV00210 STRV00210	≥ V001.001.001	≥ V002.002.007
IFE Ethernet interface for one circuit breaker with RTC	LV434001	–	≥ V003.006.011
IFE Ethernet interface for one circuit breaker	LV434010	–	<ul style="list-style-type: none"> • program file: ≥ V001.008.004 • webpage: ≥ V001.008.009
IFE Ethernet switchboard server with RTC	LV434002	–	≥ V003.006.011
IFE Ethernet switchboard server	LV434011	–	<ul style="list-style-type: none"> • program file: ≥ V001.008.004 • webpage: ≥ V001.008.009
IO input/output application module for one circuit breaker	LV434063	–	≥ V002.001.004
FDM121 front display module for one circuit breaker	TRV00121 STRV00121	≥ V002.003.004	≥ V002.003.005
FDM128 Ethernet display for eight devices	LV434128	–	≥ V5.5.6
USB maintenance module	TRV00911	≥ V001.000.009	≥ V001.000.009
BSCM circuit breaker status control module	LV434205	≥ V002.001.008	≥ V002.002.007

Example: An NSX Micrologic 5 trip unit with firmware version 1.0.2 is compatible with:

- IFM interface TRV00210 with firmware version greater than or equal to V001.001.001 or IFM interface LV434000 with firmware version greater than or equal to V003.000.0012
- FDM121 display with firmware version greater than or equal to V002.003.004
- USB maintenance module with firmware version greater than or equal to V001.000.009
- BSCM module with firmware version greater than or equal to V002.001.008

The NSX Micrologic 5 trip unit must be upgraded to firmware version 1.0.3 to be compatible with IO module or IFE interfaces.

Enerlin'X Devices Compatible with NSX Micrologic 7 Trip Units

The following compatibility table shows the firmware versions of the Enerlin'X devices that are compatible with an NSX Micrologic 7 trip unit.

Device	Part number	Firmware version of NSX Micrologic 7 trip unit
		≥ V002.001.001
IFM Modbus-SL interface for one circuit breaker with RJ45	LV434000	≥ V003.000.012
IFM Modbus-SL interface for one circuit breaker	TRV00210 STRV00210	≥ V002.002.07
IFE Ethernet interface for one circuit breaker with RTC	LV434001	≥ V003.006.011
IFE Ethernet interface for one circuit breaker	LV434010	<ul style="list-style-type: none"> • program file: ≥ V001.008.004 • webpage: ≥ V001.008.009
IFE Ethernet switchboard server with RTC	LV434002	≥ V003.006.011
IFE Ethernet switchboard server	LV434011	<ul style="list-style-type: none"> • program file: ≥ V001.008.004 • webpage: ≥ V001.008.009
IO input/output application module for one circuit breaker	LV434063	≥ V002.001.004
FDM121 front display module for one circuit breaker	TRV00121 STRV00121	≥ V002.003.005
FDM128 Ethernet display for eight devices	LV434128	≥ V5.5.6
USB maintenance module	TRV00911	≥ V001.00.009
BSCM circuit breaker status control module	LV434205	≥ V002.002.007

NT/NW Micrologic Trip Units

NT/NW Micrologic Trip Units

NT/NW Micrologic trip units communicate with Enerlin'X devices of the IMU through a BCM ULP circuit breaker communication module.

Use Ecoreach software to upgrade the firmware version of the BCM ULP circuit breaker communication module to benefit from new features and maintain compatibility between Enerlin'X devices.

NT/NW Micrologic A Firmware History

NT/NW Micrologic A trip units are designed for:

- Masterpact NT/NW circuit breakers
- Compact NS630b-3200 circuit breakers
- PowerPact P- and R-frame circuit breakers

Date	NT/NW Micrologic A firmware version	Availability
October 2009	V01.029	Release for manufacturing
August 2009	V01.028	Obsolete
September 2007	V01.027	Obsolete

NT/NW Micrologic E Firmware History

NT/NW Micrologic E trip units are designed for:

- Masterpact NT/NW circuit breakers
- Compact NS630b-3200 circuit breakers

Date	NT/NW Micrologic E firmware version	Availability
June 2013	V1.016	Release for manufacturing
June 2012	V1.013	Obsolete
October 2011	V1.012	Obsolete

NT/NW Micrologic P/H Firmware History

NT/NW Micrologic P/H trip units are designed for:

- Masterpact NT/NW circuit breakers
- Compact NS630b-3200 circuit breakers
- PowerPact P- and R-frame circuit breakers

Date	NT/NW Micrologic P/H firmware version	Availability
October 2014	2014AQ ⁽¹⁾ or 8.284 ⁽²⁾	Release for manufacturing
March 2014	2014AN ⁽¹⁾ or 8.282 ⁽²⁾	Obsolete
December 2010	2010AK ⁽¹⁾ or 8.273 ⁽²⁾	Obsolete
March 2009	2009AJ ⁽¹⁾ or 8.268 ⁽²⁾	Obsolete
(1) Firmware version displayed on Micrologic HMI.		
(2) Firmware version readable in Micrologic register 8710 through communication.		

Enerlin'X Devices Compatible with NT/NW Micrologic A/E

Compatibility with Enerlin'X devices of the IMU depends on the firmware version of the BCM ULP module only. It does not depend on the firmware version of the Micrologic trip unit. For more information, refer to [DOCA0152EN BCM ULP Firmware Release Note](#).

The following compatibility table shows the firmware versions of the Enerlin'X devices that are compatible with a BCM ULP circuit breaker communication module.

Device	Part number	Firmware version of BCM ULP module	
		V3.3.4 – V4.0.6	≥ V4.0.7
IFM Modbus-SL interface for one circuit breaker with RJ45	LV434000	–	≥ V003.000.012
IFM Modbus-SL interface for one circuit breaker	TRV00210 STRV00210	–	≥ V002.002.007
IFE Ethernet interface for one circuit breaker with RTC	LV434001	–	≥ V003.006.011
IFE Ethernet interface for one circuit breaker	LV434010	–	<ul style="list-style-type: none"> • program file: ≥ V001.008.004 • webpage: ≥ V001.008.009
IFE Ethernet switchboard server with RTC	LV434002	–	≥ V003.006.011
IFE Ethernet switchboard server	LV434011	–	<ul style="list-style-type: none"> • program file: ≥ V001.008.004 • webpage: ≥ V001.008.009
IO input/output application module for one circuit breaker	LV434063	–	≥ V002.001.004
FDM121 front display module for one circuit breaker	TRV00121 STRV00121	≥ V002.003.004	≥ V002.003.005
FDM128 Ethernet display for eight devices	LV434128	–	≥ V5.5.8
USB maintenance module	TRV00911	≥ V001.000.009	≥ V001.000.009

Example: An NT/NW Micrologic A trip unit equipped with a BCM ULP circuit breaker communication module with firmware version V3.3.4 is compatible with:

- FDM121 display with firmware version greater than or equal to V002.003.004
- USB maintenance module with firmware version greater than or equal to V001.000.009

The firmware version of the BCM ULP module must be upgraded to a version greater than V4.0.7 to be compatible with IO module or IFE interfaces. Use Ecoreach software to upgrade the firmware of the BCM ULP module. For more information, refer to [Ecoreach Online Help](#).

Enerlin'X Devices Compatible with NT/NW Micrologic P/H

Compatibility with Enerlin'X devices of the IMU depends on the firmware version of the Micrologic P/H trip unit and on the firmware version of the BCM ULP module. For more information, refer to [DOCA0152EN BCM ULP Firmware Release Note](#).

The following compatibility table shows the firmware versions of the Enerlin'X devices that are compatible with a Micrologic P/H trip unit, depending on the firmware version of the BCM ULP module.

Device	Part number	Firmware version of NT/NW Micrologic P/H trip unit and BCM ULP module		
		Micrologic 2010AK ⁽¹⁾ or 8.273 ⁽²⁾ and BCM ULP ≥ V3.3.4	Micrologic ≥ 2014AN ⁽¹⁾ or 8.282 ⁽²⁾ and BCM ULP V3.3.4 – V4.0.6	Micrologic ≥ 2014AN ⁽¹⁾ or 8.282 ⁽²⁾ and BCM ULP ≥ V4.0.7
IFM Modbus-SL interface for one circuit breaker with RJ45	LV434000	–	–	≥ V003.000.012
IFM Modbus-SL interface for one circuit breaker	TRV00210 STRV00210	–	–	≥ V002.002.007
IFE Ethernet interface for one circuit breaker with RTC	LV434001	–	–	≥ V003.006.011
IFE Ethernet interface for one circuit breaker	LV434010	–	–	<ul style="list-style-type: none"> program file: ≥ V001.008.004 webpage: ≥ V001.008.009
IFE Ethernet switchboard server with RTC	LV434002	–	–	≥ V003.006.011
IFE Ethernet switchboard server	LV434011	–	–	<ul style="list-style-type: none"> program file: ≥ V001.008.004 webpage: ≥ V001.008.009
IO input/output application module for one circuit breaker	LV434063	–	–	≥ V002.001.004
FDM121 front display module for one circuit breaker	TRV00121 STRV00121	≥ V002.003.004	≥ V002.003.004	≥ V002.003.005
FDM128 Ethernet display for eight devices	LV434128	–	–	≥ V5.5.8
USB maintenance module	TRV00911	≥ V001.000.009	≥ V001.000.009	≥ V001.000.009
(1) NT/NW Micrologic P/H trip unit firmware version displayed on Micrologic HMI.				
(2) NT/NW Micrologic P/H trip unit firmware version readable in Micrologic register 8710 through communication.				

Example: An NT/NW Micrologic P trip unit with firmware version 2014AN or 8.282 and equipped with a BCM ULP circuit breaker communication module with firmware version V3.3.4 is compatible with:

- FDM121 display with firmware version greater than or equal to V002.003.004
- USB maintenance module with firmware version greater than or equal to V001.000.009

The firmware version of the BCM ULP module must be upgraded to a version greater than V4.0.7 to be compatible with IO module or IFE interfaces. Use Ecoreach software to upgrade the firmware of the BCM ULP module. For more information, refer to [Ecoreach Online Help](#).

MTZ Micrologic X Control Units

MTZ Micrologic X Firmware History

MTZ Micrologic X control units are designed for:

- Masterpact MTZ1 circuit breakers
- Masterpact MTZ2/MTZ3 circuit breakers

Date	Micrologic X firmware version	Availability
June 2018	V002.000.003	Release for manufacturing
April 2018	V002.000.002	Obsolete
December 2017	V001.000.206	Obsolete
July 2017	V001.000.202	Obsolete
December 2016	V001.000.200	Obsolete

For more information, refer to [DOCA0144EN](#) Masterpact MTZ Micrologic X Control Unit Firmware Release Note.

Enerlin'X Devices Compatible with MTZ Micrologic X Control Unit

The following compatibility table shows the firmware versions of the Enerlin'X devices that are compatible with an MTZ Micrologic X control unit.

Device	Part number	Firmware version of Micrologic X control unit	
		V001.000.200 to V001.000.206	≥ V002.000.002
IFM Modbus-SL interface for one circuit breaker with RJ45	LV434000	≥ V003.000.012	≥ V003.000.012
IFM Modbus-SL interface for one circuit breaker	TRV00210 STRV00210	–	–
IFE Ethernet interface for one circuit breaker with RTC	LV434001	–	V003.007.024
IFE Ethernet interface for one circuit breaker	LV434010	≥ V003.005.003 and date code ≥ HL16485 ⁽¹⁾	V003.007.024
IFE Ethernet switchboard server with RTC	LV434002	–	V003.007.024
IFE Ethernet switchboard server	LV434011	≥ V003.005.003 and date code ≥ HL16485 ⁽¹⁾	V003.007.024
EIFE Embedded Ethernet interface for one Masterpact MTZ drawout circuit breaker	LV851001	≥ V003.005.003	V003.007.024
IO input/output application module for one circuit breaker	LV434063	≥ V003.002.002 and date code ≥ HL16486 ⁽²⁾	V003.003.011
FDM128 Ethernet display for eight devices	LV434128	≥ V6.3.4	V6.5.3
<p>(1) IFE hardware is compatible if manufacturing date code on the IFE label is greater than HL16485. IFE hardware with manufacturing date code lower than HL16485 operates correctly but generates a non-critical hardware discrepancy.</p> <p>(2) IO module hardware is compatible if manufacturing date code on the IO module label is greater than HL16486. IO module hardware with manufacturing date code lower than HL16486 operates correctly but generates a non-critical hardware discrepancy.</p>			

Example: An MTZ Micrologic X control unit with firmware version 001.000.200 is compatible with:

- IFM interface LV434000 with firmware version greater than or equal to V003.000.012
- IFE interface with firmware version greater than or equal to V003.005.003 and date code greater than or equal to HL16485
- EIFE interface with firmware version greater than or equal to V003.005.003
- IO module for one circuit breaker with firmware version 003.002.002 and date code greater than or equal to HL16486
- FDM128 display with firmware version greater than or equal to V6.3.4

The MTZ Micrologic X control unit must be upgraded to firmware version greater than or equal to V002.000.002 to be compatible with an IFE interface with RTC.

Digital Modules Compatible with MTZ Micrologic X Control Unit

The following compatibility table shows the Digital Modules that are compatible with a Micrologic X control unit.

Digital Module	Part number	Firmware version of MTZ Micrologic X control unit	
		≥ V001.000.000	≥ V002.000.002
Energy per phase	LV850002	✓	✓
Individual harmonics analysis	LV850006	–	✓
Undervoltage/overvoltage	LV850012	–	✓
Reverse active power	LV850011	–	✓
Ground-fault alarm	LV850007	–	✓
Energy Reduction Maintenance Settings (ERMS)	LV850009	–	✓
Power restoration assistant	LV850004	✓	✓
Masterpact operation assistant	LV850005	✓	✓
Waveform capture on trip event	LV850003	✓	✓
Modbus legacy dataset	LV850045	–	✓
✓ Control unit firmware supports Digital Module – Control unit firmware upgrade required to support Digital Module			