Powering Business Worldwide

After-Sales-Service – Work Instructions for Replacing XMC Modules

Applies to the following devices:

Energy metering modules:

NZM2-XMC-SO	**Article no. 129839**
NZM3-XMC-SO	**Article no. 129960**
NZM2-4-XMC-SO	**Article no. 129963**
NZM3-4-XMC-SO	**Article no. 129964**

Metering and communication modules:

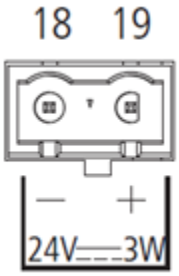
NZM2-XMC-MB	**Article no. 129961**
NZM3-XMC-MB	**Article no. 129962**
NZM2-4-XMC-MB	**Article no. 129965**
NZM3-4-XMC-MB	**Article no. 129966**

New XMC modules can be identified by the "**rev B**" identifier on them

Serial no. **> 800004001**

Preparation

Notice: The power supply voltage tolerance has changed.
It is now **24 VDC +/- 10%** (21.6 VDC to 26.4 VDC).
This voltage needs to be checked without fail before placing the unit into operation.
If it falls outside the permissible limits, make sure to i
company operating the system accordingly.

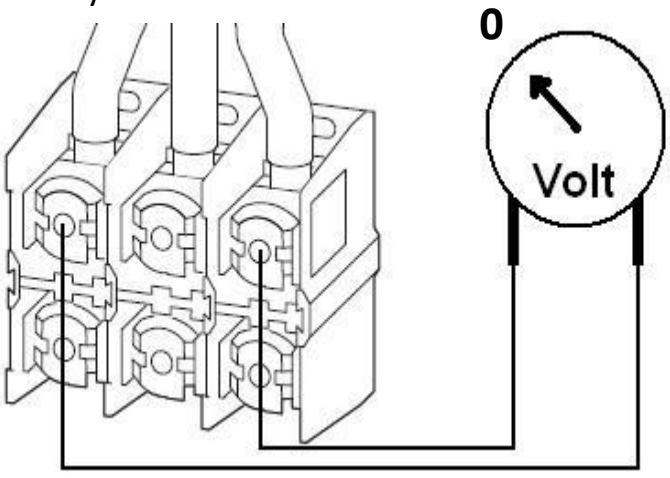


The DC-to-DC converter inside the module is approved for an input voltage range of 18 VDC to 36 VDC.

Notice! The default direction in which current flows has been changed in the <u>new</u>
XMC modules - see manual.
This direction must be changed if necessary (step 24).

Notice! Arrange for the **person authorized to switch the power on and off** to switch off the power supply on the system and secure the switch with a lockout device so that it cannot be switched back on by accident!
Place a warning sign that is easy to notice!

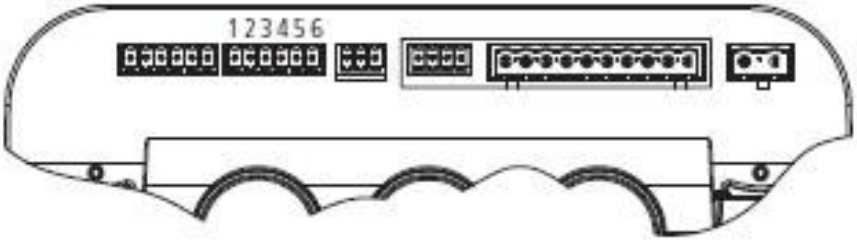
Notice: Check to make sure that the terminal block is de-energized!



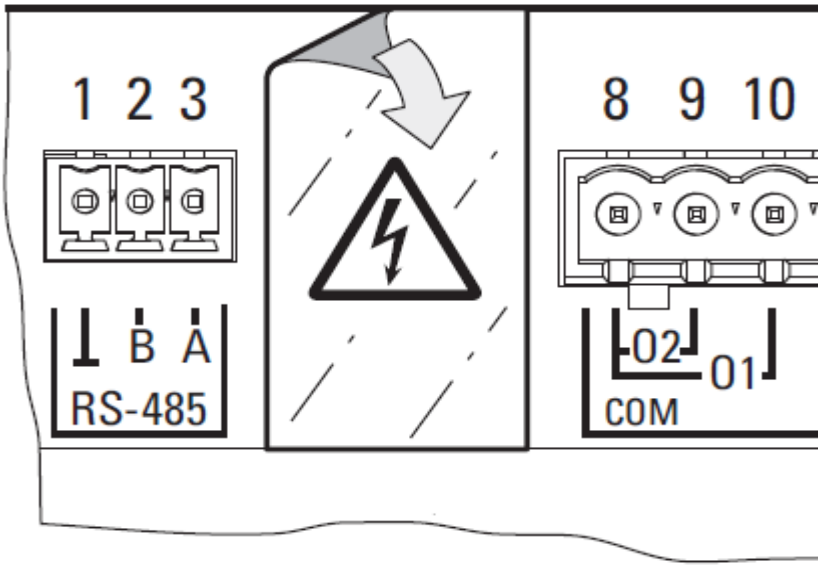
Notice: Ground and bond with grounding gear!

Removing

1 Disconnect the communication and power supply connectors.



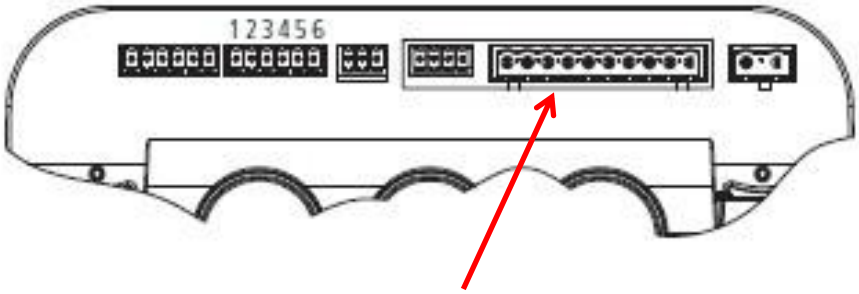
Label the cables correctly! Recommendation: Use adhesive labels!



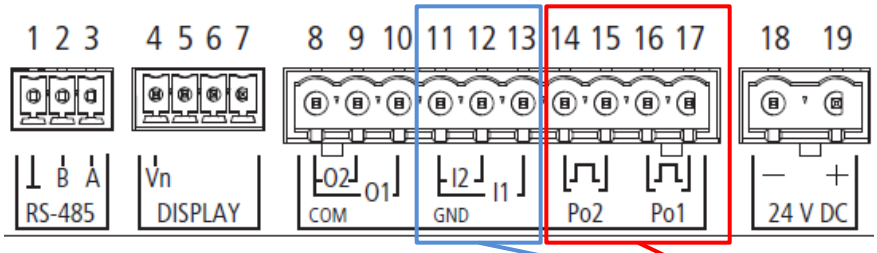
The display terminals (terminals 4–7) are protected with a sticker. Do not remove this sticker unless you plan to use the terminals in order to connect a display.

Wiring

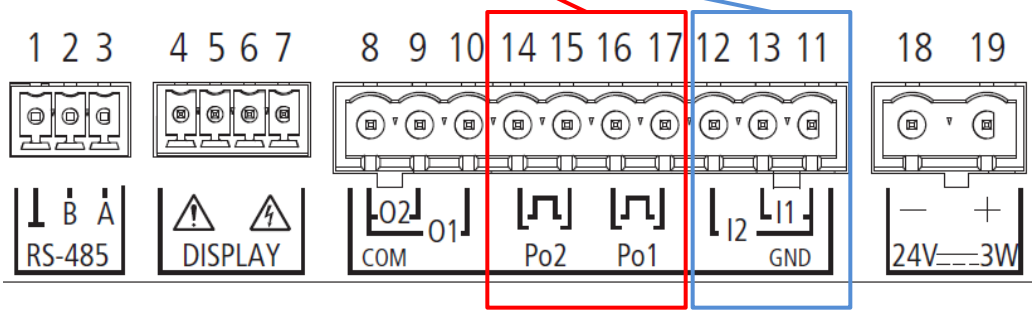
2 Communication and power supply connector wiring



Notice! The pinout has changed!
The order of connections 11–17 has changed!
The unit needs to be rewired accordingly.
The position of the terminal cables on the XMC plug needs to be changed accordingly.



XMC until Dec. 2012
S/N ≤800003999



XMC from May 2013
r.B.
S/N ≥800004001

Wiring

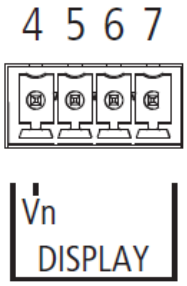
3

Notice!

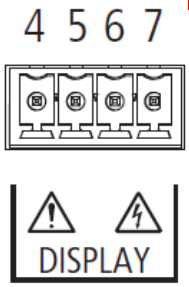
If the **Vn** connection on terminal 4 was being used, make sure to disconnect it!

Make sure that the disconnected cable is properly insulated or removed.

XMC until Dec. 2012
S/N ≤800003999



XMC, r.B., starting May 2013
S/N ≥800004001



4

Notice:

The power supply voltage tolerance has changed.

It is now **24 VDC +/- 10%** (21.6 VDC to 26.4 VDC).

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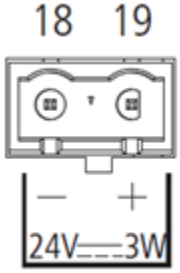
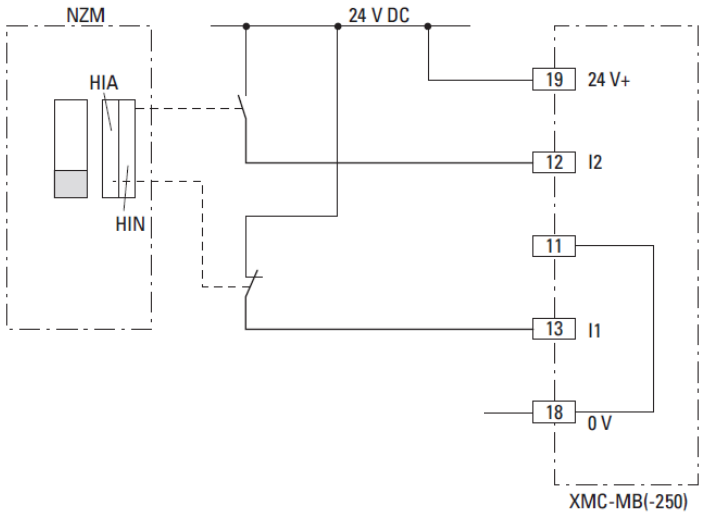


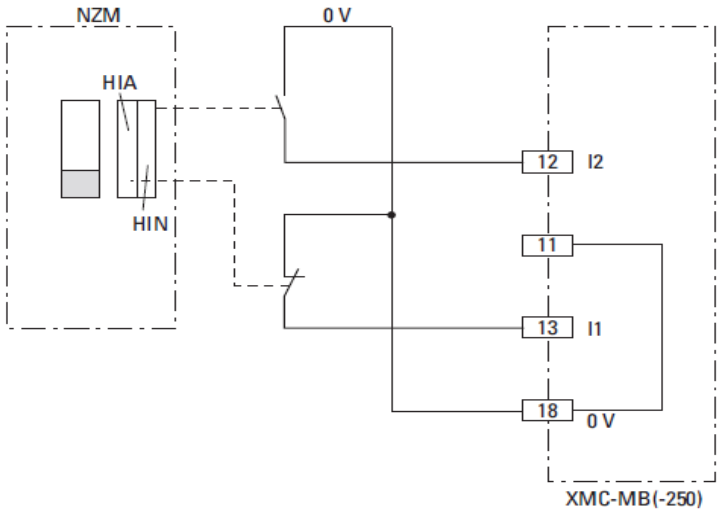
Wiring

5 If the NZM unit's auxiliary contact signaling function is being used, you will have to check the corresponding wiring. It may be necessary to modify it. See the circuit diagram for modules dated up to 12/2012 and the circuit diagram for modules dated May 2013 or later, r.B.
Note: Discuss with the company operating the system if necessary. In certain cases, they will have to change their documentation/drawing accordingly!

XMC bis Dec 2012
S/N ≤800003999



XMC, r.B., ab Mai 2013
S/N ≥800004001

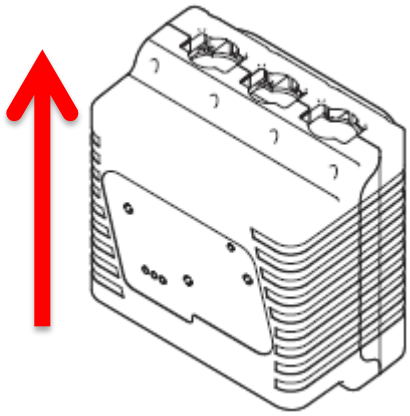


Wiring

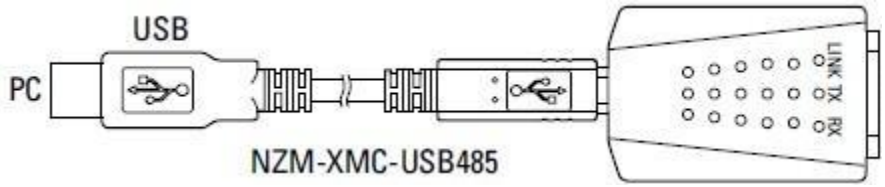
6

Notice!
The default direction in which power flows in modules dated May 2013 r.B.
or later (S/N ≥800004001) is from the bottom up!
If the customer needs power to flow from the top down, use register 1301, bit 1 to change the direction
(see manual!).

Default
Direction of energy flow

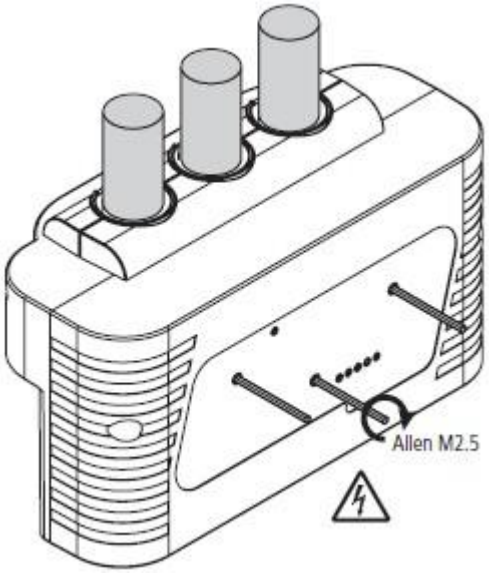


In order to change the register bit's value, you will need a "USB to RS485 adapter“ and a laptop/PC!



Mounting

7 Position the XMC unit and tighten the grub screws

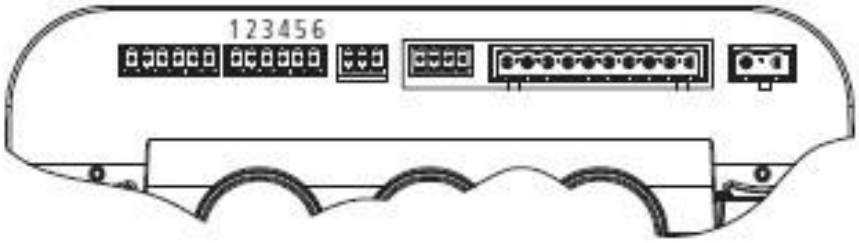


Notice! Risk of electric shock!
Use **insulated tools**!
Screws must punch the copper in order to perform the voltage sensing

Hexagon keys with a ball head are not suitable for tightening the screws.

Connect / Transfer

8 Plug in the communication and power supply connectors.



9 Hand over the system to the customer.
Arrange for the power supply to be switched back on.
Remove all warning signs!

10 Check that the power supply is correct!
LEDs L1; L2; L3 must light up.
The LED Power ON will flash!

11 Fill out the final documentation!