

FIELDBUS MODULES MICRON series

This technical sheet is applicable to the fieldbus modules of the Micron series: **MI-BP** (PROFIBUS), **MI-BC** (CanOpen), **MI-BD** (DeviceNet), **MI-BEI** (ETHERNET/IP), **MI-BEP** (Profinet), **MI-BEC** (ETHERCAT), **MI-BMR** (Modbus RTU), **MI-BEM** (Modbus/TCP), **MI-BU** (USB).

In order to ensure the correct operation of the fieldbus modules, careful and full compliance with all the rules, instructions and warnings stated in the manual included in the MicronConfigurator CD-ROM are essential. ReeR s.p.a. declines all responsibility for events arising from non-compliance with all or part of the aforesaid instructions.

ELECTRICAL CONNECTIONS

- Install the modules units in an enclosure with a protection class of at least IP54.
- The supply voltage to the units must be 24Vdc $\pm 20\%$ (PELV, in compliance with the standard EN 60204-1 (Chapter 6.4)).
- The same ground connection (0VDC) must be used for all system components.

Each module is provided with three connectors:

1. Mini USB connector ---> to the PC
2. BUS connector ---> to the fieldbus
3. Terminal block ---> power supply and Micron barrier wiring

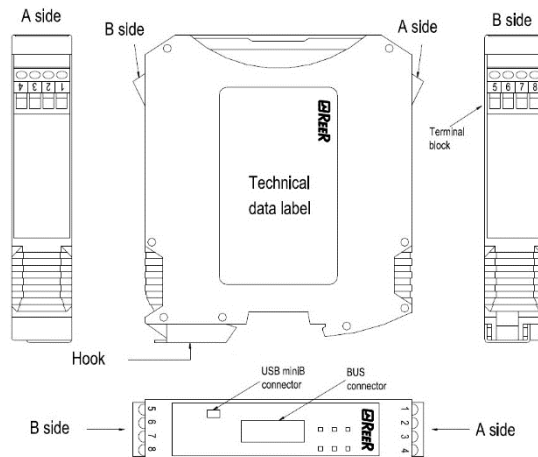
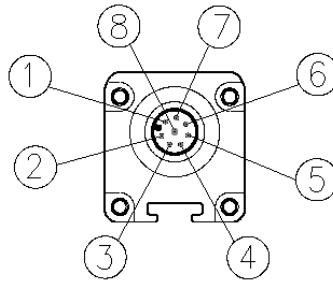


Figure 1

TERMINAL BLOCK (SIDE A - TOP)		
TERMINAL	SIGNAL	DESCRIPTION
1	+24VDC $\pm 20\%$	
2	-	
3	-	
4	GND	
TERMINAL BLOCK (SIDE B - BOTTOM)		
TERMINAL	SIGNAL	DESCRIPTION
5		
6	RS-485 -(A) serial line	RS-485
7	GND	
8	RS-485 +(B) serial line	RS-485

Micron Receiver connection (B models)



PIN	COLOUR	NAME	TYPE	DESCRIPTION	OPERATION
1	White	OUT2/SYNC	OUTPUT	Static output 2 / RX-TX sync	24 VDC, 100 mA
2	Brown	24VDC	-	24 VDC power supply	-
3	Green	OUT1	OUTPUT	Static output 1	24 VDC, 100 mA
4	Yellow	INPUT	INPUT	Input with programmable functions	Compliant with EN 61131-2
5	Grey	LINE - (A)	IN/OUT	RS485 -(A) serial line	RS-485
6	Pink	LINE + (B)	IN/OUT	RS485 +(B) serial line	RS-485
7	Blue	0VDC	-	0 VDC power supply	-
8	Red	PE	-	Ground connection	-

M12, 8-pole RX

CONFIGURATION

The bus module can be configured via the mini USB interface on the front panel and using the "BUS configurator" Software found in the MicronConfigurator CD-ROM.

Parameters that can be set are the module address in the fieldbus network and the baudrate, for modules that would allow it.

➔ The same number of bytes displayed in the MicronConfigurator software must be set in the "Process Image" tab, as shown in the following images.



The connection software

Below are showed the screenshots of Micronconfigurator and Bus Configurator software to change in order to ensure the connection between the bus modules and Micron barrier.

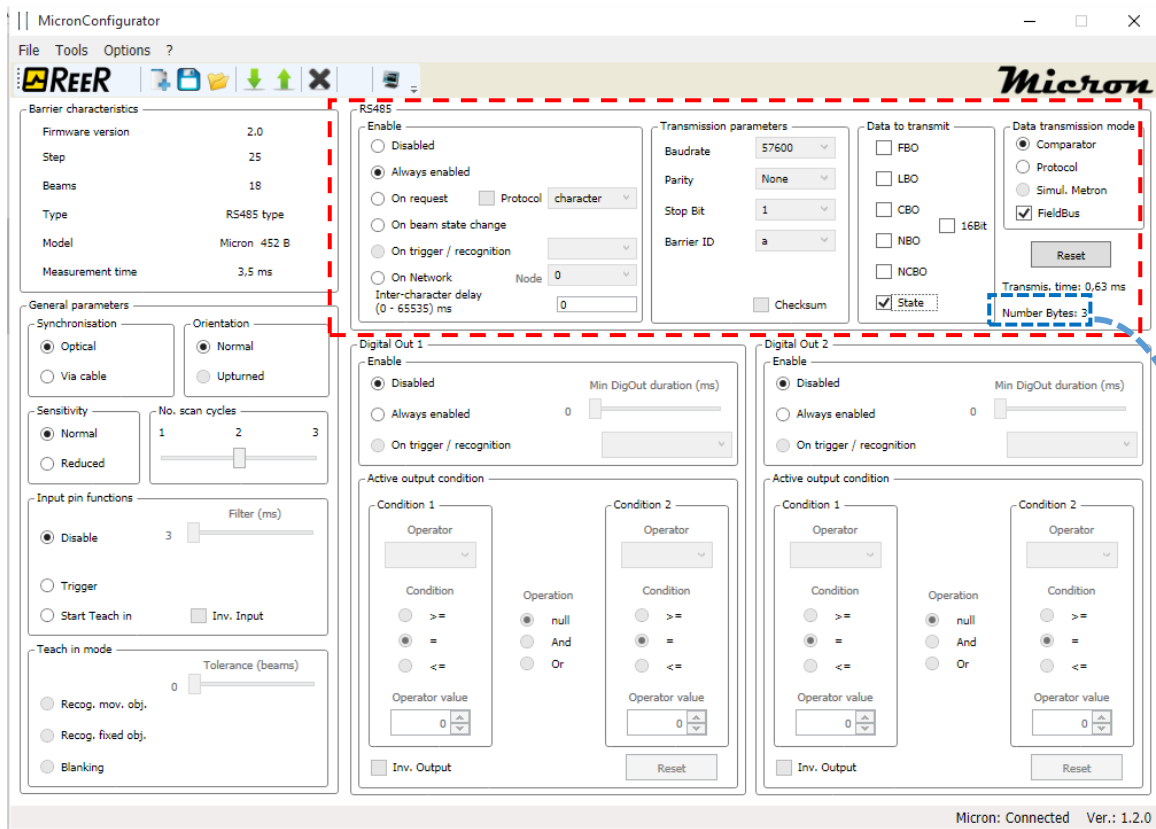


Figure 2 - Micronconfigurator

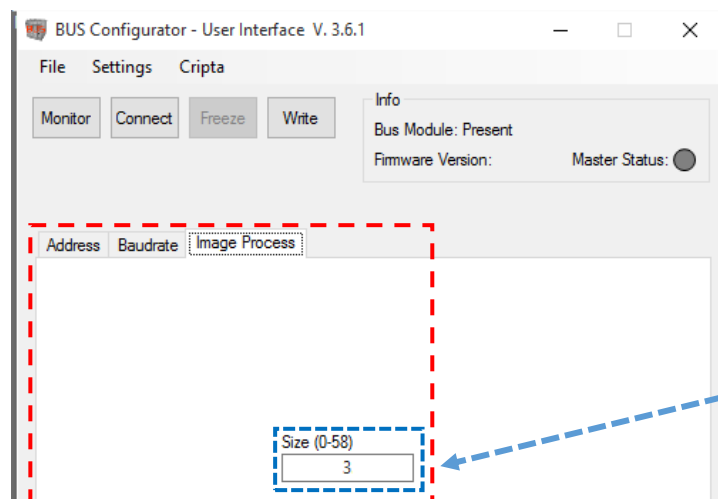


Figure 3 - BUS configurator

The transmission mode

- MI module is used as a conversion interface between RS485 and the fieldbus, towards the PLC.
- The number of data and the order of transmission are the same ones that would be transmitted via RS485 from Micron (*Ref. Manual Micron -> Figure 17*).
- The process image towards the PLC consists of 1 input byte and n output bytes, where n is the number indicated in the blue box in Figure 3.
- The input byte is used to send from the PLC to the barrier (through MI) the possible control character (*ref. Manual Micron -> "RS485 outputs configuration"> Enable Table -> Mode 3*).
- With a control character expected the mapping on the PLC must therefore provide 1 output enable byte before the first n input bytes.