Supply Voltage

The supply voltage is daisy-chained from the supply port (terminal 1) to the sensor port (terminal 2). As a result, the supply voltage must match that of the sensor. Positive voltage must be between 9 V and 36 V.

Connect the inputs R+ and R- on terminal 1 to a voltage supply. Minimum cable length 3 m. MICRO-EPSILON recommends using the optionally available power supply PS3030.

Cable Terminal at Interface

Ensure correct cable termination for an RS485 bus or RS422 bus! Ensure correct cable termination for an RS485 bus or RS422 bus!

Connect the inputs T+ and T- on terminal 2 to a terminal or sensor.

Connection Options

- **Sensor/Controller**
  - IF2035
  - RS485 B
  - Terminal 1
  - Supply voltage
  - Multifunction input 1
  - Multifunction input 2
  - Ground
  - Synchronization output

- **Cable**
  - Connection Options
    - PC/SC2520-x
    - PC2300-x/OE
    - PC1900-x/OE
    - PC1700-x/OE
    - Direct or PCF1420-x/I/U
    - CAB-M9-5P-St-ge; xm-PVC-RS422
    - CAB-M12-8P-St-ge
    - CAB-M12-8P-St-ge
    - OD-CAB-12-5P-M12-St-ge
    - CAB-M12-8P-St-ge
    - CAB-M12-8P-St-ge

- **Option**
  - IF2035-EIP can participate in a device level ring as a ring node and thereby reduce the threat of failures through redundant cabling.

Standard Cabling

During cabling, channel 0 of the scanner is connected to a port of adapter 1 (1 axis device). The second port of the adapter 1 is connected to the port of the next adapter, etc. One port of the last adapter and channel 1 of the master device (scanner) remain unused.

Intended Use

The IF2035-EIP interface module is designed for use in industrial and laboratory applications. It is used to convert the internal MICRO EPSILON sensor protocol (RS485, RS422) to EtherCAT™. The interface module must only be operated within the limits specified in the technical data. The interface module must only be operated within the limits specified in the technical data. The interface module must only be operated within the limits specified in the technical data.

Connection Options

The length of the cable between IF2035-EIP and sensor/controller is 10 m at most. Because of the PC/SC2520-x cable, the sensor supply for ACC5703 and INCE2701 sensors is possible only via the IF2035-EIP.

Warnings

Connect the power supply and the display/output device according to the safety regulations for electrical equipment.

- > Damage to or destruction of the interface module
- > Damage to or destruction of the interface module
- > Avoid shocks and impacts to the interface module.
- > Damage to or destruction of the interface module

Proper Environment

Protection class: IP 20

Operating temperature: 0…+50 °C (+32…+122 °F)

Storage temperature: 0…+70 °C (+32…+158 °F)

Humidity: 5%–95% (non-condensing)

Ambient pressure: Atmospheric pressure
Quick Guide

Configuring the Sensor Interface

Only sensors (controllers) that support the ME sensor protocol can be connected via RS485/RS422. Micro-Epsilon recommends selecting the corresponding sensor interface via the web interface of the sensor (controller).

Baud Rate

There is no automatic baud rate matching between IF2035-EIP and the connected sensor (controller). MICRO-EPSILON recommends selecting the corresponding baud rate via the web interface of the sensor (controller).

Data Format

All configuration parameters and data are transmitted in Little Endian format.

Sensors/controllers with RS485: cyclical data are transmitted via the fieldbus without change, i.e., as a binary block as described and supplied by the sensor.

Sensors/controllers with RS422: cyclical data are decoded, i.e., a 4th byte is added to the 3 bytes and then transmitted.

Baud Rate and Sensor Interface

Option 1: MSG Command

An MSG command is configured as follows:

- Click the button [ ]

- Click the Configuration tab and set type CIP Generic as Message Type.

- The following Service Types are possible:
  - 0x0 - Get Attribute Single
  - 0x1 - Set Attribute Single

- Click the Communication tab and select the target device using the Browse button in the Path field.

- Click the Tag tab and assign an element name in the Name field.

Nothing needs to be set here. The Message Configuration dialog is only available if a tag of type Message had been previously entered in the MSG element. In the example above, m1 was chosen for this purpose.

Option 2: External Software

IF2035-EIP can also be configured beyond the PLC (e.g., with a software tool) by using EtherNet/IP™ Explicit Messaging. The software used for this purpose must support the following services:

- 0x0E - Get Attribute Single as well as
- 0x10 - Set Attribute Single.

Service, Repair

Please send us the affected parts for repair or exchange.

If the cause of a fault cannot be clearly identified, please send the entire measuring system to:

MICRO-EPSILON MESSTECHNIK GmbH & Co. KG
Koenigbacher Str. 15
94496 Ortenburg / Germany
Telephone: +49/8542/168 - 0
Fax: +49/8542/168 - 90
info@micro-epsilon.com
www.micro-epsilon.com

Decommissioning, Disposal

Remove all cables from the interface module. Incorrect disposal may cause harm to the environment.

Dispose of the device, its components and accessories as well as the packaging materials in compliance with the applicable country-specific waste treatment and disposal regulations of the region of use.

You can find more information about the sensor in the operating instructions. They are available online at: