

# QUICK INSTALLATION

## MSX-E3701-DIO

Ethernet system for length measurement

02.04 - 01/2016

# Connecting the Ethernet system

- Please read the safety precautions (yellow leaflet) first!
- Afterwards, connect your Ethernet system as follows:

- Connect the Ethernet system to your PC or network using an Ethernet cable (e.g. CMX-60).
- Connect the desired functions.
- Optional: Connect the cable for trigger/synchro signals (e.g. CMX-40) to the Ethernet system.



## NOTICE!

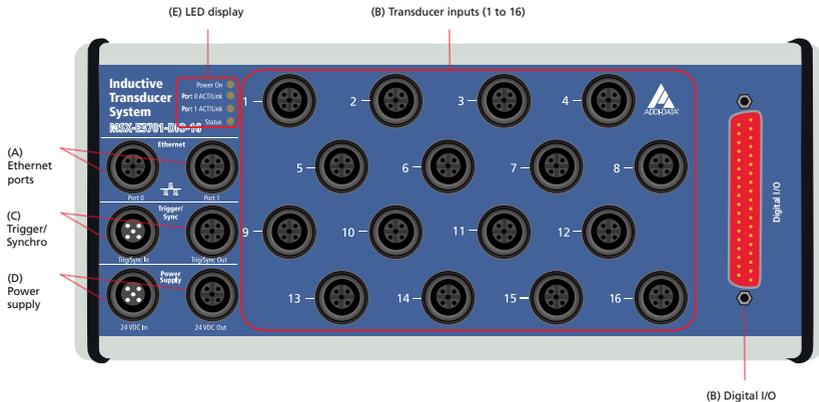
Please ensure that the default IP address of the Ethernet system (192.168.99.99) is not assigned to another system on your network yet.

# Starting the Ethernet system

- Connect the Ethernet system to the power source using a power supply cable (e.g. CMX-20).
- Check the status of the Ethernet system by means of the LED display:

|                  |                      |  |
|------------------|----------------------|--|
| Power On:        | - lights green       | = Power supply is OK                     |
| Port 0 ACT/Link: | - flashes yellow     | = Ethernet cable is connected to Port 0  |
| Port 1 ACT/Link: | - flashes yellow     | = Ethernet cable is connected to Port 1  |
| Status:          | - lights green       | = Ethernet system is ready for operation |
|                  | - lights yellow      | = Ethernet system is booting             |
|                  | - lights/flashes red | = Error while booting                    |

As soon as the "Status" LED lights green, you can install the software (see page 6).



**CMX-20:** Power supply cable

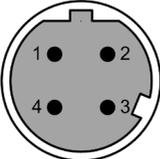
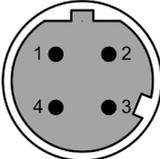


## Pin assignment

### Ethernet

|         | Port 0                         | Port 1                         | Cable (green) |
|---------|--------------------------------|--------------------------------|---------------|
| Pin No. | Female connector, D-coded, M12 | Female connector, D-coded, M12 | Lead colour   |
| 1       | TD0+                           | TD1+                           | yellow        |
| 2       | RD0+                           | RD1+                           | white         |
| 3       | TD0-                           | TD1-                           | orange        |
| 4       | RD0-                           | RD1-                           | blue          |

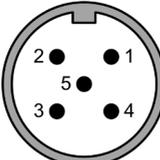
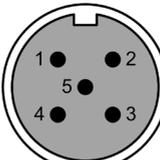
  

### Trigger/Synchro

|         | Trig/Sync In               | Trig/Sync Out                | Cable (purple) |           |
|---------|----------------------------|------------------------------|----------------|-----------|
| Pin No. | Male connector, 5-pin, M12 | Female connector, 5-pin, M12 | Lead colour    | Lead pair |
| 1       | Trigger input -            | Trigger input -              | blue           | 1         |
| 2       | Trigger input +            | Trigger input +              | white          |           |
| 3       | Synchro input +            | Synchro output +             | red            | 2         |
| 4       | Synchro input -            | Synchro output -             | black          |           |
| 5       | GND                        | GND                          |                |           |

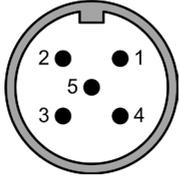
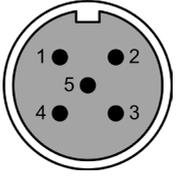
  

## Power supply

|         | 24 VDC In                  | 24 VDC Out                   | Cable (black) |
|---------|----------------------------|------------------------------|---------------|
| Pin No. | Male connector, 5-pin, M12 | Female connector, 5-pin, M12 | Lead colour   |
| 1       | 24 V                       | 24 V                         | brown         |
| 2       | 24 V                       | 24 V                         | white         |
| 3       | GND                        | GND                          | blue          |
| 4       | GND                        | GND                          | black         |
| 5       | not connected              | not connected                | grey          |

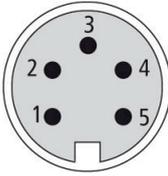
  

|   |   |
|---|---|
|  |  |
|---|---|

## Transducer inputs

|         | Half-bridge                  | LVDT                         |
|---------|------------------------------|------------------------------|
| Pin No. | Female connector, 5-pin, M18 | Female connector, 5-pin, M18 |
| 1       | OSC+                         | OSC+                         |
| 2       | GND                          | OSC-                         |
| 3       | Transducer signal            | not connected                |
| 4       | not connected                | Transducer signal            |
| 5       | OSC-                         | GND                          |

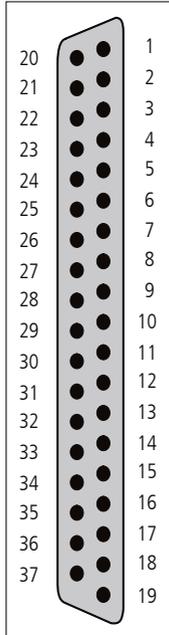
  

|   |
|---|
|  |
|---|

OSC = oscillator voltage = supply voltage

# Digital I/O

Digital input 1  
Digital input 3  
Digital input 5  
Digital input 7  
Digital input 9  
Digital input 11  
Digital input 13  
Digital input 15  
24 V (external)  
Digital output GND  
Digital output 1  
Digital output 3  
Digital output 5  
Digital output 7  
Digital output 9  
Digital output 11  
Digital output 13  
Digital output 15



Digital input 0  
Digital input 2  
Digital input 4  
Digital input 6  
Digital input 8  
Digital input 10  
Digital input 12  
Digital input 14  
24 V (external)  
Digital input GND  
Digital output 0  
Digital output 2  
Digital output 4  
Digital output 6  
Digital output 8  
Digital output 10  
Digital output 12  
Digital output 14  
not connected

# Software tool “ConfigTools”

## First steps

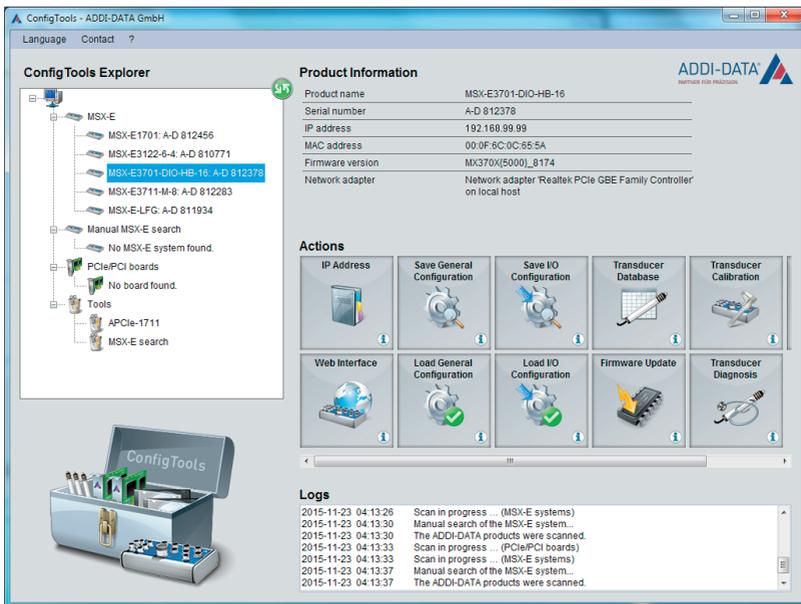
After connecting the required components to your Ethernet system and checking if the power supply is ensured, continue as follows:

- Install the software tool “ConfigTools”, which is to be found on the supplied CD.

As soon as you have started the installed software tool from your computer, the connected Ethernet systems are scanned.

## Main window structure

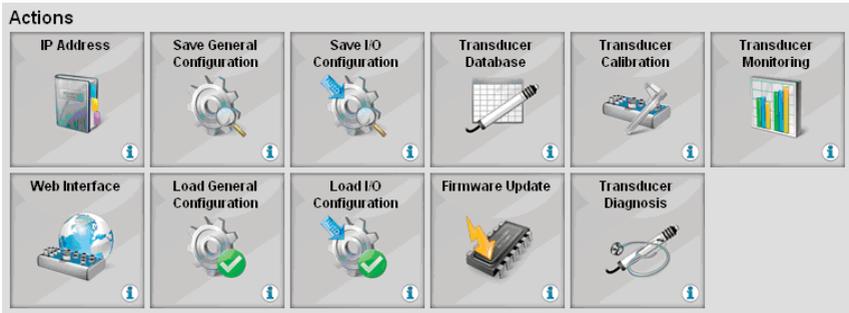
After scanning, all connected Ethernet systems are listed in the ConfigTools Explorer (on the left):



When you click on the name of one of these systems, corresponding product information such as IP address, MAC address and firmware version will be shown on the right side of the main window.

To scan the connected systems once again, for example after connecting another Ethernet system, you have to click on the green icon in the top right of the ConfigTools Explorer area.

Below the “Product Information” area, there are buttons that enable you to perform various actions and to access the web interface of your Ethernet system.



The following actions are possible:

- **IP Address:** Change the IP address of the Ethernet system in order to adapt it to your corporate network, for example.
- **Web Interface:** Access the web interface of your Ethernet system and change the configuration.
- **Save General Configuration:** Save the general configuration of the Ethernet system (including, for example, the network configuration), i.e. all the settings defined on the web interface apart from the I/O configuration.
- **Load General Configuration:** Load a file containing the general configuration of the Ethernet system.
- **Save I/O Configuration:** Save all function-specific settings defined on the web interface under "I/O Configuration".
- **Load I/O Configuration:** Load a function-specific configuration.
- **Transducer Database:** Edit the user's transducer database, that is, for example, change transducer features and add new transducers. The MSX-E database must contain the transducers that will be connected to the Ethernet system in order for the system to detect them.
- **Firmware Update:** Update the firmware of the Ethernet system. The required firmware file is available on request. The file name corresponds to the firmware version.
- **Transducer Calibration:** Calibrate transducers connected to one or more channels.
- **Transducer Diagnosis:** Test transducers for errors (short-circuit, open load).
- **Transducer Monitoring:** Select the channels to be acquired and start the acquisition with monitoring. For each channel, each acquired value is immediately displayed in a diagram.



#### NOTICE!

Depending on the Ethernet system, a different number of buttons and accordingly, different types of actions are available.

## Web interface: Quick access to the Ethernet system

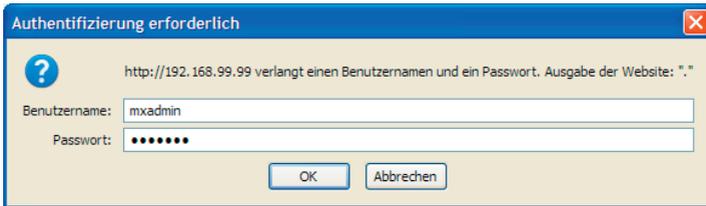
From the web interface of your Ethernet system, you can access the system quickly and manage your functions conveniently without programming.

To open the web interface of your Ethernet system, proceed as follows:

- Open a web browser (such as Mozilla Firefox, Internet Explorer, etc.) and enter the following address: **http://IP address of the Ethernet system**.

A login window is displayed.

- Enter "mxadmin" as the user name and password.



Do you have any questions?

Please find further information on our website:

**[www.addi-data.com](http://www.addi-data.com)**.

Do not hesitate to call us or to send us an e-mail  
(see front page for contact data).