

# **EUCHNER**

## **Software Manual**

**.NET Ethernet TCP/IP Library**

**.NET Class Library**

**EN**

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## 1. General notes

### 1.1. Use of the manual




This manual describes the function and use of the .NET Ethernet TCP/IP library (order no. 8000150), version 1.X.X.X. The order number and the software version number can also be found in the HTML documentation.

### 1.2. Requirement for the user

Proper use of the .NET Ethernet TCP/IP library requires prior knowledge in application programming and the integration or application of .NET class libraries in a PC environment.

### 1.3. Supplementary documents

The overall documentation for this product consists of the following documents:

Document title (document number)	Contents	
Manual (MAN20001660)	(this document)	
Documentation (HTML)	.NET library documentation	
Manual for EKS Electronic-Key Adapter	Device-specific information for the respective product	 



#### Important!

Always read all documents to gain a complete overview of safe installation, setup and use of the device.

### 1.4. System requirements

Hardware:	Standard PC
Development environment:	An integrated development environment (IDE) that supports .NET 6 is required.
Operating system:	Windows® 10, 32-bit Windows® 10, 64-bit



#### Important!

The .NET Ethernet TCP/IP library including demo application was programmed in C#.

### 1.5. Use of brand names

Microsoft Windows® is a registered trademark of Microsoft Corporation.

## 2. General function of the application

The .NET class library supports the integration of the following systems in a Microsoft .NET application:

- › Electronic-Key-System EKS Electronic-Key adapters with Ethernet TCP/IP interfaces

This enables the systems to be used in combination with process visualization software, for example.

Data communication is based on the Ethernet TCP/IP protocol. Here, the .NET class library serves as the protocol driver and enables straightforward communication setup from .NET-based programming environments such as Microsoft C# .NET.

The .NET class library can be used to read and possibly write the transponder data. Transponders with the following memory types are supported:

- › 116 bytes read/write plus 8 bytes serial number read only

Refer to the respective product description for the memory structure. It is necessary to observe the required block formation when writing data.

## 3. Installation

To use the .NET class library, add the *lib\_.NETTCP* folder to your .NET project.

The description for the .NET class library commands is integrated in the software. The HTML documentation can also be used as a supplement. This is available via the *index.html* document in the *html* folder.

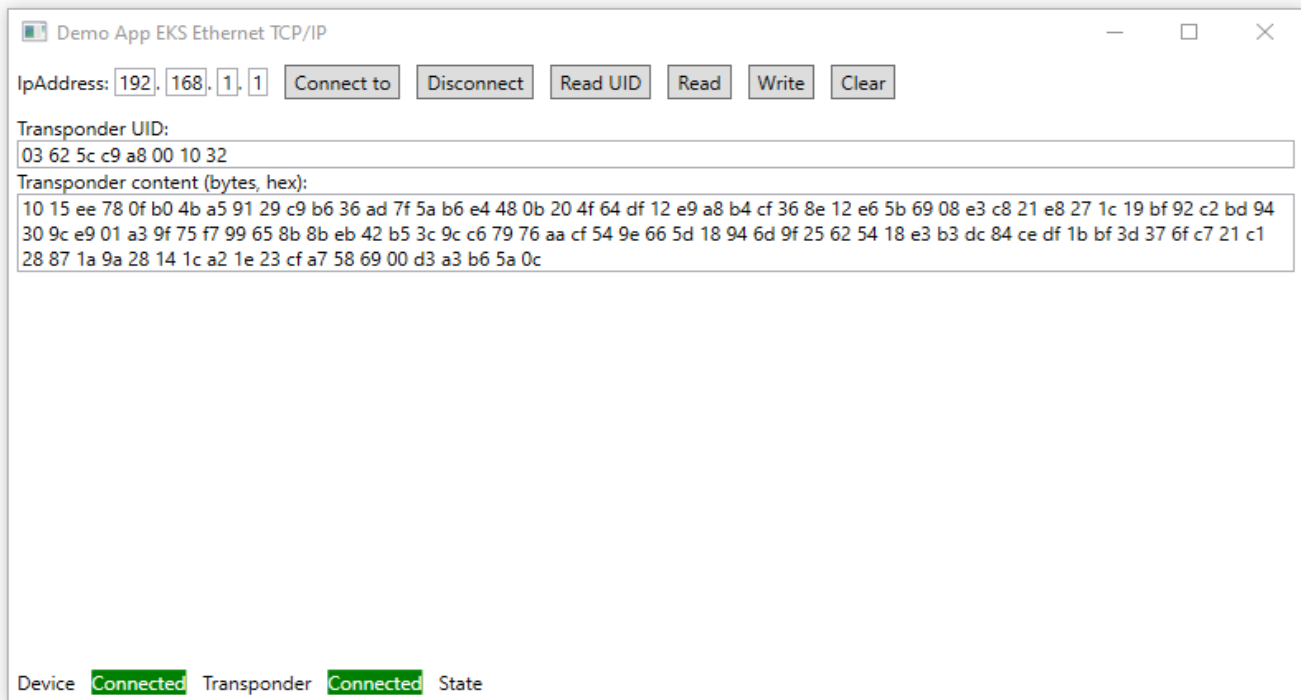
## 4. Demo application

The basic functions of the .NET class library can be tested in the integrated demo application *Euchner.DemoApp.EksTcp*. The demo application can be started under *DemoAppTCP\_x.x.x.\Executable*. It is intended exclusively for illustrative purposes for the functions and not for complete applications.



### Important!

A .NET 6 runtime environment is needed to use the demo application.



Connect a device to the PC and enter the IP address of the device. The buttons can then be used as follows:

Button	Meaning
<i>Connect to</i>	Establish the connection to the device.
<i>Disconnect</i>	Disconnect the connection to the device.
<i>Read UID</i>	Read the UID (unique identifier). The UID is the unique serial number for a transponder.
<i>Read</i>	Read the entire transponder read/write area.
<i>Write</i>	Write data to the transponder. It is necessary to observe the required block formation when writing data.
<i>Clear</i>	Overwrite data on the transponder with the value 0.

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