



## Data Sheet CODESYS EtherNet/IP Adapter SL

The CODESYS EtherNet/IP Adapter is an add-on for CODESYS compatible PLCs. By means of standard Ethernet ports, these devices are converted into EtherNet/IP adapters. The bus is configured directly from within the CODESYS Development System. Devices that are configured in this way exchange Ethernet messages with interconnected EtherNet/IP scanners.

### Product description

A specific EtherNet/IP configurator is already integrated in the standard setup of the CODESYS Development System. To use this, the user requires a license, which is either already stored in the target system [1] or can be added later [2]. In addition, a protocol stack is required for implementing the EtherNet/IP communication on the configured Ethernet port. This stack is supplied with the license as a CODESYS library.

If the CODESYS EtherNet/IP Adapter is licensed on the device to be programmed, then it can communicate with connected scanners and operate EtherNet/IP modules. All parameters for communication are predefined in the configurator. An adapter-EDS-file is included in the standard delivery.

- [1] Device manufacturers can equip their products with CODESYS EtherNet/IP Adapter and license them in advance. The use license is already included in SoftPLC systems from 3S-Smart Software Solutions (for example, CODESYS Control Win and CODESYS Control for Raspberry Pi).
- [2] End users can extend single, compatible devices with CODESYS EtherNet/IP Adapter SL. The license is saved on a special device dongle (CODESYS Key) or software license container (Soft Key) on the device.

### Configurator

Editors	<ul style="list-style-type: none"> <li>• Ethernet Bus Editor</li> <li>• EtherNet/IP Adapter Editor</li> <li>• EtherNet/IP Module Editor</li> </ul>
Communication Settings	<ul style="list-style-type: none"> <li>• IP Address</li> <li>• Device Identification (Vendor ID, Product Code, ...)</li> <li>• I/O Data Data Layout (module configuration)</li> </ul>
Verfügbare Module	<ul style="list-style-type: none"> <li>• BYTE Input/Output Module</li> <li>• WORD Input/Output Module</li> <li>• DWORD Input/Output Module</li> <li>• REAL Input/Output Module</li> <li>• Big Input/Output Module (maximal connection size)</li> </ul> <p>Extensibility through own modules by creating corresponding EDS files.</p>
Validation of configuration	supported
Diagnosis	<ul style="list-style-type: none"> <li>• Display of device state</li> <li>• Display of connection errors on status page</li> </ul>
EDS Export	Export of an EDS file suitable for the configuration.

### IEC Stack

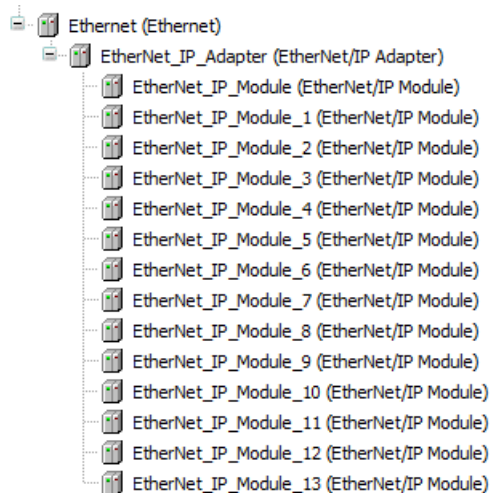
Supported Platforms	<ul style="list-style-type: none"> <li>• 32/64 bit</li> <li>• Little/Big Endian</li> </ul>
Specification	CIP Networks Library Volume 1 and 2

max. Number of Connections	no restriction
max. Number of Input/Output Assemblies	No restriction; The supplied EDS files support only one Input and Output Assembly by default. But this can be extended by creating own corresponding EDS files. In this way, I/Os can be distributed over several Assemblies/Connections.
Configuration Assembly	not supported
Connection Types	<ul style="list-style-type: none"> <li>• Class 1 (I/O Messaging)</li> <li>• Class 3 (Explicit Messaging)</li> <li>• UCMM</li> </ul>
I/O Connection Types	<ul style="list-style-type: none"> <li>• Point to Point and Multicast</li> <li>• Cyclic Transmission</li> <li>• Exclusive Owner, Listen Only, Input Only</li> </ul>
Minimal RPI	1 ms
Supported Objects	<ul style="list-style-type: none"> <li>• Identity Object</li> <li>• Message Router Object</li> <li>• Assembly Object</li> <li>• Connection Manager Object</li> <li>• TCP/IP Interface Object</li> <li>• EtherNet Link Object</li> </ul>
CIP Motion	not supported
CIP Sync	not supported
Device Level Ring (DLR)	not supported
Conformance	successfully tested with CT16 (CODESYS 3.5.15.0 on RaspberryPi3 Model B+)

## API

Diagnosis	<ul style="list-style-type: none"> <li>• State and Diagnosis variables</li> <li>• Ethernet Status Informationen</li> <li>• Generic Device Diagnose</li> </ul>
Reconfigure	supported
other functionalities	<ul style="list-style-type: none"> <li>• Reset of adapter</li> <li>• Registration of own CIP Objects</li> </ul>

## Screenshots



**EtherNet\_IP\_Adapter** X

General

EtherNet/IP Adapter I/O Mapping

EtherNet/IP Adapter IEC Objects

Status

Information

EDS-Datei

Vendor Name: 3S - Smart Software Solutions GmbH

Vendor ID: 1285

Product Name: EtherNet/IP Adapter

Product Code: 120

Major Revision: 1

Minor Revision: 1

Export EDS File...

**EtherNet/IP™**

**EtherNet\_IP\_Module** X

General

EtherNet/IP Module I/O Mapping

EtherNet/IP Module IEC Objects

Status

Information

Module Information

Module: DWord Input Module

Vendor Name: 3S - Smart Software Solutions GmbH

Vendor ID: 1285

Product Name: DWord Input Module

Product Code: 103

Major Revision: 1

Minor Revision: 1

**EtherNet/IP™**

## General information

### Manufacturer:

3S-Smart Software Solutions GmbH  
 Memminger Strasse 151  
 87439 Kempten  
 Germany

### Support:

<https://support.codesys.com>

### Item:

CODESYS EtherNet/IP Adapter SL

### Item number:

2303000006

### Sales:

CODESYS Store

<https://store.codesys.com>

### Included in delivery:

- License key

## System requirements and restrictions

<b>Programming System</b>	CODESYS Development System V3.5.7.0 or higher
<b>Runtime System</b>	CODESYS Control V3.5.7.0 or higher
<b>Supported Platforms/ Devices</b>	Note: Use the project "Device Reader" to find out the supported features of your device. "Device Reader" is available for free in the CODESYS Store.
<b>Additional Requirements</b>	<ul style="list-style-type: none"> <li>• CODESYS Control runtime system on the device with SysSocket component</li> <li>• Available Ethernet port on the device</li> <li>• WIBU Codemeter support</li> </ul>
<b>Restrictions</b>	-
<b>Licensing</b>	License activation optional on CODESYS Key or Soft Key (Soft Key: free of charge component of CODESYS Controls)
<b>Required Accessories</b>	Optional: CODESYS Key

*Note: Not all CODESYS features are available in all territories. For more information on geographic restrictions, please contact [sales@codesys.com](mailto:sales@codesys.com).*

*Note: Technical specifications are subject to change. Errors and omissions excepted. The content of the current online version of this document applies.*