**STORE**

# 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

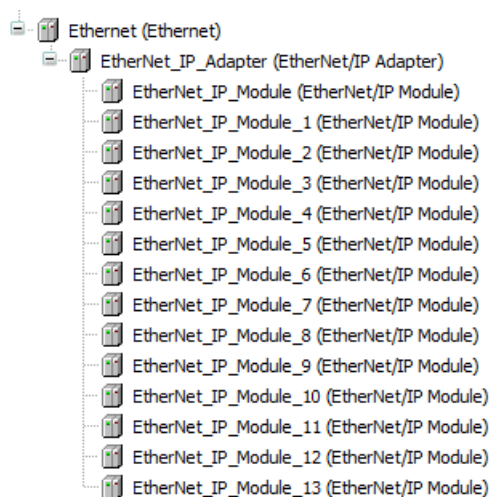| | |
|---|---|
| Editors | <ul><li>Ethernet Bus Editor</li><li>EtherNet/IP Adapter Editor</li><li>EtherNet/IP Module Editor</li></ul> |
| Communication Settings | <ul><li>IP Address</li><li>Device Identification (Vendor ID, Product Code, …)</li><li>I/O Data Data Layout (module configuration)</li></ul> |
| Verfügbare Module | <ul><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> Extensibility through own modules by creating corresponding EDS files. |
| Valdidation of configuration | supported |
| Diagnosis | <ul><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><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;<br>The supplied EDS files support only one Input and Output Assembly by default.<br>But this can be extended by creating own corresponding EDS files.<br>In this way, I/Os can be distributed over several Assemblies/Connections. |
| Configuration Assembly | not supported |
| Connection Types | • Class 1 (I/O Messaging)<br>• Class 3 (Explicit Messaging)<br>• UCMM |
| I/O Connection Types | • Point to Point and Multicast<br>• Cyclic Transmission<br>• Exclusive Owner, Listen Only, Input Only |
| Minimal RPI | 1 ms |
| Supported Objects | • Identity Object<br>• Message Router Object<br>• Assembly Object<br>• Connection Manager Object<br>• TCP/IP Interface Object<br>• EtherNet Link Object |
| CIP Motion | not supported |
| CIP Sync | not supported |
| Device Level Ring (DLR) | not supported |
| ACD | supported, deactivated by default |
| Conformance | successfully tested with CT17 Testtool (CODESYS 3.5.16.0 on RaspberryPi3 Model B+) |

## API

| Diagnosis | • State and Diagnosis variables<br>• Ethernet Status Informationen<br>• Generic Device Diagnose |
|---|---|
| Reconfigure | supported |
| other functionalities | • Reset of adapter<br>• Registration of own CIP Objects |

## Screenshots

```
Ethernet (Ethernet)
  EtherNet_IP_Adapter (EtherNet/IP Adapter)
    EtherNet_IP_Module (EtherNet/IP Module)
    EtherNet_IP_Module_1 (EtherNet/IP Module)
    EtherNet_IP_Module_2 (EtherNet/IP Module)
    EtherNet_IP_Module_3 (EtherNet/IP Module)
    EtherNet_IP_Module_4 (EtherNet/IP Module)
    EtherNet_IP_Module_5 (EtherNet/IP Module)
    EtherNet_IP_Module_6 (EtherNet/IP Module)
    EtherNet_IP_Module_7 (EtherNet/IP Module)
    EtherNet_IP_Module_8 (EtherNet/IP Module)
    EtherNet_IP_Module_9 (EtherNet/IP Module)
    EtherNet_IP_Module_10 (EtherNet/IP Module)
    EtherNet_IP_Module_11 (EtherNet/IP Module)
    EtherNet_IP_Module_12 (EtherNet/IP Module)
    EtherNet_IP_Module_13 (EtherNet/IP Module)
```

**EtherNet_IP_Adapter** ✕

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

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**EtherNet_IP_Module** ✕

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

**Vendor:**

CODESYS 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

| | |
|---|---|
| **Programming System** | CODESYS Development System V3.5.7.0 or higher |
| **Runtime System** | CODESYS Control V3.5.7.0 or higher |
| **Supported Platforms/ Devices** | 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. |
| **Additional Requirements** | <ul><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> |
| **Restrictions** | - |
| **Licensing** | License activation optional on CODESYS Key or Soft Key (Soft Key: free of charge component of CODESYS Controls) |
| **Required Accessories** | Optional: CODESYS Key |

*Note: Not all CODESYS features are available in all territories. For more information on geographic restrictions, please contact 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.*