

# Data Sheet CODESYS PROFINET Controller (for EL6631) SL

CODESYS PROFINET Controller (for EL6631) SL is a product that end users can use to implement a PROFINET network with a CODESYS compatible controller and CODESYS EtherCAT

# **Product description**

The EL6631 gateway terminal from Beckhoff allows an EtherCAT enabled controller to register itself as a PROFINET controller with other PROFINET I/O devices in a PROFINET network. For CODESYS compatible controllers to use this functionality, they require CODESYS PROFINET Controller (for EL6631) SL. With this product, project engineering of the functionality is possible in the CODESYS Development System. For this purpose, the terminal is integrated and configured as an EtherCAT object in the device tree of an IEC 61131-3 project. End users of CODESYS compatible controllers with EtherCAT are therefore provided with the option for configuring their device as a PROFINET controller and establishing their own PROFINET networks. With the gateway functionality of the EL6631 terminal module, no additional Ethernet ports or other hardware is required on the existing controller.

### More information

A special device description for the EL6631 gateway terminal allows integration into an appropriate EtherCAT fieldbus coupler (example: EK1100) of the CODESYS project according to the physical configuration of the hardware.

### Architecture

Typical structure in the CODESYS device tree:

| Bie Edit View Project Build Online Debug Iools Window Help Utis (2008880) | an in an | -                 |      |                        |           |                           |         |                    |
|---|--|-------------------|------|------------------------|-----------|---------------------------|---------|--------------------|
|   | ALTERIA 2010 1818                            |                   |      |                        |           |                           |         |                    |
| Devices - a   | X EL2612 X                                   |                   |      |                        |           |                           |         |                    |
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| B - M Device (CODESYS Control Win V3)                                     | General                                      | Address           |      | Additional             | EtherCAT. |                           |         |                    |
| B I PLC Logic   | Process Data                                 | AutoInc Address   | -1 * | Enable Expert Settings | EtherCAT. |                           |         |                    |
| Application Itary Manager   | Process Data                                 | EtherCAT Address  | 1002 | Coptional              |           |                           |         |                    |
| Library Manager PLC. PRG (PRG)  | EtherCAT Parameters                          |                   |      |                        |           |                           |         |                    |
| PLC_PRG (PRG)   |  | Distributed Clock |      |                        |           |                           |         |                    |
| B S MainTask  | EtherCAT I/O Mapping                         |                   |      |                        |           |                           |         |                    |
| - (a) EtherCAT Master.EtherCAT Task                                       |  |                   |      |                        |           |                           |         |                    |
| B) PLC PRG  | Status                                       |                   |      |                        |           |                           |         |                    |
| EtherCAT_Master (EtherCAT Master)   | Information                                  |                   |      |                        |           |                           |         |                    |
| BK1100 (EK1100 EtherCAT Coupler (2A E-Bus))                               |  |                   |      |                        |           |                           |         |                    |
| B- 🗐 EL6631 (EL6631 PROFINET IO Controller)                               |  |                   |      |                        |           |                           |         |                    |
| ROFINET_Controller (EL6631 Profinet Gateway)                              |  | -                 |      |                        |           |                           |         |                    |
| ROFINET_Slave (Codesys Pic PN Device)                                     |  |                   |      |                        |           |                           |         |                    |
|   |  |                   |      |                        |           |                           |         |                    |
|   |  |                   |      |                        |           |                           |         |                    |
| BL2612 (BL2612 2CR, REBY OUDDIT, CO (125V AC / 30V DC))                   |  |                   |      |                        |           |                           |         |                    |
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| Cevices POUs S Modules  |  |                   |      |                        |           |                           |         |                    |
| Messages - Totally 0 error(s), 0 warning(s), 0 message(s)                 |  |                   |      |                        |           |                           |         |                    |
|   |  |                   |      |                        |           | Last build: O 0 0 0 Preco | molei d | ment unen (nobody) |

#### **General information**

#### Manufacturer:

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

# Support:

#### https://support.codesys.com

Item: CODESYS PROFINET Controller (for EL6631) SL Item number: 2303000009 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>Available EtherCAT Master and Ethernet port on the device</li><li>WIBU Codemeter support</li></ul>   |  |  |  |  |
| Restrictions                 | Maximum of 15 PROFINET slaves are supported  |  |  |  |  |
|                              | License activation optional on CODESYS Runtime Key or  |  |  |  |  |
| Licensing                    | CODESYS Soft Key (free of charge component of CODESYS  |  |  |  |  |
|                              | Controls)  |  |  |  |  |
| Required Accessories         | PROFINET master terminal EL6631 (Beckhoff)   |  |  |  |  |
|                              | Optional: CODESYS Runtime 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.