

CB 1241 COMMUNICATION BOARD RS485

Function

On the Communication Board CB 1241 RS 485, the following standard protocols are available:

- ASCII:
For interfacing to third-party systems with simple transmission protocols, e.g. protocols with start and end characters or with block check characters. The interface handshake signals can be queried and controlled via the user program.
- Modbus:
For communication according to the Modbus protocol with RTU format:
 - Modbus Master:
Master-slave interfacing with SIMATIC S7 as master.
 - Modbus slave:
Master-slave interfacing with SIMATIC S7 as slave; message frame traffic from slave to slave not possible.
- USS drive protocol:
Instructions for connection of USS protocol drives are specifically supported. In this case, drives exchange data over RS485. It is then possible to control these drives, and to read and write parameters.
Additional drivers can also be downloaded.

Parameterization

The parameterization of the Communication Board CB 1241 is particularly user-friendly and simple with STEP 7 Basic: The user specifies the properties of the module by means of a parameterization environment integrated into STEP 7 Basic.

Technical specifications

6ES7 241-1CH30-1XB0
CB 1241 RS485

Input current

from backplane bus 5 V DC, typ.

50 mA

Power losses

Power loss, typ.

1.5 W

Interrupts/diagnostics/status information

Diagnoses

•Diagnostic functions

Yes

Diagnostics indication LED

•For status of the outputs

Yes

Climatic and mechanical conditions for storage and transport

Climatic conditions for storage and transport

•Free fall

0.3 m; five times, in dispatch package

• Drop height, max. (in packaging)

•Temperature

-40 °C to +70 °C

• Permissible temperature range

•Air pressure acc. to IEC 60068-2-13

1080 to 660 hPa

• Permissible air pressure

Mechanical and climatic conditions during operation

Climatic conditions in operation

•Temperature

- Permissible temperature range
- Permissible temperature change

•Air pressure acc. to IEC 60068-2-13

- Permissible air pressure

•Pollutant concentrations

- SO₂ at RH < 60% without condensation

0 °C to 55 °C horizontal installation 0 °C to 45 °C vertical installation
5°C to 55°C, 3°C / minute

1080 to 795 hPa

SO₂: < 0.5 ppm; H₂S: < 0.1 ppm; RH < 60% condensation-free

Degree and class of protection

IP20

Yes

Standards, approvals, certificates

CE mark

Yes

C-TICK

Yes

FM approval

Yes

Mechanics/material

Type of housing (front)

•Plastic

Yes