

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

PRODUCT BRAND

Siemens

PRODUCT MODEL

6AG1341-1CH02-7AE0

SIPLUS S7-300 CP 341 point-to-point communication processor with an RS-422/485 serial interface.

OFFICIAL SOURCE

CP 341 Point-to-Point Communication, Installation and Parameter Assignment

A5E02191071-03

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Product Description

1

1.1 Possible applications for the CP 341

The CP 341 communication processor enables you to exchange data between automation devices or computers by means of a point-to-point connection.

Functionality of the CP 341

The CP 341 communication processor provides the following functionality:

- Transmission rate up to 115.2 kbaud, half duplex
- Integration of the most important transmission protocols in the module firmware:
 - 3964(R) procedure
 - RK 512 computer link
 - ASCII driver
 - Printer driver
- Subsequent loading of other drivers (transmission protocols) with the **CP 341: Point-to-Point Communication, Parameter Assignment** parameter assignment interface.
- Adaptation of the transmission protocols using the **CP 341: Point-to-Point Communication, Parameter Assignment** parameter assignment interface
- Integrated serial interface:

Three module variants are available, each having a different interface type that is suitable for different communication partners (see following table).

Module variants

The following variants of the CP 341 communication processor are available:

Table 1- 1 CP 341 module variants

Module	Order number	Integrated interface
CP 341-RS 232C	6ES7 341-1AH02-0AE0	RS 232C interface
CP 341-20mA-TTY	6ES7 341-1BH02-0AE0	20mA-TTY interface
CP 341-RS 422/485	6ES7 341-1CH02-0AE0	X27 (RS 422/485) interface

LED Indicators

The following LED indicators are located on the front panel of the communication processor:

- | | | |
|-------|---------|---------------------|
| • SF | (red) | Error display |
| • TxD | (green) | Interface sending |
| • RxD | (green) | Interface receiving |

Section "Diagnostics via the display elements of the CP 341 (Page 177)" describes the operating states and errors that these LEDs indicate. Section "Subsequent Loading of Firmware Updates (Page 118)" provides information on the LED indicators that occur when loading a firmware update.

Integrated Interface

The CP 341 is available in three variants with different interface types:

- RS 232C
- X27 (RS 422/485)
- 20-mA-TTY

The interface type is indicated on the front of the CP 341. A detailed interface description can be found in Section "Properties of the Serial Interface (Page 18)".

Bus connector for the S7 backplane bus

A bus connector is supplied with the CP 341. The bus connector is inserted onto the rear panel connector of the CP 341 during installation. The S7-300 backplane bus is connected by means of the bus connector.

The S7-300 backplane bus is a serial data bus via which the CP 341 communicates with the modules of the programmable controller.



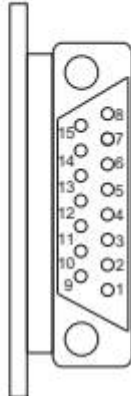
Figure 1-2 Bus connector

B.3 X27 (RS 422/485) Interface of the CP 341-RS 422/485

Pin assignment

The table below shows the pin assignment for the 15-pin sub D females connector in the front panel of the CP 341-RS 422/485.

Table B- 3 Pin assignment for the 15-pin sub D female connector of the integrated interface of the CP 341-RS 422/485

Female connector on CP 341-RS 422/485*	Pin	Designation	Input/output	Meaning
	1	-	-	-
	2	T (A) -	Output	Send data (four-wire mode)
	3	-	-	-
	4	R (A)/T (A) -	Input Input/output	Receive data (four-wire mode) Receive/send data (two-wire mode)
	5	-	-	-
	6	-	-	-
	7	-	-	-
	8	GND	-	Functional ground (isolated)
	9	T (B) +	Output	Send data (four-wire mode)
	10	-	-	-
	11	R (B)/T (B) +	Input Input/output	Receive data (four-wire mode) Receive/send data (two-wire mode)
	12	-	-	-
	13	-	-	-
	14	-	-	-
	15	-	-	-

* View from the front

Connecting cables

If you make your own connecting cables you must remember that unconnected inputs at the communication partner may have to be connected to open-circuit potential.

Please note that you must only use shielded connector casings. A large surface area of both sides of the cable shield must be in contact with the connector casing. You are advised to use Siemens V42 254 shielded connector casings.

CAUTION

Never connect the cable shield with the GND, as this could destroy the interface modules. GND must always be connected on both sides (pin 8), otherwise the interface modules again be destroyed.