

Overview



- For fast, high-performance serial data exchange via point-to-point connection
- 2 versions:
 - CP 441-1 with 1 variable interface for easy point-to-point coupling.
 - CP 441-2 with 2 variable interfaces for high-performance point-to-point connection.
- Plug-in interface modules for different physical transmission properties:
 - RS 232C (V.24), 20 mA (TTY) or RS 422/RS 485 (X.27)
- Implemented protocols: ASCII, 3964 (R), printer driver; for CP 441-2 additional RK 512 and Modbus RTU (reloadable)
- Simple parameter assignment using tool integrated in STEP 7

Technical specifications

Article number	6ES7441-1AA05-0AE0 CP 441-1, PTP-CONN., 1 CHANNEL	6ES7441-2AA05-0AE0 CP 441-2, PTP-CONN., 2 CHANNELS
Product type designation		
Supply voltage		
Rated value (DC)		
• 5 V DC	Yes	Yes
• 24 V DC	Yes	Yes
Input current		
from backplane bus 5 V DC, max.	300 mA	300 mA
Power losses		
Power loss, typ.	2.1 W; incl. 1x20 mA TTY module	2.7 W; incl. 2x20mA TTY module
Memory		
Memory requirements per interface in memory card of S7-CPU	1 to 5 KB for parameters; 0 to 55 KB for message texts	1 to 5 KB for parameters; 0 to 55 KB for message texts; 0 to 64 KB for loadable drivers
Interfaces		
Number of interfaces	1; variable	2; variable
Interface physics, 20 mA (TTY)	Yes	Yes
Interface physics, RS 232C (V.24)	Yes	Yes
Interface physics, RS 422/RS 485 (X.27)	Yes	Yes
20 mA (TTY), cable length, shielded, max.	1 000 m; At 9600 bps	1 000 m; At 9600 bps
RS 232, cable length, shielded, max.	15 m; At 115200 bps	15 m; At 115200 bps
RS 422/485, cable length, shielded, max.	1 200 m; At 19200 bps	1 200 m; At 19200 bps
Point-to-point		
• Transmission rate, max.	115.2 kbit/s; Min. 300 bps	115.2 kbit/s; Min. 300 bps
• supported printers	HP-Deskjet, HP-Laserjet, IBM-Proprinter, user-defined	HP-Deskjet, HP-Laserjet, IBM-Proprinter, user-defined
Integrated protocol driver		
- 3964 (R)	Yes	Yes
- ASCII	Yes	Yes
- RK512	No	Yes
- Printer	Yes	Yes
- customer-specific drivers reloadable	No	No
Transmission speed, 20 mA (TTY)		
- with 3964 (R) protocol, max.	19.2 kbit/s	19.2 kbit/s
- with ASCII protocol, max.	19.2 kbit/s	19.2 kbit/s
- with printer driver, max.,	19.2 kbit/s	19.2 kbit/s
- with RK 512 protocol, max.	19.2 kbit/s	19.2 kbit/s

SIMATIC S7-400 advanced controller

Communication

CP 441-1, CP 441-2

Technical specifications (continued)

Article number	6ES7441-1AA05-0AE0 CP 441-1, PTP-CONN., 1 CHANNEL	6ES7441-2AA05-0AE0 CP 441-2, PTP-CONN., 2 CHANNELS
Transmission speed, RS 422/485		
- with 3964 (R) protocol, max.	115.2 kbit/s	115.2 kbit/s
- with ASCII protocol, max.	115.2 kbit/s	115.2 kbit/s
- with printer driver, max.,	115.2 kbit/s	115.2 kbit/s
- with RK 512 protocol, max.		115.2 kbit/s
Transmission speed, RS232		
- with 3964 (R) protocol, max.	115.2 kbit/s	115.2 kbit/s
- with ASCII protocol, max.	115.2 kbit/s	115.2 kbit/s
- with printer driver, max.,	115.2 kbit/s	115.2 kbit/s
- with RK 512 protocol, max.		115.2 kbit/s
Ambient conditions		
Ambient temperature in operation		
• Min.	0 °C	0 °C
• max.	60 °C	60 °C
Relative humidity		
• Operation, max.	95 %	95 %
Dimensions		
Width	25 mm	25 mm
Height	290 mm	290 mm
Depth	210 mm	210 mm
Weights		
Weight, approx.	580 g; Interface modules: 80 g	580 g; Interface modules: 80 g

Ordering data

Article No.

Article No.

Communication module CP 441-1

With 1 variable interface for interface submodules; including configuration package on CD

6ES7441-1AA05-0AE0

Communication module CP 441-2

With 2 variable interfaces for interface submodules; including configuration package on CD

6ES7441-2AA05-0AE0

Interface submodules

RS 232C (V.24)

6ES7963-1AA10-0AA0

20 mA (TTY)

6ES7963-2AA10-0AA0

RS 422/485 (X.27)

6ES7963-3AA10-0AA0

RS 232 connecting cable

5 m

6ES7902-1AB00-0AA0

10 m

6ES7902-1AC00-0AA0

15 m

6ES7902-1AD00-0AA0

TTY connecting cable

5 m

6ES7902-2AB00-0AA0

10 m

6ES7902-2AC00-0AA0

50 m

6ES7902-2AG00-0AA0

RS 422/485 connecting cable

5 m

6ES7902-3AB00-0AA0

10 m

6ES7902-3AC00-0AA0

50 m

6ES7902-3AG00-0AA0

Loadable drivers for CP 441-2

Modbus master (RTU format)

- Single license
- Single license, without software or documentation

6ES7870-1AA01-0YA0

6ES7870-1AA01-0YA1

Modbus slave (RTU format)

- Single license
- Single license, without software or documentation

6ES7870-1AB01-0YA0

6ES7870-1AB01-0YA1