

SIMATIC S7-1200, Communication Board CB 1241, RS485, terminal block, supports Freepoint



General information

Product type designation CB 1241 RS 485

Input current

from backplane bus 5 V DC, typ. 50 mA

Power loss

Power loss, typ. 1.5 W

Interfaces

Point-to-point connection

• Cable length, max. 1 000 m

Integrated protocol driver

— Freepoint	Yes
— ASCII	Yes; Available as library function
— Modbus RTU master	Yes
— MODBUS RTU slave	Yes
— USS	Yes; Available as library function

Protocols

Integrated protocols

Freeport	
— Telegram length, max.	1 kbyte
— Bits per character	7 or 8
— Number of stop bits	1 (Standard), 2
— Parity	No parity (standard); even, uneven, mark (parity bit always 1); space (parity bit always 0)

3964 (R)	
— Telegram length, max.	1 kbyte
— Bits per character	7 or 8
— Number of stop bits	1 (Standard), 2
— Parity	No parity (standard); even, uneven, mark (parity bit always 1); space (parity bit always 0)

Modbus RTU master	
— Address area	1 through 49 999 (Standard Modbus addressing)
— Number of slaves, max.	247; slave numbers 1 through 247, per MODBUS network segment maximum 32 devices, additional repeaters needed to expand the network to maximum configuration

MODBUS RTU slave	
— Address area	1 through 49 999 (Standard Modbus addressing)

Interrupts/diagnostics/status information

Diagnostics function	Yes
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Degree and class of protection

IP degree of protection	IP20
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Standards, approvals, certificates

CE mark	Yes
CSA approval	Yes
UL approval	Yes
cULus	Yes
FM approval	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
Marine approval	Yes

Ambient conditions

Free fall

• Fall height, max.	0.3 m; five times, in product package
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Ambient temperature during operation

• min.	-20 °C
• max.	60 °C
• horizontal installation, min.	-20 °C
• horizontal installation, max.	60 °C
• vertical installation, min.	-20 °C

• vertical installation, max.	50 °C
• permissible temperature change	5°C to 55°C, 3°C / minute
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Air pressure acc. to IEC 60068-2-13	
• Operation, min.	795 hPa
• Operation, max.	1 080 hPa
• Storage/transport, min.	660 hPa
• Storage/transport, max.	1 080 hPa
Relative humidity	
• Operation at 25 °C without condensation, max.	95 %
Mechanics/material	
Enclosure material (front)	
• Plastic	Yes
Dimensions	
Width	38 mm
Height	62 mm
Depth	21 mm
Weights	
Weight, approx.	40 g
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