

SIMATIC S7-1200, Communication module CM 1241, RS422/485, 9-pole D-sub (socket) supports Freepoint



General information

Product type designation CM 1241 RS 422 / 485

Supply voltage

Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V

Input current

Current consumption, max. 220 mA; From backplane bus 5 V DC

Power loss

Power loss, typ. 1.1 W

Interfaces

Interfaces/bus type RS 422 / 485 (X.27)

Number of interfaces 1

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)
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Interrupts/diagnostics/status information

Diagnostics function	Yes
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Diagnostics indication LED

• for status of the outputs	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
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 %
Dimensions	
Width	30 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	155 g
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