



SIMATIC S7-1200 G2: CM 1241 communication module; interfaces: RS232/422/485, with push-in terminal block

General information	
Product type designation	CM 1241 RS 232 / 422 / 485
Input current	
from backplane bus 5 V DC, typ.	170 mA
Power loss	
Power loss, typ.	0.9 W
Interfaces	
Interfaces/bus type	RS 232 (full duplex) / 422 / 485
Number of interfaces	1
Point-to-point connection	
• Cable length, max.	1 000 m; RS 232 10 m shielded max., RS 422/485 1 000 m shielded max.
Integrated protocol driver	
— Freeport	Yes
— ASCII	Yes; Available as library function
— Modbus RTU master	Yes
— Modbus RTU device	Yes
— USS	Yes; Available as library function
Interface types	
RS 232	
• Transmission rate, max.	115.2 kbit/s
RS 485	
• Transmission rate, max.	250 kbit/s
Protocols	
Integrated protocols	
Freeport	
— Telegram length, max.	4 kbyte
— Bits per character	7 or 8
— Number of stop bits	1 (Standard), 2
— Parity	no parity (standard); even, odd, mark (parity bit always 1); space (parity bit always 0)
Modbus RTU master	
— Address area	1 through 65535 (Standard Modbus addressing)
— max. number of devices	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 device	
— Address area	1 through 65535 (Standard Modbus addressing)
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Diagnostics indication LED	

• DIAG LED	Yes	
• for status of the outputs	Yes	
<b>Degree and class of protection</b>		
IP degree of protection	IP20	
<b>Standards, approvals, certificates</b>		
CE mark	Yes	
CSA approval	No	
UL approval	Yes	
cULus	Yes	
FM approval	No	
RCM (formerly C-TICK)	Yes	
KC approval	Yes	
Marine approval	No	
<b>Ambient conditions</b>		
Free fall		
• Fall height, max.	0.3 m; five times, in product package	
Ambient temperature during operation		
• horizontal installation, min.	-20 °C	
• horizontal installation, max.	60 °C; at max. voltages and max. specification	
• vertical installation, min.	-20 °C	
• vertical installation, max.	50 °C; at max. voltages and max. specification	
Ambient temperature during storage/transportation		
• min.	-40 °C	
• max.	70 °C	
Air pressure acc. to IEC 60068-2-13		
• Operation, min.	540 hPa	
• Operation, max.	1 140 hPa	
• Storage/transport, min.	540 hPa	
• Storage/transport, max.	1 140 hPa	
Altitude during operation relating to sea level		
• Installation altitude, min.	-1 000 m	
• Installation altitude, max.	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	
Relative humidity		
• Operation, max.	95 %; no condensation	
Vibrations		
• Vibration resistance during operation acc. to IEC 60068-2-6	3.5 mm from 5 - 8.4 Hz, 1g from 8.4 - 150 Hz	
• Operation, tested according to IEC 60068-2-6	Yes	
Shock testing		
• tested according to IEC 60068-2-27	Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms	
Pollutant concentrations		
• SO2 at RH < 60% without condensation	SO2: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60 % condensation-free	
<b>Mechanics/material</b>		
Enclosure material (front)		
• Plastic	Yes	
<b>Dimensions</b>		
Width	30 mm	
Height	125 mm	
Depth	100 mm	
<b>Weights</b>		
Weight, approx.	178 g	
<b>Classifications</b>		
	<b>Version</b>	<b>Classification</b>
eClass	14	27-24-22-08
eClass	12	27-24-22-08
eClass	9.1	27-24-22-08
eClass	9	27-24-22-08

eClass	8	27-24-22-08
eClass	7.1	27-24-22-08
eClass	6	27-24-22-08
ETIM	10	EC001423
ETIM	9	EC001423
ETIM	8	EC001423
ETIM	7	EC001423
IDEA	4	3564
UNSPSC	15	32-15-17-05

**Approvals / Certificates**

**General Product Approval**



[Miscellaneous](#)



**General Product Approval**

**EMV**

**For use in hazardous locations**



[Manufacturer Declaration](#)

[China RoHS](#)



[CCC-Ex](#)

**For use in hazardous locations**

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last modified:

5/18/2025