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Data sheet 6ES7241-1CH30-1XB0



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

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	
— Freeport	Yes
— ASCII	Yes; Available as library function
— Modbus RTU master	Yes
— Modbus RTU device	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)
— 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 49 999 (Standard Modbus addressing)
Interrupts/diagnostics/status information	
Diagnostics function	Yes
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 %
Mechanics/material	
Enclosure material (front)	
● Plastic	Yes
Dimensions	
Width	38 mm
Height	62 mm
Depth	21 mm
Weights	
Weight, approx.	40 g
Classifications	

	Version	Classification
eClass	16	27-24-22-08
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

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General Product Approval

CCC | EG-Konf. | UK CA | Miscellaneous | Manufacturer Declaration | UL

General Product Approval				EMV	For use in hazardous locations
RCM	EAC	China RoHS	Manufacturer Declaration	RCM	ATEX

For use in hazardous locations					Maritime application
IECEx	FM	UL	Miscellaneous	CCC-Ex	ABS

Maritime application

BUREAU VERITAS | DNV | NK / Nippon Kaiji Kyokai | PRS | RINA | RMRS

Maritime application

CCS (China Classification Society) | KR (Korean Register of Shipping)

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