

Data sheet

6AG1241-1CH30-5XB1



Figure similar

SIPLUS S7-1200 CB 1241, based on 6ES7241-1CH30-1XB0 with conformal coating, -40...+60 °C, start up -25 °C, RS-485, terminal block, supports Freeport

General information	
Product type designation	CB 1241 RS 485
based on	6ES7241-1CH30-1XB0
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
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Degree and class of protection	
IP degree of protection	IP20

Ambient conditions	
Free fall	<ul style="list-style-type: none"> • Fall height, max.
Ambient temperature during operation	<ul style="list-style-type: none"> • min. -40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C • max. 60 °C; = Tmax
Ambient temperature during storage/transportation	<ul style="list-style-type: none"> • min. -40 °C • max. 70 °C
Altitude during operation relating to sea level	<ul style="list-style-type: none"> • Installation altitude above sea level, max. 5 000 m • Ambient air temperature-barometric pressure-altitude Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
Relative humidity	<ul style="list-style-type: none"> • With condensation, tested in accordance with IEC 60068-2-38, max. 100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
Coolants and lubricants	<ul style="list-style-type: none"> — Resistant to commercially available coolants and lubricants Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems	<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-3 Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request — to chemically active substances according to EN 60721-3-3 Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * — to mechanically active substances according to EN 60721-3-3 Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-6 Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request — to chemically active substances according to EN 60721-3-6 Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * — to mechanically active substances according to EN 60721-3-6 Yes; Class 6S3 incl. sand, dust; *
Usage in industrial process technology	<ul style="list-style-type: none"> — Against chemically active substances acc. to EN 60654-4 Yes; Class 3 (excluding trichlorethylene) — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)
Remark	<ul style="list-style-type: none"> — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 * The supplied plug covers must remain in place over the unused interfaces during operation!
Conformal coating	<ul style="list-style-type: none"> • Coatings for printed circuit board assemblies acc. to EN 61086 Yes; Class 2 for high reliability • Protection against fouling acc. to EN 60664-3 Yes; Type 1 protection • Military testing according to MIL-I-46058C, Amendment 7 Yes; Discoloration of coating possible during service life • Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A Yes; Conformal coating, Class A
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	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

EMV



[Manufacturer Declaration](#)



[China RoHS](#)



KC

EMV

For use in hazardous locations

Maritime application



IECEx



ATEX



CCC



DNV

last modified:

8/5/2025