SIEMENS

Data sheet

6ES7241-1AH32-0XB0



SIMATIC S7-1200, Communication module CM 1241, RS232, 9-pole D-sub (pin), supports Freeport

Figure similar

General information Product type designation CM 1241 RS 232 Supply votage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible	rigulesiima	
Rated value (DC) 24 V permissible range, lower limit (DC) 28.8 V Input current Current consumption, max. 200 mA; From backplane bus 5 V DC Power loss Power loss, typ. 1.1 W Interfaces Interfacesbus type RS 232C (V.24) Number of interfaces 1 Point-to-point connection • Cable length, max. 10 m Integrated protocol driver — Freeport Yes — ASCII Yes; Available as library function • MODBUS RTU master — MODBUS RTU slave Yes Protocols Integrated protocols Freeport — Telegram length, max. 1 kbyte — Bits per character 7 or 8 — Number of stop bits 1 (Standard); even, uneven, mark (parity bit always 1); space (parity bit always 0) Modbus RTU master — Parity No parity (standard); even, uneven, mark (parity bit always 1); space (parity bit always 0) Modbus RTU master 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 52 devices, additional repeaters needed to expand the network to maximum 52 devices, additional repeaters needed to expand the network to maximum 52 devices, additional repeaters needed to expand the network to maximum 52 devices, additional repeaters needed to expand the network to maximum 52 devices, additional repeaters needed to expand the network to maximum 52 devices, additional repeaters needed to expand the network to maximum 52 devices, additional repeaters needed to expand the network to maximum 52 devices, additional repeaters needed to expand the network to maximum 52 devices, additional repeaters needed to expand the network to maximum 52 devices, additional repeaters needed to expand the network to maximum 52 devices, additional repeaters needed to expand the network to maximum 52 devices, additional repeaters needed to expand the network to maximum 52	General information	
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Power loss, typ. 1.1 W Interfaces Interfaces/bus type RS 232C (V.24) Number of interfaces 1 Point-to-point connection • Cable length, max. 10 m Integrated protocol driver — Freeport Yes, Available as library function — Modbus RTU master Yes — MOBUS RTU slave Yes Protocols Integrated protocols Freeport 1 kbyte — Telegram length, max. 1 kbyte — Number of stop bits 1 (Standard), 2 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 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 No parity (standard); even, uneven, mark (parity bit always 1); space (parity bit always 0) Modbus RTU master 7 or 8 1 (Standard), 2 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) — Address area 1 through 247, per MODBUS network segment maximum 32 devices, additional repeaters needed to expand the network to maximum configuration	Current consumption, max.	200 mA; From backplane bus 5 V DC
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Point-to-point connection	Interfaces/bus type	RS 232C (V.24)
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 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 master	
32 devices, additional repeaters needed to expand the network to maximum configuration	 Address area 	1 through 49 999 (Standard Modbus addressing)
MODBUS RTU slave	— Number of slaves, max.	32 devices, additional repeaters needed to expand the network to maximum
	MODBUS RTU slave	

Interrupts/diagnostics/status information Diagnostics function Diagnostics indication LED • for status of the outputs Pegree and class of protection IP degree of prot	— Address area	1 through 49 999 (Standard Modbus addressing)	
Disgnostics indication LED	Interrupts/diagnostics/status information		
• for status of the outputs Degroes and class of protection Page of protection Page	Diagnostics function	Yes	
Degree and class of protection IP20	Diagnostics indication LED		
IP degree of protection IP20	 for status of the outputs 	Yes	
Standards, approvals, certificates	Degree and class of protection		
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 • inin. • inin. -20 °C • norizontal installation, min. -20 °C • horizontal installation, max. 60 °C • vertical installation, min. -20 °C • permissible temperature change 50 °C • permissible 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, min. 660 hPa • Storage/transport, min. 660 hPa • Storage/transport appl	IP degree of protection	IP20	
Ves			
UL approval	CE mark	Yes	
CULLUS FM approval Pes FM approval Pes 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. • max. • 60 °C • horizontal installation, min. • 20 °C • horizontal installation, max. • 60 °C • vertical installation, max. • oo °C • vertical installation, max. • 50 °C • permissible temperature change Ambient temperature during storage/transportation • min. • vertical installation, max. • 50 °C Ambient temperature during storage/transportation • min. • Operation, min. • 100 Poperation, min. • Operation, min. • Operation at 25 °C without condensation, max. PS % Dimensions Width • 100 mm Depth • 75 mm Worights	CSA approval	Yes	
FM approval Yes	UL approval	Yes	
RCM (formerly C-TICK) Yes	cULus	Yes	
Marine approval Ambient conditions Free fall Fall height, max. Ambient temperature during operation max. horizontal installation, min. horizontal installation, min. vertical installation, min. permissible temperature change Ambient temperature during storage/transportation min. max. 40 °C Air pressure acc. to IEC 60068-2-13 Operation, min. Operation, min. Storage/transport, min. Storage/transport, min. Storage/transport, max. Relative humidity Operation at 25 °C without condensation, max. 95 % Dimensions Width 30 mm Height Depth 75 mm Weights	FM approval	Yes	
Marine approval Ambient conditions Free fall Free fall Fill height, max. Ambient temperature during operation min. max. horizontal installation, min. horizontal installation, min. vertical installation, min. vertical installation, max. permissible temperature change Ambient temperature during storage/transportation min. max. 70 °C Air pressure acc. to IEC 60068-2-13 Operation, min. Operation, max. Storage/transport, min. Operation at 25 °C without condensation, max. Poperation at 25 °C without condensation, max. Poperation Midth All on max. Relative humidity Operation Midth Jon mm Depth To mm Weights	RCM (formerly C-TICK)	Yes	
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Ambient temperature during operation • min. • min. • max. • horizontal installation, min. • horizontal installation, min. • vertical installation, min. • vertical installation, max. • permissible temperature change Ambient temperature during storage/transportation • min. • min. • max. 70 °C Air pressure acc. to IEC 60068-2-13 • Operation, min. • Operation, max. • Operation, max. • Storage/transport, min. • Storage/transport, max. 1 080 hPa • Storage/transport, max. 1 080 hPa Relative humidity • Operation at 25 °C without condensation, max. Dimensions Width Height 100 mm Depth 75 mm Weights	Free fall		
 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. Operation, max. Storage/transport, min. Storage/transport, min. Storage/transport, max. 1 080 hPa Relative humidity Operation at 25 °C without condensation, max. Dimensions Width Height 100 mm Depth 75 mm 	• Fall height, max.	0.3 m; five times, in product package	
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permissible temperature change Ambient temperature during storage/transportation	 vertical installation, min. 	-20 °C	
Ambient temperature during storage/transportation • min. • max. 70 °C Air pressure acc. to IEC 60068-2-13 • Operation, min. • Operation, max. • Operation, max. • Storage/transport, min. • Storage/transport, max. 1 080 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	 vertical installation, max. 	50 °C	
 min. 40 °C max. Air pressure acc. to IEC 60068-2-13 Operation, min. Operation, max. Operation, max. Storage/transport, min. Storage/transport, max. 1 080 hPa Storage/transport, max. 1 080 hPa Relative humidity Operation at 25 °C without condensation, max. 95 % Dimensions Width 30 mm Height Domm Depth 75 mm Weights 	permissible temperature change	5°C to 55°C, 3°C / minute	
max. 70 °C Air pressure acc. to IEC 60068-2-13 Operation, min. 795 hPa Operation, max. 1 080 hPa Storage/transport, min. Storage/transport, max. 1 080 hPa Storage/transport, max. 1 080 hPa Relative humidity Operation at 25 °C without condensation, max. Dimensions Width 30 mm Height 100 mm Depth 75 mm Weights	Ambient temperature during storage/transportation		
Air pressure acc. to IEC 60068-2-13 Operation, min. 795 hPa Operation, max. 1080 hPa Storage/transport, min. 660 hPa Storage/transport, max. 1080 hPa Relative humidity Operation at 25 °C without condensation, max. 95 % Dimensions Width 30 mm Height 100 mm Depth 75 mm Weights	• min.	-40 °C	
 Operation, min. Operation, max. Storage/transport, min. Storage/transport, max. Storage/transport, max. 1 080 hPa Relative humidity Operation at 25 °C without condensation, max. Dimensions Width Height Do mm Depth 75 mm Weights	• max.	70 °C	
Operation, max. Storage/transport, min. Storage/transport, max. 1080 hPa Storage/transport, max. 1080 hPa Relative humidity Operation at 25 °C without condensation, max. 95 % Dimensions Width 30 mm Height 100 mm Depth 75 mm Weights	Air pressure acc. to IEC 60068-2-13		
 Storage/transport, min. Storage/transport, max. 1 080 hPa Relative humidity Operation at 25 °C without condensation, max. Dimensions Width Height Do mm Depth 75 mm Weights	 Operation, min. 	795 hPa	
 Storage/transport, max. Relative humidity Operation at 25 °C without condensation, max. 95 % Dimensions Width Height Depth 75 mm Weights 	 Operation, max. 	1 080 hPa	
Relative humidity	 Storage/transport, min. 	660 hPa	
● Operation at 25 °C without condensation, max. 95 % Dimensions Width 30 mm Height 100 mm Depth 75 mm Weights	Storage/transport, max.	1 080 hPa	
Dimensions Width 30 mm Height 100 mm Depth 75 mm Weights To me	Relative humidity		
Width 30 mm Height 100 mm Depth 75 mm Weights	 Operation at 25 °C without condensation, max. 	95 %	
Height 100 mm Depth 75 mm Weights	Dimensions		
Depth 75 mm Weights	Width	30 mm	
Weights	Height	100 mm	
	Depth	75 mm	
Weight, approx. 150 g	Weights		
	Weight, approx.	150 g	

last modified: 2/26/2021 🖸