SIEMENS

## Data sheet 6ES7241-1CH32-0XB0



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

| | |
|---|---|
| **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 | |
| — 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 slave | |


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| | |
|---|---|
| — Address area | 1 through 49 999 (Standard Modbus addressing) |
| **Interrupts/diagnostics/status information** | |
| Diagnostics function | Yes |
| Diagnostics indication LED | |
| ● for status of the outputs | Yes |
| **Degree and class of protection** | |
| IP degree of protection | IP20 |
| **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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