



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

Figure similar

| 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 slave                  | 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)   |
| — 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 slave                                  |   |
| — Address area                                    | 1 through 49 999 (Standard Modbus addressing) |
| <b>Interrupts/diagnostics/status information</b>  |   |
| Diagnostics function                              | Yes   |
| Diagnostics indication LED                        |   |
| • 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                                      | Yes   |
| UL approval                                       | Yes   |
| cULus   | Yes   |
| FM approval                                       | Yes   |
| RCM (formerly C-TICK)                             | Yes   |
| KC approval                                       | Yes   |
| Marine approval                                   | Yes   |
| <b>Ambient conditions</b>                         |   |
| 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 %  |
| <b>Dimensions</b>                                 |   |
| Width   | 30 mm   |
| Height  | 100 mm  |
| Depth   | 75 mm   |
| <b>Weights</b>                                    |   |
| Weight, approx.                                   | 155 g   |

**last modified:** 2/26/2021 