




Figure similar

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                                              |                                                                                                                            |
| <ul style="list-style-type: none"> <li>• Cable length, max.</li> </ul> | 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                                                                                         |
| <b>last modified:</b>                             | 2/26/2021  |