



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           |                                                                                                                                               |
| • 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 device                                        |                                               |
| — 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         |
| <b>Ambient temperature during operation</b>              |                                               |
| • 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                     |
| <b>Ambient temperature during storage/transportation</b> |                                               |
| • min.                                                   | -40 °C                                        |
| • max.                                                   | 70 °C                                         |
| <b>Air pressure acc. to IEC 60068-2-13</b>               |                                               |
| • Operation, min.                                        | 795 hPa                                       |
| • Operation, max.                                        | 1 080 hPa                                     |
| • Storage/transport, min.                                | 660 hPa                                       |
| • Storage/transport, max.                                | 1 080 hPa                                     |
| <b>Relative humidity</b>                                 |                                               |
| • 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>Classifications</b>                                   |                                               |

|        | Version | Classification |
|--------|---------|----------------|
| eClass | 16      | 27-24-22-08    |
| 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



#### General Product Approval

#### EMV

#### Functional Safety

#### Test Certificates



[Type Examination Certificate](#)

[Special Test Certificate](#)

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#### Maritime application



#### Maritime application

#### other

#### Railway

#### Dangerous goods



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#### Environment

[Environmental Confirmations](#)



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