



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 |

|                                                   |                                               |         |                |
|---------------------------------------------------|-----------------------------------------------|---------|----------------|
| protocols / Modbus RTU device / header            |                                               |         |                |
| — 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                                         |         |                |
| Classifications                                   |                                               |         |                |
|                                                   |                                               | Version | Classification |
|                                                   | 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                                          | 9       | EC001423       |
|                                                   | ETIM                                          | 8       | EC001423       |
|                                                   | ETIM                                          | 7       | EC001423       |
|                                                   | IDEA                                          | 4       | 3564           |

Approvals / Certificates

General Product Approval



[Manufacturer Declaration](#)

[Miscellaneous](#)



General Product Approval

EMV

For use in hazardous locations



[EM](#)



For use in hazardous locations

Marine / Shipping



[CCC-Ex](#)



[NK / Nippon Kaiji Kyokai](#)



Marine / Shipping



[CCS \(China Classification Society\)](#)

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