## SIEMENS

## Data sheet

## 6ES7137-6AA01-0BA0



SIMATIC ET 200SP, CM PTP communication module for serial connection RS-422, RS-485 and RS-232, freeport, 3964 (R), USS, MODBUS RTU master, slave, max. 250 Kbit/s, suitable for BU type A0, pack quantity: 1 unit

| - |   |    |   |    |   | ÷    |
|---|---|----|---|----|---|------|
|   | a | ur | е | 51 | m | ilar |
|   | - |    |   |    |   |      |

| General information  |                                   |  |  |
|--|-----------------------------------|--|--|
| Product type designation   | CM PtP                            |  |  |
| Firmware version   |                                   |  |  |
| • FW update possible   | Yes                               |  |  |
| usable BaseUnits   | BU type A0                        |  |  |
| Product function   |                                   |  |  |
| • I&M data   | Yes; I&M0 to I&M3                 |  |  |
| Engineering with   |                                   |  |  |
| <ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul> | STEP 7 V17 or higher              |  |  |
| <ul> <li>STEP 7 configurable/integrated from version</li> </ul>            | via GSD as of V5.6 HF4            |  |  |
| <ul> <li>PROFIBUS from GSD version/GSD revision</li> </ul>                 | GSD as of Revision 5              |  |  |
| <ul> <li>PROFINET from GSD version/GSD revision</li> </ul>                 | GSDML V2.34                       |  |  |
| Supply voltage   |                                   |  |  |
| Rated value (DC)   | 24 V                              |  |  |
| permissible range, lower limit (DC)  | 19.2 V                            |  |  |
| permissible range, upper limit (DC)  | 28.8 V                            |  |  |
| Reverse polarity protection  | Yes                               |  |  |
| Input current  |                                   |  |  |
| Current consumption (rated value)  | 31 mA                             |  |  |
| Current consumption, max.  | 35 mA                             |  |  |
| Power loss   |                                   |  |  |
| Power loss, typ.   | 0.7 W                             |  |  |
| Address area   |                                   |  |  |
| Address space per module   |                                   |  |  |
| Inputs   | 8 byte; performance mode: 32 byte |  |  |
| Outputs  | 0 byte; performance mode: 32 byte |  |  |
| Hardware configuration   |                                   |  |  |
| Automatic encoding   | Yes                               |  |  |
| <ul> <li>Mechanical coding element</li> </ul>                              | Yes                               |  |  |
| <ul> <li>Type of mechanical coding element</li> </ul>                      | type D                            |  |  |
| 1. Interface   |                                   |  |  |
| Interface types  |                                   |  |  |
| • RS 485   | Yes                               |  |  |
| • RS 422   | Yes                               |  |  |
| • RS 232   | Yes                               |  |  |
| Design of the connection   | Push-in terminal                  |  |  |
| Interface types  |                                   |  |  |
| RS 232   |                                   |  |  |
| <ul> <li>Transmission rate, max.</li> </ul>                                | 115.2 kbit/s                      |  |  |

| Cable length may   | 15 m  |  |  |  |
|--|---|--|--|--|
| <ul> <li>Cable length, max.</li> <li>RS 232 auxiliary signals</li> </ul> | 15 m<br>RTS, CTS, DTR, DSR, RI, DCD   |  |  |  |
| • RS 232 auxiliary signals<br>RS 485                                     |   |  |  |  |
| Transmission rate, max.  | 250 kbit/s  |  |  |  |
| Cable length, max.   | 1 200 m; 100 to 1200 m, depending on transmission speed                         |  |  |  |
| RS 422   |   |  |  |  |
| Transmission rate, max.  | 115.2 kbit/s  |  |  |  |
| Cable length, max.   | 1 200 m   |  |  |  |
| <ul> <li>4-wire full duplex connection</li> </ul>                        | Yes   |  |  |  |
| 4-wire multipoint connection   | Yes   |  |  |  |
| Protocols  |   |  |  |  |
| Integrated protocols   |   |  |  |  |
| Freeport   |   |  |  |  |
| — Telegram length, max.  | 2 kbyte; performance mode: receive data max. 24 byte and send data max. 30 byte |  |  |  |
| — Bits per character   | 7 or 8  |  |  |  |
| — Number of stop bits  | 1 or 2 bit  |  |  |  |
| — Parity   | None, even, odd, always 1, always 0, any  |  |  |  |
| 3964 (R)   |   |  |  |  |
| — Telegram length, max.  | 2 kbyte; performance mode: receive data max. 24 byte and send data max. 30 byte |  |  |  |
| — Bits per character   | 7 or 8  |  |  |  |
| — Number of stop bits  | 1 or 2 bit  |  |  |  |
| — Parity   | None, even, odd, always 1, always 0, any  |  |  |  |
| Modbus RTU master  |   |  |  |  |
| — Address area   | 1 to 247, extended 1 to 65535   |  |  |  |
| — Number of slaves, max.   | 32  |  |  |  |
| MODBUS RTU slave   |   |  |  |  |
| — Address area   | 1 to 247, extended 1 to 65535   |  |  |  |
| Telegram buffer  |   |  |  |  |
| <ul> <li>Buffer memory for telegrams</li> </ul>                          | 4 kbyte   |  |  |  |
| <ul> <li>Number of telegrams which can be buffered</li> </ul>            | 255   |  |  |  |
| Interrupts/diagnostics/status information                                |   |  |  |  |
| Diagnostics function   | Yes   |  |  |  |
| Alarms   | N .   |  |  |  |
| <ul><li>Diagnostic alarm</li><li>Hardware interrupt</li></ul>            | Yes<br>No   |  |  |  |
| Diagnoses  | NO  |  |  |  |
| Wire-break   | Yes   |  |  |  |
| Diagnostics indication LED   |   |  |  |  |
| Monitoring of the supply voltage (PWR-LED)                               | Yes; green PWR LED  |  |  |  |
| for module diagnostics   | Yes; green/red DIAG LED   |  |  |  |
| Receive RxD  | Yes; green LED  |  |  |  |
| • Transmit TxD   | Yes; green LED  |  |  |  |
| Potential separation   |   |  |  |  |
| between backplane bus and interface                                      | Yes   |  |  |  |
| Isolation  |   |  |  |  |
| Isolation tested with  | 707 V DC (type test)  |  |  |  |
| Ambient conditions   |   |  |  |  |
| Ambient temperature during operation                                     |   |  |  |  |
| <ul> <li>horizontal installation, min.</li> </ul>                        | -30 °C  |  |  |  |
| <ul> <li>horizontal installation, max.</li> </ul>                        | 60 °C   |  |  |  |
| <ul> <li>vertical installation, min.</li> </ul>                          | -30 °C  |  |  |  |
| <ul> <li>vertical installation, max.</li> </ul>                          | 50 °C   |  |  |  |
| Altitude during operation relating to sea level                          |   |  |  |  |
| Installation altitude above sea level, max.                              | 5 000 m   |  |  |  |
| Decentralized operation  |   |  |  |  |
| to SIMATIC S7-300  | Yes   |  |  |  |
| to SIMATIC S7-400  | Yes   |  |  |  |
| to SIMATIC S7-1200   | Yes   |  |  |  |
| to SIMATIC S7-1500   | Yes   |  |  |  |

| to standard PROFINET controller | Yes   |
|---------------------------------|-------|
| Dimensions                      |       |
| Width                           | 15 mm |
| Height                          | 73 mm |
| Height<br>Depth                 | 58 mm |
| Weights                         |       |
| Weight, approx.                 | 30 g  |
|                                 |       |

last modified:

8/7/2023 🖸