# 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

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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, max.	15 m
<ul> <li>Cable length, max.</li> <li>RS 232 auxiliary signals</li> </ul>	IS M RTS, CTS, DTR, DSR, RI, DCD
• RS 232 auxiliary signals 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
4-wire full duplex connection	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
— max. number of devices	32
protocols / Modbus RTU device / header	
— 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	
<ul> <li>Diagnostic alarm</li> </ul>	Yes
Hardware interrupt	No
Diagnoses	
Wire-break	Yes
Diagnostics indication LED	
<ul> <li>Monitoring of the supply voltage (PWR-LED)</li> </ul>	Yes; green PWR LED
<ul> <li>for module diagnostics</li> </ul>	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)
Standards, approvals, certificates	
Ecological footprint	
<ul> <li>environmental product declaration</li> </ul>	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	25.2 kg
— global warming potential, (during production) [CO2 eq]	6.15 kg
— global warming potential, (during operation) [CO2 eq]	19.4 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.289 kg
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	
<ul> <li>Installation altitude above sea level, max.</li> </ul>	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
Depth	58 mm
Weights	
Weight, approx.	30 g

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### Data sheet

## 6ES7137-6AA01-2BA0



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: 10 units

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General information	
Product type designation	CM PtP
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usable BaseUnits	BU type A0
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• I&M data	Yes; I&M0 to I&M3
Engineering with	
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Interface types	
• RS 485	Yes
• RS 422	Yes
• RS 232	Yes
Design of the connection	Push-in terminal
Interface types	
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Transmission rate, max.	115.2 kbit/s
Cable length, max.	15 m
<ul> <li>RS 232 auxiliary signals</li> </ul>	RTS, CTS, DTR, DSR, RI, DCD
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Transmission rate, max.	250 kbit/s

Cable length, max.	1 200 m; 100 to 1200 m, depending on transmission speed
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Transmission rate, max.	115.2 kbit/s
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to SIMATIC S7-1500	Yes
to standard PROFINET controller	Yes
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Weight, approx.	30 g

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