

SIMATIC ET 200SP, CM 4xIO-Link ST Communication module IO-Link Master V1.1



General information	
Product type designation	CM 4 x IO-Link ST, PU 1
HW functional status	from FS04
Firmware version	
• FW update possible	Yes
usable BaseUnits	BU type A0
Color code for module-specific color identification plate	CC04
Product function	
• I&M data	Yes; I&M0 to I&M3
Engineering with	
• STEP 7 TIA Portal configurable/integrated as of version	STEP 7 V15 or higher
• STEP 7 configurable/integrated as of version	STEP 7 V5.5 or higher
• PROFIBUS as of GSD version/GSD revision	One GSD file each, Revision 3 and 5 and higher
• PROFINET as of GSD version/GSD revision	GSDML V2.3
Supply voltage	
Rated value (DC)	24 V

permissible range, lower limit (DC)	19.2 V; 20.5 V if IO-Link is used, as the supply voltage for IO-Link devices has to be at least 20 V at the master.
permissible range, upper limit (DC)	28.8 V

Input current

Current consumption, max.	45 mA; without load
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Encoder supply

Number of outputs	4
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Output current

<ul style="list-style-type: none"> Rated value 	200 mA; Per channel
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24 V encoder supply

<ul style="list-style-type: none"> Short-circuit protection 	Yes
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Power loss

Power loss, typ.	1 W
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Digital outputs

Cable length

<ul style="list-style-type: none"> unshielded, max. 	20 m; Also applies for shielded cables
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IO-Link

Number of ports	4
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<ul style="list-style-type: none"> of which simultaneously controllable 	4
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IO-Link protocol 1.0	Yes
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IO-Link protocol 1.1	Yes
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Transmission rate	4.8 kBaud (COM1); 38.4 kBaud (COM2), 230.4 kBaud (COM3)
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Cycle time, min.	2 ms; dynamic, depending on user data length
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Size of process data, input per port	32 byte; max.
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Size of process data, input per module	144 byte; max.
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Size of process data, output per port	32 byte; max.
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Size of process data, output per module	128 byte; max.
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Memory size for device parameter	2 kbyte; for each port
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Master backup	Yes
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Configuration without S7-PCT	Yes
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Cable length unshielded, max.	20 m
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Operating modes

<ul style="list-style-type: none"> IO-Link 	Yes
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<ul style="list-style-type: none"> DI 	Yes
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<ul style="list-style-type: none"> DQ 	Yes; max. 100 mA per channel
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Time Based IO

— TIO IO-Link IN	No; Only for PROFINET and configuration as version with FW V2.0 or V2.1
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— TIO IO-Link OUT	No; Only for PROFINET and configuration as version with FW V2.0 or V2.1
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— TIO IO-Link IN/OUT

No; Only for PROFINET and configuration as version with FW V2.0 or V2.1

Connection of IO-Link devices

- | | |
|-----------------------------|------------------------------------|
| • Port type A | Yes |
| • Port type B | Yes; 24 V DC via external terminal |
| • via three-wire connection | Yes |

Isochronous mode

Isochronous operation (application synchronized up to terminal)	No; Only for PROFINET and configuration as version with FW V2.0 or V2.1
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Interrupts/diagnostics/status information

Alarms

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| • Diagnostic alarm | Yes; The port diagnosis is available in the IO-Link mode only. |
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Diagnostic messages

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|---------------------------------|-----|
| • Monitoring the supply voltage | Yes |
| • Wire-break | Yes |
| • Short-circuit | Yes |
| • Group error | Yes |

Diagnostics indication LED

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|--|---|
| • Monitoring of the supply voltage (PWR-LED) | Yes; Green PWR LED |
| • Channel status display | Yes; one green LED for channel status Qn (SIO mode) and port status Cn (IO-Link mode) per channel |
| • for channel diagnostics | Yes; red Fn LED |
| • for module diagnostics | Yes; green/red DIAG LED |

Potential separation

Potential separation channels

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| • between the channels | No |
| • between the channels and backplane bus | Yes |
| • between the channels and the power supply of the electronics | No |

Isolation

Isolation tested with	707 V DC (type test)
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Ambient conditions

Ambient temperature during operation

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|---------------------------------|--------|
| • horizontal installation, min. | -30 °C |
| • horizontal installation, max. | 60 °C |
| • vertical installation, min. | -30 °C |
| • vertical installation, max. | 50 °C |

Altitude during operation relating to sea level

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| • Installation altitude above sea level, max. | 2 000 m; On request: Installation altitudes greater than 2 000 m |
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Dimensions

Width	13 mm
Height	73 mm
Depth	58 mm

Weights

Weight, approx.	30 g
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last modified: 08/16/2019