

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
Encoder supply	
Number of outputs	4
Output current	
• Rated value	200 mA; Per channel
24 V encoder supply	
• Short-circuit protection	Yes
Power loss	
Power loss, typ.	1 W
Digital outputs	
Cable length	
• unshielded, max.	20 m; Also applies for shielded cables
IO-Link	
Number of ports	4
• of which simultaneously controllable	4
IO-Link protocol 1.0	Yes
IO-Link protocol 1.1	Yes
Transmission rate	4.8 kBaud (COM1); 38.4 kBaud (COM2), 230.4 kBaud (COM3)
Cycle time, min.	2 ms; dynamic, depending on user data length
Size of process data, input per port	32 byte; max.
Size of process data, input per module	144 byte; max.
Size of process data, output per port	32 byte; max.
Size of process data, output per module	128 byte; max.
Memory size for device parameter	2 kbyte; for each port
Master backup	Yes
Configuration without S7-PCT	Yes
Cable length unshielded, max.	20 m
Operating modes	
• IO-Link	Yes
• DI	Yes
• DQ	Yes; max. 100 mA per channel
Time Based IO	
— TIO IO-Link IN	No; Only for PROFINET and configuration as version with FW V2.0 or V2.1
— TIO IO-Link OUT	No; Only for PROFINET and configuration as version with FW V2.0 or V2.1

— 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
Interrupts/diagnostics/status information		
Alarms		
• Diagnostic alarm		Yes; The port diagnosis is available in the IO-Link mode only.
Diagnostic messages		
• Monitoring the supply voltage		Yes
• Wire-break		Yes
• Short-circuit		Yes
• Group error		Yes
Diagnostics indication LED		
• 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		
• 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)
Ambient conditions		
Ambient temperature during operation		
• 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		
• Installation altitude above sea level, max.		2 000 m; On request: Installation altitudes greater than 2 000 m
Dimensions		

Width	13 mm
Height	73 mm
Depth	58 mm

Weights

Weight, approx.	30 g
-----------------	------

last modified: 09/27/2019