

SIMATIC ET 200SP, CM 4 X IO-LINK ST COMMUNICATION  
MODULE IO-LINK MASTER V1.1



General information	
Product type designation	ET 200SP, CM 4xIO-Link
Firmware version	V2.0
usable BaseUnits	BU type A0
Color code for module-specific color identification plate	CC04
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated as of version</li> </ul>	V13 / V13
<ul style="list-style-type: none"> <li>STEP 7 configurable/integrated as of version</li> </ul>	V5.5 / -
<ul style="list-style-type: none"> <li>PROFIBUS as of GSD version/GSD revision</li> </ul>	GSD Revision 5
<ul style="list-style-type: none"> <li>PROFINET as of GSD version/GSD revision</li> </ul>	V2.3 / -
Supply voltage	
Type of supply voltage	24 V DC
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
Reverse polarity protection	Yes
<b>Input current</b>	
Current consumption, max.	45 mA; without load
<b>Encoder supply</b>	
Number of outputs	4
<b>Output current</b>	
• Rated value	200 mA
<b>Power loss</b>	
Power loss, typ.	1 W
<b>Digital outputs</b>	
<b>Cable length</b>	
• unshielded, max.	20 m; Also applies for shielded cables
<b>IO-Link</b>	
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	32 byte; max.
Size of process data, output per port	32 byte; max.
Size of process data, output per module	32 byte; max.
Memory size for device parameter	2 kbyte; for each port
Cable length unshielded, max.	20 m; max.
<b>Operating modes</b>	
• IO-Link	Yes
• DI	Yes
• DQ	Yes; max. 100 mA
<b>Time Based IO</b>	
— TIO IO-Link IN	Yes
— TIO IO-Link OUT	Yes
— TIO IO-Link IN/OUT	Yes
— TIO Jitter	36 µs; typically ±
<b>Connection of IO-Link devices</b>	
• Port type A	Yes
• Port type B	Yes; 24 V DC via external terminal
<b>Isochronous mode</b>	

Isochronous operation (application synchronized up to terminal)	Yes; For PROFINET only
Equidistance	Yes
Bus cycle time (TDP), min.	250 µs

### Interrupts/diagnostics/status information

Status indicator	Yes
Diagnostics function	Yes

### Alarms

<ul style="list-style-type: none"> <li>Diagnostic alarm</li> </ul>	Yes; The port diagnosis is available in the IO-Link mode only.
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### Diagnostic messages

<ul style="list-style-type: none"> <li>Monitoring the supply voltage</li> </ul>	Yes
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### Diagnostics indication LED

<ul style="list-style-type: none"> <li>Monitoring of the supply voltage (PWR-LED)</li> </ul>	Yes; green PWR LED
<ul style="list-style-type: none"> <li>Channel status display</li> </ul>	Yes; one green LED for channel status Qn (SIO mode) and port status Cn (IO-Link mode) per channel
<ul style="list-style-type: none"> <li>for channel diagnostics</li> </ul>	Yes; red Fn LED
<ul style="list-style-type: none"> <li>for module diagnostics</li> </ul>	Yes; green/red DIAG LED

### Potential separation

#### Potential separation channels

<ul style="list-style-type: none"> <li>between the channels</li> </ul>	No
<ul style="list-style-type: none"> <li>between the channels and backplane bus</li> </ul>	Yes

### Isolation

Isolation tested with	707 V DC (type test)
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### Dimensions

Width	15 mm
Height	73 mm
Depth	58 mm

### Weights

Weight, approx.	30 g
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**last modified:** 12/22/2016