

SIMATIC ET 200SP, DIGITAL INPUT MODULE, DI 8X 24VDC STANDARD, FITS TO BU-TYPE A0, COLOR CODE CC01, MODULE DIAGNOSIS



General information	
Product type designation	ET 200SP, DI 8x 24 V DC ST, PU 1
Firmware version	V1.1
<ul style="list-style-type: none"> <li>FW update possible</li> </ul>	Yes
usable BaseUnits	BU type A0
Color code for module-specific color identification plate	CC01
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated as of version</li> </ul>	V11 SP2 / V13
<ul style="list-style-type: none"> <li>STEP 7 configurable/integrated as of version</li> </ul>	V5.5 SP3 / -
<ul style="list-style-type: none"> <li>PCS 7 configurable/integrated as of version</li> </ul>	V8.1 SP1
<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>	GSDML V2.3
Operating mode	
<ul style="list-style-type: none"> <li>DI</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Counter</li> </ul>	No

- Oversampling
- MSI

No

No

### 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, max.	50 mA
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### Encoder supply

Number of outputs	8
Output voltage encoder supply, min.	19.2 V
Short-circuit protection	Yes; per module

### 24 V encoder supply

<ul style="list-style-type: none"> <li>• 24 V</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Short-circuit protection</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Output current, max.</li> </ul>	700 mA; Total current of all encoders

### Power loss

Power loss, typ.	1 W
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### Address area

Address space per module	
<ul style="list-style-type: none"> <li>• Address space per module, max.</li> </ul>	1 byte; + 1 byte for QI information

### Hardware configuration

Selection of BaseUnit for connection variants	
<ul style="list-style-type: none"> <li>• 1-wire connection</li> </ul>	BU type A0
<ul style="list-style-type: none"> <li>• 2-wire connection</li> </ul>	BU type A0
<ul style="list-style-type: none"> <li>• 3-wire connection</li> </ul>	BU type A0 with AUX terminals
<ul style="list-style-type: none"> <li>• 4-wire connection</li> </ul>	BU type A0 + external terminals

### Digital inputs

Number of digital inputs	8
Source/sink input	P-reading
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Input characteristic curve in accordance with IEC 61131, type 2	No
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Pulse extension	No

### Input voltage

<ul style="list-style-type: none"> <li>• Type of input voltage</li> </ul>	DC
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<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	24 V
<ul style="list-style-type: none"> <li>for signal "0"</li> </ul>	-30 to +5V
<ul style="list-style-type: none"> <li>for signal "1"</li> </ul>	+11 to +30V
<b>Input current</b>	
<ul style="list-style-type: none"> <li>for signal "1", typ.</li> </ul>	2.5 mA
<b>Input delay (for rated value of input voltage)</b>	
for standard inputs	
— parameterizable	Yes; 0.05 / 0.1 / 0.4 / 0.8 / 1.6 / 3.2 / 12.8 / 20 ms (in each case + delay of 30 to 500 µs, depending on line length)
for interrupt inputs	
— parameterizable	No
for counter/technological functions	
— parameterizable	No
<b>Cable length</b>	
<ul style="list-style-type: none"> <li>shielded, max.</li> </ul>	1 000 m
<ul style="list-style-type: none"> <li>unshielded, max.</li> </ul>	600 m
<b>Encoder</b>	
<b>Connectable encoders</b>	
<ul style="list-style-type: none"> <li>2-wire sensor</li> </ul>	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA
<b>Isochronous mode</b>	
Isochronous operation (application synchronized up to terminal)	No
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes
<b>Alarms</b>	
<ul style="list-style-type: none"> <li>Diagnostic alarm</li> </ul>	Yes
<b>Diagnostic messages</b>	
<ul style="list-style-type: none"> <li>Diagnostic information readable</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Monitoring the supply voltage</li> </ul>	Yes
— parameterizable	Yes
<ul style="list-style-type: none"> <li>Monitoring of encoder power supply</li> </ul>	Yes; Module-wise
<ul style="list-style-type: none"> <li>Wire-break</li> </ul>	Yes; Module-by-module, optional protective circuit for preventing wire-break diagnostics in the case of simple encoder contacts: 25 kOhm to 45 kOhm
<ul style="list-style-type: none"> <li>Short-circuit</li> </ul>	Yes; Module-wise
<b>Diagnostics indication LED</b>	
<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; Green LED
<ul style="list-style-type: none"> <li>for channel diagnostics</li> </ul>	No

- for module diagnostics

Yes; green/red DIAG LED

## Potential separation

### Potential separation channels

- between the channels
- between the channels and backplane bus
- between the channels and the power supply of the electronics

No

Yes

No

## Isolation

Isolation tested with

707 V DC (type test)

## Dimensions

Width

15 mm

Height

73 mm

Depth

58 mm

## Weights

Weight, approx.

28 g

**last modified:**

03/07/2017 