

SIMATIC ET 200SP, DIGITAL OUTPUT MODULE, DQ 4X24VDC/2A  
HIGH FEATURE, FITS TO BU-TYPE A0, COLOR CODE CC02,  
CHANNEL DIAGNOSIS



General information	
Product type designation	ET 200SP, DQ 4x24VDC/2A HF, VPE 1
Firmware version	V1.0
<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	CC02
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>	V13 / 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>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>DQ</li> </ul>	Yes
<ul style="list-style-type: none"> <li>DQ with energy-saving function</li> </ul>	No
<ul style="list-style-type: none"> <li>PWM</li> </ul>	No

- Oversampling
- MSO

No  
Yes

### 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.	60 mA; without load
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### Output voltage

Rated value (DC)	24 V
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### Power loss

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

#### Address space per module

- Address space per module, max.
- 1 byte; + 1 byte for QI information

### Digital outputs

Number of digital outputs	4
Current-sinking	No
Current-sourcing	Yes
Short-circuit protection	Yes
<ul style="list-style-type: none"> <li>• Response threshold, typ.</li> </ul>	2.8 to 5.2 A
Limitation of inductive shutdown voltage to	L+ -(37 to 41V)
Controlling a digital input	Yes; Minimum current consumption 7 mA

#### Switching capacity of the outputs

- with resistive load, max.
  - on lamp load, max.
- 2 A  
10 W

#### Load resistance range

- lower limit
  - upper limit
- 12 Ω  
3 400 Ω

#### Output current

- for signal "1" rated value
  - for signal "0" residual current, max.
- 2 A  
0.1 mA

#### Output delay with resistive load

- "0" to "1", typ.
  - "1" to "0", typ.
- 50 μs  
100 μs

#### Parallel switching of two outputs

- for uprating
- No

#### Switching frequency

- with resistive load, max.
- 100 Hz

• with inductive load, max.	2 Hz
• on lamp load, max.	10 Hz
<b>Total current of the outputs</b>	
• Current per channel, max.	2 A
• Current per module, max.	8 A
<b>Total current of the outputs (per module)</b>	
<b>horizontal installation</b>	
— up to 30 °C, max.	8 A
— up to 40 °C, max.	8 A
— up to 50 °C, max.	6 A
— up to 60 °C, max.	4 A
<b>vertical installation</b>	
— up to 30 °C, max.	8 A
— up to 40 °C, max.	6 A
— up to 50 °C, max.	4 A
— up to 60 °C, max.	4 A
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Isochronous mode</b>	
Isochronous operation (application synchronized up to terminal)	Yes
Bus cycle time (TDP), min.	500 µs
Jitter, max.	8 µs
<b>Interrupts/diagnostics/status information</b>	
Diagnostics	Yes
Substitute values connectable	Yes
<b>Alarms</b>	
• Diagnostic alarm	Yes
<b>Diagnostic messages</b>	
• Monitoring the supply voltage	Yes
• Wire-break	Yes; channel by channel
• Short-circuit	Yes; channel by channel
• Group error	Yes
<b>Diagnostics indication LED</b>	
• Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
• Channel status display	Yes; Green LED
• for channel diagnostics	Yes; Red LED
• for module diagnostics	Yes; green/red DIAG LED
<b>Potential separation</b>	
Potential separation channels	

- between the channels
- between the channels and backplane bus

No

Yes

#### Permissible potential difference

between different circuits

75 V DC/60 V AC (base isolation)

#### Isolation

Isolation tested with

707 V DC (type test)

#### Dimensions

Width

15 mm

#### Weights

Weight, approx.

30 g

**last modified:**

14.05.2016