

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
FW update possible	Yes
usable BaseUnits	BU type A0
Color code for module-specific color identification plate	CC02
Product function	
I&M data	Yes; I&M0 to I&M3
Engineering with	
STEP 7 TIA Portal configurable/integrated as of version	V13 / V13
STEP 7 configurable/integrated as of version	V5.5 SP3 / -
PROFIBUS as of GSD version/GSD revision	GSD Revision 5
PROFINET as of GSD version/GSD revision	GSDML V2.3
Operating mode	
DQ	Yes
DQ with energy-saving function	No
PWM	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
• Response threshold, typ.	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.	2 A
• on lamp load, max.	10 W

Load resistance range

• lower limit	12 Ω
• upper limit	3 400 Ω

Output current

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

Output delay with resistive load

• "0" to "1", typ.	50 μ s
• "1" to "0", typ.	100 μ s

Parallel switching of two outputs

• for uprating	No
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Switching frequency

• with resistive load, max.	100 Hz
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• with inductive load, max.	2 Hz
• on lamp load, max.	10 Hz
Total current of the outputs	
• Current per channel, max.	2 A
• Current per module, max.	8 A
Total current of the outputs (per module)	
horizontal installation	
— 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
vertical installation	
— 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
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	Yes
Bus cycle time (TDP), min.	500 µs
Jitter, max.	8 µs
Interrupts/diagnostics/status information	
Diagnostics	Yes
Substitute values connectable	Yes
Alarms	
• Diagnostic alarm	Yes
Diagnostic messages	
• Monitoring the supply voltage	Yes
• Wire-break	Yes; channel by channel
• Short-circuit	Yes; channel by channel
• Group error	Yes
Diagnostics indication LED	
• 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
Potential separation	
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

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