

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	DQ 4x24 V DC/2 A HF
Firmware version	V1.0
<ul style="list-style-type: none"> FW update possible 	Yes
usable BaseUnits	BU type A0
Color code for module-specific color identification plate	CC02
Product function	
<ul style="list-style-type: none"> I&M data 	Yes; I&M0 to I&M3
Engineering with	
<ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated as of version 	V13 / V13
<ul style="list-style-type: none"> STEP 7 configurable/integrated as of version 	V5.5 SP3 / -
<ul style="list-style-type: none"> PROFIBUS as of GSD version/GSD revision 	GSD Revision 5
<ul style="list-style-type: none"> PROFINET as of GSD version/GSD revision 	GSDML V2.3
Operating mode	
<ul style="list-style-type: none"> DQ 	Yes
<ul style="list-style-type: none"> DQ with energy-saving function 	No
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> • Address space per module, max. 	1 byte; + 1 byte for QI information

Digital outputs

Type of digital output	Source output (PNP, current-sourcing)
Number of digital outputs	4
Current-sinking	No
Current-sourcing	Yes
Short-circuit protection	Yes
<ul style="list-style-type: none"> • 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

<ul style="list-style-type: none"> • with resistive load, max. 	2 A
<ul style="list-style-type: none"> • on lamp load, max. 	10 W

Load resistance range

<ul style="list-style-type: none"> • lower limit 	12 Ω
<ul style="list-style-type: none"> • upper limit 	3 400 Ω

Output current

<ul style="list-style-type: none"> • for signal "1" rated value 	2 A
<ul style="list-style-type: none"> • for signal "0" residual current, max. 	0.1 mA

Output delay with resistive load

<ul style="list-style-type: none"> • "0" to "1", typ. 	50 μ s
<ul style="list-style-type: none"> • "1" to "0", typ. 	100 μ s

Parallel switching of two outputs

<ul style="list-style-type: none"> • for uprating 	No
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Switching frequency

• with resistive load, max.	100 Hz
• 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 function	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	No
• between the channels and backplane bus	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
Height	73 mm
Depth	58 mm

Weights	
Weight, approx.	30 g

last modified: 10/26/2017