Data sheet

SIMATIC ET 200SP, digital output module, DQ 8x 24VDC/0.5A High Feature suitable for BU type A0, Color code CC02, channel diagnostics



Figure similar

General information		
Product type designation	DQ 8x24 V DC/0.5 A HF	
Firmware version	V2.0	
 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 SP1 / -	
 STEP 7 configurable/integrated as of version 	V5.5 / -	
 PCS 7 configurable/integrated as of version 	V8.1 SP1	
 PROFIBUS as of GSD version/GSD revision 	One GSD file each, Revision 3 and 5 and higher	
 PROFINET as of GSD version/GSD revision 	GSDML V2.3	
Operating mode		

• DQ	Yes
 DQ with energy-saving function 	No
• PWM	No
Oversampling	No
• MSO	Yes
Redundancy	
Redundancy capability	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
Output voltage	
Rated value (DC)	24 V
Power loss	
Power loss, typ.	1 W
Address area	
Address space per module	
 Address space per module, max. 	8 byte; 2 channels per submodule + QI information
Digital outputs	
Type of digital output	Source output (PNP, current-sourcing)
Type of digital output Number of digital outputs	8
Type of digital output Number of digital outputs Current-sinking	8 No
Type of digital output Number of digital outputs Current-sinking Current-sourcing	8 No Yes
Type of digital output Number of digital outputs Current-sinking Current-sourcing Short-circuit protection	8 No Yes Yes
Type of digital output Number of digital outputs Current-sinking Current-sourcing Short-circuit protection • Response threshold, typ.	8 No Yes Yes 0.7 to 1.3 A
Type of digital output Number of digital outputs Current-sinking Current-sourcing Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to	8 No Yes Yes 0.7 to 1.3 A Typ. L+ (-50 V)
Type of digital output Number of digital outputs Current-sinking Current-sourcing Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input	8 No Yes Yes 0.7 to 1.3 A
Type of digital output Number of digital outputs Current-sinking Current-sourcing Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs	8 No Yes Yes 0.7 to 1.3 A Typ. L+ (-50 V) Yes
Type of digital output Number of digital outputs Current-sinking Current-sourcing Short-circuit protection Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs with resistive load, max.	8 No Yes Yes 0.7 to 1.3 A Typ. L+ (-50 V) Yes
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Type of digital output Number of digital outputs Current-sinking Current-sourcing Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs • with resistive load, max. • on lamp load, max. Load resistance range	8 No Yes Yes O.7 to 1.3 A Typ. L+ (-50 V) Yes 0.5 A 5 W
Type of digital output Number of digital outputs Current-sinking Current-sourcing Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs • with resistive load, max. • on lamp load, max. Load resistance range • lower limit	8 No Yes Yes 0.7 to 1.3 A Typ. L+ (-50 V) Yes 0.5 A 5 W
Type of digital output Number of digital outputs Current-sinking Current-sourcing Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs • with resistive load, max. • on lamp load, max. Load resistance range • lower limit • upper limit	8 No Yes Yes 0.7 to 1.3 A Typ. L+ (-50 V) Yes 0.5 A 5 W
Type of digital output Number of digital outputs Current-sinking Current-sourcing Short-circuit protection Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs with resistive load, max. on lamp load, max. Load resistance range lower limit upper limit Output current	8 No Yes Yes 0.7 to 1.3 A Typ. L+ (-50 V) Yes 0.5 A 5 W 48 Ω 12 kΩ
Type of digital output Number of digital outputs Current-sinking Current-sourcing Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs • with resistive load, max. • on lamp load, max. Load resistance range • lower limit • upper limit Output current • for signal "1" rated value	8 No Yes Yes 0.7 to 1.3 A Typ. L+ (-50 V) Yes 0.5 A 5 W 48 Ω 12 kΩ 0.5 A
Type of digital output Number of digital outputs Current-sinking Current-sourcing Short-circuit protection • Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs • with resistive load, max. • on lamp load, max. Load resistance range • lower limit • upper limit Output current • for signal "1" rated value • for signal "0" residual current, max.	8 No Yes Yes 0.7 to 1.3 A Typ. L+ (-50 V) Yes 0.5 A 5 W 48 Ω 12 kΩ 0.5 A
Type of digital output Number of digital outputs Current-sinking Current-sourcing Short-circuit protection Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs with resistive load, max. on lamp load, max. Load resistance range lower limit upper limit Output current for signal "1" rated value for signal "0" residual current, max. Output delay with resistive load	8 No Yes Yes 0.7 to 1.3 A Typ. L+ (-50 V) Yes 0.5 A 5 W 48 Ω 12 kΩ 0.5 A 0.1 mA

Parallel switching of two outputs	
• for uprating	No
for redundant control of a load	Yes
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.	0.5 A
 Current per module, max. 	4 A
Total current of the outputs (per module)	
horizontal installation	
— up to 60 °C, max.	4 A
vertical installation	
— up to 50 °C, max.	4 A; in all other mounting positions
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Isochronous mode	
Isochronous operation (application synchronized up	Yes
to terminal)	
Execution and activation time (TCO), min.	48 μs
Bus cycle time (TDP), min.	500 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
Monitoring of the supply voltage (PWR-LED)Channel status display	Yes; Green LED
Monitoring of the supply voltage (PWR-LED)	Yes; Green LED Yes; Red LED
Monitoring of the supply voltage (PWR-LED)Channel status display	Yes; Green LED
 Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics 	Yes; Green LED Yes; Red LED
 Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics for module diagnostics 	Yes; Green LED Yes; Red LED

• between the channels and backplane bus	Yes
Isolation	
Isolation tested with	707 V DC (type test)
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	30 g
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