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Data sheet 6ES7132-6BD20-0DA0

SIMATIC ET 200SP, DIGITAL OUTPUT MODULE, DQ 4X24VDC/2A HIGH SPEED, PACKING UNIT: 1 PIECE, FITS TO BU-TYPE A0, COLOR CODE CC00; THREE ALTERNATIVE MODES: DQ,OVERSAMPLING, PWM MODULE DIAGNOSIS

General information	
Product type designation	ET 200SP, DQ 4x24VDC/2A High Speed, VPE 1
Firmware version	V1.0.1
• FW update possible	Yes
usable BaseUnits	BU type A0
Color code for module-specific color identification plate	CC00
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 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	Yes; Valve control
• PWM	Yes

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• Oversampling	Yes
• MSO	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; without load
Output voltage	
Rated value (DC)	24 V
Power loss	
Power loss, typ.	2.5 W; at 24 V, 25 °C, DQ mode, 2 A per channel
Address area	
Address space per module	
• Address space per module, max.	1 byte; + 1 byte for QI information
• Inputs	1 byte; With QI
• Outputs	16 byte; Max. in Oversampling mode
Digital outputs	
Number of digital outputs	4
Current-sinking	No
Current-sourcing	Yes; Push-pull output
Short-circuit protection	Yes
• Response threshold, typ.	6 A
Limitation of inductive shutdown voltage to	M (-1 V)
Controlling a digital input	No
Digital output functions, parameterizable	
• PWM output	Yes
— Number, max.	4
— Cycle duration, parameterizable	Yes; 0 ms, 0.2 ms, 0.4 ms, 0.93 ms, 1.33 ms, 4.27 ms, 10.67 ms, 21.33 ms, 34.13 ms, 59.73 ms
— Resolution of the duty cycle	0.1 %
• Digital output with oversampling	Yes
— Number, max.	4
— Values per cycle, max.	32
— Resolution, min.	100 µs
Switching capacity of the outputs	
• with resistive load, max.	2 A
• on lamp load, max.	10 W
Load resistance range	

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• 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", max.	1 µs
• "1" to "0", max.	1 µs
Parallel switching of two outputs	
• for uprating	No
Switching frequency	
• with resistive load, max.	5 kHz
• with inductive load, max.	5 kHz
• on lamp load, max.	5 kHz
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; DQ mode
— up to 40 °C, max.	6.9 A; DQ mode
— up to 50 °C, max.	4.7 A; DQ mode
— up to 60 °C, max.	2.5 A; DQ mode
vertical installation	
— up to 30 °C, max.	7.2 A; DQ mode
— up to 40 °C, max.	5.6 A; DQ mode
— up to 50 °C, max.	4 A; DQ mode
— up to 60 °C, max.	4 A; DQ mode
Cable length	
• shielded, max.	50 m
• unshielded, max.	50 m

Isochronous mode	
Isochronous operation (application synchronized up to terminal)	Yes; Operating modes DQ and OVS only
Bus cycle time (TDP), min.	125 µs
Jitter, max.	1 µs

Interrupts/diagnostics/status information	
Substitute values connectable	Yes
Alarms	
• Diagnostic alarm	Yes
Diagnostic messages	

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• Monitoring the supply voltage	Yes
• Wire-break	No
• Short-circuit	Yes; Module-wise
• 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	No
• 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.	31 g

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