SIEMENS

Data sheet

6ES7132-6BH00-0CA0



SIMATIC ET 200SP, digital output module, DQ 16x 24 V DC/0.5 A high feature, source output PNP, switching to P potential, packing unit: 1 unit, suitable for BU type A0, color code CC00, channel diagnostics for: short-circuit and wire break, supply voltage, channel fault LED

General information	
Product type designation	DQ 16x24VDC/0.5A HF
HW functional status	01
Firmware version	V1.0
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
Isochronous mode	Yes
Engineering with	
 STEP 7 TIA Portal configurable/integrated from version 	STEP 7 V18 or higher with HSP 0416
 STEP 7 configurable/integrated from version 	V5.5 SP3 or higher
 PROFIBUS from GSD version/GSD revision 	One GSD file each, Revision 3 and 5 and higher
 PROFINET from GSD version/GSD revision 	GSDML V2.43
Operating mode	
• DQ	Yes
 DQ with energy-saving function 	No
• PWM	No
 Cam control (switching at comparison values) 	No
 Oversampling 	No
• MSO	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.	20 mA; without load
output voltage / header	
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; 4 channels per submodule + QI information
Hardware configuration	
Automatic encoding	
	Yes
Mechanical coding element	Yes Yes

Submodules	
Number of configurable submodules, max.	4
Selection of BaseUnit for connection variants	
1-wire connection	BU type A0
2-wire connection	BU type A0 with AUX terminals or potential distributor module
3-wire connection	BU type A0 with AUX terminals or potential distributor module
Digital outputs	
Type of digital output	Source output (PNP, current-sourcing)
Number of digital outputs	16
Current-sinking	No
Current-sourcing	Yes
Digital outputs, parameterizable	Yes
output characteristic acc. to IEC 61131, type 0.5	Yes
Short-circuit protection	Yes; Electronic
Response threshold, typ.	0.7 to 1.3 A
Open-circuit detection	Yes
Limitation of inductive shutdown voltage to	Typ. L+ (-50 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
with resistive load, max.	0.5 A
with inductive load, max.	0.5 A
• on lamp load, max.	5 W
Load resistance range	
lower limit	48 Ω
• upper limit	12 kΩ
Output current	
for signal "1" rated value	0.5 A
for signal "0" residual current, max.	0.1 mA
Output delay with resistive load	
• "0" to "1", typ.	50 μs
• "1" to "0", typ.	100 μs
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.	0.1 Hz; higher frequencies are possible, see Equipment Manual "Maximum permitted switching frequency of inductive loads"
• on lamp load, max.	10 Hz
Total current of the outputs	
Current per channel, max.	0.5 A
Current per module, max.	8 A
Total current of the outputs (per module)	
horizontal installation	0.4
— up to 40 °C, max.	8 A
— up to 50 °C, max.	6 A
— up to 60 °C, max.	4 A
vertical installation	0.4
— up to 30 °C, max.	8 A
— up to 40 °C, max.	6 A
— up to 50 °C, max.	4 A
Cable length	1,000 m
shielded, max. unabiolded, max.	1 000 m
• unshielded, max.	600 m
sochronous mode	40
Execution and activation time (TCO), min.	48 μs
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
Diagnoses	
Monitoring the supply voltage	Yes
Wire-break	Yes; channel by channel
Short-circuit to M	Yes; channel by channel
Short-circuit to L+	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; green LED, see Alarms/diagnostics
 for module diagnostics 	Yes; green/red DIAG LED
Potential separation	
Potential separation channels	
between the channels	No
 between the channels and backplane bus 	Yes
 Between the channels and load voltage L+ 	No
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Suitable for safety functions	No
Suitable for safety-related tripping of standard modules	Yes; see FAQ Entry ID: 39198632
Highest safety class achievable for safety-related tripping of stand	ard modules
 Performance level according to ISO 13849-1 	PL d
 Category according to ISO 13849-1 	Cat. 3
• SIL acc. to IEC 62061	SIL 2
 remark on safety-oriented shutdown 	https://support.industry.siemens.com/cs/de/en/view/39198632
Ambient conditions	
Ambient temperature during operation	
 horizontal installation, min. 	-30 °C
 horizontal installation, max. 	60 °C
 vertical installation, min. 	-30 °C
 vertical installation, max. 	50 °C
Altitude during operation relating to sea level	
• Installation altitude above sea level, max.	5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200SP system manual
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	26 g

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