



Figure similar

SIMATIC ET 200SP HA, digital output module, DQ 32x24VDC/0.5A HA, suitable for terminal block, H1, N0, color code CC00, channel diagnostics

General information	
Product type designation	DQ 32x24VDC/0.5A HA
Firmware version	V1.0
<ul style="list-style-type: none"> <li>FW update possible</li> </ul>	Yes
Usable terminal block	TB type H1 and N0
Color code for module-specific color identification plate	CC00
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V16
<ul style="list-style-type: none"> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.6
<ul style="list-style-type: none"> <li>PCS 7 configurable/integrated from version</li> </ul>	V9.0
<ul style="list-style-type: none"> <li>PCS neo can be configured/integrated from version</li> </ul>	V3.0
<ul style="list-style-type: none"> <li>PROFINET from GSD version/GSD revision</li> </ul>	GSDML V2.3
Operating mode	
<ul style="list-style-type: none"> <li>DQ</li> </ul>	Yes
<ul style="list-style-type: none"> <li>DQ with energy-saving function</li> </ul>	No
<ul style="list-style-type: none"> <li>PWM</li> </ul>	No
<ul style="list-style-type: none"> <li>Oversampling</li> </ul>	No
Redundancy	
<ul style="list-style-type: none"> <li>Redundancy capability</li> </ul>	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 (rated value)	60 mA; without load
Current consumption, max.	70 mA; without load
output voltage / header	
Rated value (DC)	24 V
Power loss	
Power loss, typ.	1.6 W; minimum - typ. specification not possible because load-dependent
Address area	
Address space per module	
<ul style="list-style-type: none"> <li>Inputs</li> </ul>	4 byte; QI of the outputs
<ul style="list-style-type: none"> <li>Outputs</li> </ul>	4 byte
Digital outputs	
Number of digital outputs	32

Current-sinking	No
Current-sourcing	Yes
Digital outputs, parameterizable	Yes
Short-circuit protection	Yes; Clocked electronically
• Response threshold, typ.	2 A; Overload / short circuit
Open-circuit detection	No
Overload protection	Yes
Limitation of inductive shutdown voltage to	Typ. L+ (-53 V)
Controlling a digital input	Yes
<b>Switching capacity of the outputs</b>	
• with resistive load, max.	0.5 A
• on lamp load, max.	5 W
<b>Load resistance range</b>	
• lower limit	48 Ω
• upper limit	4 kΩ
<b>Output current</b>	
• for signal "1" rated value	0.5 A
• for signal "0" residual current, max.	0.1 mA
<b>Output delay with resistive load</b>	
• "0" to "1", typ.	54 μs
• "1" to "0", typ.	48 μs
<b>Parallel switching of two outputs</b>	
• for uprating	No
• for redundant control of a load	Yes; only outputs of the same group
<b>Switching frequency</b>	
• with resistive load, max.	100 Hz
• with inductive load, max.	2 Hz
• on lamp load, max.	10 Hz
<b>Total current of the outputs</b>	
• Current per channel, max.	0.5 A
• Current per module, max.	10 A
<b>Total current of the outputs (per module)</b>	
horizontal installation	
— up to 70 °C, max.	10 A
vertical installation	
— up to 60 °C, max.	10 A
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes
Substitute values connectable	Yes
<b>Alarms</b>	
• Diagnostic alarm	Yes
<b>Diagnoses</b>	
• Monitoring the supply voltage	Yes
— parameterizable	Yes
• Wire-break	No
• Short-circuit	Yes
• Short-circuit to M	Yes; channel by channel
• Short-circuit to L+	No
• Group error	Yes
<b>Diagnostics indication LED</b>	
• MAINT LED	Yes; Yellow 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
<b>Potential separation</b>	
Potential separation channels	
• between the channels	No

• between the channels and backplane bus

Yes

**Isolation**

Isolation tested with 1 500 V DC/1 min, type test

**Ambient conditions**

Ambient temperature during operation

- horizontal installation, min. -40 °C
- horizontal installation, max. 70 °C
- vertical installation, min. -40 °C
- vertical installation, max. 60 °C

**Dimensions**

Width 22.5 mm

Height 115 mm

Depth 138 mm

**Weights**

Weight, approx. 150 g

**last modified:** 8/16/2023 