



SIMATIC ET 200SP, Digital output module, DQ 8x 24V DC/0,5A Sink Basic, Sink output (NPN, M-switching), Packing unit: 1 piece, fits to BU-type A0, Colour Code CC01, substitute value output, module diagnostics for: supply voltage

General information	
Product type designation	DQ 8x24VDC/0,5A SNK BA
HW functional status	From FS02
Firmware version	V0.0
• FW update possible	No
usable BaseUnits	BU type A0
Color code for module-specific color identification plate	CC01
Product function	
• I&M data	Yes; I&M0 to I&M3
• Isochronous mode	No
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	V14
• STEP 7 configurable/integrated from version	V5.5 SP3
• PROFIBUS from GSD version/GSD revision	One GSD file each, Revision 3 and 5 and higher
• PROFINET from GSD version/GSD revision	GSDML V2.3
Operating mode	
• DQ	Yes
• DQ with energy-saving function	No
• PWM	No
• Oversampling	No
• MSO	No
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
Output voltage	
Rated value (DC)	24 V
Power loss	
Power loss, typ.	1.5 W
Address area	
Address space per module	
• Outputs	1 byte
Hardware configuration	
Automatic encoding	Yes

<ul style="list-style-type: none"> <li>• Mechanical coding element</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Type of mechanical coding element</li> </ul>	type B
<b>Digital outputs</b>	
Type of digital output	Sink output (NPN)
Number of digital outputs	8
Current-sinking	Yes
Digital outputs, parameterizable	Yes
Short-circuit protection	Yes
<ul style="list-style-type: none"> <li>• Response threshold, typ.</li> </ul>	1.5 A
Limitation of inductive shutdown voltage to	Typ. 47 V
Controlling a digital input	Yes
<b>Switching capacity of the outputs</b>	
<ul style="list-style-type: none"> <li>• with resistive load, max.</li> </ul>	0.5 A
<ul style="list-style-type: none"> <li>• on lamp load, max.</li> </ul>	5 W
<b>Load resistance range</b>	
<ul style="list-style-type: none"> <li>• lower limit</li> </ul>	48 Ω
<ul style="list-style-type: none"> <li>• upper limit</li> </ul>	3 400 Ω
<b>Output current</b>	
<ul style="list-style-type: none"> <li>• for signal "1" rated value</li> </ul>	0.5 A
<ul style="list-style-type: none"> <li>• for signal "1" permissible range, max.</li> </ul>	0.5 A
<ul style="list-style-type: none"> <li>• for signal "0" residual current, max.</li> </ul>	5 μA
<b>Output delay with resistive load</b>	
<ul style="list-style-type: none"> <li>• "0" to "1", max.</li> </ul>	300 μs
<ul style="list-style-type: none"> <li>• "1" to "0", max.</li> </ul>	600 μs
<b>Parallel switching of two outputs</b>	
<ul style="list-style-type: none"> <li>• for uprating</li> </ul>	No
<ul style="list-style-type: none"> <li>• for redundant control of a load</li> </ul>	Yes
<b>Switching frequency</b>	
<ul style="list-style-type: none"> <li>• with resistive load, max.</li> </ul>	100 Hz
<ul style="list-style-type: none"> <li>• with inductive load, max.</li> </ul>	0.5 Hz
<ul style="list-style-type: none"> <li>• on lamp load, max.</li> </ul>	10 Hz
<b>Total current of the outputs</b>	
<ul style="list-style-type: none"> <li>• Current per channel, max.</li> </ul>	0.5 A
<ul style="list-style-type: none"> <li>• Current per module, max.</li> </ul>	4 A
<b>Total current of the outputs (per module)</b>	
horizontal installation	
— up to 60 °C, max.	4 A
vertical installation	
— up to 50 °C, max.	4 A
<b>Cable length</b>	
<ul style="list-style-type: none"> <li>• shielded, max.</li> </ul>	1 000 m
<ul style="list-style-type: none"> <li>• unshielded, max.</li> </ul>	600 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes
Substitute values connectable	Yes
<b>Alarms</b>	
<ul style="list-style-type: none"> <li>• Diagnostic alarm</li> </ul>	Yes
<b>Diagnoses</b>	
<ul style="list-style-type: none"> <li>• Monitoring the supply voltage</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Wire-break</li> </ul>	No
<ul style="list-style-type: none"> <li>• Short-circuit</li> </ul>	No
<ul style="list-style-type: none"> <li>• Group error</li> </ul>	Yes
<b>Diagnostics indication LED</b>	
<ul style="list-style-type: none"> <li>• Monitoring of the supply voltage (PWR-LED)</li> </ul>	Yes; green PWR LED
<ul style="list-style-type: none"> <li>• Channel status display</li> </ul>	Yes; green LED
<ul style="list-style-type: none"> <li>• for channel diagnostics</li> </ul>	No
<ul style="list-style-type: none"> <li>• for module diagnostics</li> </ul>	Yes; green/red DIAG LED
<b>Potential separation</b>	

<b>Potential separation channels</b>	
• between the channels	No
• between the channels and backplane bus	Yes
<b>Isolation</b>	
Isolation tested with	707 V DC (type test)
<b>Standards, approvals, certificates</b>	
Suitable for safety functions	No
Suitable for safety-related tripping of standard modules	No
<b>Ambient conditions</b>	
Ambient temperature during operation	
• horizontal installation, min.	-25 °C
• horizontal installation, max.	60 °C
• vertical installation, min.	-25 °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 manual
<b>Dimensions</b>	
Width	15 mm
Height	73 mm
Depth	58 mm
<b>Weights</b>	
Weight, approx.	30 g
<b>last modified:</b>	6/18/2020 