

SIMATIC S7-1500, digital output module, DQ 64xDC 24V/0.3A BA, 64 channels in groups of 16, 2 A per group at 60 °C, sinking output, 35 mm wide, cables and terminal blocks to be ordered separately as accessories



General information	
Product type designation	DQ 64x24VDC/0.3A BA
HW functional status	From FS01
Firmware version	V1.0.0
<ul style="list-style-type: none"> <li>FW update possible</li> </ul>	Yes
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
<ul style="list-style-type: none"> <li>Isochronous mode</li> </ul>	No
<ul style="list-style-type: none"> <li>Prioritized startup</li> </ul>	No
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V16 with HSP 0319 / V17
<ul style="list-style-type: none"> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3 / -
<ul style="list-style-type: none"> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	V1.0 / V5.1
<ul style="list-style-type: none"> <li>PROFINET from GSD version/GSD revision</li> </ul>	V2.35 / -
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

• Cam control (switching at comparison values)	No
• Oversampling	No
• MSO	Yes
• Integrated operating cycle counter	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; through internal protection with 7 A per group
external protection for power supply lines (recommendation)	24 V DC/6 A miniature circuit breaker with type B tripping characteristic

### Input current

Current consumption, max.	90 mA; without load
---------------------------	---------------------

### Output voltage

Rated value (DC)	24 V
------------------	------

### Power

Power available from the backplane bus	0.6 W
--	-------

### Power loss

Power loss, typ.	3.5 W
------------------	-------

### Digital outputs

Type of digital output	Transistor
Number of digital outputs	64
Current-sinking	No
Current-sourcing	Yes
Digital outputs, parameterizable	No
Short-circuit protection	Yes
Limitation of inductive shutdown voltage to	L+ (-53 V)
Controlling a digital input	Yes

### Switching capacity of the outputs

• with resistive load, max.	0.3 A
• on lamp load, max.	5 W

### Load resistance range

• lower limit	80 Ω
• upper limit	10 kΩ

### Output voltage

• for signal "1", min.	L+ (-0.8 V)
------------------------	-------------

### Output current

• for signal "1" rated value	0.3 A
• for signal "1" permissible range, max.	0.3 A
• for signal "0" residual current, max.	0.5 mA

<b>Output delay with resistive load</b>	
• "0" to "1", max.	100 µs
• "1" to "0", max.	500 µs
<b>Parallel switching of two outputs</b>	
• for logic links	Yes
• for uprating	No
• for redundant control of a load	Yes
<b>Switching frequency</b>	
• with resistive load, max.	100 Hz
• with inductive load, max.	0.5 Hz; According to IEC 60947-5-1, DC-13
• on lamp load, max.	10 Hz
<b>Total current of the outputs</b>	
• Current per channel, max.	0.3 A
• Current per group, max.	2 A
• Current per module, max.	8 A
<b>Total current of the outputs (per module)</b>	
horizontal installation	
— up to 60 °C, max.	8 A
vertical installation	
— up to 40 °C, max.	8 A
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	No
Substitute values connectable	No
<b>Alarms</b>	
• Diagnostic alarm	No
• Maintenance interrupt	No
<b>Diagnoses</b>	
• Monitoring the supply voltage	No
• Wire-break	No
• Short-circuit	No
• Group error	No
<b>Diagnostics indication LED</b>	
• RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
• MAINT LED	No
• Monitoring of the supply voltage (PWR-LED)	Yes; via SIMATIC TOP connect connection module
• Channel status display	Yes; via SIMATIC TOP connect connection module
• for channel diagnostics	No

- for module diagnostics

No

## Potential separation

### Potential separation channels

- between the channels
- between the channels, in groups of
- between the channels and backplane bus

No

16; 32 when using SIMATIC TOP connect connection module

Yes

## 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

No

## Ambient conditions

### Ambient temperature during operation

- horizontal installation, min.
- horizontal installation, max.
- vertical installation, min.
- vertical installation, max.

-30 °C

60 °C

-30 °C

40 °C

### Altitude during operation relating to sea level

- Installation altitude above sea level, max.

5 000 m

## Dimensions

Width

35 mm

Height

147 mm

Depth

129 mm

## Weights

Weight, approx.

270 g

## Other

Note:

Please order cable and connection modules separately

**last modified:**

10/13/2020