

SIMATIC S7-1500, DIGITAL OUTPUT MODULE, DQ 32 X 24VDC/0.5A; 32 CHANNELS IN GROUPS OF 8, 4 A PER GROUP; INCL. FRONT CONNECTOR PUSH-IN



General information	
Product type designation	DQ 32 x 24 V DC / 0.5 A BA
HW functional status	E01
Firmware version	V1.0.0
Product function	
• I&M data	Yes
Engineering with	
• STEP 7 TIA Portal configurable/integrated as of version	V13 / V13
• STEP 7 configurable/integrated as of version	V5.5 SP3 / -
• PROFIBUS as of GSD version/GSD revision	V1.0 / V5.1
• PROFINET as of GSD version/GSD revision	V2.3 / -
Operating mode	
• MSO	Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V

Reverse polarity protection	Yes; through internal protection with 7 A per group
<b>Input current</b>	
Current consumption, max.	60 mA
<b>Power</b>	
Power available from the backplane bus	1.15 W
<b>Power loss</b>	
Power loss, typ.	3.8 W
<b>Digital outputs</b>	
Number of digital outputs	32
Current-sourcing	Yes
Short-circuit protection	Yes
• Response threshold, typ.	1 A
Limitation of inductive shutdown voltage to	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	12 kΩ
<b>Output voltage</b>	
• for signal "1", min.	L+ (-0.8 V)
<b>Output current</b>	
• for signal "1" rated value	0.5 A
• for signal "1" permissible range, max.	0.5 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.	0.5 A; see additional description in the manual
• Current per group, max.	4 A; see additional description in the manual
• Current per module, max.	16 A; see additional description in the manual

<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m

### Interrupts/diagnostics/status information

Substitute values connectable	No
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### Alarms

• Diagnostic alarm	No
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### Diagnostic messages

• Diagnostics	No
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### Diagnostics indication LED

• RUN LED	Yes; Green LED
• ERROR LED	Yes; Red LED
• MAINT LED	No
• Monitoring of the supply voltage (PWR-LED)	Yes; Green LED
• Channel status display	Yes; Green LED

### Potential separation

#### Potential separation channels

• between the channels	No
• between the channels, in groups of	8
• between the channels and backplane bus	Yes

### Permissible potential difference

between different circuits	75 V DC/60 V AC (base isolation)
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### Isolation

Isolation tested with	707 V DC (type test)
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### Decentralized operation

Prioritized startup	Yes
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### Dimensions

Width	25 mm
Height	147 mm
Depth	129 mm

### Weights

Weight, approx.	280 g
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### Other

Note:	Supplied incl. 40-pole push-in front connectors
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**last modified:** 18.12.2015