

SIMATIC S7-1500, digital output module DQ 16x230 V AC/1 A ST; TRIAC; 16 channels in groups of 2; 2 A per group; Substitute value: Front connector (screw terminals or push-in) to be ordered separately



General information	
Product type designation	DQ 16x230VAC/1A ST (Triac)
HW functional status	FS01
Firmware version	V1.0.0
<ul style="list-style-type: none"> FW update possible 	Yes
Product function	
<ul style="list-style-type: none"> I&M data 	Yes; I&M0 to I&M3
<ul style="list-style-type: none"> Isochronous mode 	No
<ul style="list-style-type: none"> Prioritized startup 	Yes
Engineering with	
<ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated as of version 	V13 SP1 / -
<ul style="list-style-type: none"> STEP 7 configurable/integrated as of version 	V5.5 SP3 / -
<ul style="list-style-type: none"> PROFIBUS as of GSD version/GSD revision 	V1.0 / V5.1
<ul style="list-style-type: none"> PROFINET as of GSD version/GSD revision 	V2.3 / -
Operating mode	
<ul style="list-style-type: none"> DQ 	Yes
<ul style="list-style-type: none"> DQ with energy-saving function 	No
<ul style="list-style-type: none"> PWM 	No

- Oversampling
- MSO

No
Yes

Output voltage

Rated value (AC) 230 V; 120/230 V AC, 50/60 Hz

Power

Power available from the backplane bus 1.2 W

Power loss

Power loss, typ. 11.1 W

Digital outputs

Type of digital output	Triac
Number of digital outputs	16
Current-sinking	Yes
Current-sourcing	Yes
Digital outputs, parameterizable	Yes
Short-circuit protection	No
• built-in fuse	6.3 A melting fuse, slow-blow
Size of motor starters according to NEMA, max.	4

Switching capacity of the outputs

- with resistive load, max. 1 A
- on lamp load, max. 50 W

Output voltage

- for signal "1", min. L1 (-1.5 V) at maximum output current; L1 (-8.5 V) at minimum output current

Output current

- for signal "1" rated value 1 A
- for signal "1" permissible range, min. 10 mA
- for signal "1" permissible range, max. 15 A; max. 1 AC cycle
- for signal "0" residual current, max. 2 mA

Output delay with resistive load

- "0" to "1", max. 1 AC cycle
- "1" to "0", max. 1 AC cycle

Parallel switching of two outputs

- for logic links No
- for uprating No
- for redundant control of a load Yes

Switching frequency

- with resistive load, max. 10 Hz
- with inductive load, max. 0.5 Hz
- on lamp load, max. 1 Hz

Total current of the outputs

- Current per channel, max. 1 A; see additional description in the manual

<ul style="list-style-type: none"> • Current per group, max. • Current per module, max. 	<p>2 A; see additional description in the manual</p> <p>10 A; see additional description in the manual</p>
Cable length	
<ul style="list-style-type: none"> • shielded, max. • unshielded, max. 	<p>1 000 m</p> <p>600 m</p>
Interrupts/diagnostics/status information	
Diagnostics function	No
Substitute values connectable	Yes
Alarms	
<ul style="list-style-type: none"> • Diagnostic alarm • Maintenance interrupt 	<p>No</p> <p>No</p>
Diagnostic messages	
<ul style="list-style-type: none"> • Monitoring the supply voltage • Wire-break • Short-circuit 	<p>No</p> <p>No</p> <p>No</p>
Diagnostics indication LED	
<ul style="list-style-type: none"> • RUN LED • ERROR LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics 	<p>Yes; green LED</p> <p>Yes; red LED</p> <p>No</p> <p>Yes; green LED</p> <p>No</p> <p>Yes; red LED</p>
Potential separation	
Potential separation channels	
<ul style="list-style-type: none"> • between the channels • between the channels, in groups of • between the channels and backplane bus 	<p>No</p> <p>2</p> <p>Yes</p>
Permissible potential difference	
between different circuits	250 V AC between the channels and the backplane bus; 500 V AC between the channels
Isolation	
Isolation tested with	3 100 V DC
Standards, approvals, certificates	
Suitable for safety functions	No
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. 	<p>0 °C</p> <p>60 °C</p> <p>0 °C</p> <p>60 °C</p>

Dimensions

Width	35 mm
Height	147 mm
Depth	129 mm

Weights

Weight, approx.	310 g
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last modified: 04/10/2020