

SIMATIC S7-1500, DIGITAL OUTPUT MODULE DQ 16 X 230VAC / 1A, TRIAC; 16 CHANNELS IN GROUPS OF 2, 2A PER GROUP; SUBSTITUTE VALUE



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
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
<ul style="list-style-type: none"> Oversampling 	No
<ul style="list-style-type: none"> MSO 	Yes

Output voltage	
Rated value (AC)	120/230V AC, 50/60 Hz
Power	
Power available from the backplane bus	1.2 W
Power loss	
Power loss, typ.	11.1 W
Digital outputs	
Number of digital outputs	16
Current-sinking	Yes
Current-sourcing	Yes
Short-circuit protection	No
Switching capacity of the outputs	
<ul style="list-style-type: none"> with resistive load, max. 	1 A
<ul style="list-style-type: none"> on lamp load, max. 	50 W
Output voltage	
<ul style="list-style-type: none"> for signal "1", min. 	L1 (-1.5 V) at maximum output current; L1 (-8.5 V) at minimum output current
Output current	
<ul style="list-style-type: none"> for signal "1" rated value 	1 A
<ul style="list-style-type: none"> for signal "1" permissible range, min. 	10 mA
<ul style="list-style-type: none"> for signal "1" permissible range, max. 	15 A; max. 1 AC cycle
<ul style="list-style-type: none"> for signal "0" residual current, max. 	2 mA
Output delay with resistive load	
<ul style="list-style-type: none"> "0" to "1", max. 	1 AC cycle
<ul style="list-style-type: none"> "1" to "0", max. 	1 AC cycle
Parallel switching of two outputs	
<ul style="list-style-type: none"> for logic links 	No
<ul style="list-style-type: none"> for uprating 	No
<ul style="list-style-type: none"> for redundant control of a load 	Yes
Switching frequency	
<ul style="list-style-type: none"> with resistive load, max. 	10 Hz
<ul style="list-style-type: none"> with inductive load, max. 	0.5 Hz
<ul style="list-style-type: none"> on lamp load, max. 	1 Hz
Total current of the outputs	
<ul style="list-style-type: none"> Current per channel, max. 	1 A; see additional description in the manual
<ul style="list-style-type: none"> Current per group, max. 	2 A; see additional description in the manual
<ul style="list-style-type: none"> Current per module, max. 	10 A; see additional description in the manual
Triac outputs	
<ul style="list-style-type: none"> Size of motor starters according to NEMA, max. 	4
Cable length	
<ul style="list-style-type: none"> shielded, max. 	1 000 m

- unshielded, max.

600 m

Isochronous mode

Isochronous operation (application synchronized up to terminal) No

Interrupts/diagnostics/status information

Diagnostics No

Substitute values connectable Yes

Alarms

- Diagnostic alarm No

Diagnostic messages

- Monitoring the supply voltage No
- Wire-break No
- Short-circuit No

Diagnostics indication LED

- RUN LED Yes; Green LED
- ERROR LED Yes; Red LED
- Monitoring of the supply voltage (PWR-LED) No
- Channel status display Yes; Green LED
- for channel diagnostics No
- for module diagnostics Yes; Red LED

Potential separation

Potential separation channels

- between the channels No
- between the channels, in groups of 2
- between the channels and backplane bus Yes

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 2500 V DC

Ambient conditions

Ambient temperature during operation

- horizontal installation, min. 0 °C
- horizontal installation, max. 60 °C
- vertical installation, min. 0 °C
- vertical installation, max. 60 °C

Decentralized operation

Prioritized startup Yes

Dimensions

Width	35 mm
Height	147 mm
Depth	129 mm

Weights

Weight, approx.	310 g
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last modified: 09.04.2016