



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	From FS01
Firmware version	V 1.2.0
<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 from version 	V13 SP1 / -
<ul style="list-style-type: none"> STEP 7 configurable/integrated from version 	V5.5 SP3 / -
<ul style="list-style-type: none"> PROFIBUS from GSD version/GSD revision 	V1.0 / V5.1
<ul style="list-style-type: none"> PROFINET from 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
<ul style="list-style-type: none"> Integrated operating cycle counter 	Yes; FW V1.2.0 or higher
output voltage / header	
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
<ul style="list-style-type: none"> built-in fuse 	6.3 A melting fuse, slow-blow
Size of motor starters according to NEMA, max.	4
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 • for signal "1" permissible range, min. • for signal "1" permissible range, max. • for signal "0" residual current, max. 	1 A 10 mA 15 A; max. 1 AC cycle 2 mA
Output delay with resistive load	
<ul style="list-style-type: none"> • "0" to "1", max. • "1" to "0", max. 	1 AC cycle 1 AC cycle
Parallel switching of two outputs	
<ul style="list-style-type: none"> • for logic links • for uprating • for redundant control of a load 	No No Yes
Switching frequency	
<ul style="list-style-type: none"> • with resistive load, max. • with inductive load, max. • on lamp load, max. 	10 Hz 0.5 Hz 1 Hz
Total current of the outputs	
<ul style="list-style-type: none"> • Current per channel, max. • Current per group, max. • Current per module, max. 	1 A; see additional description in the manual 2 A; see additional description in the manual 10 A; see additional description in the manual
Cable length	
<ul style="list-style-type: none"> • shielded, max. • unshielded, max. 	1 000 m 600 m
Interrupts/diagnostics/status information	
Diagnostics function	No
Substitute values connectable	Yes
Alarms	
<ul style="list-style-type: none"> • Diagnostic alarm • Maintenance interrupt 	No Yes; maintenance alarm for switching cycle counter
Diagnoses	
<ul style="list-style-type: none"> • Monitoring the supply voltage • Wire-break • Short-circuit 	No No No
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 	Yes; green LED Yes; red LED No Yes; green LED No Yes; red LED
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 	No 2 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	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. 	0 °C 60 °C

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

0 °C
40 °C

Dimensions

Width	35 mm
Height	147 mm
Depth	129 mm

Weights

Weight, approx.	310 g
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last modified: 2/10/2022 