Data sheet

SIMATIC S7-1500, Digital output module DQ 8x24 V DC/2A HF; 8 channels in groups of 8; 8A per group; diagnostics; Substitute value



Figure similar

General information			
Product type designation	DQ 8x24VDC/2A HF		
HW functional status	FS01		
Firmware version	V2.1.0		
 FW update possible 	Yes		
Product function			
● I&M data	Yes; I&M0 to I&M3		
Engineering with			
 STEP 7 TIA Portal configurable/integrated as of version 	V13 SP1 / -		
 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			
• DQ	Yes		
 DQ with energy-saving function 	Yes; with an application		
• PWM	Yes		

Oversampling	No			
• MSO	Yes			
Supply voltage				
Type of supply voltage	DC			
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 10 A per group			
Input current				
Current consumption, max.	40 mA; 20 mA per group, no output is activated.			
Output voltage				
Rated value (DC)	24 V			
Davier				
Power Power available from the backplane bus	0.9 W			
Tower available from the backplane bus	0.5 VV			
Power loss				
Power loss, typ.	5.6 W; 6.8 W for PWM operation			
Digital outputs				
Type of digital output	Transistor			
Number of digital outputs	8			
Current-sourcing	Yes			
Short-circuit protection	Yes			
 Response threshold, typ. 	3 A			
Limitation of inductive shutdown voltage to	-17 V			
Controlling a digital input	Yes			
Digital output functions, parameterizable				
Freely usable digital output	Yes			
 PWM output 	Yes			
— Number, max.	2			
 Cycle duration, parameterizable 	Yes; 2 100 ms continuous			
— ON period, min.	0 %			
— ON period, max.	100 %			
 Resolution of the duty cycle 	0.1 %			
Minimum pulse duration	300 µs			
Switching capacity of the outputs				
• on lamp load, max.	10 W			
Load resistance range				
• lower limit	12 Ω			
• upper limit	4 kΩ			
Output voltage				
• for signal "1", min.	L+ (-0.8 V)			

• for signal "1" rated value • for signal "1" permissible range, max. • for signal "0" residual current, max. 0.5 mA Output delay with resistive load • "0" to "1", typ. • "0" to "1", typ. • "1" to "0", typ. • "1" to "0", typ. • "1" to "0", max. 500 µs Parallel switching of two outputs • for logic links • for uprating • for redundant control of a load Switching frequency • with resistive load, max. • with inductive load, max. • with inductive load, max. • on lamp load, max. • Current per channel, max. • Current per group, max. • Current per module, max. • Sake additional description in the manual • Shielded, max. • unshielded, max. • shielded, max. • unshielded, max. • Scorbronous mode Isochronous mode Isochronous mode Isochronous mode Isochronous mode 2.4 i Note derating specification for PWM operation 2.4 i Note derating specification for PWM operation 0.5 mA 2.4 i Note derating specification for PWM operation 0.5 mA 0.5 mA 0.5 mA 0.5 mA 0.5 mA 0.0 µs 9.0	Output current					
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Diagnostics function Yes Substitute values connectable Alarms Diagnostic alarm Yes Diagnostic messages Monitoring the supply voltage Wire-break Short-circuit Group error Page 1 Page 2 Page 3 Yes No Yes No Yes Page 3 Yes No Yes Yes Yes Yes Yes Page 4 Yes Yes Yes Yes Page 5 Yes Yes Yes Page 6 Yes Yes Page 7 Yes Page 7 Yes Page 7 Yes Page 8 Page 7 Yes Page 8 P		No				
Substitute values connectable Alarms Diagnostic alarm Monitoring the supply voltage Wire-break Short-circuit Group error Pagnostics indication LED RUN LED Yes Yes Yes Yes Yes Yes Yes Ye	Interrupts/diagnostics/status information					
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Short-circuit Yes Group error Yes Diagnostics indication LED RUN LED Yes; Green LED	 Monitoring the supply voltage 	Yes				
Group error Yes Diagnostics indication LED RUN LED Yes; Green LED	Wire-break	No				
Diagnostics indication LED • RUN LED Yes; Green LED	Short-circuit	Yes				
• RUN LED Yes; Green LED	Group error	Yes				
	Diagnostics indication LED					
• ERROR LED Yes; Red LED	• RUN LED	Yes; Green LED				
	• ERROR LED	Yes; Red LED				

Yes; Green LED • Monitoring of the supply voltage (PWR-LED) Yes; Green LED • Channel status display Yes; Red LED • for channel diagnostics Yes; Red LED

tent			

Potential separation channels

• for module diagnostics

No • between the channels 4 • between the channels, in groups of • between the channels and backplane bus Yes

Isolation tested with 707 V DC (type test)

Decentralized operation

Prioritized startup Yes

Width 35 mm Height 147 mm Depth 129 mm

Weights

Weight, approx. 240 g

last modified: 07/17/2018