SIEMENS

Data sheet

6ES7522-1BH10-0AA0



SIMATIC S7-1500, digital output module, DQ16xDC 24V/0.5A BA, 16 channels in groups of 8, 4 A per group; the module supports the safetyoriented shutdown of load groups up to SIL2 according to EN IEC 62061:2021 and Category 3 / PL d according to EN ISO 13849-1:2015. delivery incl. front connector push-in

General information		
Product type designation	DQ 16x24VDC/0.5A BA	
HW functional status	From FS01	
Firmware version	V1.0.0	
 FW update possible 	Yes	
Product function		
• I&M data	Yes; I&M0 to I&M3	
 Isochronous mode 	No	
 Prioritized startup 	Yes	
Engineering with		
 STEP 7 TIA Portal configurable/integrated from version 	V13 / V13	
 STEP 7 configurable/integrated from version 	V5.5 SP3 / -	
 PROFIBUS from GSD version/GSD revision 	V1.0 / V5.1	
 PROFINET from GSD version/GSD revision 	V2.3 / -	
Operating mode		
• DQ	Yes	
 DQ with energy-saving function 	No	
• PWM	No	
Oversampling	No	
• MSO	Yes	
Supply voltage		
Rated value (DC)	24 V	
permissible range, lower limit (DC)	19.2 V	
permissible range, upper limit (DC)	28.8 V	
Reverse polarity protection	Yes; through internal protection with 7 A per group	
Input current		
Current consumption, max.	30 mA	
output voltage / header		
Rated value (DC)	24 V	
Power		
Power available from the backplane bus	1.15 W	
Power loss		
Power loss, typ.	2.2 W	
Digital outputs		
Type of digital output	Transistor	
Number of digital outputs	16	
Current-sourcing	Yes	
Digital outputs, parameterizable	No	
Short-circuit protection	Yes	

Interpolation installation, gop. Interpolation installation, gop. Controlling a degrad input Yes Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Stability gradual function installation, gop. Yes. Stability gradual function installation, gop. Stability gradual function installation, gop. <th>• Response threshold, typ.</th> <th>1 A</th>	• Response threshold, typ.	1 A
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• on lang load, max.SWEvad residence range• uppor (Imit)12 kGObjat. Valiage• for signal "1" nem value16 kG N• for signal "1" nem value0.5 A• for signal "1" nem value0.5 A• for signal "1" restruction max.0.5 M• for signal "1" nem value0.5 M• for ingo (Ins)Yes• for ingo (Ins)Yes• for ingo (Ins)Yes• for ingo (Ins)0.9 Js• for ingo (Ins)No• for ingo (Ins)No• for ingo (Ins)0.9 Hz, According to IEC 60947-5-1, DC-13• for ingo (Ins)0.5 Kz see additional description in the manual• for ingo (Ins)0.5 Kz see additional description in the manual• for ingo (Ins)0.5 Kz see additional description in the manual• for ingo (Ins)0.5 Kz see additional description in the manual• for ingo (Ins)0.5 Kz see additional description in the manual• for ingo (Ins)0.5 Kz see additional description in the manual• for ingo (Ins)0.5 Kz see additional description in the manual• for ingo (Ins)0.5 Kz see additional description in the manual• for ingo (Ins)0.5 Kz see additional description in the manual• for ingo (Ins)0.5 Kz see additional description in the manual• for ingo (Ins)0.5 Kz see additional description in the manual<		0.5 A
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Output values		48 Ω
Output values	• upper limit	12 kΩ
• or signal "1", min.L+ (0.8 V)• Otra signal "1" resclual current, max.0.5 A• of raignal "1" resclual current, max.0.5 A• of raignal "1" resclual current, max.0.5 m AOtoput delay with resclue lurent, max.0.5 m A• O'r fo'r), max.0.6 µs• O'r redundant control of a loadYes• O'r redundant control of a loadYes• With reducte lead, max.0.6 µs A: see additional description in the manual• O'r redundant control of a load100 hz• With reducte lead, max.0.5 A: see additional description in the manual• O'r redundant control of a load100 m• With reducte lead, max.0.5 A: see additional description in the manual• O'r redundant control of a load0.5 A: see additional description in the manual• O'r reducte lead, max.0.5 A: see additional description in the manual• O'r reducte lead, max.0.5 A: see additional description in the manual• O'r reducte lead, max.0.6 Om• O'r reducte lead, max.100 m• subhided, max.0.6 Om• O'r reducte lead, max.0.6 Om• Orr reducte lead, max.0.6 Om• O'r reducte lead, max.No• Subtide reducte lead, max.No• O'r reducte lead, max.No <td></td> <td></td>		
Output current 0.5 A • for signal "I" permissible range, max. 0.5 A • for signal "I" permissible range, max. 0.5 A • for signal "I" permissible range, max. 0.5 A • for signal "I" permissible range, max. 0.5 A • for signal "I" rest value 0.5 A • for for form. 500 µs Parallel switching of two outputs - • for repating No • for repating frequency. 0.5 Hz, According to IEC 60947-5-1, DC-13 • on lamp load, max. 0.5 Hz, According to IEC 60947-5-1, DC-13 • on lamp load, max. 0.5 A see additional description in the manual • Current per group, max. 4. A; see additional description in the manual • Current per group, max. 4. S; see additional description in the manual • Current per group, max. 1000 m • unshielded, max. 1000 m • unshielded, max. 1000 m • unshielded, max.		L+ (-0.8 V)
• for signal *** permissible range, max. 0.5 A • for signal *** permissible range, max. 0.5 mA Output delay.with resistive load 100 µs • *** for 0'r) max. 100 µs • *** for 0'r) max. 500 µs Parallel switching of two outputs Yes • for for uprating No • for routpating No • for routpating frequency 100 ½ • with inductive load, max. 0.5 ½; According to IEC 60947-5-1, DC-13 • with inductive load, max. 0.5 Å; see additional description in the manual • Current per group, max. 4.5 see additional description in the manual • Current per group, max. 4.5 see additional description in the manual • Current per group, max. 4.5 see additional description in the manual • Current per group, max. 1000 m • Instributed, max. 1000 m<		
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••***********************************	 for signal "0" residual current, max. 	0.5 mA
• 11' to '0', max. 500 µs Parallel switching frequency Yes • for logic links. Yes • for reductant control of a load Yes Switching frequency Yes • with inductive load, max. 100 Hz • with inductive load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 • or inamp load, max. 10 Hz • Current per group, max. 4.4 ysee additional description in the manual • Current per group, max. 4.4 ysee additional description in the manual • Current per group, max. 4.4 ysee additional description in the manual • Current per group, max. 4.4 ysee additional description in the manual • Current per group, max. 1000 m • unshielded, max. 1000 m • unshielded, max. 600 m • onshielded, max. 600 m • Diagnostics function No > Aution postic alarm No • Mointoing the supply voltage No • Wire-break No • Wire-break No • Short-circuit No • Short-circuit No • Carlen the channels, in groups of 8 • For module diagnostics No • Contend I status display Yes; green LED • Contend I status display	Output delay with resistive load	
Parallel switching of two outputs • for logic links Yes • for redundant control of a load Yes • with inductive load, max. 100 Hz • with inductive load, max. 0.5 Hz; According to IEC 60947-5-1, DC-13 • on lamp load, max. 0.5 A; see additional description in the manual • Current per channel, max. 0.5 A; see additional description in the manual • Current per module, max. 4 A; see additional description in the manual • Current per module, max. 8 A; see additional description in the manual • Current per module, max. 8 A; see additional description in the manual Cable length 1000 m • unshieled, max. 1000 m • unshieled, max. 600 m Interrupts/diagnostics/status information No Diagnostic alarm No • Maintenance interrupt No • Short-Circuit No • Short-Circuit No • Short-Circuit No • Monitoring of the supply voltage (PWR-LED) Yes; green LED • Channel status display Yes; green LED • Channel status display Yes; green LED • for module diagnostics	• "0" to "1", max.	100 µs
or logic linksYesof or logic linksNoof or redundant control of a loadYesSwitching frequencyYeswith resistive load, max.100 Hzwith inductive load, max.0.5 Hz; According to IEC 60947-5-1, DC-13on lamp load, max.0.5 Hz; According to IEC 60947-5-1, DC-13on lamp load, max.0.5 A; see additional description in the manualCurrent per droup, max.4.4 see additional description in the manualCurrent per group, max.4.4 see additional description in the manualCurrent per group, max.6.00 m- Current per module, max.1000 m- unshielded, max.6.00 m- unshielded, max.6.00 m- Sitelided, max.6.00 m- Diagnostic functionNoSubstitute values connectableNoAizms Diagnostic functionNo- Wire-breakNo- Wire-breakNo- Wire-breakNo- Wire-breakNo- Singottic indiation EDYes; green LED- FRNO LEDYes; green LED- FRNO LEDYes; green LED- Channel istus displayYes; green LED- Fortial separationNo- Diagnostic indiation EDYes; green LED- Fortial separation channelsNo- Fortial separation channelsNo- Fortial separation channelsYes; green LED- Externel diagnosticsNo- between the channels and backplane busYes; green LED- between the channels an	• "1" to "0", max.	500 µs
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• Current per module, max. 8 A; see additional description in the manual Cable length 1000 m • shielded, max. 600 m • unshielded, max. 600 m Interrupts/diagnostics/status information No Diagnostics function No Aiams No • Diagnostic alarm No • Diagnostic alarm No • Maintenance interrupt No • Monitoring the supply voltage No • Wire-break No • Short-circuit No • RUN LED Yes; green LED • ERROR LED Yes; green LED • Channel status display Yes; green LED • for module diagnostics No • for module diagnostics No • for module diagnostics No • between the channels No • between the channels and backplane bus Yes • between the channels and backplane bus Yes • between the channels in groups of 8 • between the channels in groups of 8 • between the channels		
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Highest safety class achievable for safety-related tripping of standard modules	Suitable for safety functions	No
Performance level according to ISO 13849-1 PL d	Suitable for safety-related tripping of standard modules	
	Suitable for safety-related tripping of standard modules Highest safety class achievable for safety-related tripping of	standard modules

 Category according to ISO 13849-1 	Cat. 3
 SIL acc. to IEC 62061 	SIL 2
 remark on safety-oriented shutdown 	
Ambient conditions	
Ambient temperature during operation	
 horizontal installation, min. 	-30 °C; from FS04
 horizontal installation, max. 	60 °C
 vertical installation, min. 	-30 °C; from FS04
 vertical installation, max. 	40 °C
Altitude during operation relating to sea level	
 Installation altitude above sea level, max. 	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Dimensions	
Width	25 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	230 g
Other	
Note:	Supplied incl. 40-pole push-in front connectors

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