**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 safety-oriented 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		
<ul> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3	
<ul> <li>Isochronous mode</li> </ul>	No	
Prioritized startup	Yes	
Engineering with		
<ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V13 / V13	
<ul> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3 / -	
<ul> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	V1.0 / V5.1	
<ul> <li>PROFINET from GSD version/GSD revision</li> </ul>	V2.3 / -	
Operating mode		
• DQ	Yes	
<ul> <li>DQ with energy-saving function</li> </ul>	No	
• PWM	No	
<ul> <li>Oversampling</li> </ul>	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
Response threshold, typ.	1 A
Limitation of inductive shutdown voltage to	L+ (-53 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
<ul><li>with resistive load, max.</li></ul>	0.5 A
on lamp load, max.	5 W
Load resistance range	
<ul><li>lower limit</li></ul>	48 Ω
upper limit	12 kΩ
Output voltage	
● for signal "1", min.	L+ (-0.8 V)
Output current	
<ul><li>for signal "1" rated value</li></ul>	0.5 A
<ul><li>for signal "1" permissible range, max.</li></ul>	0.5 A
<ul><li>for signal "0" residual current, max.</li></ul>	0.5 mA
Output delay with resistive load	
• "0" to "1", max.	100 µs
• "1" to "0", max.	500 µs
Parallel switching of two outputs	
• for logic links	Yes
• for uprating	No
for redundant control of a load	Yes
Switching frequency	
with resistive load, max.	100 Hz
with resistive load, max.     with inductive load, max.	0.5 Hz; According to IEC 60947-5-1, DC-13
on lamp load, max.	10 Hz
Total current of the outputs	10 112
·	0.5. At any additional description in the manual
Current per channel, max.	<ul><li>0.5 A; see additional description in the manual</li><li>4 A; see additional description in the manual</li></ul>
Current per group, max.	
Current per module, max.  Cable largeth	8 A; see additional description in the manual
Cable length	4 000
• shielded, max.	1 000 m
• unshielded, max.	600 m
Interrupts/diagnostics/status information	
Diagnostics function	No
Substitute values connectable	No
Alarms	
Diagnostic alarm	No
Maintenance interrupt	No
Diagnoses	
<ul> <li>Monitoring the supply voltage</li> </ul>	No
Wire-break	No
Short-circuit	No
Group error	No
Diagnostics indication LED	
• RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
<ul> <li>Monitoring of the supply voltage (PWR-LED)</li> </ul>	Yes; green LED
Channel status display	Yes; green LED
for channel diagnostics	No
for module diagnostics	No
Potential separation	
Potential separation channels	No
between the channels	No
between the channels, in groups of	8
between the channels and backplane bus	Yes
Isolation	
Isolation tested with	707 V DC (type test)

Standards, approvals, certificates		
Suitable for safety functions	No	
Suitable for safety-related tripping of standard modules	Yes; From FS02	
Highest safety class achievable for safety-related tripping of standard modules		
<ul> <li>Performance level according to ISO 13849-1</li> </ul>	PL d	
<ul> <li>Category according to ISO 13849-1</li> </ul>	Cat. 3	
<ul> <li>SIL acc. to IEC 62061</li> </ul>	SIL 2	
Ambient conditions		
Ambient temperature during operation		
<ul> <li>horizontal installation, min.</li> </ul>	-30 °C; from FS04	
<ul> <li>horizontal installation, max.</li> </ul>	60 °C	
<ul> <li>vertical installation, min.</li> </ul>	-30 °C; from FS04	
vertical installation, max.	40 °C	
Altitude during operation relating to sea level		
<ul> <li>Installation altitude above sea level, max.</li> </ul>	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	