## **SIEMENS**

## **Data sheet**

6ES7522-1BL01-0AB0



SIMATIC S7-1500, digital output module DQ 32x24V DC/0.5A HF; 32 channels in groups of 8; 4 A per group; single-channel diagnostics; substitute value, switching cycle counter for connected actuators. 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. front connector (screw terminals or push-in) to be ordered separately

Figure similar

General information	
Product type designation DQ	) 32x24VDC/0.5A HF
HW functional status Fro	om FS02
Firmware version V1.	.1.0
Product function	
• I&M data Yes	s; I&M0 to I&M3
• Isochronous mode Yes	S
Prioritized startup     Yes	S
Engineering with	
<ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	3 SP1 / -
<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> <li>V2.</li> </ul>	.3 / -
Operating mode	
• DQ Yes	S
• DQ with energy-saving function No	
• PWM No	
Cam control (switching at comparison values)  No	
<ul><li>Oversampling</li><li>No</li></ul>	
• MSO Yes	S
Integrated operating cycle counter     Yes	S
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	s; through internal protection with 7 A per group
Input current	
Current consumption, max. 60	mA
output voltage / header	
Rated value (DC) 24	V
Power	
Power available from the backplane bus 1.1	W
Power loss	
Power loss, typ. 3.5	5 W
Digital outputs	
	ansistor
Number of digital outputs 32	

Current sourcing	Voc
Current-sourcing  Digital outputs, parameterizable	Yes Yes
Digital outputs, parameterizable	
Short-circuit protection	Yes; Clocked electronically
Response threshold, typ.  Limitation of industries abut days yet to see to	1 A
Limitation of inductive shutdown voltage to	L+ (-53 V)
Controlling a digital input	Yes
Switching capacity of the outputs	0.5.4
with resistive load, max.	0.5 A
• on lamp load, max.	5 W
Load resistance range	40.0
• lower limit	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
for signal "0" residual current, max.	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
<ul> <li>for redundant control of a load</li> </ul>	Yes
Switching frequency	
with resistive load, max.	100 Hz
<ul> <li>with inductive load, max.</li> </ul>	0.5 Hz; According to IEC 60947-5-1, DC-13
• on lamp load, max.	10 Hz
Total current of the outputs	
Current per channel, max.	0.5 A; see additional description in the manual
Current per group, max.	4 A; see additional description in the manual
Current per module, max.	16 A; see additional description in the manual
Cable length	, , , , , , , , , , , , , , , , , , , ,
shielded, max.	1 000 m
unshielded, max.	600 m
Isochronous mode	000 III
	70
Execution and activation time (TCO), min.	70 μs
Bus cycle time (TDP), min.	250 μs
14	
Interrupts/diagnostics/status information	
Interrupts/diagnostics/status information  Diagnostics function	Yes
	Yes Yes
Diagnostics function	
Diagnostics function Substitute values connectable	
Diagnostics function Substitute values connectable Alarms	Yes
Diagnostics function Substitute values connectable Alarms  • Diagnostic alarm	Yes Yes
Diagnostics function Substitute values connectable Alarms  • Diagnostic alarm • Maintenance interrupt	Yes Yes
Diagnostics function Substitute values connectable Alarms  • Diagnostic alarm  • Maintenance interrupt Diagnoses	Yes Yes Yes
Diagnostics function Substitute values connectable Alarms  • Diagnostic alarm  • Maintenance interrupt Diagnoses  • Monitoring the supply voltage	Yes Yes Yes Yes
Diagnostics function Substitute values connectable  Alarms  • Diagnostic alarm  • Maintenance interrupt  Diagnoses  • Monitoring the supply voltage  • Wire-break  • Short-circuit	Yes Yes Yes Yes Yes Yes
Diagnostics function Substitute values connectable  Alarms	Yes Yes Yes Yes Yes Yes Yes Yes
Diagnostics function Substitute values connectable  Alarms	Yes
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Diagnostics function Substitute values connectable  Alarms  Diagnostic alarm Maintenance interrupt  Diagnoses Monitoring the supply voltage Wire-break Short-circuit Group error  Diagnostics indication LED RUN LED ERROR LED MAINT LED Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics	Yes
Diagnostics function Substitute values connectable  Alarms  Diagnostic alarm Maintenance interrupt  Diagnoses Monitoring the supply voltage Wire-break Short-circuit Group error  Diagnostics indication LED RUN LED RROR LED MAINT LED Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics for module diagnostics	Yes
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<ul> <li>between the channels</li> </ul>	No	
<ul> <li>between the channels, in groups of</li> </ul>	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 FS03	
<ul> <li>horizontal installation, max.</li> </ul>	60 °C	
<ul> <li>vertical installation, min.</li> </ul>	-30 °C; From FS03	
<ul> <li>vertical installation, max.</li> </ul>	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	35 mm	
Height	147 mm	
Depth	129 mm	
Weights		
Weight, approx.	280 g	

3/3/2022

last modified: