## SIEMENS

## Data sheet

## 6ES7522-1BP00-0AA0



SIMATIC S7-1500, digital output module, DQ 64xDC 24V/0,3A BA, 64 channels in groups of 16, 2 A per group at 60 °C, sinking output, 35 mm wide, 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. cables and terminal blocks to be ordered separately as accessories

General information	
Product type designation	DQ 64x24VDC/0.3A BA
HW functional status	From FS01
Firmware version	V1.0.0
<ul> <li>FW update possible</li> </ul>	Yes
Product function	
• I&M data	Yes; I&M0 to I&M3
Isochronous mode	No
<ul> <li>Prioritized startup</li> </ul>	No
Engineering with	
<ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V16 with HSP 0319 / V17
<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>	V2.35 / -
Operating mode	
• DQ	Yes
<ul> <li>DQ with energy-saving function</li> </ul>	No
• PWM	No
<ul> <li>Cam control (switching at comparison values)</li> </ul>	No
Oversampling	No
• MSO	Yes
<ul> <li>Integrated operating cycle counter</li> </ul>	No
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
external protection for power supply lines (recommendation)	24 V DC/6 A miniature circuit breaker with type B tripping characteristic
Input current	
Current consumption, max.	90 mA; without load
output voltage / header	
Rated value (DC)	24 V
Power	
Power available from the backplane bus	0.6 W
Power loss	
Power loss, typ.	3.5 W
Digital outputs	
Type of digital output	Transistor
Number of digital outputs	64

Current einking	No
Current-sinking Current-sourcing	Yes
Digital outputs, parameterizable	No
Short-circuit protection	Yes
Limitation of inductive shutdown voltage to	L+ (-53 V)
Controlling a digital input	Yes
Switching capacity of the outputs	100
• with resistive load, max.	0.3 A
• on lamp load, max.	5 W
Load resistance range	•
lower limit	80 Ω
• upper limit	10 kΩ
Output voltage	
• for signal "1", min.	L+ (-0.8 V)
Output current	
<ul> <li>for signal "1" rated value</li> </ul>	0.3 A
<ul> <li>for signal "1" permissible range, max.</li> </ul>	0.3 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	
<ul> <li>for logic links</li> </ul>	Yes
<ul> <li>for uprating</li> </ul>	No
<ul> <li>for redundant control of a load</li> </ul>	Yes
Switching frequency	
<ul> <li>with resistive load, max.</li> </ul>	100 Hz
<ul> <li>with inductive load, max.</li> </ul>	0.5 Hz; According to IEC 60947-5-1, DC-13
<ul> <li>on lamp load, max.</li> </ul>	10 Hz
Total current of the outputs	
<ul> <li>Current per channel, max.</li> </ul>	0.3 A
<ul> <li>Current per group, max.</li> </ul>	2 A
Current per module, max.	8 A
Total current of the outputs (per module)	
horizontal installation	
— up to 60 °C, max.	8 A
vertical installation	
— up to 40 °C, max.	8 A
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	1 000 m 600 m
unshielded, max. Interrupts/diagnostics/status information	
unshielded, max. Interrupts/diagnostics/status information Diagnostics function	600 m No
unshielded, max. Interrupts/diagnostics/status information	600 m
unshielded, max. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms	600 m No No
unshielded, max. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms      Diagnostic alarm	600 m No No
unshielded, max. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms      Diagnostic alarm     Maintenance interrupt	600 m No No
• unshielded, max. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms     • Diagnostic alarm     • Maintenance interrupt Diagnoses	600 m No No No
• unshielded, max. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms     • Diagnostic alarm     • Maintenance interrupt Diagnoses     • Monitoring the supply voltage	600 m No No No No
unshielded, max. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms      Diagnostic alarm     Maintenance interrupt Diagnoses     Monitoring the supply voltage     Wire-break	600 m No No No No No
unshielded, max. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms      Diagnostic alarm     Maintenance interrupt Diagnoses     Monitoring the supply voltage     Wire-break     Short-circuit	600 m No No No No No No
unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function Substitute values connectable  Alarms  Diagnostic alarm  Maintenance interrupt  Diagnoses  Monitoring the supply voltage  Wire-break  Short-circuit  Group error	600 m No No No No No
<ul> <li>unshielded, max.</li> <li>Interrupts/diagnostics/status information</li> <li>Diagnostics function</li> <li>Substitute values connectable</li> <li>Alarms         <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> </li> <li>Diagnoses         <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> </li> <li>Diagnostics indication LED</li> </ul>	600 m No No No No No No No No
<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function <ul> <li>Substitute values connectable</li> </ul> Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> </ul>	600 m No No No No No No No No No Yes; green LED
<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> </ul>	600 m No No No No No No No No No Yes; green LED Yes; red LED
<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>MAINT LED</li> </ul>	600 m No No No No No No No No Yes; green LED Yes; red LED Yes; red LED No
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<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>MAINT LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> </ul>	600 m No No No No No No No No No No
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<ul> <li>unshielded, max.</li> </ul> Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms <ul> <li>Diagnostic alarm</li> <li>Maintenance interrupt</li> </ul> Diagnoses <ul> <li>Monitoring the supply voltage</li> <li>Wire-break</li> <li>Short-circuit</li> <li>Group error</li> </ul> Diagnostics indication LED <ul> <li>RUN LED</li> <li>ERROR LED</li> <li>MAINT LED</li> <li>Monitoring of the supply voltage (PWR-LED)</li> <li>Channel status display</li> <li>for channel diagnostics</li> <li>for module diagnostics</li> </ul>	600 m No No No No No No No No No Yes; green LED Yes; red LED Yes; red LED No Yes; via SIMATIC TOP connect connection module Yes; via SIMATIC TOP connect connection module Yes; via SIMATIC TOP connect connection module Yes; via SIMATIC TOP connect connection module No
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<ul> <li>between the channels, in groups of</li> <li>between the channels and backplane bus</li> </ul>	16; 32 when using SIMATIC TOP connect connection module 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 FS01	
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	
• SIL acc. to IEC 62061	SIL 2	
Ambient conditions		
Ambient temperature during operation		
<ul> <li>horizontal installation, min.</li> </ul>	-30 °C	
<ul> <li>horizontal installation, max.</li> </ul>	60 °C	
<ul> <li>vertical installation, min.</li> </ul>	-30 °C	
<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	
Dimensions		
Width	35 mm	
Height	147 mm	
Depth	129 mm	
Weights		
Weight, approx.	270 g	
Other		
Note:	Please order cable and connection modules separately	
last modified:	3/3/2022 🖸	