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

DQ 32x24VDC/0.5A HF
From FS02
V1.1.0
Yes; I&M0 to I&M3
Yes
Yes
V13 SP1 / -
V5.5 SP3 / -
V1.0 / V5.1
V2.3 / -
Yes
No
No
No
No
Yes
Yes
24 V
19.2 V
28.8 V
Yes; through internal protection with 7 A per group
60 mA
24 V
1.1 W
3.5 W
Transistor
32
Yes
Yes

Short-circuit protection	Yes; Clocked electronically
Response threshold, typ.	1 A
Limitation of inductive shutdown voltage to	L+ (-53 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
 with resistive load, max. 	0.5 A
 on lamp load, max. 	5 W
Load resistance range	
lower limit	48 Ω
• upper limit	12 kΩ
Output voltage	
● for signal "1", min.	L+ (-0.8 V)
Output current	
 for signal "1" rated value 	0.5 A
 for signal "1" permissible range, max. 	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
 for redundant control of a load 	Yes
Switching frequency	
 with resistive load, max. 	100 Hz
 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	
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
	16 A; see additional description in the manual
Current per module, max.	16 A; see additional description in the manual 1 000 m
Current per module, max. Cable length	
Current per module, max. Cable length shielded, max.	1 000 m
Current per module, max. Cable length shielded, max. unshielded, max. Isochronous mode	1 000 m
 Current per module, max. Cable length shielded, max. unshielded, max. 	1 000 m 600 m
Current per module, max. Cable length shielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min.	1 000 m 600 m 70 μs
Current per module, max. Cable length shielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min.	1 000 m 600 m 70 μs
Current per module, max. Cable length shielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information	1 000 m 600 m 70 μs 250 μs
Current per module, max. Cable length shielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function	1 000 m 600 m 70 μs 250 μs Yes
Current per module, max. Cable length shielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable	1 000 m 600 m 70 μs 250 μs Yes
Current per module, max. Cable length shielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms	1 000 m 600 m 70 μs 250 μs Yes Yes
Current per module, max. Cable length shielded, max. unshielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms Diagnostic alarm	1 000 m 600 m 70 μs 250 μs Yes Yes
Current per module, max. Cable length shielded, max. unshielded, max. sunshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms Diagnostic alarm Maintenance interrupt 	1 000 m 600 m 70 μs 250 μs Yes Yes
Current per module, max. Cable length shielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms Diagnostic alarm Maintenance interrupt Diagnoses	1 000 m 600 m 70 μs 250 μs Yes Yes Yes
Current per module, max. Cable length shielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms Diagnostic alarm Maintenance interrupt Diagnoses Monitoring the supply voltage	1 000 m 600 m 70 μs 250 μs 70 μs 250 μs 70 μs 250 μs 70 μs
Current per module, max. Cable length shielded, max. unshielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms Diagnostic alarm Maintenance interrupt Diagnoses Monitoring the supply voltage Wire-break Short-circuit 	1 000 m 600 m 70 μs 250 μs 70 μs 250 μs 70 μs 250 μs 70 μs
Current per module, max. Cable length shielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms Diagnostic alarm Maintenance interrupt Diagnoses Wire-break Short-circuit Group error 	1 000 m 600 m 70 μs 250 μs 70 μs 250 μs 70 μs 250 μs 70 μs
Current per module, max. Cable length shielded, max. unshielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. Interrupts/diagnostics/status information Diagnostics function Substitute values connectable Alarms Diagnostic alarm Maintenance interrupt Diagnoses Monitoring the supply voltage Wire-break Short-circuit 	1 000 m 600 m 70 μs 250 μs 78 Yes Yes Yes Yes Yes Yes Yes
Current per module, max. Cable length shielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. 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 Diagnostics indication LED 	1 000 m 600 m 70 μs 250 μs Yes Yes Yes Yes Yes Yes Yes
Current per module, max. Cable length shielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. 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 Diagnostics indication LED RUN LED 	1 000 m 600 m 70 μs 250 μs 78 Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
Current per module, max. Cable length shielded, max. unshielded, max. Isochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. 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 Diagnostics indication LED RUN LED ERROR LED MAINT LED 	1 000 m 600 m 70 μs 250 μs 72 yes 7es 7es 7es 7es 7es 7es 7es 7es 7es 7
 Current per module, max. Cable length shielded, max. unshielded, max. Instruct and activation time (TCO), min. Bus cycle time (TDP), min. 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 Diagnostics indication LED RUN LED ERROR LED MAINT LED Monitoring of the supply voltage (PWR-LED) 	1 000 m 600 m 70 μs 250 μs 250 μs Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye
 Current per module, max. Cable length shielded, max. unshielded, max. Instead of the supply voltage (PWR-LED) Konitoring of the supply voltage (PWR-LED) Channel status display 	1 000 m 600 m 70 μs 250 μs 250 μs Yes Yes Yes Yes Yes Yes Yes Ye
 Current per module, max. Cable length shielded, max. unshielded, max. Instruct and activation time (TCO), min. Bus cycle time (TDP), min. 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 Diagnostics indication LED RUN LED ERROR LED MAINT LED Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics 	1 000 m 600 m 70 μs 250 μs 78 Yes Yes Yes Yes Yes Yes Yes Yes
 Current per module, max. Cable length shielded, max. unshielded, max. Inschronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. 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 Diagnostics indication LED RUN LED ERROR LED MAINT LED Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics for module diagnostics 	1 000 m 600 m 70 μs 250 μs 70 μs 250 μs Yes Yes Yes Yes Yes Yes Yes Ye
 Current per module, max. Cable length shielded, max. unshielded, max. sochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. 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 Diagnostics indication LED RUN LED ERROR LED MAINT LED Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics for module diagnostics 	1 000 m 600 m 70 μs 250 μs 78 Yes Yes Yes Yes Yes Yes Yes Yes
 Current per module, max. Cable length shielded, max. unshielded, max. sochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. 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 Diagnostics indication LED RUN LED ERROR LED MAINT LED Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics for module diagnostics Potential separation channels 	1 000 m 600 m 70 μs 250 μs Yes Yes Yes Yes Yes Yes Yes Ye
 Current per module, max. Cable length shielded, max. unshielded, max. sochronous mode Execution and activation time (TCO), min. Bus cycle time (TDP), min. 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 Diagnostics indication LED RUN LED ERROR LED MAINT LED Monitoring of the supply voltage (PWR-LED) Channel status display for channel diagnostics for module diagnostics 	1 000 m 600 m 70 μs 250 μs 78 Yes Yes Yes Yes Yes Yes Yes Yes

 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		
 Performance level according to ISO 13849-1 	PL d	
 Category according to ISO 13849-1 	Cat. 3	
SIL acc. to IEC 62061	SIL 2	
Ambient conditions		
Ambient temperature during operation		
 horizontal installation, min. 	-30 °C; From FS03	
 horizontal installation, max. 	60 °C	
 vertical installation, min. 	-30 °C; From FS03	
 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	35 mm	
Height	147 mm	
Depth	129 mm	
Weights		
Weight, approx.	280 g	

last modified:

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