SIEMENS

Data sheet 6ES7522-1BL01-0AB0

Siemens EcoTech



Figure similar

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

General information	
Product type designation	DQ 32x24VDC/0.5A HF
HW functional status	From FS02
Firmware version	V1.1.0
Product function	
● I&M data	Yes; I&M0 to I&M3
● Isochronous mode	Yes
● Prioritized startup	Yes
Engineering with	
● STEP 7 TIA Portal configurable/integrated from version	V13 SP1 / -
● 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
● Cam control (switching at comparison values)	No
● Oversampling	No
● MSO	Yes
● Integrated operating cycle counter	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.	60 mA
output voltage / header	
Rated value (DC)	24 V
Power	
Power consumption from the backplane bus	1.1 W
Power loss	
Power loss, typ.	3.5 W
Digital outputs	
Type of digital output	Transistor

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Number of digital outputs	32
Current-sourcing	Yes
Digital outputs, parameterizable	Yes
output type acc. to IEC 61131, type 0.5	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
Cable length	
● shielded, max.	1 000 m
● unshielded, max.	600 m
Isochronous mode	
Execution and activation time (TCO), min.	70 µs
Bus cycle time (TDP), min.	250 µs
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	Yes
Alarms	
● Diagnostic alarm	Yes
● Maintenance interrupt	Yes
Diagnoses	
● Monitoring the supply voltage	Yes
● Wire-break	Yes
● Short-circuit	Yes
● Group error	Yes
Diagnostics indication LED	
● RUN LED	Yes; green LED
● ERROR LED	Yes; red LED
● MAINT LED	Yes; Yellow LED
● Monitoring of the supply voltage (PWR-LED)	Yes; green LED
● Channel status display	Yes; green LED
● for channel diagnostics	Yes; red LED
● for module diagnostics	Yes; red LED

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Potential separation	
Potential separation channels	
● 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	
Siemens Eco Profile (SEP)	Siemens EcoTech
Suitable for safety functions	No
Suitable for safety-related tripping of standard modules	Yes; From FS02
Ecological footprint	
● environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	43.8 kg
— global warming potential, (during production) [CO2 eq]	9.5 kg
— global warming potential, (during operation) [CO2 eq]	34.5 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.231 kg
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
● remark on safety-oriented shutdown	https://support.industry.siemens.com/cs/de/en/view/39198632
product functions / security / header	
signed firmware update	No
data integrity	No
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

Classifications

	Version	Classification
eClass	14	27-24-22-04
eClass	12	27-24-22-04
eClass	9.1	27-24-22-04
eClass	9	27-24-22-04
eClass	8	27-24-22-04
eClass	7.1	27-24-22-04
eClass	6	27-24-22-04
ETIM	10	EC001419
ETIM	9	EC001419
ETIM	8	EC001419
ETIM	7	EC001419
IDEA	4	3566
UNSPSC	15	32-15-17-05

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Approvals / Certificates

General Product Approval











KC

General Product Approval	EMV	Test Certificates		Maritime application	
EAC	RCM	Special Test Certificate	Type Test Certificates/Test Report	ABS	BUREAU VERITAS

Maritime application					other
DNV	LRS	PRS	RINA	RMRS	Confirmation

other		Railway	Dangerous goods	Environment	
产品合格 QC PASS	Miscellaneous	Special Test Certificate	Transport Information	EPD	Environmental Confirmations

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