6ES7522-1BP00-0AA0

Data sheet



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

Product type designation HW functional status From FS01 Firmware version Firmware version From FS01 V1.0.0 FW update possible Product function Is&M data Isochronous mode Prioritized startup No Engineering with STEP 7 TIA Portal configurable/integrated from version FROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision PROFINET from GSD version/GSD revision PDQ PDQ PDQ PDQ PDQ PDQ PWM	General information	
Firmware version Firmware version Firmware version Firmware possible Froduct function Isam data Sisochronous mode Prioritized startup No Engineering with STEP 7 TIAP portal configurable/integrated from version FROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision PQ DQ PQ DQ Ves DQ DQ Ves DQ Ves DQ Ves No Cam control (switching at comparison values) No Oversampling No No Integrated operating cycle counter No Supply voltage Rated value (DC) Permissible range, lower limit (DC) PReverse polarity protection External protection for power supply lines V1.0./ 0.0 V1.0./ 0.0 V1.0./ 0.0 V1.0./ 0.0 V2.35 / - V1.0./ 0.0 V2.35 / - V2	Product type designation	DQ 64x24VDC/0.3A BA
FW update possible Product function I &M data I sochronous mode Prioritized startup Engineering with STEP 7 TIA Portal configurable/integrated from version FROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision Dograting mode DQ POW Yes DO with energy-saving function PWM Cam control (switching at comparison values) MSO MSO Integrated operating cycle counter Rated value (DC) Permissible range, lower limit (DC) permissible range, upper limit (DC) Peverse polarity protection for power supply lines Yes; I&M0 to I&M3 No V1.0 / V5.1 V5.5 SP3 /- V1.0 / V5.1 V2.35 /- V9es V9es V9es V9es V9es V9es V9es V9es	HW functional status	From FS01
Product function I &M data I scochronous mode Prioritized startup Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD	Firmware version	V1.0.0
Isochronous mode Isochronous mode Prioritized startup No Ingineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 Toolfigurable/integrated from version STEP 7 configurable/integrated from version V5.5 SP3 /- V1.0 / V5.1 V2.35 /- V2.35 /- Operating mode DQ Yes DQ Yes SUBJECTION NO SUBJECTION	FW update possible	Yes
Isochronous mode Prioritized startup No Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision PQ PQ Yes DQ Yes DQ Yes DQ Yes DQ Yes Oversampling No Cam control (switching at comparison values) No Oversampling No MSO Yes Integrated operating cycle counter Rated value (DC) 24 V permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes; through internal protection with 7 A per group external protection for power supply lines 24 V DC/6 A miniature circuit breaker with type B tripping characteristic	Product function	
Prioritized startup Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision DQ Yes DQ Yes DQ With energy-saving function PWM No Cam control (switching at comparison values) Oversampling MSO Integrated operating cycle counter No Supply voltage Rated value (DC) permissible range, lower limit (DC) Person of the first proper supply lines Possible range, upper limit (DC) Reverse polarity protection external protection for power supply lines V1.0 / V5.5 SP3 / - V1.0 / V5.1 V2.35 / - V2.35 / - V2.35 / - V2.35 / - V2.95 / - V2.	 I&M data 	Yes; I&M0 to I&M3
Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision DQ DQ DQ version V2.35 /- Operating mode DQ DQ version Volume engy-saving function PWM Cam control (switching at comparison values) Oversampling MSO Integrated operating cycle counter Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection external protection for power supply lines V1.0 / V5.1 V2.35 /-	 Isochronous mode 	No
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version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision PROFINET from GSD version/GSD revision V2.35 /- Operating mode DQ PWM DQ with energy-saving function PWM Cam control (switching at comparison values) Oversampling MSO Integrated operating cycle counter No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection external protection for power supply lines V5.5 SP3 /- V1.0 / V5.1 V2.35 /- V1.0 / V5.1 V2.35 /- Vas No No Ves No Ves 10 24 V Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Reverse polarity protection External protection for power supply lines V5.5 SP3 /- V1.0 / V5.1 V1.0 / V5.1 V1.0 / V5.1 V2.35 /- V1.0 / V5.1 V2.35 /- V1.0 / V5.1 V1.0 / V1.0	Engineering with	
PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision PROFINET from GSD version/GSD revision V2.35 / - Operating mode PQ PQ PQ PG PQ PG	ŭ ŭ	V16 with HSP 0319 / V17
PROFINET from GSD version/GSD revision Operating mode DQ PWM No Cam control (switching at comparison values) No Oversampling No MSO Integrated operating cycle counter Rated value (DC) permissible range, lower limit (DC) Permissible range, upper limit (DC) Reverse polarity protection external protection for power supply lines Yes Yes No Yes No 24 V Pes; through internal protection with 7 A per group 24 V DC/6 A miniature circuit breaker with type B tripping characteristic	 STEP 7 configurable/integrated from version 	V5.5 SP3 / -
Operating mode • DQ • DQ with energy-saving function • PWM • Cam control (switching at comparison values) • Oversampling • MSO • Integrated operating cycle counter No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection external protection for power supply lines Yes Yes Yes Yes Yes 19.2 V 24 V 28.8 V Reverse polarity protection Yes; through internal protection with 7 A per group 24 V DC/6 A miniature circuit breaker with type B tripping characteristic	 PROFIBUS from GSD version/GSD revision 	V1.0 / V5.1
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 Cam control (switching at comparison values) Oversampling MSO Integrated operating cycle counter No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection external protection for power supply lines No 24 V 19.2 V 28.8 V Reverse polarity protection external protection with 7 A per group 24 V DC/6 A miniature circuit breaker with type B tripping characteristic 	 DQ with energy-saving function 	No
 Oversampling MSO Integrated operating cycle counter No Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection external protection for power supply lines No Yes Ye	• PWM	No
 MSO Integrated operating cycle counter Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection external protection for power supply lines Yes Yes No 24 V Possible 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 24 V DC/6 A miniature circuit breaker with type B tripping characteristic 	 Cam control (switching at comparison values) 	No
● Integrated operating cycle counter 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 24 V DC/6 A miniature circuit breaker with type B tripping characteristic	 Oversampling 	No
Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Reverse polarity protection external protection for power supply lines 24 V DC/6 A miniature circuit breaker with type B tripping characteristic	• MSO	Yes
Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection external protection for power supply lines 24 V 28.8 V Yes; through internal protection with 7 A per group 24 V DC/6 A miniature circuit breaker with type B tripping characteristic	Integrated operating cycle counter	No
permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection external protection for power supply lines 19.2 V 28.8 V Yes; through internal protection with 7 A per group 24 V DC/6 A miniature circuit breaker with type B tripping characteristic	Supply voltage	
permissible range, upper limit (DC) Reverse polarity protection external protection for power supply lines 28.8 V Yes; through internal protection with 7 A per group 24 V DC/6 A miniature circuit breaker with type B tripping characteristic	Rated value (DC)	24 V
Reverse polarity protection Yes; through internal protection with 7 A per group external protection for power supply lines 24 V DC/6 A miniature circuit breaker with type B tripping characteristic	permissible range, lower limit (DC)	19.2 V
external protection for power supply lines 24 V DC/6 A miniature circuit breaker with type B tripping characteristic	permissible range, upper limit (DC)	28.8 V
	Reverse polarity protection	Yes; through internal protection with 7 A per group
(1000) (1000)	external protection for power supply lines (recommendation)	24 V DC/6 A miniature circuit breaker with type B tripping characteristic
Input current	Input current	
Current consumption, max. 90 mA; without load	Current consumption, max.	90 mA; without load
output voltage / header	output voltage / header	
Rated value (DC) 24 V	Rated value (DC)	24 V
Power	Power	
Power available from the backplane bus 0.6 W	Power available from the backplane bus	0.6 W
Power loss	·	
Power loss, typ. 3.5 W		3.5 W
Digital outputs		

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Type of digital output	Transistor
Number of digital outputs	64
Current-sinking	No
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	
 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	
for signal "1" rated value	0.3 A
• for signal "1" permissible range, max.	0.3 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	103
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
·	10 Hz
on lamp load, max. Total current of the outputs	10 HZ
·	0.3 A
Current per channel, max.	
Current per group, max.	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.	600 m
Interrupts/diagnostics/status information	
Diagnostics function	No
Substitute values connectable	No
Alarms	
Diagnostic alarm	No
Maintenance interrupt	No
Diagnoses	
Monitoring the supply voltage	No
Wire-break	No
Short-circuit	No
Group error	No
Diagnostics indication LED	INO
RUN LED	Yes; green LED
• RON LED • ERROR LED	
	Yes; red LED
MAINT LED	No
- Manitoring of the superbury the COMP LEDY	
Monitoring of the supply voltage (PWR-LED)Channel status display	Yes; via SIMATIC TOP connect connection module Yes; via SIMATIC TOP connect connection module

 for channel diagnostics 	No
 for module diagnostics 	No
Potential separation	
Potential separation channels	
between the channels	No
 between the channels, in groups of 	16; 32 when using SIMATIC TOP connect connection module
 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 FS01
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
 SILCL according to IEC 62061 	SILCL 2
Ambient conditions	
Ambient temperature during operation	
 horizontal installation, min. 	-30 °C
 horizontal installation, max. 	60 °C
 vertical installation, min. 	-30 °C
vertical installation, max.	40 °C
Altitude during operation relating to sea level	
 Installation altitude above sea level, max. 	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
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