Data sheet

6ES7522-1BH10-0AA0



SIMATIC S7-1500, digital output module, DQ16xDC 24V/0.5A BA, 16 channels in groups of 8, 4 A per group; 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. delivery incl. front connector push-in

Product type designation HW functional status From FS01 Firmware version FW update possible Product function I&M data Isochronous mode Prioritized startup Pes Engineering with STEP 7 TIA Portal configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision PWM Oversampling PWM Oversampling MSO Supply voltage Rated value (DC) Permissible range, upper limit (DC) Revere Current consumption, max. Output voltage / header Rated value (DC) Power PROFIDUS from GXD A 15 M A 2 A 2 A 2 A 2 A 2 A 2 A 2 A 2 A 2 A	General information		
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FW update possible Product function I &M data I sochronous mode Prioritized startup Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 Too figurable/integrated from version STEP 7 Too figurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision PQ DQ PDQ Yes DQ DQ Yes DQ Yes DQ Yes Supply voltage Rated value (DC) Permissible range, upper limit (DC) Input current Current consumption, max. Output voltage / header Rated value (DC) Power	HW functional status	From FS01	
Product function I & M data I sochronous 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 revision PROFINET from GSD version/GSD revision PQ Yes DQ Yes DQ With energy-saving function PWM No Oversampling No Yes Supply voltage Rated value (DC) Permissible range, lower limit (DC) Premissible range, upper limit (DC) PROFINET from GSD version/GSD revision V1.0 / V5.1 V2.3 / - V2.5 V. V2.3 / - V2.5 V. V2.6 V. V2.7 V. V2.7 V. V2.8 V. V2.8 V. V2.9 V.	Firmware version	V1.0.0	
Isochronous mode Isochronous mode Prioritized startup Yes 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 PRO	FW update possible	Yes	
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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 revis	 I&M data 	Yes; I&M0 to I&M3	
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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 No POPUR NO PWM NO Oversampling NO MSO Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes; through internal protection with 7 A per group linput current Current consumption, max. 30 mA output voltage / header Rated value (DC) Power	Prioritized startup	Yes	
version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision DQ v.3 /- Operating mode DQ Yes DQ with energy-saving function PWM No Oversampling No MSO 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. 30 mA output voltage / header Rated value (DC) 24 V Power	Engineering with		
PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision V2.3 / - Operating mode DQ Yes DQ with energy-saving function PWM Oversampling MSO WSO Supply voltage Rated value (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Yes; through internal protection with 7 A per group Input current Current consumption, max. Output voltage / header Rated value (DC) Power		V13 / V13	
PROFINET from GSD version/GSD revision POQ DQ Yes DQ with energy-saving function PWM NO Oversampling MSO Yes Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Input current Current consumption, max. Output voltage / header Rated value (DC) Power	 STEP 7 configurable/integrated from version 	V5.5 SP3 / -	
Operating mode • DQ • DQ with energy-saving function • PWM • Oversampling • MSO Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Input current Current consumption, max. Output voltage / header Rated value (DC) 24 V Power	 PROFIBUS from GSD version/GSD revision 	V1.0 / V5.1	
DQ PWM No Oversampling MSO Yes Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Input current Current consumption, max. Output voltage / header Rated value (DC) 24 V Power	PROFINET from GSD version/GSD revision	V2.3 / -	
DQ with energy-saving function PWM No Oversampling No MSO Yes Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes; through internal protection with 7 A per group Input current Current consumption, max. 30 mA output voltage / header Rated value (DC) Power	Operating mode		
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● Oversampling ● MSO Yes Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes; through internal protection with 7 A per group Input current Current consumption, max. Output voltage / header Rated value (DC) Power	 DQ with energy-saving function 	No	
MSO Supply voltage Rated value (DC)	• PWM	No	
Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Input current Current consumption, max. Output voltage / header Rated value (DC) Power	 Oversampling 	No	
Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Input current Current consumption, max. Output voltage / header Rated value (DC) Power	• MSO	Yes	
permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Input current Current consumption, max. Output voltage / header Rated value (DC) 28.8 V Yes; through internal protection with 7 A per group 30 mA 24 V	Supply voltage		
permissible range, upper limit (DC) Reverse polarity protection Input current Current consumption, max. Output voltage / header Rated value (DC) Power	Rated value (DC)	24 V	
Reverse polarity protection Input current Current consumption, max. Output voltage / header Rated value (DC) Power Yes; through internal protection with 7 A per group 30 mA 24 V	permissible range, lower limit (DC)	19.2 V	
Input current Current consumption, max. 30 mA output voltage / header Rated value (DC) 24 V Power	permissible range, upper limit (DC)	28.8 V	
Current consumption, max. 30 mA output voltage / header Rated value (DC) 24 V Power	Reverse polarity protection	Yes; through internal protection with 7 A per group	
output voltage / header Rated value (DC) Power	Input current		
Rated value (DC) Power	Current consumption, max.	30 mA	
Power	output voltage / header		
	Rated value (DC)	24 V	
Device available from the healthless has	Power		
Power available from the backplane bus	Power available from the backplane bus	1.15 W	
Power loss	Power loss		
Power loss, typ. 2.2 W	Power loss, typ.	2.2 W	
Digital outputs	Digital outputs		
Type of digital output Transistor		Transistor	
Number of digital outputs 16		16	
Current-sourcing Yes		Yes	
Digital outputs, parameterizable No		No	

Short-circuit protection	Yes
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.	5.0 / \
Load resistance range	
lower limit	48 Ω
upper limit	12 kΩ
Output voltage	12 1/2/
	1.7000
• for signal "1", min.	L+ (-0.8 V)
Output current	0.5.4
• 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. 	8 A; see additional description in the manual
Cable length	
shielded, max.	1 000 m
• unshielded, max.	600 m
Interrupts/diagnostics/status information	
Diagnostics function	No
Substitute values connectable	No No
Alarms	IVO
Diagnostic alarm	No
	No
Maintenance interrupt	INO
Diagnoses	A)
Monitoring the supply voltage	No
Wire-break Object singuit	No
Short-circuit	No
Group error	No
Diagnostics indication LED	V 150
RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
 Monitoring of the supply voltage (PWR-LED) 	Yes; green LED
 Channel status display 	Yes; green LED
 for channel diagnostics 	No
for module diagnostics	No
Potential separation	
Potential separation channels	
between the channels	No
 between the channels, in groups of 	8
 between the channels and backplane bus 	Yes
Isolation	

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 FS04	
 horizontal installation, max. 	60 °C	
 vertical installation, min. 	-30 °C; from FS04	
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	25 mm	
Height	147 mm	
Depth	129 mm	
Weights		
Weight, approx.	230 g	
Other		
Note:	Supplied incl. 40-pole push-in front connectors	

3/3/2022

last modified: