SIEMENS

Data sheet

6ES7522-1BL10-0AA0

SIMATIC S7-1500, DIGITAL OUTPUT MODULE, DQ 32 X 24VDC/0.5A BA; 32 CHANNELS IN GROUPS OF 8, 4 A PER GROUP; INCL. FRONT CONNECTOR PUSH-IN



General information	
Product type designation	DQ 32x24VDC/0.5A BA
HW functional status	FS01
Firmware version	V1.0.0
 FW update possible 	Yes
Product function	
● I&M data	Yes; I&M0 to I&M3
Engineering with	
 STEP 7 TIA Portal configurable/integrated as of version 	V13 / V13
 STEP 7 configurable/integrated as of version 	V5.5 SP3 / -
 PROFIBUS as of GSD version/GSD revision 	V1.0 / V5.1
 PROFINET as of GSD version/GSD revision 	V2.3 / -
Operating mode	
• DQ	Yes
 DQ with energy-saving function 	No
• PWM	No
 Oversampling 	No
• MSO	Yes

Rated value (DC) 24 V permissible range, lower limit (DC) 20.4 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 Rated value (DC) 24 V Power Power loss. Power loss, typ. Digital outputs Sa.8 W Digital outputs Surrent-sourcing Yes 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. 5 W • with resistive load, max. 5 W • lower limit 48 Ω • upper limit 24 kΩ Output voltage • for signal "1", min. L+ (-0.8 V) O	Supply voltage	
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. 60 mA Output voltage Rated value (DC) Power Power available from the backplane bus 1.15 W Power loss Power loss Power loss Summary of digital outputs 22 Current-sourcing Yes Short-circuit protection Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input with resistive load, max. on lamp load, max. of or signal "1", min. L+ (-0.8 V) Output current of or signal "1" permissible range, max. of or signal "1" rated value of or signal "1" permissible range, max. of or signal "0" residual current, max. Output delay with resistive load Output delay with resistive load		24 V
Permissible range, upper limit (DC) 28.8 V		20.4 V
Reverse polarity protection Yes; through internal protection with 7 A per group Input current 60 mA Output voltage 84 V Rated value (DC) 24 V Power - Power loss Power loss - Power loss, typ. Power loss, typ. 3.8 W Digital outputs 32 Number of digital outputs 32 Current-sourcing Yes 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 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" permissible range, max. 0.5 A • for signal "0" residual current, max. 0.5 mA Output delay with resistive load		28.8 V
Input current Current consumption, max. 60 mA Output voltage Rated value (DC) Power Power available from the backplane bus 1.15 W Power loss Power loss, typ. 3.8 W Digital outputs Number of digital outputs Current-sourcing Short-circuit protection Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs • with resistive load, max. • on lamp load, max. • on lamp load, max. • or signal "1", min. Output voltage • for signal "1" rated value • for signal "1" rated value • for signal "1" remissible range, max. • for signal "0" residual current, max. Output delay with resistive load Output delay with resistive load Output delay with resistive load		Yes; through internal protection with 7 A per group
Current consumption, max. 60 mA Output voltage Rated value (DC) 24 V Power Power available from the backplane bus 1.15 W Power loss Power loss, typ. 3.8 W Digital outputs Number of digital outputs 32 Current-sourcing Yes 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 W Load resistance range • lower limit 48 \Omega • for signal "1", min. L+ (-0.8 V) Output current • for signal "1" rated value of residual current, max. 0.5 M Output delay with resistive load Output delay with resistive load		
Output voltage Rated value (DC) 24 V Power Power loss Power loss 3.8 W Digital outputs Number of digital outputs Surrent-sourcing Yes 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 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		
Rated value (DC)	Current consumption, max.	60 mA
Power loss Power loss, typ. 3.8 W Digital outputs Number of digital outputs Short-circuit protection Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs • with resistive load, max. • on lamp load, max. • lower limit • upper limit • upper limit Output voltage • for signal "1", min. L+ (-0.8 V) Output delay with resistive load	Output voltage	
Power available from the backplane bus 1.15 W Power loss, typ. 3.8 W Digital outputs Number of digital outputs 32 Current-sourcing Yes Short-circuit protection • 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 • lower limit 48 Ω • upper limit 12 kΩ Output voltage • for signal "1", min. L+ (-0.8 V) Output current • for signal "1" permissible range, max. 0.5 A • for signal "0" residual current, max. 0.5 mA Output delay with resistive load	Rated value (DC)	24 V
Power available from the backplane bus 1.15 W Power loss, typ. 3.8 W Digital outputs Number of digital outputs 32 Current-sourcing Yes Short-circuit protection • 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 • lower limit 48 Ω • upper limit 12 kΩ Output voltage • for signal "1", min. L+ (-0.8 V) Output current • for signal "1" permissible range, max. 0.5 A • for signal "0" residual current, max. 0.5 mA Output delay with resistive load	Dower	
Power loss, typ. Digital outputs Number of digital outputs Short-circuit protection Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs with resistive load, max. on lamp load, max. load resistance range lower limit upper limit for signal "1", min. L+ (-0.8 V) Output current for signal "1" rated value for signal "1" rated value for signal "1" residual current, max. 0.5 M 0.5 A		1 15 W
Power loss, typ. 3.8 W Digital outputs 32 Current-sourcing Yes 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. • with resistive 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	Tower available from the backplane bac	1.10 11
Digital outputs 32 Current-sourcing Yes 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 0.5 A • on lamp load, max. 5 W Load resistance range 48 Ω • 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		
Number of digital outputs 32 Current-sourcing Yes 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. • 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	Power loss, typ.	3.8 W
Number of digital outputs 32 Current-sourcing Yes 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. • 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	Digital outputs	
Short-circuit protection Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Switching capacity of the outputs with resistive load, max. on lamp load, max. switching tangel limit load resistance range lower limit upper limit loutput voltage for signal "1", min. L+ (-0.8 V) Output current for signal "1" rated value for signal "1" permissible range, max. for signal "0" residual current, max. Output delay with resistive load		32
 Response threshold, typ. Limitation of inductive shutdown voltage to Controlling a digital input Yes Switching capacity of the outputs with resistive load, max. on lamp load, max. to war. to war.<	Current-sourcing	Yes
Limitation of inductive shutdown voltage to Controlling a digital input Yes Switching capacity of the outputs • with resistive load, max. • on lamp load, max. 10.5 A • on lamp load, max. Load resistance range • lower limit • upper limit 12 kΩ Output voltage • for signal "1", min. L+ (-0.8 V) Output current • for signal "1" rated value • for signal "1" permissible range, max. • for signal "0" residual current, max. Output delay with resistive load	Short-circuit protection	Yes
Controlling a digital input Yes Switching capacity of the outputs 0.5 A • with resistive load, max. 0.5 A • on lamp load, max. 5 W Load resistance range 48 Ω • lower limit 12 kΩ Output voltage + (-0.8 V) • for signal "1", min. L+ (-0.8 V) Output current 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	 Response threshold, typ. 	1 A
Switching capacity of the outputs • with resistive load, max. • on lamp load, max. • lower limit • lower limit • upper limit • upper limit Output voltage • for signal "1", min. L+ (-0.8 V) Output current • for signal "1" rated value • for signal "1" residual current, max. • for signal "0" residual current, max. Output delay with resistive load	Limitation of inductive shutdown voltage to	L+ (-53 V)
 with resistive load, max. on lamp load, max. 5 W Load resistance range lower limit upper limit 12 kΩ Output voltage for signal "1", min. L+ (-0.8 V) Output current for signal "1" rated value for signal "1" permissible range, max. for signal "0" residual current, max. Output delay with resistive load Output delay with resistive load	Controlling a digital input	Yes
 on lamp load, max. bower limit upper limit 12 kΩ Output voltage for signal "1", min. for signal "1" rated value for signal "1" permissible range, max. for signal "0" residual current, max. Output delay with resistive load 5 W 5 W 5 W 6 W 6 D 6 D 6 D 6 D 7 D 8 D 9 D 8 D 9 D 9 D 9 D 9 D 9	Switching capacity of the outputs	
Load resistance range • lower limit • upper limit 12 kΩ Output voltage • for signal "1", min. L+ (-0.8 V) Output current • for signal "1" rated value • for signal "1" permissible range, max. • for signal "0" residual current, max. Output delay with resistive load	with resistive load, max.	0.5 A
 lower limit upper limit 12 kΩ Output voltage for signal "1", min. L+ (-0.8 V) Output current for signal "1" rated value for signal "1" permissible range, max. for signal "0" residual current, max. Output delay with resistive load 0.5 mA Output delay with resistive load	● on lamp load, max.	5 W
 upper limit Output voltage for signal "1", min. L+ (-0.8 V) Output current for signal "1" rated value for signal "1" permissible range, max. for signal "0" residual current, max. Output delay with resistive load 	Load resistance range	
Output voltage • for signal "1", min. Output current • for signal "1" rated value • for signal "1" permissible range, max. • for signal "0" residual current, max. Output delay with resistive load	• lower limit	48 Ω
for signal "1", min. Output current for signal "1" rated value for signal "1" permissible range, max. for signal "0" residual current, max. Output delay with resistive load L+ (-0.8 V) 0.5 A 0.5 A 0.5 mA	• upper limit	12 kΩ
Output current • for signal "1" rated value • for signal "1" permissible range, max. • for signal "0" residual current, max. Output delay with resistive load	Output voltage	
 for signal "1" rated value for signal "1" permissible range, max. for signal "0" residual current, max. Output delay with resistive load 0.5 A 0.5 mA	● for signal "1", min.	L+ (-0.8 V)
for signal "1" permissible range, max. for signal "0" residual current, max. Output delay with resistive load 0.5 A 0.5 mA	Output current	
for signal "0" residual current, max. Output delay with resistive load 0.5 mA	● for signal "1" rated value	0.5 A
Output delay with resistive load	• for signal "1" permissible range, max.	0.5 A
	• for signal "0" residual current, max.	0.5 mA
• "0" to "1" may	Output delay with resistive load	
- ο το τ, πιαλ.	• "0" to "1", max.	100 µs
• "1" to "0", max. 500 μs	• "1" to "0", max.	500 μs
Parallel switching of two outputs	Parallel switching of two outputs	
• for logic links Yes	• for logic links	Yes
• for uprating No	• for uprating	No
• for redundant control of a load Yes	• for redundant control of a load	Yes
Switching frequency	Switching frequency	

for module diagnostics Potential separation Potential separation channels	No
Potential separation	No
	No
 for channel diagnostics 	No
Channel status display	Yes; Green LED
Monitoring of the supply voltage (PWR-LED)	Yes; Green LED
• ERROR LED	Yes; Red LED
• RUN LED	Yes; Green LED
Diagnostics indication LED	Vos: Green LED
Group error Discrepation indication LED	No
• Short-circuit	No No
Wire-break Chart rise:	No No
Monitoring the supply voltage Mire besolv	
Diagnostic messages	No
Diagnostic alarm	INU
Alarms	No
Substitute values connectable	No
Diagnostics function	No
Interrupts/diagnostics/status information	
to terminal)	
Isochronous operation (application synchronized up	No
Isochronous mode	
• unshielded, max.	600 m
• shielded, max.	1 000 m
Cable length	
 Current per module, max. 	16 A; see additional description in the manual
Current per group, max.	4 A; see additional description in the manual
 Current per channel, max. 	0.5 A; see additional description in the manual
Total current of the outputs	
● on lamp load, max.	10 Hz
• with inductive load, max.	0.5 Hz; According to IEC 60947-5-1, DC-13
• with resistive load, max.	100 Hz

Width	25 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	280 g
Other	
Note:	Supplied incl. 40-pole push-in front connectors
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