6ES7322-1BL00-0AA0

Data sheet



SIMATIC S7-300, Digital output SM 322, isolated, 32 DO, 24 V DC, 0.5A, 1x 40-pole, Total current 4 A/group (16 A/module)

upply voltage	
Load voltage L+	
Rated value (DC)	24 V
 permissible range, lower limit (DC) 	20.4 V
 permissible range, upper limit (DC) 	28.8 V
put current	
from load voltage L+ (without load), max.	160 mA
from backplane bus 5 V DC, max.	110 mA
ower loss	
Power loss, typ.	6.6 W
igital outputs	
Number of digital outputs	32
Short-circuit protection	Yes; Electronic
 Response threshold, typ. 	1 A
Limitation of inductive shutdown voltage to	L+ (-53 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
• on lamp load, max.	5 W
Load resistance range	
• lower limit	48 Ω
• upper limit	4 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 for 0 to 40 °C, min.	5 mA
• for signal "1" permissible range for 0 to 40 °C, max.	0.6 A
• for signal "1" permissible range for 40 to 60 °C, min.	5 mA
• for signal "1" permissible range for 40 to 60 °C, max.	0.6 A
• for signal "1" minimum load current	5 mA
• 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 uprating	No
• for redundant control of a load	Yes; only outputs of the same group
Switching frequency	
• with resistive load, max.	100 Hz
 with inductive load, max. 	0.5 Hz

on lamp load, max. Total current of the outputs (per group) horizontal installation — up to 40 °C, max. — up to 60 °C, max. — up to 40 °C, max. 2 A Cable length • shielded, max. • unshielded, max. • unshielded, max. • unshielded, max. 0 Interrupts/diagnostics/status Information Alarms No Diagnostics function No Alarms • Diagnostic alarm No Diagnostic information readable • Wire-break • Short-circuit • missing load voltage Diagnostics indication LED • Rated load voltage PWR (green) • Rated rough indicator F (red) • Channel fault indicator F (red)	• with inductive load (acc. to IEC 60947-5-1, DC13), max.	0.5 Hz
Total current of the outputs (per group) horizontal installation — up to 40 °C, max.		
horizontal installation - up to 40 °C, max up to 60 °C, max up to 60 °C, max. - up to 40 °C, max. 2 A Cable length • shielded, max. • unshielded, max. • unshielded, max. • unshielded, max. • one max. • Diagnostics function Alarms • Diagnostics function No Diagnostic alarm No Diagnostic information readable • Wire-break • Diagnostic information readable • Wire-break • Short-circuit • No • missing load voltage No Diagnostics indication LED • Rated load voltage PWR (green) • Fuse OK FSG (green) • Group error SF (red) • Status indicator E (red) • Channel fault indicator F (red)		10112
up to 40 °C, max up to 60 °C, max. 3 A vertical installation up to 40 °C, max. 2 A Cable length • shielded, max. • unshielded, max. • unshielded, max. 600 m Interrupts/diagnostics/status information Alarms No Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Wire-break • Short-circuit • No • missing load voltage No Diagnostics indication LED • Rated load voltage PWR (green) • Fuse OK FSG (green) • Group error SF (red) • Status indicator F (red) • Channel fault indicator F (red)		
- up to 60 °C, max. vertical installation - up to 40 °C, max. 2 A Cable length • shielded, max. • unshielded, max. 1 000 m Interrupts/diagnostics/status information Alarms No Diagnostics function Alarms • Diagnostic alarm No Diagnostic information readable • Wire-break • Short-circuit • No • Short-circuit • No Diagnostics indication LED • Rated load voltage PWR (green) • Fuse OK FSG (green) • Group error SF (red) • Status indicator f (red) • Channel fault indicator F (red)		4 A
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 Group error SF (red) Status indicator digital output (green) Channel fault indicator F (red) No 	 Rated load voltage PWR (green) 	No
 Status indicator digital output (green) Channel fault indicator F (red) No 	 Fuse OK FSG (green) 	No
Channel fault indicator F (red) No	 Group error SF (red) 	No
	 Status indicator digital output (green) 	Yes; per channel
Potential separation	 Channel fault indicator F (red) 	No
	Potential separation	
Potential separation digital outputs	Potential separation digital outputs	
• between the channels Yes	 between the channels 	Yes
• between the channels, in groups of 8	 between the channels, in groups of 	8
• between the channels and backplane bus Yes; Optocoupler	between the channels and backplane bus	Yes; Optocoupler
Isolation	Isolation	
Isolation tested with 500 V DC	Isolation tested with	500 V DC
connection method	connection method	
required front connector 40-pin	required front connector	40-pin
Dimensions	Dimensions	
Width 40 mm	Width	40 mm
Height 125 mm	Height	125 mm
Depth 120 mm		120 mm
Weights	Weights	
Weight, approx. 260 g	Weight, approx.	260 g

last modified:

8/16/2023