

SIMATIC S7-300, Digital output SM 322, isolated, 16 DO (solid-state relay), 24-48 V AC/DC; 0.5 A with single rooting, 1x 40-pole



Figure similar

Supply voltage	
Mains buffering	
• Mains/voltage failure stored energy time	5 ms
Load voltage L+	
• Rated value (DC)	24 V; 24 / 48
• permissible range, lower limit (DC)	20.4 V
• permissible range, upper limit (DC)	57.6 V
• Reverse polarity protection	Yes
Input current	
from supply voltage L+, max.	200 mA
from backplane bus 5 V DC, max.	100 mA
Power loss	
Power loss, typ.	2.8 W
Digital outputs	
Number of digital outputs	16
Short-circuit protection	No; to be provided externally

Controlling a digital input	Yes
Size of motor starters according to NEMA, max.	Size 5 according to NEMA
Switching capacity of the outputs	
• on lamp load, max.	2.5 W
Output voltage	
• for signal "1", min.	L+ (-0.25 V)
Output current	
• for signal "1" rated value	0.5 A
• for signal "1" permissible range for 0 to 40 °C, max.	0.5 A
• for signal "1" permissible range for 40 to 60 °C, max.	0.5 A
• for signal "1" permissible surge current, max.	1.5 A; for 50 ms, 1 A 2 s one-time
• for signal "0" residual current, max.	10 µA
Output delay with resistive load	
• "0" to "1", max.	6 ms
• "1" to "0", max.	3 ms
Parallel switching of two outputs	
• for uprating	No
• for redundant control of a load	Yes
Switching frequency	
• with resistive load, max.	10 Hz
• with inductive load, max.	0.5 Hz
• with inductive load (acc. to IEC 60947-5-1, DC13), max.	0.5 Hz
• on lamp load, max.	0.5 Hz
Total current of the outputs (per group)	
horizontal installation	
— up to 40 °C, max.	0.5 A; 8 A per module
— up to 60 °C, max.	0.5 A; 8 A per module
vertical installation	
— up to 40 °C, max.	0.5 A; 8 A per module
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes; Parameterizable
Alarms	
• Diagnostic alarm	Yes; Parameterizable
Diagnostic messages	
• Diagnostic information readable	Yes
Diagnostics indication LED	

- Group error SF (red) Yes
- Status indicator digital output (green) Yes

Potential separation

Potential separation digital outputs

- between the channels Yes
- between the channels, in groups of 1
- between the channels and backplane bus Yes; Optocoupler
- between the channels and the power supply of the electronics Yes

Isolation

Isolation tested with 1500 V AC

Connection method

required front connector 40-pin

Dimensions

Width 40 mm
 Height 125 mm
 Depth 120 mm

Weights

Weight, approx. 260 g

last modified: 11/16/2019