



SIMATIC S7-300, Digital output SM 322, isolated, 8 DO (relay), 1x 40-pole, 24 V DC, 120-230 V AC, 5 A with RC filter overvoltage protection

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• permissible range, lower limit (DC)	24 V
• permissible range, upper limit (DC)	120 V
Load voltage L1	
• Rated value (AC)	230 V
Input current	
from supply voltage L+, max.	160 mA
from backplane bus 5 V DC, max.	100 mA
Power loss	
Power loss, typ.	3.5 W
Digital outputs	
Number of digital outputs	8; Relays
Short-circuit protection	No; to be provided externally
Controlling a digital input	Yes
Switching capacity of the outputs	
• on lamp load, max.	1 500 W; 230 V AC
• Low energy/fluorescent lamps with electronic control gear	10x 58 W
• Fluorescent tubes, conventionally compensated	1x 58 W
• Fluorescent tubes, uncompensated	10x 58 W
Output current	
• for signal "1" rated value	5 A
• for signal "1" minimum load current	10 mA
Parallel switching of two outputs	
• for uprating	No
• for redundant control of a load	Yes
Switching frequency	
• with resistive load, max.	2 Hz
• with inductive load, max.	0.5 Hz
• With inductive load (to IEC 60947-5-1, DC13/AC15), max.	0.5 Hz
• on lamp load, max.	2 Hz
• mechanical, max.	10 Hz
Total current of the outputs (per group)	
horizontal installation	
— up to 60 °C, max.	5 A
vertical installation	
— up to 40 °C, max.	5 A
Relay outputs	
• Contact connection (internal)	Yes; 330 Ohm, 0.1uF

• Number of operating cycles, max.	100 000; 100 000 (24 V DC, at 5 A), 100 000 (230 V AC, at 5 A)
<b>Switching capacity of contacts</b>	
— with inductive load, max.	5 A; 5 A (230 V DC), 5 A (24 V AC)
— with resistive load, max.	5 A; 5 A (230 V DC), 5 A (24 V AC)
— Thermal continuous current, max.	5 A
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Interrupts/diagnostics/status information</b>	
Alarms	Yes
Diagnostics function	Yes; Parameterizable
<b>Alarms</b>	
• Diagnostic alarm	Yes; Parameterizable
<b>Diagnoses</b>	
• Diagnostic information readable	Yes
<b>Diagnostics indication LED</b>	
• Group error SF (red)	Yes
• Status indicator digital output (green)	Yes
<b>Potential separation</b>	
<b>Potential separation digital outputs</b>	
• 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 relays	Yes
<b>Isolation</b>	
Isolation tested with	1 500 V AC
<b>connection method</b>	
required front connector	40-pin
<b>Dimensions</b>	
Width	40 mm
Height	125 mm
Depth	120 mm
<b>Weights</b>	
Weight, approx.	320 g

**last modified:** 4/26/2024 