



Figure similar

spare part SIMATIC S7-300, digital output SM 322 High Speed, isolated, 16 DO, 24 V DC, 0.5 A, 1x 20-pole

Supply 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
Input current	
from load voltage L+ (without load), max.	110 mA
from backplane bus 5 V DC, max.	70 mA
Power loss	
Power loss, typ.	5 W
Digital outputs	
Number of digital outputs	16
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.	200 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.	1 000 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.	10 Hz	
Total current of the outputs (per group)		
horizontal installation		
— up to 40 °C, max.	4 A	
— up to 60 °C, max.	3 A	
vertical installation		
— up to 40 °C, max.	2 A	
Cable length		
• shielded, max.	1 000 m	
• unshielded, max.	600 m	
Interrupts/diagnostics/status information		
Alarms	No	
Diagnostics function	No	
Alarms		
• Diagnostic alarm	No	
Diagnoses		
• Wire break	No	
• Short-circuit	No	
• Fuse blown	No	
• Missing load voltage	No	
Diagnostics indication LED		
• Rated load voltage PWR (green)	No	
• Fuse OK FSG (green)	No	
• Status indicator digital output (green)	Yes; per channel	
Potential separation		
Potential separation digital outputs		
• between the channels	Yes	
• between the channels, in groups of	8	
• between the channels and backplane bus	Yes; Optocoupler	
Isolation		
Isolation tested with	500 V DC	
Connection method		
required front connector	20-pin	
Dimensions		
Width	40 mm	
Height	125 mm	
Depth	120 mm	
Weights		
Weight, approx.	200 g	
Classifications		
	Version	Classification
eClass	14	27-24-22-04
eClass	12	27-24-22-04
eClass	9.1	27-24-22-04
eClass	9	27-24-22-04
eClass	8	27-24-22-04
eClass	7.1	27-24-22-04
eClass	6	27-24-22-04
ETIM	10	EC001419
ETIM	9	EC001419
ETIM	8	EC001419
ETIM	7	EC001419
IDEA	4	3566

Approvals / Certificates

General Product Approval

[Miscellaneous](#)[Manufacturer Declaration](#)

General Product Approval

EMV

[China RoHS](#)[Manufacturer Declaration](#)

For use in hazardous locations

[FM](#)[Miscellaneous](#)

For use in hazardous locations

Maritime application

[CCC-Ex](#)[NK / Nippon Kaiji Kyokai](#)

Maritime application

[CCS \(China Classification Society\)](#)

last modified:

4/7/2025