



SIMATIC S7/PCS7, digital output SM 322, 16 DO; 24 V DC / 0.5 A, diagnostics-capable, wire break detection with 0 and 1 signal, 1 x 40-pole, interface IM 153-X HF required

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.	100 mA
from backplane bus 5 V DC, max.	100 mA
Power loss	
Power loss, typ.	6 W
Digital outputs	
Number of digital outputs	16
Short-circuit protection	Yes
• Response threshold, typ.	1.4 A; per channel
Limitation of inductive shutdown voltage to	L+ (-68 V)
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+ (-0.7 V)
Output current	
• for signal "1" rated value	0.5 A
• for signal "1" permissible range, min.	5 mA
• for signal "1" permissible range, max.	0.6 A
• for signal "0" residual current, max.	0.7 mA
Output delay with resistive load	
• "0" to "1", max.	3 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.	100 Hz
• with inductive load (acc. to IEC 60947-5-1, DC13), max.	2 Hz
• on lamp load, max.	10 Hz
Total current of the outputs (per group)	
horizontal installation	
— up to 60 °C, max.	2 A

vertical installation	
— up to 40 °C, max.	2 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
<b>Alarms</b>	
• Diagnostic alarm	Yes
<b>Diagnoses</b>	
• Diagnostic information readable	Yes
• Wire-break	Yes
• Short-circuit	Yes
• missing load voltage	Yes
<b>Diagnostics indication LED</b>	
• Rated load voltage PWR (green)	No
• Group error SF (red)	Yes
• Status indicator digital output (green)	Yes
• Channel fault indicator F (red)	Yes
<b>Potential separation</b>	
<b>Potential separation digital outputs</b>	
• between the channels	No
• between the channels, in groups of	4
• between the channels and backplane bus	Yes
• between the channels and the power supply of the electronics	No
<b>Isolation</b>	
Isolation tested with	500 V DC
<b>connection method / header</b>	
required front connector	1x 40-pin
<b>Dimensions</b>	
Width	40 mm
Height	125 mm
Depth	120 mm
<b>Weights</b>	
Weight, approx.	350 g
<b>last modified:</b>	1/16/2021 