



SIMATIC S7-400, digital output SM 422, isolated 16 DO; 24 V DC, 2 A

Figure similar

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.	30 mA
from backplane bus 5 V DC, max.	160 mA
Power loss	
Power loss, typ.	5 W
Digital outputs	
Number of digital outputs	16
Short-circuit protection	Yes; Clocked electronically
• Response threshold, typ.	2.8 to 6 A
Limitation of inductive shutdown voltage to	-30 V
Controlling a digital input	Yes; possible
Switching capacity of the outputs	
• on lamp load, max.	10 W
Load resistance range	
• lower limit	24 Ω
• upper limit	4 kΩ
Output voltage	
• for signal "1", min.	L+ (-0.5 V)
Output current	
• for signal "1" rated value	2 A
• for signal "1" permissible range, min.	5 mA
• for signal "1" permissible range, max.	2.4 A
• for signal "0" residual current, max.	0.5 mA
Output delay with resistive load	
• "0" to "1", max.	1 ms
• "1" to "0", max.	1 ms
Parallel switching of two outputs	
• for uprating	No; Not possible
• for redundant control of a load	Yes; possible (only outputs of the same group)
Switching frequency	
• with resistive load, max.	100 Hz
• with inductive load, max.	0.1 Hz
• with inductive load (acc. to IEC 60947-5-1, DC13), max.	0.2 Hz; 0.2 Hz at 1 A; 0.1 Hz at 2 A
• on lamp load, max.	10 Hz

<b>Total current of the outputs (per group)</b>	
all mounting positions	
— up to 40 °C, max.	3 A
— up to 60 °C, max.	2 A; 2 adjacent outputs each
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	No
<b>Potential separation</b>	
Potential separation digital outputs	
• between the channels	Yes
• between the channels, in groups of	8
• between the channels and backplane bus	Yes
<b>Isolation</b>	
Isolation tested with	500 V DC
<b>Dimensions</b>	
Width	25 mm
Height	290 mm
Depth	210 mm
<b>Weights</b>	
Weight, approx.	600 g

**last modified:** 8/7/2023 