



SIMATIC S7-400, digital output SM 422, isolated 32 DO; 24 V DC, 0.5 A with 0.15 ms output delay, diagnostics

Figure similar

Supply voltage	
Load voltage L+	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	24 V
<ul style="list-style-type: none"> <li>permissible range, lower limit (DC)</li> </ul>	20.4 V
<ul style="list-style-type: none"> <li>permissible range, upper limit (DC)</li> </ul>	28.8 V
Input current	
from load voltage L+ (without load), max.	120 mA
from backplane bus 5 V DC, max.	200 mA
Power loss	
Power loss, typ.	8 W
Digital outputs	
Number of digital outputs	32
Short-circuit protection	Yes; Clocked electronically
<ul style="list-style-type: none"> <li>Response threshold, typ.</li> </ul>	0.75 to 1.5 A
Limitation of inductive shutdown voltage to	L+ (-45 V)
Controlling a digital input	Yes; possible
Switching capacity of the outputs	
<ul style="list-style-type: none"> <li>on lamp load, max.</li> </ul>	5 W
Load resistance range	
<ul style="list-style-type: none"> <li>lower limit</li> </ul>	48 Ω
<ul style="list-style-type: none"> <li>upper limit</li> </ul>	4 kΩ
Output voltage	
<ul style="list-style-type: none"> <li>for signal "1", min.</li> </ul>	L+ (-0.8 V)
Output current	
<ul style="list-style-type: none"> <li>for signal "1" rated value</li> </ul>	0.5 A
<ul style="list-style-type: none"> <li>for signal "1" permissible range, min.</li> </ul>	5 mA
<ul style="list-style-type: none"> <li>for signal "1" permissible range, max.</li> </ul>	600 A
<ul style="list-style-type: none"> <li>for signal "0" residual current, max.</li> </ul>	0.5 mA
Parallel switching of two outputs	
<ul style="list-style-type: none"> <li>for uprating</li> </ul>	Yes; possible (only outputs of the same group)
<ul style="list-style-type: none"> <li>for redundant control of a load</li> </ul>	Yes; possible (only outputs of the same group)
Switching frequency	
<ul style="list-style-type: none"> <li>with resistive load, max.</li> </ul>	100 Hz
<ul style="list-style-type: none"> <li>with inductive load, max.</li> </ul>	2 Hz
<ul style="list-style-type: none"> <li>with inductive load (acc. to IEC 60947-5-1, DC13), max.</li> </ul>	2 Hz
<ul style="list-style-type: none"> <li>on lamp load, max.</li> </ul>	2 Hz

<b>Total current of the outputs (per group)</b>	
all mounting positions	
— up to 40 °C, max.	4 A
— up to 60 °C, max.	2 A
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes; Parameterizable
<b>Alarms</b>	
• Diagnostic alarm	Yes; Parameterizable
• Hardware interrupt	Yes; Parameterizable
<b>Diagnoses</b>	
• Diagnostic information readable	Yes
• Wire-break	Yes; <0.15 mA
• Short-circuit	Yes; > 1 A (typ.)
<b>Diagnostics indication LED</b>	
• internal fault INTF (red)	Yes
• external fault EXTf (red)	Yes
• Status indicator digital output (green)	Yes
<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
<b>last modified:</b>	1/16/2021 