## SIEMENS

## Data sheet

## 6ES7222-1BH32-0XB0



SIMATIC S7-1200, Digital output SM 1222, 16 DO, 24 V DC, transistor 0.5 A

General information		
Product type designation	SM 1222, DQ 16x24 V DC/0.5 A	
Supply voltage		
permissible range, lower limit (DC)	20.4 V	
permissible range, upper limit (DC)	28.8 V	
Input current	20.0 V	
from backplane bus 5 V DC, max.	140 mA	
Power loss		
Power loss, typ.	2.5 W	
Digital outputs		
Number of digital outputs	16	
• in groups of	1	
Short-circuit protection	No; to be provided externally	
Limitation of inductive shutdown voltage to	typ. (L+) -48 V	
Switching capacity of the outputs		
with resistive load, max.	0.5 A	
<ul> <li>on lamp load, max.</li> </ul>	5 W	
Output voltage		
Rated value (DC)	24 V	
• for signal "0", max.	0.1 V; with 10 kOhm load	
● for signal "1", min.	20 V DC	
Output current		
<ul> <li>for signal "1" rated value</li> </ul>	0.5 A	
<ul> <li>for signal "0" residual current, max.</li> </ul>	10 µA	
Output delay with resistive load		
• "0" to "1", max.	50 µs	
• "1" to "0", max.	200 µs	
Total current of the outputs (per group)		
horizontal installation		
— up to 50 °C, max.	8 A; Current per mass	
Relay outputs		
Switching capacity of contacts		
<ul> <li>— with inductive load, max.</li> </ul>	0.5 A	
— on lamp load, max.	5 W	
— with resistive load, max.	0.5 A	
Cable length		
<ul> <li>shielded, max.</li> </ul>	500 m	
• unshielded, max.	150 m	
Interrupts/diagnostics/status information		
Alarms		
Diagnostic alarm	Yes	

Diagnostics indication LED	
for status of the outputs	Yes
Potential separation	
Potential separation digital outputs	
between the channels, in groups of	1
<ul> <li>between the channels and backplane bus</li> </ul>	500 V AC
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certificates	11 20
CE mark	Vee
	Yes
CSA approval	Yes
UL approval	Yes
cULus	Yes
FM approval	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
Marine approval	Yes
Ambient conditions	
Free fall	
<ul> <li>Fall height, max.</li> </ul>	0.3 m; five times, in product package
Ambient temperature during operation	
• min.	-20 °C
• max.	60 °C
<ul> <li>horizontal installation, min.</li> </ul>	-20 °C
<ul> <li>horizontal installation, max.</li> </ul>	60 °C
<ul> <li>vertical installation, min.</li> </ul>	-20 °C
<ul> <li>vertical installation, max.</li> </ul>	50 °C
<ul> <li>permissible temperature change</li> </ul>	5°C to 55°C, 3°C / minute
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Air pressure acc. to IEC 60068-2-13	
<ul> <li>Storage/transport, min.</li> </ul>	660 hPa
<ul> <li>Storage/transport, max.</li> </ul>	1 080 hPa
Relative humidity	
• Operation at 25 °C without condensation, max.	95 %
connection method / header	
required front connector	Yes
Mechanics/material	
Enclosure material (front)	
Plastic	Yes
Dimensions	
Width	45 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	220 g
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last modified:	2/26/2021 🖸