SIEMENS

Data sheet

6ES7222-1HH32-0XB0

SIMATIC S7-1200, DIGITAL OUTPUT SM 1222, 16 DO, RELAY 2A



Supply voltage	
Supply voltage	
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Input current	
from backplane bus 5 V DC, max.	135 mA
Digital outputs	
 from load voltage L+, max. 	11 mA/relay coil
Power loss	
Power loss, typ.	8.5 W
Digital outputs	
Number of digital outputs	16
• in groups of	1
Short-circuit protection	No; to be provided externally
Switching capacity of the outputs	
• with resistive load, max.	2 A
• on lamp load, max.	30 W with DC, 200 W with AC
Output voltage	

Detective (DC)	5 V DC to 30 V DC
Rated value (DC)	5 V AC to 250 V AC
Rated value (AC)	5 V AC 10 250 V AC
Output current	2 A
• for signal "1" permissible range, max.	ZA
Output delay with resistive load	40 mm
• "0" to "1", max.	10 ms
• "1" to "0", max.	10 ms
Total current of the outputs (per group)	
horizontal installation	
— up to 50 °C, max.	10 A; Current per mass
Relay outputs	
 Number of relay outputs 	16
 Rated supply voltage of relay coil L+ (DC) 	24 V
 Number of operating cycles, max. 	mechanically 10 million, at rated load voltage 100 000
Switching capacity of contacts	
— with inductive load, max.	2 A
— on lamp load, max.	30 W with DC, 200 W with AC
— with resistive load, max.	2 A
Cable length	
• shielded, max.	500 m
• unshielded, max.	150 m
Interrupts/diagnostics/status information	
Interrupts/diagnostics/status information Alarms	
	Yes
Alarms	Yes
Alarms • Diagnostic alarm	Yes
Alarms Diagnostic alarm Diagnostics indication LED 	
Alarms Diagnostic alarm Diagnostics indication LED for status of the outputs Status indicator digital output (green) 	Yes
Alarms Diagnostic alarm Diagnostics indication LED for status of the outputs 	Yes
Alarms Diagnostic alarm Diagnostics indication LED for status of the outputs Status indicator digital output (green) Potential separation	Yes
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs • Status indicator digital output (green) Potential separation Potential separation digital outputs • between the channels	Yes Yes
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs • Status indicator digital output (green) Potential separation Potential separation digital outputs	Yes Yes Relays
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs • Status indicator digital output (green) Potential separation Potential separation digital outputs • between the channels • between the channels, in groups of • between the channels and backplane bus	Yes Yes Relays 4
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs • Status indicator digital output (green) Potential separation Potential separation digital outputs • between the channels • between the channels, in groups of	Yes Yes Relays 4
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs • Status indicator digital output (green) Potential separation Potential separation digital outputs • between the channels • between the channels, in groups of • between the channels and backplane bus Permissible potential difference between different circuits	Yes Yes Relays 4 1500 V AC for 1 minute
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs • Status indicator digital output (green) Potential separation Potential separation digital outputs • between the channels • between the channels, in groups of • between the channels and backplane bus Permissible potential difference between different circuits Degree and class of protection	Yes Yes Relays 4 1500 V AC for 1 minute
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs • Status indicator digital output (green) Potential separation Potential separation digital outputs • between the channels • between the channels, in groups of • between the channels and backplane bus Permissible potential difference between different circuits Degree and class of protection Degree of protection acc. to EN 60529	Yes Yes Relays 4 1500 V AC for 1 minute 750 V AC for 1 minute
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs • Status indicator digital output (green) Potential separation Potential separation digital outputs • between the channels • between the channels, in groups of • between the channels and backplane bus Permissible potential difference between different circuits Degree and class of protection	Yes Yes Relays 4 1500 V AC for 1 minute
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs • Status indicator digital output (green) Potential separation Potential separation digital outputs • between the channels • between the channels, in groups of • between the channels and backplane bus Permissible potential difference between different circuits Degree and class of protection Degree of protection acc. to EN 60529	Yes Yes Relays 4 1500 V AC for 1 minute 750 V AC for 1 minute
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs • Status indicator digital output (green) Potential separation Potential separation digital outputs • between the channels • between the channels, in groups of • between the channels and backplane bus Permissible potential difference between different circuits Degree and class of protection Degree of protection acc. to EN 60529 • IP20	Yes Yes Relays 4 1500 V AC for 1 minute 750 V AC for 1 minute
Alarms • Diagnostic alarm Diagnostics indication LED • for status of the outputs • Status indicator digital output (green) Potential separation Potential separation digital outputs • between the channels • between the channels, in groups of • between the channels and backplane bus Permissible potential difference between different circuits Degree and class of protection Degree of protection acc. to EN 60529 • IP20 Standards, approvals, certificates	Yes Yes Relays 4 1500 V AC for 1 minute 750 V AC for 1 minute

UL approval	Yes
cULus	Yes
FM approval	Yes
RCM (formerly C-TICK)	Yes
Marine approval	
Marine approval	Yes
Ambient conditions	
Free fall	
 Fall height, max. 	0.3 m; five times, in product package
Ambient temperature during operation	
• permissible temperature range	-20 °C to +60 °C horizontal mounting, -20 °C to 50 °C vertical mounting, 95% humidity, non-condensing
• min.	-20 °C
• max.	60 °C; Number of simultaneously activated outputs: 8 (no adjacent points) at 60 °C horizontal or 50 °C vertical, 16 at 55 °C horizontal or 45 °C vertical
 permissible temperature change 	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	
 Storage/transport, min. 	660 hPa
 Storage/transport, max. 	1 080 hPa
Relative humidity	
 permissible range (without condensation) at 25 °C 	95 %
Connection method	
required front connector	Yes
Mechanics/material	
Enclosure material (front)	
• Plastic	Yes
Dimensions	
Width	45 mm
Height	100 mm
Depth	75 mm
Weights	
Weights Weight, approx.	260 g