



SIMATIC S7-1200, DIGITAL OUTPUT SM 1222, 8 DO, RELAY  
CHANGEOVER CONTACT

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.	140 mA
Digital inputs	
<ul style="list-style-type: none"> <li>from load voltage L+ (without load), max.</li> </ul>	16.7 mA/relay coil
Power losses	
Power loss, typ.	5 W
Digital inputs	
Number of digital inputs	0
Digital outputs	
Number of digital outputs	8
<ul style="list-style-type: none"> <li>In groups of</li> </ul>	1
short-circuit protection	No; to be provided externally
Switching capacity of the outputs	
<ul style="list-style-type: none"> <li>with resistive load, max.</li> </ul>	2 A
<ul style="list-style-type: none"> <li>on lamp load, max.</li> </ul>	30 W with DC, 200 W with AC
Output voltage	
<ul style="list-style-type: none"> <li>Rated value (AC)</li> </ul>	5 V AC to 250 V AC
<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	5 V DC to 30 V DC
Output current	
<ul style="list-style-type: none"> <li>for signal "1" permissible range, max.</li> </ul>	2 A

<b>Output delay with resistive load</b>	
• "0" to "1", max.	10 ms
• "1" to "0", max.	10 ms
<b>Aggregate current of outputs (per group)</b>	
horizontal installation	
— up to 50 °C, max.	2 A; Current per mass
<b>Relay outputs</b>	
• Number of relay outputs	8
• Rated input voltage of relay coil L+ (DC)	24 V
• Number of operating cycles, max.	mechanically 10 million, at rated load voltage 100,000
<b>Switching capacity of contacts</b>	
— with inductive load, max.	2 A
— on lamp load, max.	30 W with DC, 200 W with AC
— with resistive load, max.	2 A
<b>Cable length</b>	
• shielded, max.	500 m
• Unshielded, max.	150 m
<b>Interrupts/diagnostics/status information</b>	
<b>Alarms</b>	
• Alarms	Yes
• Diagnostic alarm	Yes
<b>Diagnostic messages</b>	
• Diagnostic functions	Yes
<b>Diagnostics indication LED</b>	
• For status of the outputs	Yes
• for maintenance	Yes
• Status indicator digital output (green)	Yes
<b>Galvanic isolation digital outputs</b>	
• between the channels	Relays
• between the channels, in groups of	1
• between the channels and the backplane bus	1500 V AC for 1 minute
<b>Permissible potential difference</b>	
between different circuits	750 V AC for 1 minute
<b>Degree and class of protection</b>	
Degree of protection to EN 60529	
• IP20	Yes
<b>Standards, approvals, certificates</b>	
CE mark	Yes
CSA approval	Yes
UL approval	Yes

cULus	Yes
RCM (formerly C-TICK)	Yes
FM approval	Yes
<b>Marine approval</b>	
• Marine approval	Yes

### Ambient conditions

<b>Free fall</b>	
• Drop height, max. (in packaging)	0.3 m; five times, in dispatch package

<b>Ambient temperature in operation</b>	
• 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: 4 (no adjacent points) at 60 °C horizontal or 50 °C vertical, 8 at 55 °C horizontal or 45 °C vertical
• Permissible temperature change	5°C to 55°C, 3°C / minute

<b>Storage/transport temperature</b>	
• Min.	-40 °C
• max.	70 °C

<b>Air pressure acc. to IEC 60068-2-13</b>	
• Storage/transport, min.	660 hPa
• Storage/transport, max.	1 080 hPa

<b>Relative humidity</b>	
• Permissible range (without condensation) at 25 °C	95 %

### Connection method

required front connector	Yes
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### Mechanics/material

<b>Type of housing (front)</b>	
• plastic	Yes

### Dimensions

Width	45 mm
Height	100 mm
Depth	75 mm

### Weights

Weight, approx.	310 g
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**last modified:** 12.03.2015