

SIMATIC S7-1200,  
DIGITAL OUTPUT SM 1222, 16 DO, 24V DC,  
TRANSISTOR 0.5A

Input current	
from backplane bus 5 V DC, max.	140 mA
Power losses	
Power loss, typ.	2.5 W
Digital outputs	
Number/binary outputs	16
In groups of	1
Functionality/short-circuit strength	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
on lamp load, max.	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	
for signal "1" rated value	0.5 A
for signal "0" residual current, max.	10 µA
Output delay with resistive load	
"0" to "1", max.	50 µs
"1" to "0", max.	200 µs
Aggregate current of outputs (per group)	
horizontal installation	
up to 50 °C, max.	8 A ; Current per mass
Relay outputs	
Switching capacity of contacts	
with inductive load, max.	0.5 A
on lamp load, max.	5 W
Switching frequency/contacts/at ohmic load/maximum	0.5 A
Cable length	

<b>Cable length, shielded, max.</b>	500 m
<b>Cable length unshielded, max.</b>	150 m
<b>Interrupts/diagnostics/status information</b>	
<b>Alarms</b>	
<b>Alarms</b>	Yes
<b>Diagnostic alarm</b>	Yes
<b>Diagnostic messages</b>	
<b>Diagnostic functions</b>	Yes
<b>Monitoring the supply voltage</b>	Yes
<b>Diagnostics indication LED</b>	
<b>For status of the outputs</b>	Yes
<b>for maintenance</b>	Yes
<b>Status indicator digital output (green)</b>	Yes
<b>Galvanic isolation</b>	
<b>Galvanic isolation digital outputs</b>	
<b>between the channels, in groups of</b>	1
<b>between the channels and the backplane bus</b>	500 V AC
<b>Degree and class of protection</b>	
<b>IP20</b>	Yes
<b>Standards, approvals, certificates</b>	
<b>CE mark</b>	Yes
<b>CSA approval</b>	Yes
<b>UL</b>	Yes
<b>cULus</b>	Yes
<b>C-TICK</b>	Yes
<b>FM approval</b>	Yes
<b>Marine approval</b>	Yes
<b>Climatic and mechanical conditions for storage and transport</b>	
<b>Climatic conditions for storage and transport</b>	
<b>Free fall</b>	
<b>Drop height, max. (in packaging)</b>	0.3 m ; five times, in dispatch package
<b>Temperature</b>	
<b>Permissible temperature range</b>	-40 °C to +70 °C
<b>Air pressure acc. to IEC 60068-2-13</b>	
<b>Permissible air pressure</b>	1080 to 660 hPa
<b>Mechanical and climatic conditions during operation</b>	
<b>Climatic conditions in operation</b>	
<b>Temperature</b>	

<b>Permissible temperature range</b>	-20 °C to +60 °C horizontal mounting -20 °C to 50 °C vertical mounting 95% humidity, non-condensing
<b>Min.</b>	-20 °C
<b>max.</b>	60 °C
<b>Permissible temperature change</b>	5°C to 55°C, 3°C / minute
<b>Connection method</b>	
<b>required front connector</b>	Yes
<b>Mechanics/material</b>	
<b>Type of housing (front)</b>	
<b>Plastic</b>	Yes
<b>Dimensions</b>	
<b>Width</b>	45 mm
<b>Height</b>	100 mm
<b>Depth</b>	75 mm
<b>Weight</b>	
<b>Weight, approx.</b>	220 g
Status	Jul 23, 2013