

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

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
Power loss	
Power loss, typ.	2.5 W
Digital inputs	
Number of digital inputs	0
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
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
Total current of the outputs (per group)	
horizontal installation	
up to 50 °C, max.	8 A ; Current per mass
Relay outputs	

<b>Switching capacity of contacts</b>	
with inductive load, max.	0.5 A
on lamp load, max.	5 W
with resistive load, max.	0.5 A
<b>Cable length</b>	
Cable length, shielded, max.	500 m
Cable length 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
Monitoring the supply voltage	Yes
<b>Diagnostics indication LED</b>	
for status of the outputs	Yes
for maintenance	Yes
Status indicator digital output (green)	Yes
<b>Galvanic isolation</b>	
<b>Galvanic isolation digital outputs</b>	
between the channels, in groups of	1
between the channels and the backplane bus	500 V AC
<b>Degree and class of protection</b>	
IP20	Yes
<b>Standards, approvals, certificates</b>	
CE mark	Yes
CSA approval	Yes
UL	Yes
cULus	Yes
RCM (former C-TICK)	Yes
FM approval	Yes
<b>Marine approval</b>	
Marine approval	Yes
<b>Climatic and mechanical conditions for storage and transport</b>	
<b>Climatic conditions for storage and transport</b>	
<b>Free fall</b>	
Drop height, max. (in packaging)	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>Relative humidity</b>	
<b>permissible range (without condensation) at 25 °C</b>	95 %
<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>Weights</b>	
<b>Weight, approx.</b>	220 g
Status	Jul 28, 2014