

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 losses	
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
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
with resistive load, max.	0.5 A
Cable length	
Cable length, shielded, max.	500 m
Cable length unshielded, max.	150 m
Interrupts/diagnostics/status information	
Alarms	
Alarms	Yes
Diagnostic alarm	Yes
Diagnostic messages	
Diagnostic functions	Yes
Monitoring the supply voltage	Yes
Diagnostics indication LED	
For status of the outputs	Yes
for maintenance	Yes
Status indicator digital output (green)	Yes
Galvanic isolation	
Galvanic isolation digital outputs	
between the channels, in groups of	1
between the channels and the backplane bus	500 V AC
Degree and class of protection	
IP20	Yes
Standards, approvals, certificates	
CE mark	Yes
CSA approval	Yes
UL	Yes
cULus	Yes
RCM (former C-TICK)	Yes
FM approval	Yes
Marine approval	
Marine approval	Yes
Climatic and mechanical conditions for storage and transport	
Climatic conditions for storage and transport	
Free fall	
Drop height, max. (in packaging)	0.3 m ; five times, in dispatch package
Temperature	

Permissible temperature range	-40 °C to +70 °C
Air pressure acc. to IEC 60068-2-13	
Permissible air pressure	1080 to 660 hPa
Relative humidity	
Permissible range (without condensation) at 25 °C	95 %
Mechanical and climatic conditions during operation	
Climatic conditions in operation	
Temperature	
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
Permissible temperature change	5°C to 55°C, 3°C / minute
Connection method	
required front connector	Yes
Mechanics/material	
Type of housing (front)	
Plastic	Yes
Dimensions	
Width	45 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	220 g
Status	Jun 19, 2014