



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

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 inputs	
from load voltage L+ (without load), max.	11 mA/relay coil
Power loss	
Power loss, typ.	8.5 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
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	
Rated value (AC)	5 V AC to 250 V AC
Rated value (DC)	5 V DC to 30 V DC
Output current	
for signal "1" permissible range, max.	2 A
Output delay with resistive load	
"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 input 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	
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	Relays
between the channels, in groups of	4
between the channels and the backplane bus	1500 V AC for 1 minute

Permissible potential difference	
between different circuits	750 V AC for 1 minute
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.	260 g
Status	Jul 7, 2014