



SIMATIC S7-1200, DIGITAL I/O SB 1223,  
2 DI / 2 DO, 2 DI 24V DC/2 DO 24V DC

Supply voltage	
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	30 V
Input current	
from backplane bus 5 V DC, typ.	50 mA
Output voltage	
Power supply to the transmitters	
Supply current, max.	4 mA ; per channel
Power loss	
Power loss, typ.	1 W
Digital inputs	
Number of digital inputs	2 ; Current-sinking
in groups of	1
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Number of simultaneously controllable inputs	
all mounting positions	
up to 40 °C, max.	2
Input voltage	

Type of input voltage	DC
Rated value, DC	24 V
for signal "0"	0 to 5 V
for signal "1"	15 to 30 V
Input current	
for signal "0", max. (permissible quiescent current)	1 mA
for signal "1", typ.	0.5 A
Input delay (for rated value of input voltage)	
for standard inputs	
parameterizable	Yes ; 0.2 ms, 0.4 ms, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, selectable in groups of four
at "0" to "1", max.	2 $\mu$ s
at "1" to "0", max.	10 $\mu$ s
for interrupt inputs	
parameterizable	Yes
for counter/technological functions	
parameterizable	Yes
Cable length	
Cable length, shielded, max.	500 m
Cable length unshielded, max.	300 m
Digital outputs	
Number of digital outputs	2 ; MOSFET, solid-state (current-sinking/current-sourcing)
in groups of	1
Short-circuit protection	No
Switching capacity of the outputs	
with resistive load, max.	0.5 A
on lamp load, max.	5 W
Load resistance range	
upper limit	0.6 $\Omega$
Output voltage	
Rated value (DC)	24 V
for signal "0", max.	0.1 V ; with 10 kOhm load
for signal "1", min.	20 V
Output current	
for signal "1" rated value	0.5 A
for signal "0" residual current, max.	10 $\mu$ A
Cable length	
Cable length, shielded, max.	500 m

Cable length unshielded, max.	150 m
Interrupts/diagnostics/status information	
Alarms	
Alarms	Yes
Diagnostic messages	
Diagnostic functions	Yes
Diagnostics indication LED	
for status of the inputs	Yes
for status of the outputs	Yes
Degree and class of protection	
IP20	Yes
Standards, approvals, certificates	
Marine approval	
Marine approval according to Germanischer Lloyd	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	0 °C to 55 °C horizontal installation, 0 °C to 45 °C vertical installation
Mechanics/material	
Type of housing (front)	
Plastic	Yes
Dimensions	
Width	38 mm
Height	62 mm
Depth	21 mm
Weights	
Weight, approx.	40 g
Status	Jul 28, 2014