



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)	28.8 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 +30V

Input current	
<ul style="list-style-type: none"> • for signal "0", max. (permissible quiescent current) 	1 mA
<ul style="list-style-type: none"> • 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 μ s
— at "1" to "0", max.	10 μ s
for interrupt inputs	
— Parameterizable	Yes
for counter/technological functions	
— Parameterizable	Yes
Cable length	
<ul style="list-style-type: none"> • shielded, max. 	500 m
<ul style="list-style-type: none"> • unshielded, max. 	300 m
Digital outputs	
Number of digital outputs	2; MOSFET, solid-state (current-sinking/current-sourcing)
<ul style="list-style-type: none"> • in groups of 	1
short-circuit protection	No
Switching capacity of the outputs	
<ul style="list-style-type: none"> • with resistive load, max. 	0.5 A
<ul style="list-style-type: none"> • on lamp load, max. 	5 W
Load resistance range	
<ul style="list-style-type: none"> • upper limit 	0.6 Ω
Output voltage	
<ul style="list-style-type: none"> • Rated value (DC) 	24 V
<ul style="list-style-type: none"> • for signal "0", max. 	0.1 V; with 10 kOhm load
<ul style="list-style-type: none"> • for signal "1", min. 	20 V
Output current	
<ul style="list-style-type: none"> • for signal "1" rated value 	0.5 A
<ul style="list-style-type: none"> • for signal "0" residual current, max. 	10 μ A
Cable length	
<ul style="list-style-type: none"> • shielded, max. 	500 m
<ul style="list-style-type: none"> • unshielded, max. 	150 m
Interrupts/diagnostics/status information	
Alarms	
<ul style="list-style-type: none"> • Alarms 	Yes
Diagnostic messages	
<ul style="list-style-type: none"> • Diagnostic functions 	Yes

Diagnostics indication LED	
• for status of the inputs	Yes
• for status of the outputs	Yes
Degree and class of protection	
Degree of protection acc. to EN 60529	
• IP20	Yes
Standards, approvals, certificates	
Marine approval	
• Germanischer Lloyd (GL)	Yes
Ambient conditions	
Free fall	
• Drop height, max. (in packaging)	0.3 m; five times, in dispatch package
Ambient temperature during operation	
• permissible temperature range	0 °C to 55 °C horizontal installation, 0 °C to 45 °C vertical installation
• min.	0 °C
• max.	55 °C
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Air pressure acc. to IEC 60068-2-13	
• Storage/transport, min.	660 hPa
• Storage/transport, max.	1 080 hPa
Relative humidity	
• permissible range (without condensation) at 25 °C	95 %
Mechanics/material	
Type of housing (front)	
• plastic	Yes
Dimensions	
Width	38 mm
Height	62 mm
Depth	21 mm
Weights	
Weight, approx.	40 g
last modified:	29.05.2015