

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	
<ul style="list-style-type: none"> <li>Supply current, max.</li> </ul>	4 mA; per channel
Power loss	
Power loss, typ.	1 W
Digital inputs	
Number of digital inputs	2; Current-sinking
<ul style="list-style-type: none"> <li>in groups of</li> </ul>	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
<b>Input voltage</b>	
• Type of input voltage	DC
• Rated value (DC)	24 V
• for signal "0"	0 to 5 V
• for signal "1"	+15 to +30V
<b>Input current</b>	
• for signal "0", max. (permissible quiescent current)	1 mA
• for signal "1", typ.	0.5 A
<b>Input delay (for rated value of input voltage)</b>	
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 µs
— at "1" to "0", max.	10 µs
for interrupt inputs	
— parameterizable	Yes
for counter/technological functions	
— parameterizable	Yes
<b>Cable length</b>	
• shielded, max.	500 m
• unshielded, max.	300 m
<b>Digital outputs</b>	
Number of digital outputs	2; MOSFET, solid-state (current-sinking/current-sourcing)
• in groups of	1
Short-circuit protection	No
<b>Switching capacity of the outputs</b>	
• with resistive load, max.	0.5 A
• on lamp load, max.	5 W
<b>Load resistance range</b>	
• upper limit	0.6 Ω
<b>Output voltage</b>	
• Rated value (DC)	24 V
• for signal "0", max.	0.1 V; with 10 kOhm load
• for signal "1", min.	20 V
<b>Output current</b>	
• for signal "1" rated value	0.5 A
• for signal "0" residual current, max.	10 µA
<b>Cable length</b>	
• shielded, max.	500 m
• unshielded, max.	150 m

Interrupts/diagnostics/status information	
Alarms	Yes
Diagnostic functions	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> <li>• for status of the inputs</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• for status of the outputs</li> </ul>	Yes
Degree and class of protection	
Degree of protection acc. to EN 60529	
<ul style="list-style-type: none"> <li>• IP20</li> </ul>	Yes
Ambient conditions	
Free fall	
<ul style="list-style-type: none"> <li>• Fall height, max.</li> </ul>	0.3 m; five times, in dispatch package
Ambient temperature during operation	
<ul style="list-style-type: none"> <li>• permissible temperature range</li> </ul>	0 °C to 55 °C horizontal installation, 0 °C to 45 °C vertical installation
<ul style="list-style-type: none"> <li>• min.</li> </ul>	0 °C
<ul style="list-style-type: none"> <li>• max.</li> </ul>	55 °C
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> <li>• min.</li> </ul>	-40 °C
<ul style="list-style-type: none"> <li>• max.</li> </ul>	70 °C
Air pressure acc. to IEC 60068-2-13	
<ul style="list-style-type: none"> <li>• Storage/transport, min.</li> </ul>	660 hPa
<ul style="list-style-type: none"> <li>• Storage/transport, max.</li> </ul>	1 080 hPa
Relative humidity	
<ul style="list-style-type: none"> <li>• permissible range (without condensation) at 25 °C</li> </ul>	95 %
Mechanics/material	
Enclosure material (front)	
<ul style="list-style-type: none"> <li>• Plastic</li> </ul>	Yes
Dimensions	
Width	38 mm
Height	62 mm
Depth	21 mm
Weights	
Weight, approx.	40 g
<b>last modified:</b>	08.01.2016