



SIMATIC S7-1200 G2: SB 1222 digital output, 8 DO 100 kHz; outputs: 8x DQ 24 V DC 0.1 A sinking/sourcing transistor, 100 kHz

Figure similar

General information	
Product type designation	SB 1222, DQ 8x 24 V DC 100 kHz
Supply voltage	
Rated value (DC)	24 V
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.	30 mA
Digital outputs	
<ul style="list-style-type: none"> <li>from load voltage L+, max.</li> </ul>	15 mA
Power loss	
Power loss, typ.	1 W
Digital outputs	
Number of digital outputs	8
<ul style="list-style-type: none"> <li>in groups of</li> </ul>	8
Short-circuit protection	Yes
Switching capacity of the outputs	
<ul style="list-style-type: none"> <li>with resistive load, max.</li> </ul>	0.1 A
Output voltage	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> <li>for signal "0", max.</li> <li>for signal "1", min.</li> </ul>	24 V 1 V L+ (-1.5 V)
Output current	
<ul style="list-style-type: none"> <li>for signal "1" rated value</li> </ul>	0.1 A
Output delay with resistive load	
<ul style="list-style-type: none"> <li>"0" to "1", max.</li> <li>"1" to "0", max.</li> </ul>	1.8 μs 1.8 μs
Total current of the outputs (per group)	
horizontal installation	
— up to 50 °C, max.	0.4 A
Cable length	
<ul style="list-style-type: none"> <li>shielded, max.</li> <li>unshielded, max.</li> </ul>	500 m; 500 m shielded, 50 m shielded for PTO outputs 150 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
<ul style="list-style-type: none"> <li>Diagnostic alarm</li> </ul>	Yes
Diagnoses	
<ul style="list-style-type: none"> <li>Monitoring the supply voltage</li> </ul>	Yes

<b>Diagnostics indication LED</b>	
• DIAG LED	Yes
• for status of the outputs	Yes
<b>Potential separation</b>	
Potential separation digital outputs	
• between the channels	No
• between the channels, in groups of	8
• Number of potential groups	1
• between the channels and backplane bus	Yes; 707 V DC (type test)
<b>Degree and class of protection</b>	
IP degree of protection	IP20
<b>Standards, approvals, certificates</b>	
CE mark	Yes
CSA approval	No
UL approval	Yes
cULus	Yes
FM approval	No
RCM (formerly C-TICK)	Yes
KC approval	No
Marine approval	No
<b>Ambient conditions</b>	
Free fall	
• Fall height, max.	0.3 m; five times, in product package
Ambient temperature during operation	
• min.	-20 °C
• max.	40 °C; at max. voltages and max. specifications
• horizontal installation, min.	-20 °C
• horizontal installation, max.	60 °C; at rated voltages, 50 % of max. specification and alternate IO active
• vertical installation, min.	-20 °C
• vertical installation, max.	50 °C; at rated voltages, 50 % of max. specification and alternate IO active
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Air pressure acc. to IEC 60068-2-13	
• Operation, min.	540 hPa
• Operation, max.	1 140 hPa
• Storage/transport, min.	540 hPa
• Storage/transport, max.	1 140 hPa
Altitude during operation relating to sea level	
• Installation altitude, min.	-1 000 m
• Installation altitude, max.	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Relative humidity	
• Operation at 25 °C without condensation, max.	95 %
Vibrations	
• Vibration resistance during operation acc. to IEC 60068-2-6	3.5 mm from 5 - 8.4 Hz, 1g from 8.4 - 150 Hz
• Operation, tested according to IEC 60068-2-6	Yes
Shock testing	
• tested according to IEC 60068-2-27	Yes; IEC 68, Part 2-27 half-sine: strength of the shock 15 g (peak value), duration 11 ms
Pollutant concentrations	
• SO2 at RH < 60% without condensation	SO2: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free
<b>Mechanics/material</b>	
Enclosure material (front)	
• Plastic	Yes
<b>Dimensions</b>	
Width	15 mm
Height	62 mm
Depth	63 mm
<b>Weights</b>	
Weight, approx.	29 g

**Classifications**

	Version	Classification
eClass	14	27-24-22-04
eClass	12	27-24-22-04
eClass	9.1	27-24-22-04
eClass	9	27-24-22-04
eClass	8	27-24-22-04
eClass	7.1	27-24-22-04
eClass	6	27-24-22-04
ETIM	9	EC001419
ETIM	8	EC001419
ETIM	7	EC001419

**Approvals / Certificates**

General Product Approval	EMV	For use in hazardous locations
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For use in hazardous locations	Environment
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[CCC-Ex](#)



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