



SIMATIC S7, analog output SM 332, isolated, 4 AA; 0/4 to 20 mA, 20-pole, for signals from the hazardous area, diagnostics-capable, PTB tested

Supply voltage	
Load voltage L+	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	24 V
<ul style="list-style-type: none"> <li>Reverse polarity protection</li> </ul>	Yes
Input current	
from load voltage L+ (without load), max.	200 mA
from backplane bus 5 V DC, max.	80 mA
Power loss	
Power loss, typ.	4 W
Analog outputs	
Number of analog outputs	4
Voltage output, short-circuit protection	Yes
Voltage output, short-circuit current, max.	70 mA
Current output, no-load voltage, max.	14 V
Output ranges, current	
<ul style="list-style-type: none"> <li>0 to 20 mA</li> </ul>	Yes
<ul style="list-style-type: none"> <li>4 mA to 20 mA</li> </ul>	Yes
Load impedance (in rated range of output)	
<ul style="list-style-type: none"> <li>with current outputs, max.</li> </ul>	500 Ω
Cable length	
<ul style="list-style-type: none"> <li>shielded, max.</li> </ul>	200 m
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
<ul style="list-style-type: none"> <li>Resolution with overrange (bit including sign), max.</li> </ul>	15 bit
Errors/accuracies	
Operational error limit in overall temperature range	
<ul style="list-style-type: none"> <li>Current, relative to output range, (+/-)</li> </ul>	0.55 %
Basic error limit (operational limit at 25 °C)	
<ul style="list-style-type: none"> <li>Current, relative to output range, (+/-)</li> </ul>	0.2 %
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Diagnoses	
<ul style="list-style-type: none"> <li>Overrange</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Wire-break in actuator cable</li> </ul>	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> <li>Group error SF (red)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Channel fault indicator F (red)</li> </ul>	Yes
Ex(i) characteristics	
Module for Ex(i) protection	Yes

maximum values for connecting terminals for gas group IIC	
• U <sub>o</sub> (no-load voltage), max.	14 V
• I <sub>o</sub> (short-circuit current), max.	70 mA
• P <sub>o</sub> (power output), max.	440 mW
• C <sub>o</sub> (permissible external capacity), max.	850 nF
• L <sub>o</sub> (permissible external inductivity), max.	6.6 mH
Potential separation	
Potential separation analog outputs	
• between the channels	Yes
• between the channels and backplane bus	Yes
• Between the channels and load voltage L+	Yes
Standards, approvals, certificates	
Use in hazardous areas	
• ATEX marking	[Ex ib] IIC
• FM marking	Class I, Division 2, Group A, B, C, D T4
• Test number PTB	Ex-96.D.2026X
Ambient conditions	
Ambient temperature during operation	
• max.	60 °C
connection method / header	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	280 g
<b>last modified:</b>	8/24/2021 