



SIMATIC S7-1200, ANALOG OUTPUT,  
SM 1232, 4 AO, +/-10V,  
14 BIT RESOLUTION, OR 0-20 mA,  
13 BIT RESOLUTION,

<b>Supply voltage</b>	
24 V DC	Yes
<b>Input current</b>	
Current consumption, typ.	45 mA
from backplane bus 5 V DC, typ.	80 mA
<b>Power losses</b>	
Power loss, typ.	1.5 W
<b>Analog inputs</b>	
Number of analog inputs	0
<b>Thermocouple (TC)</b>	
Temperature compensation	
Parameterizable	No
<b>Analog outputs</b>	
Number of analog outputs	4 ; Current or voltage
<b>Output ranges, voltage</b>	
-10 to +10 V	Yes
<b>Output ranges, current</b>	
0 to 20 mA	Yes

<b>Load impedance (in rated range of output)</b>	
	1000 Ω
	600 Ω
<b>Analog value creation</b>	
<b>Measurement principle</b>	Differential
<b>Integrations and conversion time/resolution per channel</b>	
<b>Resolution (incl. overrange)</b>	Voltage: 14 bits; Current : 13 bits
<b>Integration time, parameterizable</b>	Yes
<b>Interference voltage suppression for interference frequency f1 in Hz</b>	40 dB, DC to 60 V for interference frequency 50 / 60 Hz
<b>Errors/accuracies</b>	
<b>Basic error limit (operational limit at 25 °C)</b>	
<b>Voltage, relative to output area, (+/-)</b>	0.3 %
<b>Current, relative to output area, (+/-)</b>	0.3 %
<b>Interference voltage suppression for <math>f = n \times (f1 \pm 1 \%)</math>, f1 = interference frequency</b>	
<b>common mode voltage, max.</b>	12 V
<b>Interrupts/diagnostics/status information</b>	
<b>Alarms</b>	
<b>Alarms</b>	Yes
<b>Diagnostic alarm</b>	Yes
<b>Diagnostic messages</b>	
<b>Diagnostic functions</b>	Yes
<b>Monitoring the supply voltage</b>	Yes
<b>Wire break</b>	Yes
<b>Short circuit</b>	Yes
<b>Diagnostics indication LED</b>	
<b>For status of the outputs</b>	Yes
<b>for maintenance</b>	Yes
<b>Degree and class of protection</b>	
<b>IP20</b>	Yes
<b>Standards, approvals, certificates</b>	
<b>CE mark</b>	Yes
<b>RCM (former C-TICK)</b>	Yes
<b>FM approval</b>	Yes
<b>Highest safety class achievable in safety mode</b>	
<b>acc. to IEC 61508</b>	none
<b>Climatic and mechanical conditions for storage and transport</b>	
<b>Climatic conditions for storage and transport</b>	

<b>Free fall</b>	
<b>Drop height, max. (in packaging)</b>	0.3 m ; five times, in dispatch package
<b>Temperature</b>	
<b>Permissible temperature range</b>	-40 °C to +70 °C
<b>Air pressure acc. to IEC 60068-2-13</b>	
<b>Permissible air pressure</b>	1080 to 660 hPa
<b>Relative humidity</b>	
<b>Permissible range (without condensation) at 25 °C</b>	95 %
<b>Mechanical and climatic conditions during operation</b>	
<b>Climatic conditions in operation</b>	
<b>Temperature</b>	
<b>Min.</b>	-20 °C
<b>max.</b>	60 °C
<b>Air pressure acc. to IEC 60068-2-13</b>	
<b>Permissible air pressure</b>	1080 to 795 hPa
<b>Pollutant concentrations</b>	
<b>SO2 at RH &lt; 60% without condensation</b>	SO2: < 0.5 ppm; H2S: < 0.1 ppm; RH < 60% condensation-free
<b>Connection method</b>	
<b>required front connector</b>	Yes
<b>Mechanics/material</b>	
<b>Type of housing (front)</b>	
<b>Plastic</b>	Yes
<b>Dimensions</b>	
<b>Width</b>	45 mm
<b>Height</b>	100 mm
<b>Depth</b>	75 mm
<b>Weights</b>	
<b>Weight, approx.</b>	180 g
Status	May 9, 2014