



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>	
Thermocouple (TC)	
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
Load impedance (in rated range of output)	

with voltage outputs, min.	1000 Ω
with current outputs, max.	600 Ω
<b>Analog value creation</b>	
Measurement principle	Differential
<b>Integrations and conversion time/ resolution per channel</b>	
Resolution (incl. overrange)	Voltage: 14 bits; Current : 13 bits
Integration time, parameterizable	Yes
Interference voltage suppression for interference frequency f1 in Hz	40 dB, DC to 60 V for interference frequency 50 / 60 Hz
<b>Errors/accuracies</b>	
Temperature error (relative to output area)	25 °C ±0.3% to 55 °C ±0.6% total measurement range
<b>Basic error limit (operational limit at 25 °C)</b>	
Voltage, relative to output area	+/- 0,3 %
Current, relative to output area	+/- 0,3 %
<b>Interference voltage suppression for <math>f = n \times (f1 \pm 1\%)</math>, f1 = interference frequency</b>	
common mode voltage, max.	12 V
<b>Interrupts/diagnostics/status information</b>	
<b>Alarms</b>	
Alarms	Yes
Diagnostic alarm	Yes
<b>Diagnostic messages</b>	
Diagnostic functions	Yes
Monitoring the supply voltage	Yes
Wire break	Yes
Short circuit	Yes
<b>Diagnostics indication LED</b>	
For status of the outputs	Yes
for maintenance	Yes
<b>Degree and class of protection</b>	
IP20	Yes
<b>Standards, approvals, certificates</b>	
CE mark	Yes
C-TICK	Yes
FM approval	Yes
<b>Climatic and mechanical conditions for storage and transport</b>	
<b>Climatic conditions for storage and transport</b>	
<b>Free fall</b>	
Drop height, max. (in packaging)	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>Mechanical and climatic conditions during operation</b>	
<b>Climatic conditions in operation</b>	
<b>Temperature</b>	
<b>Permissible temperature range</b>	0 °C to 55 °C horizontal installation 0 °C to 45 °C vertical installation
<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>Weight</b>	
<b>Weight, approx.</b>	180 g
Status	Feb 25, 2013