



SIMATIC S7-1200, ANALOG OUTPUT,  
SM 1232, 4 AO, +/-10V,  
14 BIT RESOLUTION,  
OR 0 - 20 mA/4 - 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>	
with voltage outputs, min.	1000 Ω
with current outputs, max.	600 Ω
<b>Analog value creation</b>	
Measurement principle	Differential
<b>Integration 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>	
Basic error limit (operational limit at 25 °C)	
Voltage, relative to output area, (+/-)	0.3 %
Current, relative to output area, (+/-)	0.3 %
Interference voltage suppression for $f = n \times (f1 \pm 1 \%)$ , f1 = interference frequency	
common mode voltage, max.	12 V
<b>Interrupts/diagnostics/status information</b>	
Alarms	
Alarms	Yes
Diagnostic alarm	Yes
Diagnostic messages	
Diagnostic functions	Yes
Monitoring the supply voltage	Yes
Wire break	Yes
Short circuit	Yes
Diagnostics indication LED	
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
RCM (formerly C-TICK)	Yes
FM approval	Yes
<b>Highest safety class achievable in safety mode</b>	
acc. to IEC 61508	none
<b>Climatic and mechanical conditions for storage and transport</b>	
Climatic conditions for storage and transport	

<b>Free fall</b>	
<b>Drop height, max. (in packaging)</b>	0.3 m ; five times, in dispatch package
<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>Permissible temperature range</b>	-20 °C to +60 °C horizontal mounting, -20 °C to 50 °C vertical mounting, 95% humidity, non-condensing
<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	Dec 11, 2014