

\*\*\*Spare part\*\*\* SIMATIC S7-200, Analog input EM 231, only for S7-22X CPU, 4 AI, 0-10V DC, 12 bit converter



Input current	
from load voltage L+ (without load), max.	60 mA
from backplane bus 5 V DC, max.	20 mA
Power loss	
Power loss, typ.	2 W
Analog inputs	
Number of analog inputs	4; Difference
permissible input voltage for voltage input (destruction limit), max.	30 V
permissible input current for current input (destruction limit), max.	32 mA
Input ranges	
• Voltage	Yes
• Current	Yes
• Thermocouple	No
• Resistance thermometer	No
• Resistance	No
Input ranges (rated values), voltages	

• 0 to +5 V	Yes
• Input resistance (0 to 5 V)	10 MΩ
• 0 to +10 V	Yes
• Input resistance (0 to 10 V)	10 MΩ
• -2.5 V to +2.5 V	Yes
• Input resistance (-2.5 V to +2.5 V)	10 MΩ
• -5 V to +5 V	Yes
• Input resistance (-5 V to +5 V)	10 MΩ
<b>Input ranges (rated values), currents</b>	
• 0 to 20 mA	Yes
• Input resistance (0 to 20 mA)	10 MΩ
<b>Thermocouple (TC)</b>	
<b>Temperature compensation</b>	
— parameterizable	No
<b>Cable length</b>	
• shielded, max.	100 m; to the sensor
<b>Analog value generation for the inputs</b>	
<b>Integration and conversion time/resolution per channel</b>	
• Resolution with overrange (bit including sign), max.	12 bit
• Interference voltage suppression for interference frequency f1 in Hz	40 dB, DC to 60 V for interference frequency 50 / 60 Hz
• Conversion time (per channel)	250 μs
<b>Displayable conversion value range</b>	
• bipolar signals	-32 000 to +32 000
• unipolar signals	0 to 32 000
<b>Errors/accuracies</b>	
<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>Diagnostics indication LED</b>	
• external fault EXTf (red)	Yes
<b>Potential separation</b>	
<b>Potential separation analog inputs</b>	
• Potential separation analog inputs	No
<b>Connection method</b>	
Plug-in I/O terminals	No
<b>Dimensions</b>	
Width	71.2 mm
Height	80 mm

Depth	62 mm
<b>Weights</b>	
Weight, approx.	183 g
<b>last modified:</b>	06/12/2019