

SIMATIC S7-200 SMART, Analog input SM AI04, 4 AI, 0...10V, 0...5V, +/-5 V, +/-2.5 V, or 0/4-20 mA 11 bit + sign (12 bit ADC)



CiR – Configuration in RUN

Reparameterization possible in RUN	No
------------------------------------	----

Supply voltage

Rated value (DC)	
• 24 V DC	Yes; -15 / +20 %
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V

Input current

Current consumption, typ.	40 mA
from backplane bus 5 V DC, typ.	80 mA

Power loss

Power loss, typ.	1.5 W
------------------	-------

Analog inputs

Number of analog inputs	4
-------------------------	---

Input ranges

• Voltage	Yes; $\pm 10V$, $\pm 5V$, $\pm 2.5V$
• Current	Yes; 0 to 20 mA

Input ranges (rated values), voltages	
• -10 V to +10 V	Yes
• Input resistance (-10 V to +10 V)	9 MΩ
• -2.5 V to +2.5 V	Yes
• Input resistance (-2.5 V to +2.5 V)	9 MΩ
• -5 V to +5 V	Yes
• Input resistance (-5 V to +5 V)	9 MΩ
Input ranges (rated values), currents	
• 0 to 20 mA	Yes
• Input resistance (0 to 20 mA)	250 Ω
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
• Resolution (incl. overrange)	voltage mode: 11 bit + sign bit, current mode: 11 bit
• Interference voltage suppression for interference frequency f1 in Hz	10 / 50 / 60 / 400 Hz
Smoothing of measured values	
• parameterizable	Yes; In 4 stages: 1x, 4x, 16x, 32x cycle time
• Step: None	Yes; 1x
• Step: low	Yes; 4x
• Step: Medium	Yes; 16x
• Step: High	Yes; 32x
Interrupts/diagnostics/status information	
Diagnostic functions	Yes
Diagnostic messages	
• Monitoring the supply voltage	Yes
• Wire-break	No
• Short-circuit	No
Diagnostics indication LED	
• for status of the inputs	Yes
Degree and class of protection	
Degree of protection acc. to EN 60529	
• IP20	Yes
Standards, approvals, certificates	
CE mark	Yes
Dimensions	
Width	45 mm
Height	100 mm
Depth	81 mm
Weights	
Weight, approx.	147 g

last modified:

07/17/2018