

## Data sheet

## 6ES7288-3AR02-0AA0

SIMATIC S7-200 SMART, Analog input SM AR02 RTD, 2x AI RTD modules

General information	
Product type designation	SM AR02, AI RTD 2x16 bit
CIR - Configuration in RUN	
Reparameterization possible in RUN	No
Supply voltage	
Type of supply voltage	DC
Rated value (DC)	24 V; -15 / +20 %
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	2; Resistance thermometer
permissible input voltage for voltage input (destruction limit), max.	30 V
Technical unit for temperature measurement adjustable	Yes; Degrees Celsius/degrees Fahrenheit
Input ranges	
<ul style="list-style-type: none"> <li>• Voltage</li> <li>• Current</li> <li>• Thermocouple</li> <li>• Resistance thermometer</li> <li>• Resistance</li> </ul>	No No No Yes; Resistance-type transmitter: Pt10, Pt50, Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120, Ni200, Ni500, Ni1000, Cu10, Cu50, Cu100, LG-Ni1000 Yes; 48 Ω, 150 Ω, 300 Ω, 600 Ω, 3 000 Ω,
Input ranges (rated values), resistance thermometer	
<ul style="list-style-type: none"> <li>• Cu 10               <ul style="list-style-type: none"> <li>— Input resistance (Cu 10)</li> </ul> </li> <li>• Ni 100               <ul style="list-style-type: none"> <li>— Input resistance (Ni 100)</li> </ul> </li> <li>• Ni 1000               <ul style="list-style-type: none"> <li>— Input resistance (Ni 1000)</li> </ul> </li> <li>• LG-Ni 1000               <ul style="list-style-type: none"> <li>— Input resistance (LG-Ni 1000)</li> </ul> </li> <li>• Ni 120               <ul style="list-style-type: none"> <li>— Input resistance (Ni 120)</li> </ul> </li> <li>• Ni 200               <ul style="list-style-type: none"> <li>— Input resistance (Ni 200)</li> </ul> </li> <li>• Ni 500               <ul style="list-style-type: none"> <li>— Input resistance (Ni 500)</li> </ul> </li> <li>• Pt 100               <ul style="list-style-type: none"> <li>— Input resistance (Pt 100)</li> </ul> </li> <li>• Pt 1000               <ul style="list-style-type: none"> <li>— Input resistance (Pt 1000)</li> </ul> </li> <li>• Pt 200               <ul style="list-style-type: none"> <li>— Input resistance (Pt 200)</li> </ul> </li> <li>• Pt 500               <ul style="list-style-type: none"> <li>— Input resistance (Pt 500)</li> </ul> </li> </ul>	Yes 10 Ω Yes 100 Ω Yes 1 000 Ω Yes 1 000 Ω Yes 120 Ω Yes 200 Ω Yes 500 Ω Yes 100 Ω Yes 1 000 Ω Yes 200 Ω Yes 500 Ω
Input ranges (rated values), resistors	
<ul style="list-style-type: none"> <li>• 0 to 48 ohms</li> <li>• 0 to 150 ohms</li> </ul>	Yes Yes

- 0 to 300 ohms Yes
- 0 to 600 ohms Yes
- 0 to 3000 ohms Yes

**Analog outputs**

Number of analog outputs 0

**Analog value generation for the inputs**

Measurement principle Sigma Delta

**Integration and conversion time/resolution per channel**

- Resolution with overrange (bit including sign), max. 15 bit; at 150, 300, 600 und 3 000 ohms; otherwise 15 bits + sign
- Integration time, parameterizable Yes; 10/ 16.67/ 20/ 100 ms
- Interference voltage suppression for interference frequency f1 in Hz 10 / 50 / 60 / 400 Hz

**Smoothing of measured values**

- parameterizable Yes; In four stages by means of digital filtering
- Step: None Yes; 1x
- Step: low Yes; 4x
- Step: Medium Yes; 16x
- Step: High Yes; 32x

**Degree and class of protection**

IP degree of protection IP20

**Standards, approvals, certificates**

CE mark Yes

**Dimensions**

Width 45 mm  
 Height 100 mm  
 Depth 81 mm

**Weights**

Weight, approx. 148.7 g

**Classifications**

	Version	Classification
eClass	14	27-24-22-01
eClass	12	27-24-22-01
eClass	9.1	27-24-22-01
eClass	9	27-24-22-01
eClass	8	27-24-22-01
eClass	7.1	27-24-22-01
eClass	6	27-24-22-01
ETIM	10	EC001420
ETIM	9	EC001420
ETIM	8	EC001420
ETIM	7	EC001420
IDEA	4	3562
UNSPSC	15	32-15-17-05

**Approvals / Certificates**

**General Product Approval**



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