

SIPLUS S7-300 SM 334 4AI 2AO -25...+70°C with conformal coating based on 6ES7334-0KE00-0ab0 . Analog module isolated, 4 AI/2 AO, 12 bit, 0-10 V for Pt100 (climatic range -120-155°C) and 10 kOhm measuring range, 1x 20-pole



Figure similar

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• Reverse polarity protection	Yes
Input current	
from supply and load voltage L+ (without load), max.	80 mA
from backplane bus 5 V DC, max.	60 mA
Power loss	
Power loss, typ.	2 W
Analog inputs	
Number of analog inputs	4
• For voltage measurement	2
• For resistance measurement	4
permissible input voltage for voltage input (destruction limit), max.	20 V; continuous; 75 V for max. 1 s (mark to space ratio 1:20)

Constant measurement current for resistance-type transmitter, typ.	490 µA; at PT100 (490 µA), at 10 kOhm (105 µa)
Cycle time (all channels) max.	85 ms
<b>Input ranges</b>	
• Voltage	Yes
• Current	No
• Thermocouple	No
• Resistance thermometer	Yes
• Resistance	Yes
<b>Input ranges (rated values), voltages</b>	
• 0 to +10 V	Yes
— Input resistance (0 to 10 V)	100 kΩ
<b>Input ranges (rated values), resistance thermometer</b>	
• Pt 100	Yes; only climatic range
<b>Input ranges (rated values), resistors</b>	
• 0 to 10000 ohms	Yes
<b>Characteristic linearization</b>	
• parameterizable	Yes
— for resistance thermometer	Pt100 (climate)
<b>Cable length</b>	
• shielded, max.	100 m
<b>Analog outputs</b>	
Number of analog outputs	2
Voltage output, short-circuit protection	Yes
Voltage output, short-circuit current, max.	10 mA
<b>Output ranges, voltage</b>	
• 0 to 10 V	Yes
<b>Load impedance (in rated range of output)</b>	
• with voltage outputs, min.	2.5 kΩ
• with voltage outputs, capacitive load, max.	1 µF
<b>Cable length</b>	
• shielded, max.	100 m
<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
• Integration time, parameterizable	Yes
• Integration time (ms)	16,67 / 20 ms
• Interference voltage suppression for interference frequency f1 in Hz	50 / 60 Hz
<b>Analog value generation for the outputs</b>	

Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	12 bit
• Conversion time (per channel)	500 µs
Settling time	
• for resistive load	0.8 ms
• for capacitive load	0.8 ms

Encoder	
Connection of signal encoders	
• for voltage measurement	Yes
• for resistance measurement with two-wire connection	Yes
• for resistance measurement with three-wire connection	Yes
• for resistance measurement with four-wire connection	Yes

Errors/accuracies	
Operational error limit in overall temperature range	
• Voltage, relative to input range, (+/-)	0.8 %; 0 to 10V
• Resistance, relative to input range, (+/-)	3.7 %; 10 kOhm
• Resistance thermometer, relative to input range, (+/-)	1.1 %
• Voltage, relative to output range, (+/-)	1.1 %
Basic error limit (operational limit at 25 °C)	
• Voltage, relative to input range, (+/-)	0.5 %; 0 to 10V
• Resistance, relative to input range, (+/-)	2.8 %; 10 kOhm
• Resistance thermometer, relative to input range, (+/-)	0.8 %
• Voltage, relative to output range, (+/-)	0.85 %

Interrupts/diagnostics/status information	
Alarms	No
Diagnostics function	No

Potential separation	
Potential separation analog inputs	
• between the channels and backplane bus	Yes
Potential separation analog outputs	
• between the channels	No
• between the channels and backplane bus	Yes
• between the channels and the power supply of the electronics	Yes

## Isolation

Isolation tested with	500 V DC
<b>Standards, approvals, certificates</b>	
CE mark	Yes
UL approval	Yes; File E239877
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• min.	-25 °C; = Tmin
• max.	70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use
<b>Ambient temperature during storage/transportation</b>	
• min.	-40 °C
• max.	70 °C
<b>Altitude during operation relating to sea level</b>	
• Installation altitude above sea level, max.	5 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
<b>Relative humidity</b>	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
<b>Resistance</b>	
<b>Use in stationary industrial systems</b>	
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
<b>Use on ships/at sea</b>	
— to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
— to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
<b>Usage in industrial process technology</b>	
— Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)

— Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04

Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)

#### Remark

— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04

\* The supplied plug covers must remain in place over the unused interfaces during operation!

#### Connection method

required front connector 20-pin

#### Dimensions

Width 40 mm

Height 125 mm

Depth 117 mm

#### Weights

Weight, approx. 200 g

**last modified:** 10/13/2020