

SIPLUS S7-300 SM 332 4AO U/I -25...+70°C with conformal coating based on 6ES7332-5HD01-0AB0 . Analog "output SM 332, isolated, ""4 AO," "U/I; diagnostics;"" resolution" 11/12 bits, 20-pole, removing and inserting possible with active backplane bus



Figure similar

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	240 mA
from backplane bus 5 V DC, max.	60 mA
Power loss	
Power loss, typ.	3 W
Analog outputs	
Number of analog outputs	4
Voltage output, short-circuit protection	Yes
Voltage output, short-circuit current, max.	25 mA
Current output, no-load voltage, max.	18 V
Output ranges, voltage	
• 0 to 10 V	Yes

• 1 V to 5 V	Yes
• -10 V to +10 V	Yes
Output ranges, current	
• 0 to 20 mA	Yes
• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
Load impedance (in rated range of output)	
• with voltage outputs, min.	1 k Ω
• with voltage outputs, capacitive load, max.	1 μ F
• with current outputs, max.	500 Ω
• with current outputs, inductive load, max.	10 mH
Cable length	
• shielded, max.	200 m
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	12 bit; \pm 10 V, \pm 20 mA, 4 mA to 20 mA, 1 V to 5 V: 11 bit + sign; 0 V to 10 V, 0 mA to 20 mA: 12 bit
• Conversion time (per channel)	0.8 ms
Settling time	
• for resistive load	0.2 ms
• for capacitive load	3.3 ms
• for inductive load	0.5 ms; 0.5 ms (1 mH); 3.3 ms (10 mH)
Errors/accuracies	
Operational error limit in overall temperature range	
• Voltage, relative to output range, (+/-)	0.5 %; \pm 0.6 % @ < 0 °C or > 60 °C
• Current, relative to output range, (+/-)	0.6 %; \pm 0.7 % @ < 0 °C or > 60 °C
Basic error limit (operational limit at 25 °C)	
• Voltage, relative to output range, (+/-)	0.4 %
• Current, relative to output range, (+/-)	0.5 %
Interrupts/diagnostics/status information	
Diagnostics function	Yes; Parameterizable
Substitute values connectable	Yes; Parameterizable
Alarms	
• Diagnostic alarm	Yes; Parameterizable
Diagnostic messages	
• Diagnostic information readable	Yes
Diagnostics indication LED	
• Group error SF (red)	Yes
Potential separation	
Potential separation analog outputs	

- between the channels and backplane bus

Yes

Isolation

Isolation tested with 500 V DC

Standards, approvals, certificates

CE mark	Yes
UL approval	Yes; File E239877
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes

Railway application

- | | |
|--------------|----|
| • EN 50121-4 | No |
| • EN 50155 | No |

Ambient conditions

Ambient temperature during operation

- | | |
|--------|--|
| • min. | -25 °C; = Tmin |
| • max. | 70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use |

Ambient temperature during storage/transportation

- | | |
|--------|--------|
| • min. | -40 °C |
| • max. | 70 °C |

Altitude during operation relating to sea level

- | | |
|--|---|
| • 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) |

Relative humidity

- | | |
|---|---|
| • With condensation, tested in accordance with IEC 60068-2-38, max. | 100 %; RH incl. condensation/frost (no commissioning under condensation conditions) |
|---|---|

Resistance

Use in stationary industrial systems

- | | |
|---|--|
| — 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, * |

Use on ships/at sea

- | | |
|---|--|
| — 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; * |

Remark

— Note regarding classification of environmental conditions acc. to EN 60721

* 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

120 mm

Weights

Weight, approx.

220 g

last modified:

06/15/2019