

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

S7-300

6ES7332-5RD00-0AB0

HAZARDOUS-AREA ANALOG OUTPUT MODULE

Used with the applicable S7-300 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens official manufacturer documentation

SIMATIC S7, ANALOG OUTPUT SM 332, OPTICALLY ISOLATED,
4 AO, 0/4 UP TO 20 mA, 20 PIN, FOR SIGNALS FROM
HAZARDOUS AREAS CAPABLE OF DIANOST., PTB-TESTED



Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	200 mA
from backplane bus 5 V DC, max.	80 mA
Power loss	
Power loss, typ.	4 W
Analog outputs	
Number of analog outputs	4
Voltage output, short-circuit protection	Yes
Voltage output, short-circuit current, max.	70 mA
Current output, no-load voltage, max.	14 V
Output ranges, current	
• 0 to 20 mA	Yes
• 4 mA to 20 mA	Yes
Connection of actuators	

• for current output two-wire connection	Yes
Load impedance (in rated range of output)	
• with current outputs, max.	500 Ω
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.	15 bit
• Basic conversion time (ms)	2.5 ms
Errors/accuracies	
Operational error limit in overall temperature range	
• Current, relative to output range, (+/-)	0.55 %
Basic error limit (operational limit at 25 °C)	
• Current, relative to output range, (+/-)	0.2 %
Interrupts/diagnostics/status information	
Diagnostic functions	Yes
Diagnostic messages	
• Diagnostic information readable	Yes
• Overage	Yes
• Wire-break in actuator cable	Yes
Diagnostics indication LED	
• Group error SF (red)	Yes
• Channel fault indicator F (red)	Yes
Ex(i) characteristics	
Module for Ex(i) protection	Yes
Maximum values of output circuits (per channel)	
• Co (permissible external capacity), max.	850 nF
• Io (short-circuit current), max.	70 mA
• Lo (permissible external inductivity), max.	6.6 mH
• Po (power of load), max.	440 mW
• Uo (output no-load voltage), max.	14 V
Potential separation	
Potential separation analog outputs	
• Potential separation analog outputs	Yes
Permissible potential difference	
between the outputs (UCM)	60 V DC/30 V AC when used in the hazardous area; 400 V DC/250 V AC when used in NON-hazardous area
Between the outputs and MANA (UCM)	60 V DC/30 V AC when used in the hazardous area; 400 V DC/250 V AC when used in NON-hazardous area

Standards, approvals, certificates

Use in hazardous areas

- | | |
|---|--|
| • Type of protection acc. to EN 50020 (CENELEC) | [EEx ib] IIC |
| • Type of protection acc. to FM | Class I, Division 2, Group A, B, C, D T4 |
| • Test number PTB | Ex-96.D.2026X |

Ambient conditions

Ambient temperature during operation

- | | |
|--------|-------|
| • max. | 60 °C |
|--------|-------|

Connection method

required front connector	20-pin
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Weights

Weight, approx.	280 g
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last modified: 03/24/2017 