

AMIKON TECHNICAL DOCUMENTATION

Product Data Sheet

Siemens 6ES7331-7KF01-0AB0

Configurable Analog Input Module



MODULE	INPUTS	REFERENCE	CONNECTOR
SM 331	8 analog	Historical edition	20-pin

Siemens 6ES7331-7KF01-0AB0 is an SM 331 analog input module with eight inputs arranged in four channel groups. It handles voltage, current, resistance and temperature measurements, with the measuring method and range selected for each group through hardware settings and configuration.

01

VERIFIED TECHNICAL INFORMATION

Analog input arrangement	8 inputs in four groups of two; 4 inputs for resistance measurement
Measuring methods	Voltage, current, resistance and temperature
Resolution options	Unipolar: 9, 12 or 14 bits; bipolar: 9, 12 or 14 bits plus sign; integration-time dependent
Integration time options	2.5, 16 2/3, 20 or 100 ms
Rated load voltage	24 V DC with reverse-polarity protection
Maximum current consumption	60 mA from backplane; 200 mA from L+ without load
Typical module power loss	1.3 W

Manufacturer evidence: S7-300 and M7-300 Programmable Controllers Module Specifications; exact-model manual section.

02 TECHNICAL INFORMATION CONTINUED

Voltage input ranges	+/-80, +/-250, +/-500 and +/-1,000 mV; +/-2.5, +/-5 and +/-10 V; 1 to 5 V
Current input ranges	Two-wire, position D: 4 to 20 mA; four-wire, position C: +/-3.2, +/-10, +/-20, 0 to 20 or 4 to 20 mA
Resistance measuring ranges	150, 300 and 600 ohm
Supported temperature sensors	Thermocouples E, N, J, K and L; Pt100 and Ni100 resistance thermometers
Shielded signal cable limits	200 m maximum; 50 m for the 80 mV range and thermocouples
Isolation test voltage	600 V DC
Diagnostic indication	Programmable diagnostics with red SF group-fault LED and readable diagnostic data
Limit-interrupt channels	Channels 0 and 2, programmable

03 SOURCE AND CONFIGURATION CHECKS

Resolution follows the selected integration time: nine, twelve or fourteen bits for unipolar ranges, with a sign bit added for bipolar ranges. Inputs are isolated from the CPU; isolation from load voltage does not apply to two-wire transmitters.

Packed dimensions and supplied-unit origin must be checked against the actual delivery. No verified gross shipping weight is inferred from module net mass.

[Amikon-hosted original Siemens manual pages](#)

AMIKON PRODUCT SUPPORT

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