AMIKON TECHNICAL DOCUMENTATION

Product Data Sheet

Siemens 6ES7331-7NF10-0AB0

Eight-Channel Analog Input Module

MODULE	INPUTS	RESOLUTION	CONNECTOR
SM 331	8 analog	16 bit	40-pin

Siemens 6ES7331-7NF10-0AB0 is an SM 331 analog input module with eight voltage or current inputs for SIMATIC S7-300. Four channel groups provide configurable measuring ranges, while sixteen-bit conversion includes the sign bit and field wiring uses a 40-pin front connector.

01 VERIFIED TECHNICAL INFORMATION

Analog inputs	8, arranged in four groups of two
Signal resolution	16 bits including sign
Voltage measuring ranges	+/-5 V, +/-10 V, 1 to 5 V
Current measuring ranges	+/-20 mA, 0 to 20 mA, 4 to 20 mA
Rated electronics supply	24 V DC with reverse-polarity protection
Maximum supply current	100 mA from backplane; 200 mA from L+
Typical power loss	3 W

Manufacturer evidence: S7-300 Module data; exact-model manual section and manufacturer data sheet.

02 TECHNICAL INFORMATION CONTINUED

Four-channel timing	10 ms update interval; converted value settles within 80 ms
Eight-channel module cycle	46, 144, 166 or 190 ms, depending on interference suppression
Operational error limit	+/-0.1% of the selected measuring-range end value for voltage and current across the specified temperature range
Front connector	40-pin
Shielded signal cable length	200 m maximum
Isolation arrangement	Two-channel groups; isolated from backplane and electronics supply
Isolation test voltage	500 V AC
Interrupt functions	Configurable limit interrupts on channels 0-7, end-of-cycle interrupt and diagnostic interrupt

03 SOURCE AND CONFIGURATION CHECKS

The module offers selectable eight-channel and faster four-channel operation, with filtering and conversion timing matched to the selected mode. Parameterizable diagnostics, channel limit monitoring and end-of-cycle interrupts support evaluation of measured signals, while electrical isolation separates the inputs from the backplane.

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

Siemens original documentation and product reference

AMIKON PRODUCT SUPPORT

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