

AMIKON TECHNICAL DOCUMENTATION

Product Data Sheet

Siemens 6ES7138-4FA04-0AB0

PROFIsafe Digital Input Module



TYPE	INPUTS	EVALUATION	PROFILE
4/8 F-DI	24 V DC	1oo1 / 1oo2	PROFIsafe

Siemens 6ES7138-4FA04-0AB0 is an ET 200S fail-safe digital input module for 24 V DC signals. It provides eight single-channel inputs or four evaluated input pairs, with two protected sensor supplies and configurable monitoring for the connected safety sensors.

01

VERIFIED TECHNICAL INFORMATION

Input arrangement	8 single-channel inputs or 4 dual-channel evaluated pairs
Rated module supply	24 V DC; permissible 20.4-28.8 V DC; no reverse-polarity protection
Supported sensors	Switches and 3/4-wire proximity sensors; 2-wire proximity sensors are not supported
Input logic levels	Signal 0: -30 to +5 V; signal 1: +15 to +30 V
Input characteristic	IEC 61131 Type 1; typical signal-1 input current 3.7 mA
Input-delay settings	0.5, 3 or 15 ms for all inputs; default 3 ms; delay-dependent shielding and minimum-pulse conditions apply
Sensor-power outputs	2 short-circuit-protected outputs, each 300 mA; total 600 mA; minimum loaded voltage L+ minus 1.5 V

Exact-model Siemens sources are identified in the accompanying reference. This independently prepared summary does not replace safety engineering or commissioning procedures.

02 TECHNICAL INFORMATION CONTINUED

Sensor evaluation	1oo1 or 1oo2; equivalent or nonequivalent dual-channel connections are configurable
Discrepancy monitoring	10-30,000 ms for paired inputs; last-valid-value or zero-value response; selected time affects response assessment
I/O address allocation	6 input bytes and 4 output bytes; only documented useful-data addresses may be accessed
PROFIsafe destination address	1-1022; physical DIP address must match the engineering project and uniqueness rules
F monitoring time	10-10,000 ms; default 150 ms
Signal-cable limit	Maximum 200 m; 0.5 ms filtering requires shielded sensor/input cables; 3 ms shielding is required where surge exposure is possible
Module power dissipation	Typical 4 W
Diagnostic indications	SF group fault, individual input status and separate Vs1/Vs2 sensor-supply fault indicators; not safety-function signals

03 SOURCE AND CONFIGURATION CHECKS

The module acquires signals from switches and suitable three- or four-wire proximity sensors within a PROFIsafe installation. Input filtering, discrepancy evaluation and sensor-supply selection are configured for the actual circuit; the achievable safety level depends on the sensor arrangement, wiring and validated safety function.

Selected original Siemens pages combine the complete English exact-model datasheet (2017), Chinese operating-manual extracts (08/2008, A5E00888115-07) and the English safety-value supplement (10/2015, A5E03310062-AE). Chinese pages remain unchanged and are not presented as an English translation. This reference extract is not a complete installation or safety-design manual; consult the official full manual for wiring and commissioning.

Confirm supplied hardware, firmware and approved project documentation. Product net mass is not shipment gross weight. Installation and return to service require qualified personnel.

[Siemens official exact-model product reference](#)