

S-DIAS Safety SSI Absolute Value Encoder SSI 021



with 2 SSI encoder

The S-DIAS Safety SSI absolute value encoder module SSI 021 provides the values of two absolute value encoders, the Safety CPU as well as the non-Safe CPU (standard PLC). Since hardware version 2.0 rotary encoders are supported.

The 2-channel Safety function is implemented by processing the position values in the so-called Safety core (two micro controllers with cross communication). The safety-related component of the module meets the requirements for SIL3 in accordance with EN / IEC 62061 and PL e, cat. 4 in accordance with EN ISO 13849-1/-2 (with two-channel use).

SSI Encoder Specifications

Number	2	
Encoder	absolute encoder with RS422 interface	
Data transfer speed	125 kHz, 250 kHz, 500 kHz, 1 MHz (configurable)	
Encoder resolution	maximum 32 bits	
Coding	binary/gray	
Encoder power supply	+24 V supply, maximum 300 mA internal voltage monitor +24 V (+20 %/-15 %)	
Status LED	yes	

Electrical Requirements

Voltage supply from Safety bus	+12 V	
Current consumption on the Safety bus (+12 V supply)	typically 70 mA	maximum 100 mA
Voltage supply from S-DIAS bus	+24 V	
Current consumption on the S-DIAS bus (+24 V supply)	typically 30 mA	maximum 50 mA

Article Number and Miscellaneous

Article number	20-894-021	
Dimensions	12.5 x 104.2 x 72 mm (W x H x D)	
Standard	2-channel application:	EN 62061 SIL 3 EN ISO 13849-1 PL e/Cat. 4
	1-channel application:	EN 62061 SIL 2 EN ISO 13849-1 PL c /Cat. 2
	UL 508 (E247993)	
Approvals	CE, _c UL _{US} , TÜV Austria EG type-tested	

Environmental Conditions

Storage temperature	-20 ... +85 °C	
Environmental temperature	0 ... +55 °C 0 ... +60 °C starting with HW version 3.10	
Humidity	0-95 %, non-condensing	
Installation altitude above sea level	0-2000 m without derating > 2000 m with derating of the maximum environmental temperature by 0.5 °C per 100 m	
Operating conditions	Pollution degree 2	
EMC resistance	in accordance with 61000-6-7:2015 (Generic standards - Immunity requirements for equipment intended to perform functions in safety-related systems (functional safety) at industrial locations) in accordance with EN 61000-6-2:2007 (industrial area) (increased requirements in accordance with IEC 62061)	
EMC noise generation	in accordance with EN 61000-6-4:2007 (industrial area)	
Vibration resistance	EN 60068-2-6	3.5 mm from 5-8.4 Hz 1 g from 8.4-150 Hz
Shock resistance	EN 60068-2-27	15 g
Protection type	EN 60529	IP20