

# S-DIAS CPU Module

## CP 313



- with 1 Ethernet
- 1 EtherCAT Drive Controller
- 1 VARAN Out
- 1 CAN
- 1 USB Device, 1 USB Host
- 1 microSD

The S-DIAS CP 313 CPU module is a high-performance processor unit for the S-DIAS I/O modules. Through the various interfaces, such as Ethernet, EtherCAT, VARAN, CAN bus, USB and an exchangeable microSD card, this module can be used for a variety of applications. Additionally, a RealTimeClock and zero voltage proof RAM space with buffer battery are provided. The CPU and I/O modules are supplied by the integrated voltage supply module.

### Performance Data

Processor	EDGE2-Technology Dual Core
Processor cores	2
Internal cache	32-kbyte L1 Instruction Cache 32-kbyte L1 Data Cache 256-kbyte L2 Cache
Addressable I/O/P modules	VARAN bus: 65,280 CAN participants: > 100 S-DIAS bus: 64
Internal I/O	no
Internal program and data memory (DDR3 RAM)	256-Mbyte
Internal remnantdata memory	256-kbyte SRAM (battery buffered)
Internal storage device	1-Gbyte microSD card
Interfaces	1x Ethernet 1x EtherCAT Drive Controller 1x VARAN Out (Manager) (maximum cable length: 100 m) 1x CAN 1x USB host 2.0 (high speed 480 Mbit/s) 1x USB-OTG (Host/Device), Type Mini B 1x S-DIAS (with manager)
Status display	no

Status LEDs	yes
Real-time clock	yes (battery buffered)
Cooling	passive (fanless)

## Electrical Requirements

### Module Supply (Input)

Supply voltage	+18-27 V DC, typically +24 V DC UL: Class 2 or LVLC
Current consumption of +24 V supply voltage	maximum 2.75 A

### S-DIAS Bus Supply (Output)

Voltage supply from S-DIAS bus	+5 V
Current consumption on the S-DIAS bus (+5 V supply)	maximum 1.1 A
Voltage supply from S-DIAS bus	+24 V
Current consumption on the S-DIAS bus (+24 V supply)	maximum 1.6 A

## Article Number and Miscellaneous

Article number	20-004-313
Operating system	Salamander
Dimensions	37.5 x 104.2 x 72 mm (W x H x D)
Project backup	internally on the microSD card
Standard	UL 508 (E247993)
Approvals	UL, cUL, CE, UKCA

## Environmental Conditions

Storage temperature	-20 ... +85 °C	
Environmental temperature	0 ... +55 °C	
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 EN 61000-6-2 (industrial area)	
EMC noise generation	in accordance with EN 61000-6-4 (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