

# SEC I/O

## DIN-Rail I/O Device

## Datasheet



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DIN EN ISO 9001:2008  
Zertifkat 01 100 040757

# Technical Data

## General

- No rotating parts

## Processor

- 400 MHz CPU

## Dynamic Memory

- 64 MB SDRAM (128 MB possible on request)

## Network Interface

- 2 x RJ45 for 10/100 Base-T
- Protection: 1.5 KV magnetic isolation

## Serial Ports

- 2 x RJ45 for RS-232
- 2 x RJ45 configurable as RS-232 or RS-485 (terminal block)

**Note:** the RS-232 interfaces are not fully assigned (see user manual)

- Protection: 15 KV ESD for RS-232, 2500 Vrms isolation and 15 KV ESD for RS-485
- Baud rate: up to 921.6 Kbps
- Parity: none, even, odd, mark, space
- Data bits: 5,6,7,8
- Stop bit: 1, 1.5, 2 bits
- Flow control: RTS/CTS, XON/XOFF, none

## USB Ports

- 2 x USB 2.0 compliant, supports low speed (1.5 Mbps) and full speed (12 Mbps) data rate

## Diagnostic LEDs

- Power
- Software state (CPU-LED)
- Link and activity for LAN interface
- Transmit and receive LEDs for the RS-232 interfaces
- DI/DO status LEDs (only variant 1)

## Mass Storage

- 128 MB Flash
- 1 x MicroSD slot

## Additional Functions

- Battery buffered real time clock (RTC)
- Buzzer
- Watchdog
- Reset

## Power Input / Power Consumption

- 9 - 40 V DC / 4 W max.  
typical power consumption 60 mA (with 24 V DC without USB)

## Standards

- CE
  - EN55022 Class A:2006+A1:2007
  - EN55024:1998+A1:2001+A2:2003
  - IEC 61000-4-2:2008
  - IEC 61000-4-3:2006+A1:2008+A2:2010
  - IEC 61000-4-4:2004+A1:2010
  - IEC 61000-4-5:2005
  - IEC 61000-4-6:2008
  - IEC 61000-4-8:2009
- FCC part 15 subpart B Class A

## Housing

- Steel chassis, including clip for mounting on a 35 mm DIN-Rail
- Protection class IP30

## Dimension (without clip)

- 65 x 130 x 102.5 mm (W/H/D)

## Weight

- 0,7 kg

## Operating Environment

- Operating temperature: 0 °C – 70 °C
- Relative humidity: 5 % to 95 % non-condensing

	VARIANT 1 (8xDI/8xDO)	VARIANT 2 (4xDI/4xDO/4xAI unipolar/bipolar)	VARIANT 3 (4xDI/4xDO/4xAI current)
<b>Isolated Digital Input</b>	<ul style="list-style-type: none"> <li>No. of channels: 8</li> <li>Logical high: 5 ~ 24 V DC</li> <li>Logical low: 0 ~ 1.5 V DC</li> <li>Input resistance: 1.2k ohms@0.5W</li> <li>Response time: 20 us</li> <li>Opto-isolation: 2500 V RMS</li> </ul>	<ul style="list-style-type: none"> <li>No. of channels: 4</li> <li>Logical high: 5 ~ 24 V DC</li> <li>Logical low: 0 ~ 1.5 V DC</li> <li>Input resistance: 1.2k ohms@0.5W</li> <li>Response time: 20 us</li> <li>Opto-isolation: 2500 V RMS</li> </ul>	<ul style="list-style-type: none"> <li>No. of channels: 4</li> <li>Logical high: 5 ~ 24 V DC</li> <li>Logical low: 0 ~ 1.5 V DC</li> <li>Input resistance: 1.2k ohms@0.5W</li> <li>Response time: 20 us</li> <li>Opto-isolation: 2500 V RMS</li> </ul>
<b>Digital Output</b>	<ul style="list-style-type: none"> <li>No. of channels: 8</li> <li>Source voltage (VDD): 5~50 V DC</li> <li>Output current: 500 mA max.</li> <li>Isolation: 2500 V RMS</li> </ul>	<ul style="list-style-type: none"> <li>No. of channels: 4</li> <li>Source voltage (VDD): 5~50 V DC</li> <li>Output current: 500 mA max.</li> <li>Isolation: 2500 V RMS</li> </ul>	<ul style="list-style-type: none"> <li>No. of channels: 4</li> <li>Source voltage (VDD): 5~50 V DC</li> <li>Output current: 500 mA max.</li> <li>Isolation: 2500 V RMS</li> </ul>
<b>Analog Inputs</b>	-	<ul style="list-style-type: none"> <li>No. of channels: 4 (multiplexed, differential)</li> <li>Sampling speed: 10 readings per second</li> <li>Input range (selected by software): <ul style="list-style-type: none"> <li>0~150mV, 0~500mV, +/- 150mV, +/- 500mV</li> <li>0~1V, 0~5V, 0~10V, +/-1V, +/-5V, +/-10V</li> </ul> </li> <li>Effective resolution: 16-bit</li> <li>Voltage input mode: differential, 100db CMR</li> <li>Voltage input impedance: 20 M <math>\Omega</math></li> <li>Isolation protection: 1500 V RMS</li> </ul>	<ul style="list-style-type: none"> <li>No. of channels: 4 (multiplexed, differential)</li> <li>Sampling speed: 10 readings per second</li> <li>Input range: <ul style="list-style-type: none"> <li>0~20mA</li> </ul> </li> <li>Effective resolution: 16-bit</li> <li>Current input impedance: 120 <math>\Omega</math></li> <li>Isolation protection: 1500 V RMS</li> </ul>

**Note:** Differences to the delivered type are possible.