

## DATASHEET

### IOsatellite L



IOsatellite is a fully in Alamos FE2 platform integrated input-/output module.

Overview modell "L":

Analog input: 10

Relais output: 10

Digital output: 10

#### General:

|                        |   |
|------------------------|---|
| Standard               | EN61010-1<br>EN61010-2-201<br>EN61131-2 |
| Dimensions (W x H x D) | 72x90x62mm                              |
| Weight                 | 240g                                    |
| Mounting               | Top hat rail EN50022, 35mm              |

#### Environmental conditions, Indoor use only:

|                                    |  |
|------------------------------------|--|
| Operating ambient temperature      | 0°C – 55°C   |
| Relative humidity – non-condensing | 80 % for temp. up to 31 °C,<br>decreasing linearly to 50 %<br>relative humidity at 55 °C |
| Pollution Degree                   | PD2  |
| Altitude                           | up to 2000m AMSL   |
| Vibration (5 ≤ f ≤ 9 Hz)           | 1,75 mm amplitude sinus<br>3,5 mm amplitude random                                       |
| Vibration (9 ≤ f ≤ 150 Hz)         | 0,5 g acceleration sinus<br>1,0 g acceleration random                                    |
| Transport and Storage              | -20°C – +70°C<br>10 to 90% no condensation<br>Altitude 3000m AMSL                        |
| Shock response                     | 15g, 11ms half sinus all 3 axes  |

**I/O:**

|   |                  |
|---|------------------|
| Supply voltage                          | 12V or 24V       |
| USB (Power for programming only)        | USB-B, 2.0       |
| Ethernet                                | RJ45, 10/100Mbps |
| RS485 (no termination inside)           | 250kb            |
| Inputs, no galvanic insulation          | 12               |
| Common analog/digital                   | 10               |
| Fixed digital, ext. Interrupt usable    | 2                |
| Digital Outputs, no galvanic insulation | 12               |
| Relay output                            | 10               |
|   |                  |

**Terminal capacities:**

|                              |                               |
|------------------------------|-------------------------------|
| Relay Output, Power Input    | 2,5mm <sup>2</sup> (24-12AWG) |
| Strip length                 | 6-7mm                         |
| Max. tightening torque       | 0,5Nm                         |
| Digital, Analog Input Output | 1,5mm <sup>2</sup> (30-16AWG) |
| Strip length                 | 5-6mm                         |
| Max. tightening torque       | 0,2Nm                         |
|                              |                               |

**Protection:**

|                                      |  |
|--------------------------------------|--|
| ESD HBM Class 0                      | Contact discharge: ±4kV<br>Air discharge: ±8kV |
| Supply input over current protection | Internal Fuse 20A (fast)                       |
| Relay Output                         | External Fuse required                         |
| Digital Output                       | Overload, short circuit, ESD                   |
| Signal Input                         | Overvoltage, ESD                               |

**Electrical characteristics:**

|                                       | Condition              | Value                          |
|---------------------------------------|------------------------|--------------------------------|
| Supply voltage (Absolute Maximum)     | 12V range<br>24V range | 10,2V – 15,0V<br>20,4V – 30,0V |
| Signal input low level                | 12V range<br>24V range | 0V – 3,6V<br>0V – 7,2V         |
| Signal input high level               | 12V range<br>24V range | 9V – 13,2V<br>18V – 26,4V      |
| Analog signal input                   | 12V range<br>24V range | 0 – 13,2V<br>0 – 26,4V         |
| Signal input current                  | max. current           | < 3mA                          |
| Signal output low level               | 12V range<br>24V range | 0V – 2,4V<br>0V – 4,8V         |
| Signal output high level              |                        | V <sub>in</sub> – 10%          |
| Signal output – PWM functionality     | Duty cycle             | 15% - 85%                      |
| Relay output, Contact rating          | Resistive<br>Load      | 6A 250V AC /<br>30V DC         |
| Common Relay terminal                 | max. current           | 6A                             |
| Galvanic insulation                   | coil to contact        | 3000VAC 1min                   |
| Relay ON in case of PWM functionality | Duty cycle             | > 30%                          |

**LED signalization:**

|  |   |
|--|---|
| Power LEDs coding<br>input voltage out of range<br>e.g. only USB powered<br>input voltage 10.2V – 15,0V<br>input voltage 20.4V – 30,0V<br>Input voltage < 5V | Color of power LED<br><br>12V orange, 24V orange<br>12V green, 24V orange<br>12V orange, 24V green<br>both LEDs off |
| Device in reset state  | Reset LED yellow  |
| Device in run state  | Reset LED off   |
| Signal input at high (logic 1) level   | Corresponding LED green   |
| Signal input at low (logic 0) level  | Corresponding LED off   |
| Signal input in use as analog input  | Corresponding LED green on<br>when input level reach high<br>(logic 1) state  |
| Signal/Relay output set to active  | Corresponding LED green   |
| Signal/Relay output set to inactive  | Corresponding LED off   |

**Physical Dimensions:**

