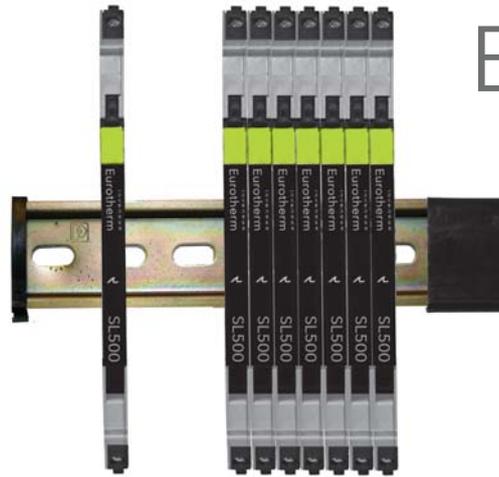


# SL500 OmniSLIM

MODEL



i n v e n t s  
Eurotherm

## Loop Powered Isolator Specification Sheet

- 1 or 2 channel input loop powered isolator
- Signal 1:1 functional range 0...23 mA
- Low input voltage drop and fast response time
- Excellent accuracy and high load stability
- Slimline 6 mm housing

### Applications

- 1:1 input loop powered isolator of current signals in the range 0(4)...20 mA.
- SL500 is an easy mounting DIN rail unit.
- A very competitive choice in terms of both price and technology for galvanic isolation of current signals.
- Provides surge suppression and protects control systems from transients and noise.
- SL500 eliminates ground loops and can be used for measuring floating signals.
- The device can be mounted in Safe area or in Zone 2 and Cl. 1 Div 2. area.

### Technical characteristics

- SL500 is powered by the analogue input current signal loop.
- Low input voltage drop, typ 1.35V + Vout.
- Excellent conversion accuracy, better than 0.1% in the range 0...20.5 mA.
- Functional range is 0...23 mA which means that SL500 is NAMUR NE43 compliant.
- Inputs and outputs are floating and galvanically separated.
- The output is voltage limited to 17.5 VDC.
- High galvanic isolation of 2.5 kVAC.
- Fast response time < 5 ms.
- Excellent signal/noise ratio > 60 dB.

### Mounting / installation / programming

- DIN rail mounting with upto 330 channels per metre.
- Temperature operation range is from -25...+70°C.

  
ACTION INSTRUMENTS



## Specification

### Environmental conditions

Specifications range:	-25°C to +70°C
Storage temperature:	-40°C to +85°C
Calibration temperature	20...28°C
Relative humidity	< 95% RH (non-cond.)
Protection degree	IP20
Installation in pollution degree 2 and measurement / overvoltage category II.	

### Mechanical specifications

Dimensions (HxWxD):	113 x 6.1 x 115 mm
Weight approx:	70 g
DIN rail type:	DIN EN 60715 - 35 mm
Wire size:	0.13...2.5 mm <sup>2</sup> / AWG 26...12 stranded wire
Screw terminal torque	0.5 Nm

### Common electrical specifications

Internal consumption:	30 mW per channel
Isolation voltage, test:	2.5 kVAC
Working isolation voltage:	300 VAC / 250 VAC (Ex)
Signal / noise ratio:	> 60 dB
Response time (0...90%, 100...10%):	< 5 ms
Cut-off frequency (3 dB)	100 Hz

EMC immunity influence:	< ±0.5% of span*
Extended EMC immunity:	
NAMUR NE 21, A criterion, burst:	< ±1% of span*

### Input and Output specifications

Signal range, input to output:	0...20.5 mA
Signal conversion:	1:1
Functional range:	0...23mA
Start up current, typ.:	10 µA
Current input overload, max:	50 mA
Input to output voltage drop, typ:	1.35 V + (0.015 x Vout.) (Vout. = Iout.xRoutput load)
Input voltage drop:	(Unit voltage drop) + Vout
Output load, max:	600 Ω
Output load stability:	< 0.01% of span* / 100 Ω
Voltage limit:	17.5 V
*of span = 0...20 mA	

### Approvals

EMC 2004/108/EC:	EN 61326-1
LVD 2006/95/EC:	EN 61010-1
UL, Standard for Safety:	UL 61010-1
Safe Isolation	EN 61140

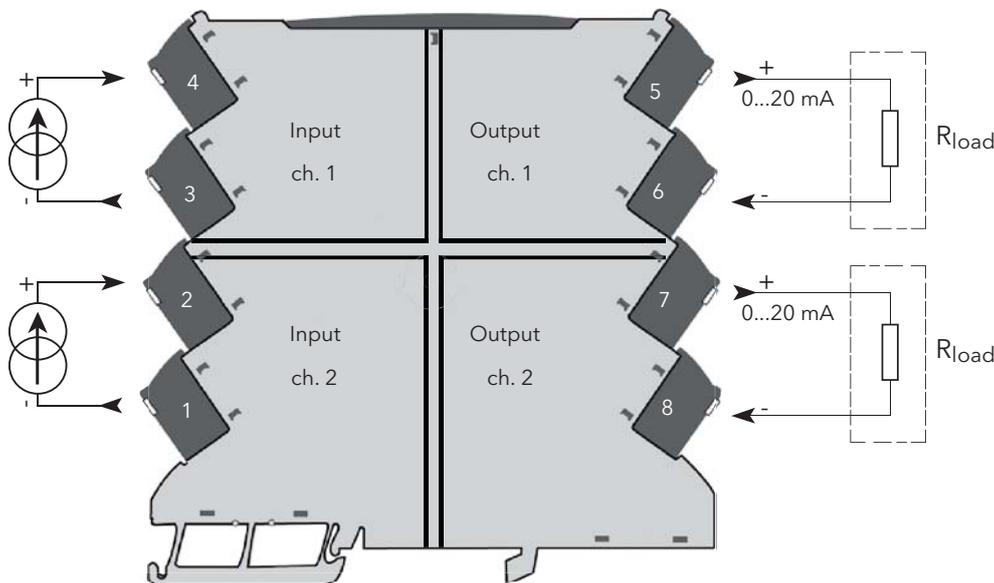
### Ex / I.S.

ATEX 94/9/EC:	DEKRA 13ATEX 0137X
c FM us:	3049859-2

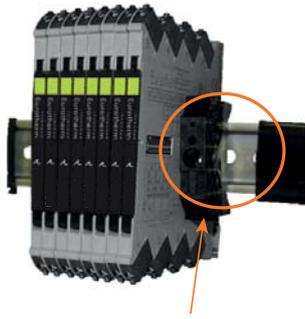
### Accuracy values

Input type	Absolute accuracy	Temperature coefficient
mA	≤ ± 10 µA + 0.05% of max. value of selected span	≤ ± 2 µA / °C

## Connections

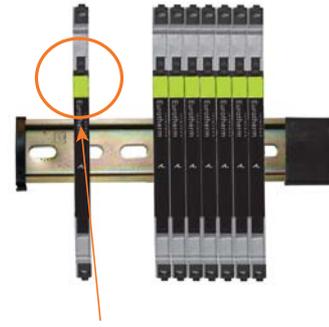


Safe Area or  
Zone 2 & Cl. 1, Div. 2, gr. A-D



### Installation on a 35mm DIN rail

The OmniSLIM devices must be supported by module stops - part number OMNI/ACCESS/MOD-STOP.



### Marking

The front cover of the OmniSLIM units has been designed with an area for affixation of a click-on marker. The area assigned to the marker measures 5 x 7.5 mm.

### Order codes



#### 1 Type

<b>OMNISLIM</b>	OmniSLIM Voltage/Current Conditioner
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#### 2 OmniSLIM

<b>SL500-1</b>	Single Channel Isolator, Loop Powered
<b>SL500-2</b>	Dual Channel Isolator, Loop Powered

#### 3 Accessories & Spares

<b>PSR-750X</b>	Power rail 750mm (35x7.5mm DIN Rail)
<b>PSR-500X</b>	Power rail 500mm (35x7.5mm DIN Rail)
<b>PSR-250X</b>	Power rail 250mm (35x7.5mm DIN Rail)
<b>PSR-CVRX</b>	End covers for Power Rail
<b>MOD-STOP</b>	Module Stop
<b>PSC-100U</b>	Power Connector Unit (Din Rail) 2.5A max, powering up to 100 units

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