

Čapkova 22  
678 01 Blansko  
tel.: +420 516 416942, 419995  
fax: +420 516 416963

**Isolating converter**

**Isolating converter for unipolar and bipolar signals with switchable calibrated ranges**

- isolation and mutual conversion of 4 to 20mA, 0 to ±20mA and 0 to ±10V signals
- 24 calibrated ranges
- setting range by two slid switches DIP on the board
- power supply 18VDC for loop powered transmitter on input
- input - output & power supply isolation: 4000Vrms
- auxiliary power supply 24VDC ± 25%
- DIN 35 rail-mounted design
- conversion accuracy: < 0,1%
- time response: 1ms and 100ms adjustable by switch

The module is designed to isolate and convert standard unipolar and bipolar current or voltage ranges, namely 0 to 20mA, 4 to 20mA, 0 to 10V, 0 to ±20mA and 0 to ±10V. The module also provides a 18V power supply for powering the input current loop 4-20mA. Typically, the module can be used as a supply for power and isolation for converter powered by current loop. The output of the converter is isolated from the input and the auxiliary power supply.

**Elektrical specifications:**

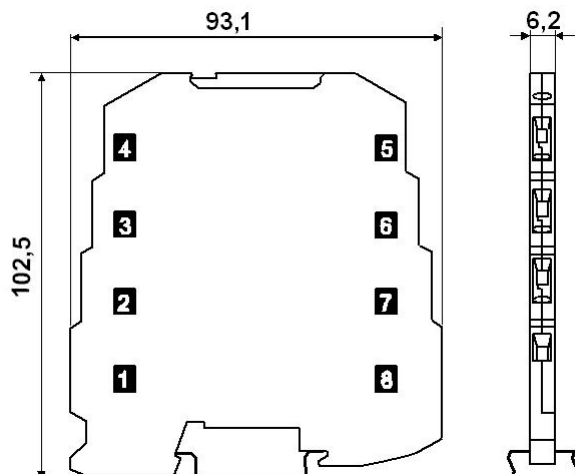
- operating temperature range: -25...+ 65°C mounted with gaps > 6mm  
-25...+ 45°C mounted without gaps
- storage temperature range: -40...+ 80°C
- auxiliary power supply: 24V DC ± 25%
- power consumption: max. 1,5VA
- power supply for two-wire converter: 18V for 20mA
- signal conversion settings: see table 1
- output voltage amplitude: 15V / Iout ( ohm )
- voltage output load: max. 10mA
- input resistance of voltage input: 1Mohm
- drop in current input: 0,54V
- output current limit: typ. 25mA (electronic cut-out)
- transfer function maximum error: < 0,1%
- linearity error: < 0,05%
- temperature induced error: < 50ppm /°C
- output signal ripple: < 10mV RMS
- input to output capacity: 20pf
- time response: 1ms and 100ms adjustable bz switch
- enclosure: IP40 / IP10
- weight: 90g
- environment: pollution degree 2  
                  overvoltage category installation III



**Type test:**

- Standard type test: to ČSN EN 60770-1ed.2
- EMC: to ČSN EN 61326-1
- Safety: assessed acc. to ČSN EN61010-1

**Dimensional drawing:**



**Terminals connection:**

- 1...GND minus pole for input and 18V power supply
- 2...plus pole for input current
- 3...plus pole for input voltage
- 4...plus pole for 18V power supply
- 5,6...output (5 is +)
- 7,8...auxiliary power supply without polarity

**Selectable ranges of converter:**

unipolar input and output		SA					SB	
input	output	SA1	SA2	SA3	SA4	SA5	SB1	SB2
0/4..20mA	0/4..20mA							on
0..20mA	4..20mA					on		on
0..20mA	0..10V				on		on	
0..10V	0..20mA				on	on		on
0..10V	4..20mA			on				on
0..10V	0..10V			on		on	on	
4..20mA	0..20mA			on	on			on
4..20mA	0..10V			on	on	on	on	
bipolar input		SA					SB	
input	output	SA1	SA2	SA3	SA4	SA5	SB1	SB2
0..±20mA	0..20mA	on						on
0..±20mA	4..20mA	on				on		on
0..±20mA	0..10V	on			on		on	
0..±10V	0..20mA	on			on	on		on
0..±10V	4..20mA	on		on				on
0..±10V	0..10V	on		on		on	on	
bipolar output		SA					SB	
input	output	SA1	SA2	SA3	SA4	SA5	SB1	SB2
0..20mA	0..±20mA		on					on
0..20mA	0..±10V		on		on		on	on
0..10V	0..±20mA		on		on	on		on
0..10V	0..±10V		on	on		on	on	
4..20mA	0..±20mA		on	on	on			on
4..20mA	0..±10V		on	on	on	on	on	
bipolar input and output		SA					SB	
input	output	SA1	SA2	SA3	SA4	SA5	SB1	SB2
0..±20mA	0..±20mA	on	on					on
0..±20mA	0..±10V	on	on		on			on
0..±10V	0..±20mA	on	on		on	on	on	on
0..±10V	0..±10V	on	on	on	on	on	on	

**Switch SA (six contacts )** adjusts type of conversion.

**Switches SA1 a SA2** adjusts input or output range from unipolar to bipolar mode.

**Switches SA3,SA4 and SA5** adjusts conversion from input to output

**Switch SA6** adjusts settling time from 1ms to 100ms( on )

**Switch SB ( two contacts)** adjusts output from voltage to current.

**SB2 on , SB1 off =** current output

**SB1 on , SB2 off =** voltage output

If the setting is invalid combination, the transmitter will be in the **range 0/4..20mA/0/4..20mA unipolar**.

**Installation:**

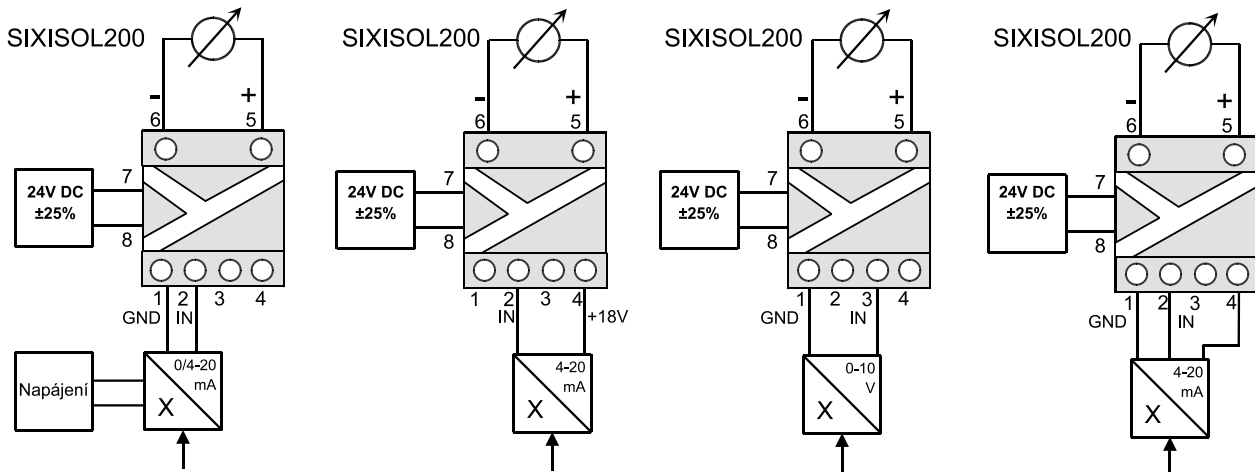
The terminals accept wires up to 2.5 mm<sup>2</sup>. We recommend using a cable with a cross section of 0.5mm<sup>2</sup>. Mechanically, the transducers are mounted on 35 mm DIN rail. After hanging to the rail has to be the bottom of the unit pushed to the rail. The latch on the bottom of the unit snaps it to the rail.

Demounting is done with a screwdriver. After releasing the latch you can removed unit from the rail.

**Ordering instructions:**

- Your order should include
- module type SIXISOL200
- input range – if you wish to set up
- output range– if you wish to set up
- basic settings – switch SB2 is on
- basic setting range 0/4..20mA to 0/4..20mA
- quantity
- BS for the type of converter = screwless design (SIXISOL220 - BS)

**Exmples of using the module:**



Likvidaci po ukončení životnosti provést odděleným sběrem.  
Rawet s.r.o. je členem sdružení RETELA [www.retela.cz](http://www.retela.cz)