# Orsense SC6 Series Signal Conditioners

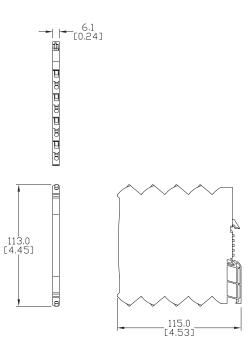
# **ProSense Power Connector Unit**

The <u>SC6-PCU1</u> power connector unit allows easy connection of a 24 VDC / 2.5 A source to the in-rail-bus to provide power to multiple SC6 signal conditioners mounted on the rail.



| Part No.  | Descripti  | on              | Weight (lb) | Price   |    |  |  |  |  |
|---|--|-----------------|-------------|---------|----|--|--|--|--|
| <u>SC6-PCU1</u>                                       | ProSense power co<br>unit, for use with SC<br>signal conditioners. |                 | 0.19        | \$02d9e | ): |  |  |  |  |
| Power Connection Module - Technical<br>Specifications |  |                 |             |         |    |  |  |  |  |
| Part No.  |  | <u>SC6-PCU1</u> |             |         |    |  |  |  |  |
| Supply voltage  |  | 16.8-31.2 VDC   |             |         |    |  |  |  |  |
| Internal power dissipation                            |  | 0.25 W max.     |             |         |    |  |  |  |  |
| Required exte   | rnal fuse  |                 | 2.5 A       |         |    |  |  |  |  |

## Dimensions mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.

# **Orsense** SC6 Series Signal Conditioners Accessories

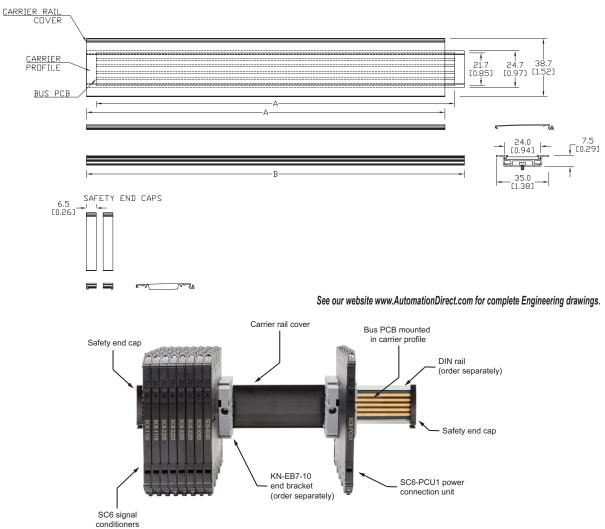
## In-Rail-Bus

| Part No.       | Description  | " <b>A</b> " | "В"   | Weight<br>(lb) | Price    |
|----------------|--|--------------|-------|----------------|----------|
| <u>0068060</u> | In-rail-bus, 250mm length. For use with SC6 series signal conditioners and DN-R35S1 series DIN rail. | 239mm        | 252mm | 0.2            | \$;2daf: |

Note: Order DIN rail and signal conditioners separately

| Part No.             | In-Rail-Bus-Set / 250mm<br><u>0068060</u> | Materials      |  |  |
|----------------------|---|----------------|--|--|
| Each Set<br>Includes | BUS-PCB 250mm                             | Polyamide with |  |  |
|                      | Carrier profile 250mm                     | copper traces  |  |  |
|                      | Carrier rail cover 250mm                  | Polyamide      |  |  |
|                      | Safety cap right                          | Polycarbonate  |  |  |
|                      | Safety cap left                           | Polycarbonate  |  |  |

## Dimensions mm [inches]



# Or Sense SC6 Series Signal Conditioners

# **SC6 Series Signal Conditioners**

The ProSense SC6 Series of signal conditioners are housed in a narrow 6mm width package that allows for high density mounting on a 35mm DIN rail, saving panel space. Various models are available for conversion of standard DC voltage and current signals, bipolar signals, thermocouples and RTDs with isolation that eliminates ground loop problems. The SC6 Series includes single channel, two channel and signal splitter models. Depending on the SC6 Series model, power options include an in-rail power bus, loop powered output, as well as models that are powered directly from the input signal. Application specific models that have fixed configuration require no set up; DIP switch configured models provide flexibility to meet a variety of applications. All models are UL Listed as well as

FM approved for use in Class 1 Division 2 hazardous locations.

## **Features**

- Conversion of standard DC voltage and current signals, bipolar signals, thermocouples and RTDs
- · Single channel, two channel and signal splitter models
- Isolation eliminates ground loop problems
- Narrow 6mm width allows for high density mounting on a DIN rail saving panel space
- Various power options, including an in-rail power bus for certain models
- Fixed configuration or DIP switch selectable configuration for simple setup
- LED operation status on some models
- Excellent accuracy and fast response time
- Wide operating temperature range
- Suitable for high vibration environments
- UL Listed; FM approved for use in Class 1 Division 2 hazardous locations





| SC6 Series Signal Conditioner Selection Guide - Analog Signal Input Modules |  |           |          |          |          |          |          |           |           |           |          |                 |          |
|---|--|-----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|----------|-----------------|----------|
| Part Number   |  | SC6-1100  | SC6-1110 | SC6-2200 | SC6-2220 | SC6-3200 | SC6-3220 | SC6-1101  | SC6-1111  | SC6-1102  | SC6-1112 | <u>SC6-4102</u> | SC6-4112 |
| Price   |  | \$;02d8t: | \$02d8v: | \$02d8u: | \$02d8x: | \$02d8y: | \$02d8z: | \$;02d8]: | \$;02d8,: | \$;02d8[: | \$02d8_: | \$02d91:        | \$02d92: |
| Weight (Ib)   |  | 0.27      | 0.27     | 0.27     | 0.27     | 0.27     | 0.27     | 0.27      | 0.27      | 0.27      | 0.27     | 0.27            | 0.27     |
|   | Current Input  | Х         | Х        | Х        | Х        | Х        | Х        | Х         | Х         | Х         | Х        | -               | -        |
|   | Voltage Input  | -         | -        | Х        | Х        | Х        | Х        | -         | -         | -         | -        | -               | -        |
| Input   | 2-Wire Transmitter Input<br>(Loop power provided)            | -         | _        | Х        | Х        | -        | _        | -         | _         | _         | -        | Х               | Х        |
|   | Bipolar Voltage/Current<br>Input                             | -         | _        | -        | _        | х        | Х        | -         | _         | _         | -        | -               | _        |
|   | Current Output   | Х         | Х        | Х        | Х        | Х        | Х        | Х         | Х         | Х         | Х        | Х               | Х        |
| Output  | Voltage Output   | -         | -        | Х        | Х        | Х        | Х        | -         | _         | -         | -        | -               | -        |
|   | Bipolar Current Output                                       | -         | -        | -        | _        | -        | Х        | -         | _         | -         | -        | -               | -        |
|   | 2-wire, Loop Powered by<br>Input Signal                      | -         | _        | -        | _        | -        | _        | Х         | Х         | _         | -        | -               | -        |
| Power   | 2-wire, Loop Powered<br>(Output Side)                        | -         | _        | -        | _        | -        | _        | -         | _         | х         | Х        | Х               | Х        |
|   | 4-wire, External Power<br>(In-rail Power Bus or<br>Terminal) | x         | Х        | Х        | Х        | х        | Х        | -         | _         | _         | _        | _               | _        |
| Application   | One Channel  | Х         | -        | Х        | -        | Х        | -        | Х         | -         | Х         | -        | Х               | -        |
|   | Two Channels   | -         | -        | -        | -        | -        | -        | -         | Х         | -         | Х        | -               | Х        |
|   | One Input to Two Output<br>Signal Splitter                   | -         | х        | -        | х        | -        | х        | -         | _         | _         | -        | _               | _        |
| Isolation   | Input / Output/ Power<br>Isolated                            | Х         | х        | Х        | Х        | х        | х        | Х         | Х         | х         | х        | х               | Х        |

# **Ofgense** SC6 Series Signal Conditioners

| SC6 Series Sig | gnal Conditioner Selection                                | n Guide - T | emperatu | re Input M      | odules |
|----------------|---|-------------|----------|-----------------|--------|
| Part Number    | SC6-5200  | SC6-6200    | SC6-7102 | <u>SC6-6102</u> |        |
| Price          | \$02d8#:  | \$;02d8!:   | \$02d8?: | \$02d90:        |        |
| Weight (lb)    | 0.27  | 0.27        | 0.27     | 0.27            |        |
| lanut          | Type J/K Thermocouple Input                               | Х           | -        | Х               | -      |
| Input          | Pt100 RTD Input   | -           | Х        | Х               | Х      |
| Output         | Current Output  | Х           | Х        | Х               | Х      |
| Output         | Voltage Output  | Х           | Х        | -               | -      |
| Power          | 2-wire, Loop Powered (Output Side)                        | _           | _        | Х               | Х      |
|                | 4-wire, External Power (In-Rail Power<br>Bus or Terminal) | Х           | Х        | -               | -      |
| Application    | One Channel   | Х           | Х        | Х               | Х      |
|                | Two Channels  | -           | _        | -               | -      |
|                | One Input to Two Output Signal Splitter                   | -           | _        | -               | -      |
| Isolation      | Input / Output/ Power Isolated                            | Х           | Х        | Х               | -      |

# **Unit Features** SC6-1100



- 0-23 mA input
- 0-23 mA output (1:1 signal conversion)
- One channel
- Isolation ٠
- 4-wire, 24VDC externally powered (terminals or in-rail power bus)
- Fixed configuration requires no setup
- LED indication

# SC6-1110



• LED indication

.





- 0-23 mA input
- 0-23 mA output (1:1 signal conversion) .
  - Signal splitter one input to two outputs Isolation
- 4-wire, 24VDC externally powered (terminals or in-rail power bus)
- Fixed configuration requires no setup
- 0-20 mA, 4-20 mA, 0-5V, 1-5V, 0-10V, 2-10V, 2-wire transmitter input
- 0-20 mA, 4-20 mA, 0-5V, 1-5V, 0-10V, 2-10V output
- One channel
- Isolation •
- 4-wire, 24VDC externally powered (terminals or in-rail power bus)
- · DIP switch configured
- · LED indication





# SC6-3200







### 0-20 mA, 4-20 mA, 0-5V, 1-5V, 0-10V, 2-10V, 2-wire transmitter input

- 0-20 mA, 4-20 mA, 0-5V, 1-5V, 0-10V, 2-10V outputs
- Signal splitter one input to two outputs Isolation
- 4-wire, 24VDC externally powered (terminals or in-rail power bus)
- DIP switch configured
- LED indication
- Bipolar +/-10 mA, +/-20 mA, +/-5V, +/-10V inputs
- 0-20 mA, 4-20 mA, 0-5V, 1-5V, 0-10V, 2-10V output
- One channel
- Isolation
- 4-wire, 24VDC externally powered (terminals or in-rail power bus)
- DIP switch configured
- LED indication
- Bipolar +/-10 mA, +/-20 mA, +/-5V, +/-10V inputs
- 0-20 mA, 4-20 mA, +/-10 mA, +/-20 mA, 0-5V, 1-5V, 0-10V, 2-10V outputs
- Signal splitter one input to two outputs (or one bipolar output)
- Isolation
  - 4-wire, 24VDC externally powered (terminals or in-rail power bus)
- DIP switch configured
- LED indication
  - **Signal Conditioners**

tPSC-28

# Sense SC6 Series Signal Conditioners

# **Unit Features Continued**

# SC6-1101



## • 0-23 mA input

- 0-23 mA output (1:1 signal conversion)
- One channel

0-23 mA input

Two channels

• 3.5 - 23 mA input

• One channel Isolation

Isolation

- . Isolation
- Powered by input current signal

· Powered by input current signal Fixed configuration - requires no setup

• Fixed configuration - requires no setup

0-23 mA output (1:1 signal conversion)

## SC6-1111



## SC6-1102



## SC6-1112

- 3.5 23 mA input
  - 3.5 23 mA output (1:1 signal conversion)

· 2-wire, 6-35 VDC loop powered output

• Fixed configuration - requires no setup

- Two channels
- Isolation
- 2-wire, 6-35 VDC loop powered output • Fixed configuration - requires no setup

## SC6-4102

- · 2-wire transmitter (3.5 23 mA) input
  - 3.5 23 mA output (1:1 signal conversion)
  - One channel
  - Isolation
  - · 2-wire, 6-35 VDC loop powered output
  - Fixed configuration requires no setup



- 2-wire transmitter (3.5 23 mA) input
- 3.5 23 mA outputs (1:1 signal conversion)
- Two channels

2-10V output

One channel

LED indication

• RTD Pt100 input

2-10V output One channel Isolation

Isolation

- Isolation
- 2-wire, 6-35 VDC loop powered output
- · Fixed configuration requires no setup

• Thermocouple Type J, Type K input

• 4-wire, 24VDC externally powered

(terminals or in-rail power bus)

• DIP switch configured

0-20 mA, 4-20 mA, 0-5V, 1-5V, 0-10V,



# SC6-6200



# SC6-7102



# SC6-6102



Thermocouple Type J, Type K, RTD Pt100

0-20 mA, 4-20 mA, 0-5V, 1-5V, 0-10V,

• 4-wire, 24VDC externally powered (terminals or in-rail power bus)

- input • 4-20 mA, 20-4 mA output
- One channel

• DIP switch configured

LED indication

- Isolation
- 2-wire, 5.5-35 VDC loop powered output
- DIP switch configured
- RTD Pt100 input
- 4-20 mA, 20-4 mA output
- One channel
- Non-isolated
- 2-wire, 3.3-35 VDC loop powered output
- DIP switch configured





# • 3.5 - 23 mA output (1:1 signal conversion)