

## Monitoring and Control Solutions

# SP230 Series Brochure

**DIN-Rail Mount**

**Easy Configuration**

**Slim Design**



## Space-Saving 2/4-Wire Isolated Splitters

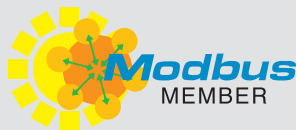
# Depend on Acromag

## **Experience counts:**

especially when  
you are selecting  
an I/O partner.  
And with 60+ years  
of I/O experience,  
Acromag can help  
you to improve  
reliability, increase  
productivity and  
reduce your costs.



ISO9001  
AS9100



## **Acromag: The I/O Leader**

Acromag is a customer-driven manufacturer focused on developing process automation I/O products that provide the best long term value in the industry. Compare and you'll find that Acromag products offer an unmatched balance of price, performance, and features.

## **60+ Years of I/O Experience**

Acromag has more than 60 years of measurement and control experience. Since 1957, we have delivered nearly a million units to thousands of customers around the globe for manufacturing, power, environmental, transportation, and military applications.

## **Top Quality and a 2-Year Warranty**

We take every measure to guarantee you dependable operation and products that perform at or beyond their specifications. Our state-of-the-art manufacturing and military-grade components add an extra degree of ruggedness. Most products qualify for an extended 2-year warranty. And with ISO 9001/AS9100 certified quality control, you get full confidence.

*All trademarks are the property of their respective owners.*

## **Online Ordering**

For your convenience, Acromag provides full product documentation and pricing information on our website. You can obtain quotes or even place your order directly on our website.

## **Fast Delivery from Stock**

Most products can be shipped within 24 hours of receiving your order.

## **Special Services**

We are happy to accommodate your special requirements and offer the following services:

- custom product development
- custom calibration
- source inspections, quality audits
- special shipping, documentation
- protective humiseal coating
- plastic and stainless steel tagging

## **Certification and Approvals**

Many Acromag products carry globally recognized agency approvals and safety certifications.

- CE
- Ethernet conformance
- UL, cUL
- Modbus conformance
- ATEX
- Profibus certification
- CSA
- IECEx

# Signal Splitters: SP Series



## SP Series Thin 2/4-Wire Splitters



### Introduction

The new SP Series splitters accommodate a broad variety of applications and are software-configurable for precise conditioning of current, voltage, or temperature input signals. Eight models provide dual isolated outputs proportional to a single input, with a choice of process control signal formats.

#### Input

Thermocouple, AC/DC current, millivolt/voltage

#### Output

SP230 Series: 4-20mA current (sink or source)  
SP330 Series: scalable current or voltage output

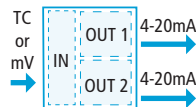
#### Power

- SP230 Series: 7-32V DC loop/local power
- SP330 Series: 6-32V DC external power

#### Key Features and Benefits

- Space saving 17.5mm housing
- Easy setup via USB with Windows® configuration software
- Supports sink/source wiring
- 2-wire, loop-powered / 4-wire, externally powered
- SP230 Series: -40 to 80°C / SP330 Series: -40 to 75°C
- Current, voltage, and temperature splitters
- Adjustable filtering levels
- Ability to scale inputs differently for each output
- Shock and vibration resistant
- CE Compliant. UL/cUL Class 1 Div 2 Zone 2 approvals. ATEX and IECEx Certified.

#### SP233 Thermocouple, Millivolt Input

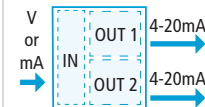


##### Input

- Type J,K,T,R,S,E,B,N thermocouple
- $\pm 100\text{mV}$

[See data sheet](#)

#### SP236 Current, Millivolt Input

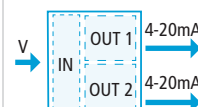


##### Input

- $\pm 1\text{mA}$ ,  $\pm 20\text{mA}$
- 0-20mA, 4-20mA
- 0-11.17mA (for AC sensor)
- 0-500mV
- $\pm 5\text{V}$

[See data sheet](#)

#### SP237 Process Voltage Input

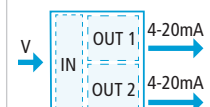


##### Input

- $\pm 1\text{V}$  DC
- $\pm 5\text{V}$  DC
- $\pm 10\text{V}$  DC

[See data sheet](#)

#### SP238 High Voltage Input

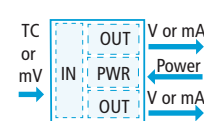


##### Input

- $\pm 15\text{V}$  DC
- 0-15V DC
- $\pm 150\text{V}$  /  $\pm 75\text{V}$  DC
- 0-150V
- 0-5V DC

[See data sheet](#)

#### SP333 Thermocouple, Millivolt Input

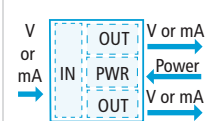


##### Input

- Type J,K,T,R,S,E,B,N thermocouple
- $\pm 100\text{mV}$

[See data sheet](#)

#### SP336 Current, Millivolt Input

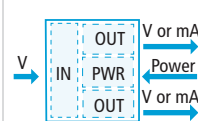


##### Input

- $\pm 1\text{mA}$ ,  $\pm 20\text{mA}$ ,  $\pm 500\text{mA}$
- 0-20mA, 4-20mA
- 0-11.17mA (for AC sensor)
- 0-500mV

[See data sheet](#)

#### SP337 Process Voltage Input

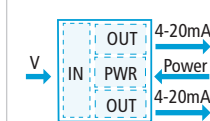


##### Input

- $\pm 1\text{V}$  DC
- $\pm 5\text{V}$  DC
- $\pm 10\text{V}$  DC

[See data sheet](#)

#### SP338 High Voltage Input



##### Input

- $\pm 15\text{V}$  DC
- $\pm 75\text{V}$  DC
- $\pm 150\text{V}$  DC

[See data sheet](#)

**Acromag**   
THE LEADER IN INDUSTRIAL I/O

# Signal Splitters: SP Series

## Key Features



IECEx



### Removable Terminal Blocks

Pluggable terminal blocks simplify wiring for easy installation and removal of modules.

### 2-wire, Loop-powered 4-wire, External-powered

SP230 Series: Power is received from the output loop (2-wire).

SP330 Series: 6-32V DC power connects (4-wire) on a terminal block, a rail bus, or both for redundancy.

### Scalable Current or Voltage Output

SP230 Series: Supports sink or source 4-20mA output

SP330 Series: Supports scalable current or voltage output ranges: 0-20mA, 4-20mA,  $\pm 5V$ ,  $\pm 10V$ , 0-5V, 0-10V

### Simple Configuration

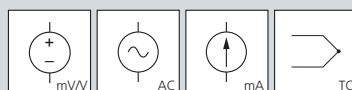
A USB connection to a Windows PC or Android device enables simple, precise configuration of I/O ranges and a variety of operational settings with free software.



### Space Saving

A strikingly thin enclosure, at only 17.5mm wide, to easily achieve high-density DIN-rail mounting.

### Input Options



### Rugged Design

Wide ambient temperature operation, shock and vibration-resistant, as well as CE and UL/cUL Class 1, Division 2, ATEX Zone 2 approved and IECEx certified.



IECEx





# Signal Splitters: SP Series



## General Operation and Performance Specifications



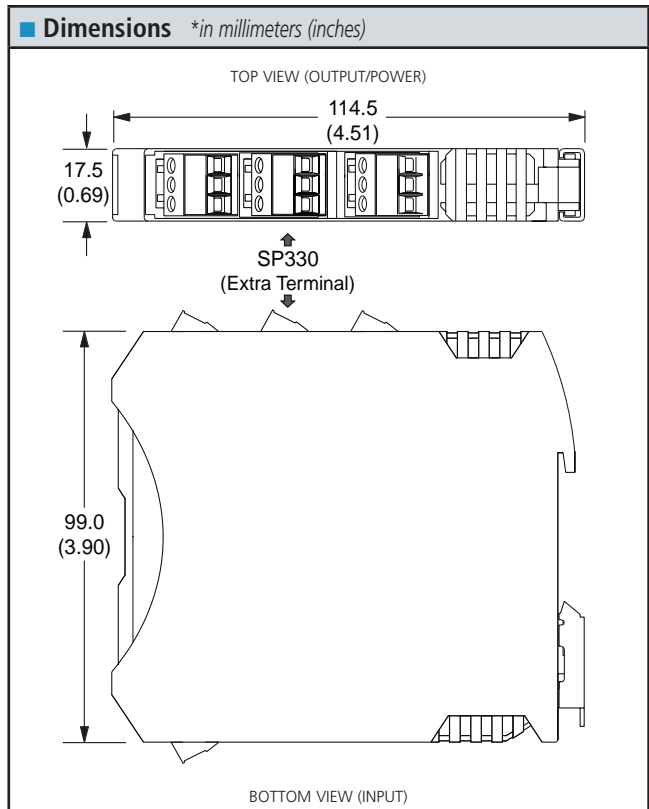
The following specifications are common to all SP Series splitter modules.

■ USB Interface	
USB Connector	USB Mini-B type socket, 5-pin.
USB Data Rate	12Mbps. USB v1.1 and 2.0 compatible.

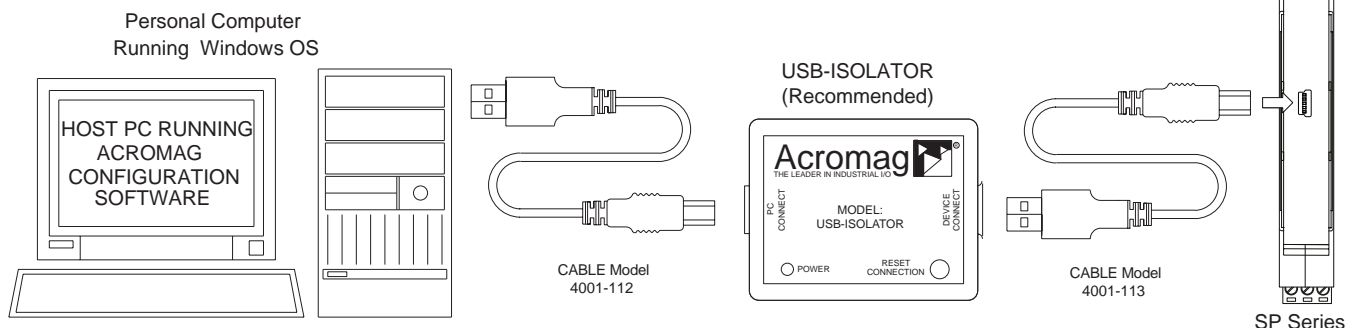
■ Output	
Output Ranges	0-20mA, 4-20mA, $\pm 10V$ , 0-10V.
Accuracy	$\pm 0.05\%$ of span typical, $\pm 1.0^\circ C$ , $\pm 0.1mV$ .

■ Environmental	
Operating Temperature	SP230 Series: $-40$ to $80^\circ C$ ( $-40^\circ$ to $176^\circ F$ ). SP330 Series: $-40$ to $75^\circ C$ ( $-40^\circ$ to $167^\circ F$ ).
Storage Temperature	$-40$ to $85^\circ C$ ( $-40$ to $185^\circ F$ ).
Relative Humidity	5 to 95% non-condensing.
Power Requirement	SP230 Series: 7-32V DC SELV (Safety Extra Low Voltage), 24mA max, loop power. SP330 Series: 6-32V DC external supply, 1.5W max.
Isolation	1500V AC peak. 250V AC (354V DC) continuous between input, output, and power circuits.
Shock and Vibration Immunity	Vibration: 4g, per IEC 60068-2-64. Shock: 25g, per IEC 60068-2-27.
Electromagnetic Compatibility (EMC) Compliance	Radiated Emissions: BS EN 61000-6-3, CISPR 16. RFI: BS EN 61000-6-1, IEC 61000-4-3. Conducted RFI: BS EN 61000-6-1, IEC 61000-4-6. ESD: BS EN 61000-6-1, IEC 61000-4-2. EFT: BS EN 61000-6-1, IEC 61000-4-4. Surge Immunity: BS EN 61000-6-1, IEC 61000-4-5
Approvals	CE compliant. UL/cUL listing. ATEX Certified. IECEx certification. Designed for Class I; Division 2; Groups ABCD; Zone 2.

■ Physical	
General	General-purpose enclosure designed for mounting on 35mm "T-type" DIN rail.
Case Material	Self-extinguishing polyamide, UL94 V-0 rated, color light gray. General-purpose NEMA Type 1 enclosure.
I/O Connectors	Removable plug-in terminal blocks rated for 12A/250V; AWG #26-12, stranded or solid copper wire.
Shipping Weight	0.5 pounds (0.22 Kg) packed.

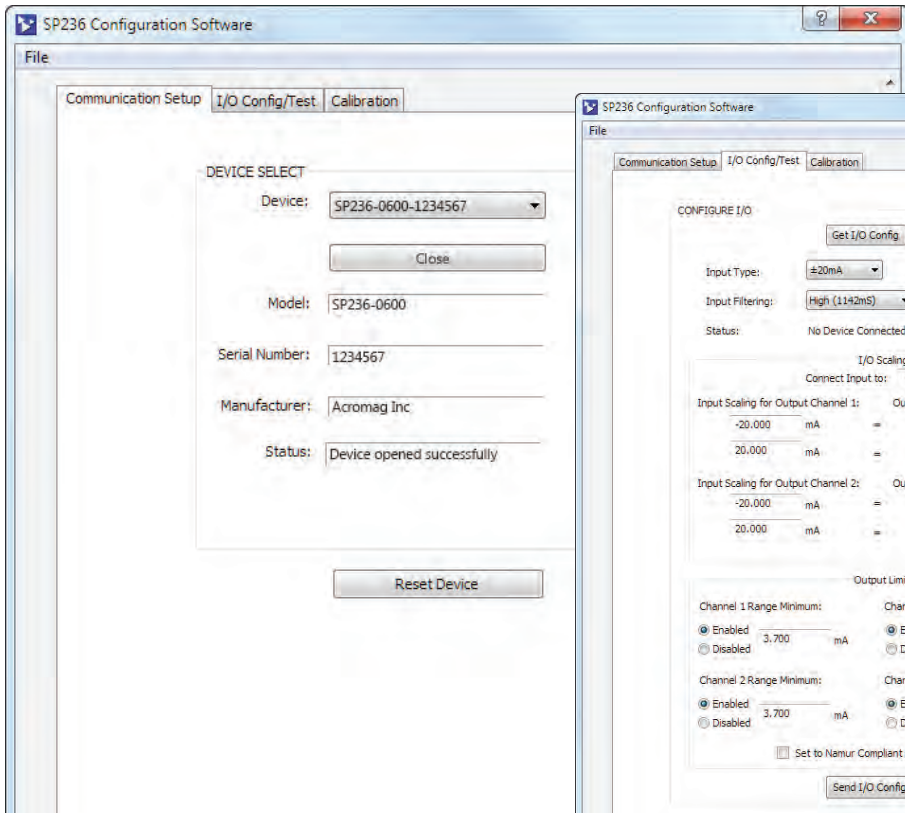


## SP Series USB Splitter Connections

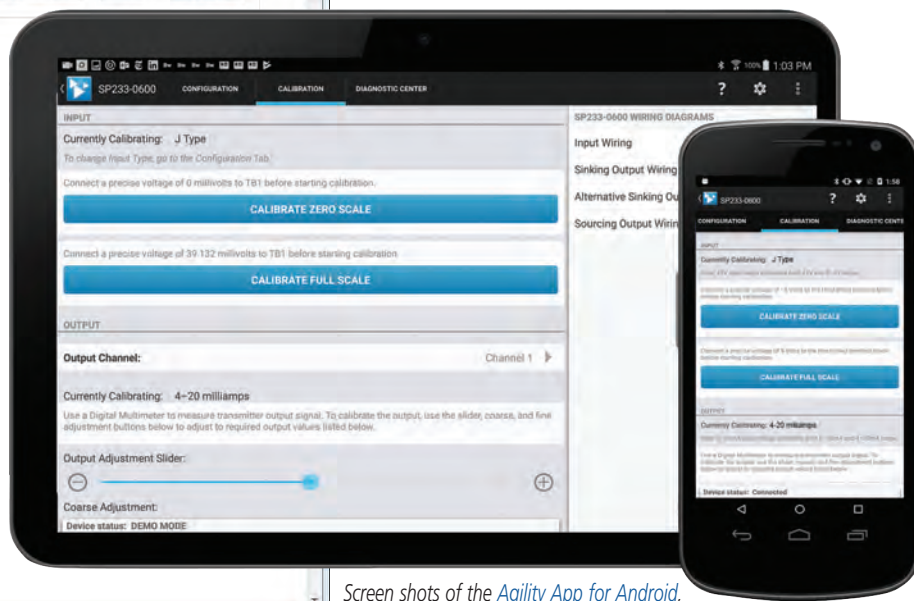
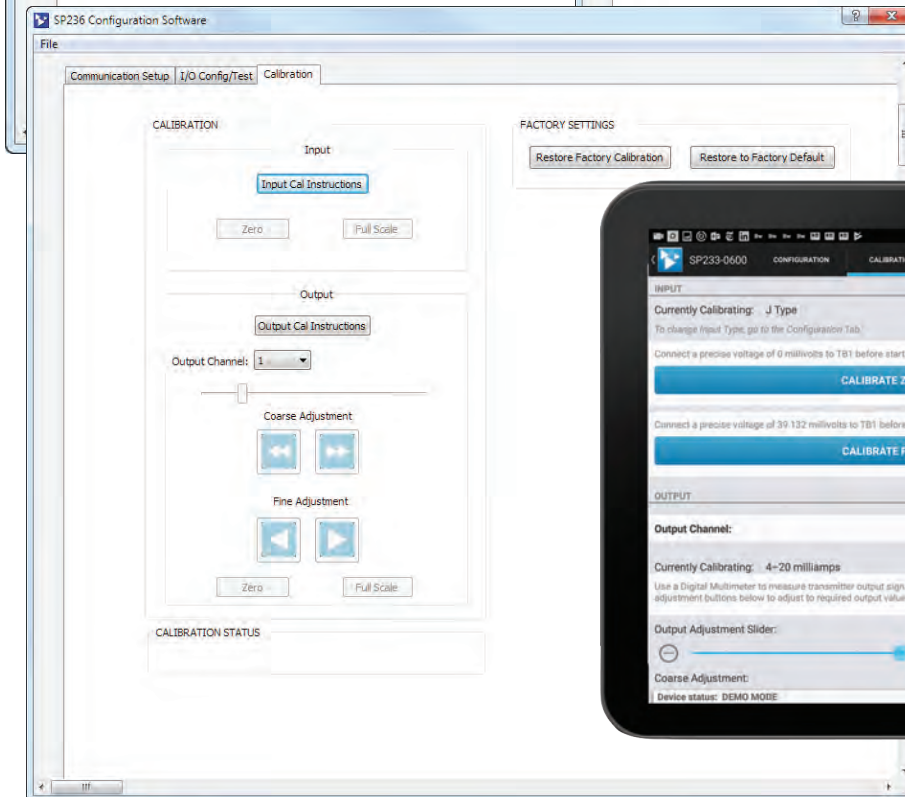


## Signal Splitters: SP Series

## Module Configuration



Screen shots of Windows-based splitter configuration software. Using simple pull-down menus and user-input, your splitter is ready for use in a snap.



Screen shots of the [Agility App for Android](#), allowing for mobile configuration in the field.

# Signal Splitters: SP Series



## Accessories



### ◆ Configuration Software



#### SP Series Configuration

Simple to use, whether you need the full software interface package (includes USB isolator and cables) or just the configuration software itself. Acromag makes it easy to get started.

#### Acromag Agility™ Config Tool

Easy to download, configuration tool mobile app for free download at the [Google Play Store](#).

### Ordering Information

#### [TTC-SIP](#)

Software Interface Package for Acromag SP/TT Series. Includes configuration software CD-ROM, USB-isolator and two USB cables (4001-112, 4001-113)

#### [SP230-Config/Cal](#), [SP330-Config/Cal](#)

Factory custom configuration/calibration service. Specify input type, input/output zero and full-scale values, filtering, and sensor fault settings on order.

### ◆ Bus-Kit



#### TT Bus-Kit

DIN rail bus power connector and left/right terminal blocks. One kit supports multiple SP Series Splitters or TT Series transmitters.

### Ordering Information

#### [TT BUS-Kit](#)

DIN rail bus power connector and left/right terminal blocks for SP or TT Series.

### ◆ Mounting Hardware



#### Din-Rail Mounting

For your convenience, Acromag offers several mounting accessories to simplify your system installation. Our 19" rack-mount kit provides a clean solution for mounting your I/O modules and a power supply. Or you can buy precut DIN rail strips for mounting on any flat surface.

### Ordering Information

#### [20RM-16-DIN](#)

19" rack-mount kit with DIN rail.

#### [DIN RAIL 3.0](#)

#### [DIN RAIL 16.7](#)

DIN rail strip, Type T, 3 inches (75mm) or 16.7 inches (425mm)

### ◆ Power Supplies



#### Universal Slimline Power Supplies

Input Power Requirement  
Universal Input (85-264V AC / 100-370V DC)  
Output  
10W, 15W, 30W, 60W, 90W, 120W, 240W

### Ordering Information

#### [PSSR-VB24](#)

Power supply, 15W, 0.65A at 24V DC

#### [PSSR-VD24](#)

Power supply, 60W, 2.5A at 24V DC

Visit [www.acromag.com](http://www.acromag.com) for additional models and more information.

### ◆ USB Isolator



#### USB-to-USB Isolator

This compact, industrial-grade isolator provides a high-voltage isolation barrier between a computer and a connected USB device; protecting equipment from electrical surges, transient voltage spikes, and ground loop currents.

### Ordering Information

#### [USB-Isolator](#)

USB isolator, includes USB cable (Part # 4001-112) for isolator-to-PC connection

### ◆ USB Cables



#### USB Cables

Cables for PC-to-USB isolator, USB isolator-to-transmitter connections, and mobile device-to-USB isolator-to-transmitter connections.

### Ordering Information

#### [4001-112](#)

USB Cable, Type A to Type B, 1 meter

#### [4001-113](#)

USB Cable, Type A to Mini-B, 1 meter

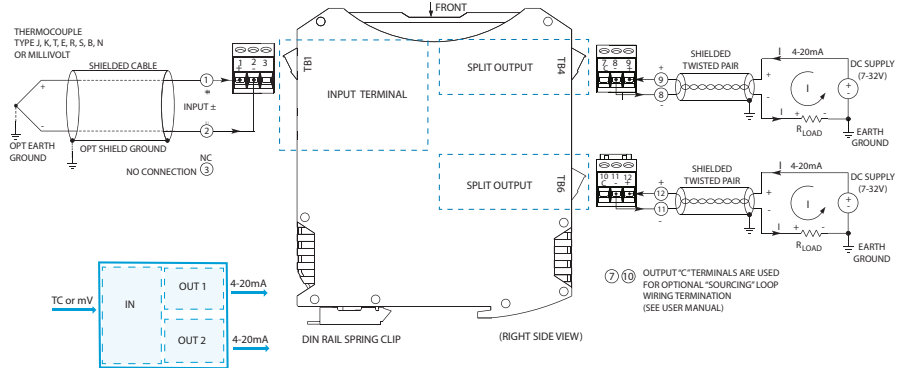
#### [5028-565](#)

USB Cable, USB OTG Cable, 6 inches



# Process Loop Splitter: SP230 Series

**SP233** Thermocouple/millivolt input signal splitter, two-wire



Universal thermocouple or  $\pm 100\text{mV}$  input ♦ 4-20mA outputs (sink/source) ♦ 7-32V DC loop/local power

## Description

The SP233 model is a high-performance signal splitter that converts one millivolt or thermocouple sensor input into two proportional isolated 4-20mA control signals. Power is received from one or both output loop currents.

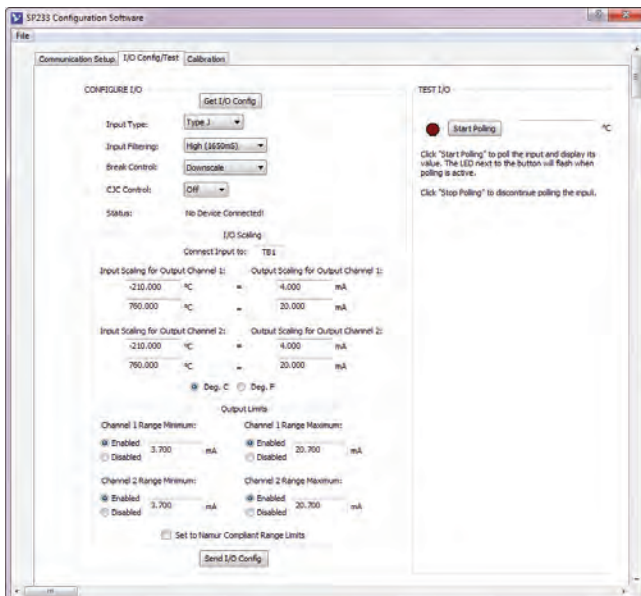
Setup is fast and easy with a USB connection to your PC and our Windows software. Acromag's Agility™ mobile app enables configuration on an Android smart phone or tablet. Software simplifies I/O range scaling, calibration, and advanced signal processing capabilities.

High-voltage isolation separates the input and between the output circuits. The isolation protects from surges, reduces noise, and eliminates ground loop errors.

These rugged instruments withstand harsh industrial environments to operate reliably across a wide temperature range with very low drift. They feature high immunity to RFI, EMI, ESD, and EFT, plus low radiated emissions.

## Key Features & Benefits

- Easy configuration via USB with Windows software or Agility app for Android
- Universal thermocouple or millivolt input (TC Type J, K, T, R, S, E, B, N or  $\pm 100\text{mV}$ )
- Input scales independently at each output
- User-selectable filtering (none, low, med, high)
- User-configurable output range clamp levels support NAMUR-compliant operation
- Supports reverse-acting (inverse) output
- Supports sink or source output wiring
- Very low 7V two-wire loop burden
- High accuracy, linearity, stability, and reliability
- 1500V isolation
- Space-saving 17.5mm (0.69 inch) design with pluggable terminals for easier wiring
- Shock (25g) and vibration (4g) resistant
- Wide ambient operation ( $-40$  to  $80^\circ\text{C}$ )
- CE compliant. UL/cUL Class I Div 2, ATEX / IECEx Zone 2 approvals.



Windows configuration software (FREE) at [www.acromag.com](http://www.acromag.com)

Android Agility™ app (FREE) at [Google Play Store](https://play.google.com/store/apps/details?id=com.acromag.agility)

Save configuration files for convenient copy/restore capability.

Tel 877-214-6267 ■ [sales@acromag.com](mailto:sales@acromag.com) ■ [www.acromag.com](http://www.acromag.com) ■ 30765 Wixom Rd, Wixom, MI 48393 USA





# Process Loop Splitter: SP230

## SP233 Thermocouple/millivolt input signal splitter, two-wire

### Performance Specifications

**IMPORTANT:** To prevent ground loop error between a grounded PC and a grounded input signal, Acromag strongly recommends use of a USB isolator like Acromag's USB-Isolator when configuring a SP230 Series transmitter.

#### ■ USB Interface

##### USB Connector

USB Mini-B type socket, 5-pin.

##### USB Data Rate

12Mbps. USB v1.1 and 2.0 compatible.

##### USB Transient Protection

Transient voltage suppression on power and data lines.

##### USB Cable Length

5.0 meters maximum.

##### Driver

Not required. Uses built-in Human Interface Device (HID) USB drivers of the Windows operating system.

#### ■ Input (Passive)

##### Default Configuration/Calibration

Input: TC J, -210 to 760°C, high filter, Break: up

Output: 4 to 20mA.

##### Input Ranges and Accuracy

Input	Range	Accuracy
TC J	-210 to 760°C (-346 to 1400°F)	±0.5°C
TC K	-200 to 1372°C (-328 to 2502°F)	±0.5°C
TC T	-260 to 400°C (-436 to 752°F)	±0.5°C
TC R	-50 to 1768°C (-58 to 3214°F)	±1.0°C
TC S	-50 to 1768°C (-58 to 3214°F)	±1.0°C
TC E	-200 to 1000°C (-328 to 1832°F)	±0.5°C
TC B	260 to 1820°C (500 to 3308°F)	±1.0°C
TC N	-230 to 1300°C (-382 to 2372°F)	±1.0°C
mV	-100 to 100mV	±0.1mV

Error includes the effects of repeatability, terminal point conformity, and linearization. Does not include CJC error.

##### Thermocouple Reference

##### (Cold Junction Compensation)

±0.2°C typical, ±0.5°C maximum at 25°C.

##### Ambient Temperature Effect

Better than ±80ppm/°C (±0.008%/°C).

##### Zero Scaling Adjust

0 to 95% of range, typical.

##### Full Scale Adjust

5 to 100% of full scale range, typical.

##### Lead Break (Sensor Burnout) Detection

Configurable for either upscale (24mA) or downscale (3.3mA) operation.

##### Input Over-Voltage Protection

Bipolar Transient Voltage Suppressors (TVS), 5.6V clamp level typical.

##### Resolution

Millivolt input: 0.0025% (1 part in 40,000)  
Thermocouple input: 0.1°C.

##### Input Filter

Selectable digital filtering settings (none, low, medium, high).

##### Input Filter Bandwidth

Normal mode plus digital filtering within the ADC. Bandwidth (-3dB) varies with digital filter setting from 4Hz without filtering to 0.33Hz with high filtering.

##### Noise Rejection (Common Mode, High Filter)

138dB @ 60Hz, typical with 100 ohm input unbalance.

#### ■ Output (Two Signals, Passive)

##### Output Range

4 to 20mA DC.

##### Output Compliance

$R_{LOAD} = (V_{SUPPLY} - 7V) / 0.020A$ .

$R_{LOAD} = 0$  to 850 ohms @ 24V DC.

##### Output Response Time (for step input change)

Time to reach 98% of final output value (typical)	
No filtering	21 milliseconds
Low filter	48 milliseconds
Medium filter	149 milliseconds
High filter	1138 milliseconds

#### ■ Environmental

##### Operating temperature

-40 to 80°C (-40° to 176°F).

##### Storage temperature

-40 to 85°C (-40 to 185°F).

##### Relative humidity

5 to 95% non-condensing.

##### Power Requirement

7-32V DC SELV (Safety Extra Low Voltage), 24mA max.

##### Isolation

1500V AC peak. 250V AC (354V DC) continuous isolation between input and output circuits.

##### Shock and Vibration Immunity

Vibration: 4g, per IEC 60068-2-64.

Shock: 25g, per IEC 60068-2-27.

##### Electromagnetic Compatibility (EMC) Compliance

Radiated Emissions: BS EN 61000-6-4, CISPR 16.

RFI: BS EN 61000-6-2, IEC 61000-4-3.

Conducted RFI: BS EN 61000-6-2, IEC 61000-4-6.

ESD: BS EN 61000-6-2, IEC 61000-4-2.

EFT: BS EN 61000-6-2, IEC 61000-4-4.

Surge Immunity: BS EN 61000-6-2, IEC 61000-4-5.

##### Approvals

CE compliant. Designed for UL/cUL Class I Division 2 Groups ABCD, ATEX/IECEx Zone 2.

#### ■ Physical

##### General

General-purpose enclosure designed for mounting on 35mm "T-type" DIN rail.

##### Case Material

Self-extinguishing polyamide, UL94 V-0 rated, color light gray. General-purpose NEMA Type 1 enclosure.

##### I/O Connectors

Removable plug-in terminal blocks rated for 12A/250V; AWG #26-12, stranded or solid copper wire.

##### Dimensions

17.5 x 114.5 x 99.0 mm (0.69 x 4.51 x 3.90 inches).

##### Shipping Weight

0.22 kg (0.5 pounds) packed.

### Ordering Information

#### Models

##### [SP233-0600](#)

Two-wire splitter, thermocouple/millivolt input.

#### Services

##### [SP230-Config/Cal](#)

Factory custom configuration/calibration service.

Specify input type, input/output zero and full-scale values, filtering, and sensor fault settings on order.

#### Software

##### [TTC-SIP](#) (recommend one kit per customer)

Windows Software Interface Package for Acromag SP Series signal splitters. Includes configuration software CD-ROM (5040-944), isolator (USB-ISOLATOR) and two USB cables (4001-112, 4001-113).

##### [Agility Mobile Application](#)

Software configuration software for an Android smart device. Download for free from the Google Play Store. Requires 5028-565 and 4001-113 cables.

#### Accessories

##### [USB-ISOLATOR](#)

USB-to-USB isolator, includes USB cable (4001-112).

##### [4001-112](#)

USB cable, 1 meter, with Type A to Type B plugs.

##### [4001-113](#)

USB cable, 1 meter, with Type A to Mini-B plugs.

##### [4001-252](#)

DIN rail end stop for hazloc approvals.

##### [5028-565](#)

USB-OTG 6 inch cable.

ISO9001  
AS9100



Tel 877-214-6267 ■ [sales@acromag.com](mailto:sales@acromag.com) ■ [www.acromag.com](http://www.acromag.com) ■ 30765 Wixom Rd, Wixom, MI 48393 USA

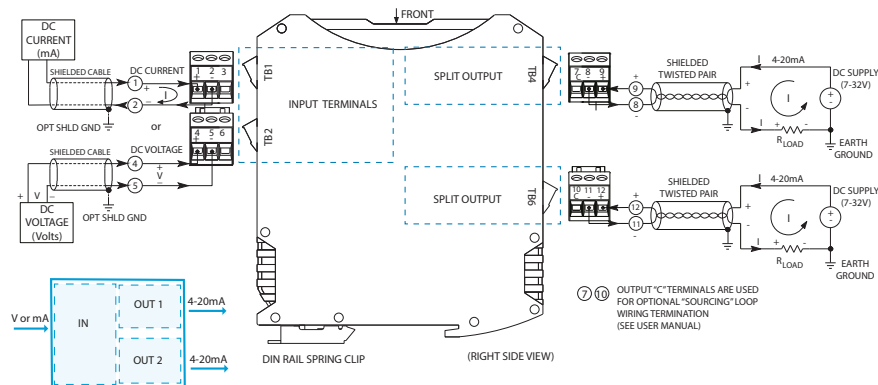


# Process Loop Splitter: SP230 Series

**SP236** Current/millivolt input signal splitter, two-wire



**USB  
Configured**



DC current and low voltage input ◆ 4-20mA outputs (sink/source) ◆ 7-32V DC loop power

## Description

The SP236 model is a high-performance signal splitter that converts one DC current or millivolt input into two isolated proportional 4-20mA control signals. Power is received from one or both output loop currents.

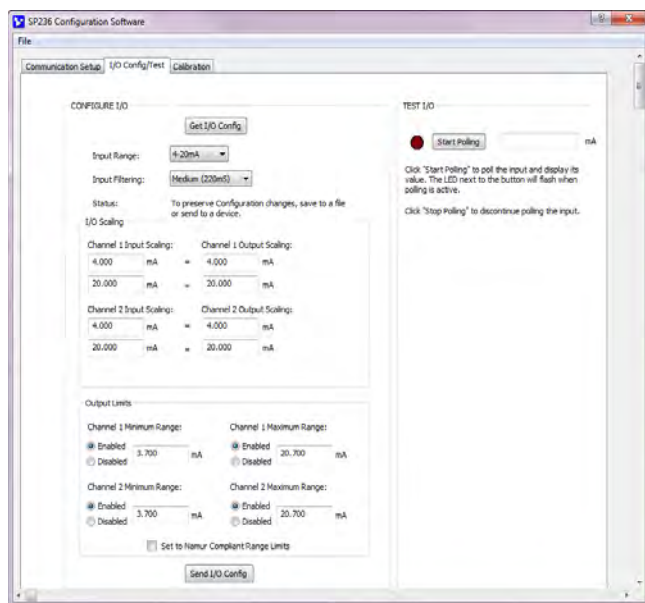
Setup is fast and easy with a USB connection to your PC and our Windows software. Acromag's Agility™ mobile app enables configuration on an Android smart phone or tablet. Software simplifies I/O range scaling, calibration, and advanced signal processing capabilities.

High-voltage isolation separates the input from each output circuit. The isolation protects from surges, reduces noise, and eliminates ground loop errors.

These rugged instruments withstand harsh industrial environments to operate reliably across a wide temperature range with very low drift. They feature high immunity to RFI, EMI, ESD, and EFT, plus low radiated emissions.

## Key Features & Benefits

- Easy configuration via USB with Windows software or Agility app for Android
- Single unit accepts input ranges up to  $\pm 500\text{mV}$ ,  $\pm 20\text{mA}$  DC, or 0-20A AC (with external sensor)
- Input scales independently at each output
- User-selectable filtering (none, low, med, high)
- User-configurable output range clamp levels support NAMUR-compliant operation
- Supports reverse-acting (inverse) output
- Supports sink or source output wiring
- Very low 7V two-wire loop burden
- High accuracy, linearity, stability, and reliability
- 1500V isolation
- Space-saving 17.5mm (0.69 inch) design with pluggable terminals for easier wiring
- Shock (25g) and vibration (4g) resistant
- Wide ambient operation (-40 to 80°C)
- CE compliant. UL/CUL Class I Div 2, ATEX / IECEx Zone 2 approvals.



Windows configuration software (FREE) at [www.acromag.com](http://www.acromag.com)

Android Agility™ app (FREE) at [Google Play Store](https://play.google.com/store/apps/details?id=com.acromag.agility)

Save configuration files for convenient copy/restore capability.

**Acromag** THE LEADER IN INDUSTRIAL I/O

Tel 877-214-6267 ■ sales@acromag.com ■ www.acromag.com ■ 30765 Wixom Rd, Wixom, MI 48393 USA



# Process Loop Splitter: SP230 Series

## SP236 Current/millivolt input signal splitter, two-wire

### Performance Specifications

**IMPORTANT:** To prevent ground loop error between a grounded PC and a grounded input signal, Acromag strongly recommends use of a USB isolator like Acromag's USB-Isolator when configuring a SP230 Series transmitter.

#### ■ USB Interface

##### USB Connector

USB Mini-B type socket, 5-pin.

##### USB Data Rate

12Mbps. USB v1.1 and 2.0 compatible.

##### USB Transient Protection

Transient voltage suppression on power and data lines.

##### USB Cable Length

5.0 meters maximum.

##### Driver

Not required. Uses built-in Human Interface Device (HID) USB drivers of the Windows operating system.

#### ■ Input (Passive)

##### Default Configuration/Calibration

Input: 4 to 20mA, medium filter

Output: 4 to 20mA

##### Input Ranges and Accuracy

Range	Accuracy (typical)
±20mA	±0.05% of span
0 to 20mA	±0.05% of span
4 to 20mA	±0.05% of span
0 to 11.17mA (for AC sensor)	±0.05% of span
±1mA	±0.05% of span
±0.5V	±0.05% of span
0 to 500mV	±0.05% of span

Error includes the effects of repeatability, terminal point conformity, and linearization.

##### Ambient Temperature Effect

Better than ±80ppm/°C (±0.008%/°C)

##### Zero Scaling Adjust

0 to 95% of range, typical

##### Full Scale Adjust

5 to 100% of full scale range, typical

##### Input Impedance

Current input: 24.9 ohms

Voltage input: 15M ohms

##### Input Over-Voltage Protection

Bipolar Transient Voltage Suppressors (TVS),

5.6V clamp level typical.

##### Input Resolution

Bipolar input: 1 part in 50000 (±25000).

Unipolar input: 1 part in 25000.

##### Input Filter

Selectable digital filtering settings (none, low, medium, high).

##### Input Filter Bandwidth

Normal mode plus digital filtering within the ADC. Bandwidth (-3dB) varies with digital filter setting from 4Hz without filtering to 0.33Hz with high filtering.

##### Noise Rejection (Common Mode, High Filter)

138dB @ 60Hz, typical with 100 ohm input unbalance.

#### ■ Output (Two Signals, Passive)

##### Output Range

Dual isolated 4 to 20mA DC.

##### Output Compliance

$R_{LOAD} = (V_{SUPPLY} - 7V) / 0.020A$ .

$R_{LOAD} = 0$  to 850 ohms @ 24V DC.

##### Output Response Time (for step input change)

Time to reach 98% of final output value (typical)	
No filter	17 milliseconds
Low filter	41 milliseconds
Medium filter	138 milliseconds
High filter	1142 milliseconds

#### ■ Environmental

##### Operating temperature

-40 to 80°C (-40° to 176°F)

##### Storage temperature

-40 to 85°C (-40 to 185°F)

##### Relative humidity

5 to 95% non-condensing

##### Power Requirement

Loop powered, 7-32V DC SELV (Safety Extra Low Voltage), 24mA max

##### Isolation

1500V AC peak. 250V AC (354V DC) continuous isolation between input and output circuits.

##### Shock and Vibration Immunity

Vibration: 4g, per IEC 60068-2-64

Shock: 25g, per IEC 60068-2-27

##### Electromagnetic Compatibility (EMC) Compliance

Radiated Emissions: BS EN 61000-6-4, CISPR 16

RFI: BS EN 61000-6-2, IEC 61000-4-3

Conducted RFI: BS EN 61000-6-2, IEC 61000-4-6

ESD: BS EN 61000-6-2, IEC 61000-4-2

EFT: BS EN 61000-6-2, IEC 61000-4-4

Surge Immunity: BS EN 61000-6-2, IEC 61000-4-5

##### Approvals

CE compliant. Designed for UL/cUL Class I Division 2 Groups ABCD, ATEX / IECEx Zone 2.

#### ■ Physical

##### General

General-purpose enclosure designed for mounting on 35mm "T-type" DIN rail.

##### Case Material

Self-extinguishing polyamide, UL94 V-0 rated, color light gray. General-purpose NEMA Type 1 enclosure.

##### I/O Connectors

Removable plug-in terminal blocks rated for 12A/250V; AWG #26-12, stranded or solid copper wire.

##### Dimensions

17.5 x 114.5 x 99.0 mm (0.69 x 4.51 x 3.90 inches).

##### Shipping Weight

0.22 kg (0.5 pounds) packed.

### Ordering Information

#### Models

##### [SP236-0600](#)

Two-wire splitter, current/millivolt input.

#### Services

##### [SP230-Config/Cal](#)

Factory custom configuration/calibration service.

Specify input type, input/output zero and full-scale values, filtering, and sensor fault settings on order.

#### Software

##### [TTC-SIP](#) (recommend one kit per customer)

Windows Software Interface Package for Acromag SP Series signal splitters. Includes configuration software CD-ROM (5040-944), isolator (USB-ISOLATOR) and two USB cables (4001-112, 4001-113).

##### [Agility Mobile Application](#)

Software configuration software for an Android smart device. Download for free from the Google Play Store. Requires 5028-565 and 4001-113 cables

#### Accessories

##### [USB-Isolator](#)

USB-to-USB isolator, includes USB cable (4001-112)

##### [4001-112](#)

USB cable, 1 meter, with Type A to Type B plugs

##### [4001-113](#)

USB cable, 1 meter, with Type A to Mini-B plugs

##### [4001-252](#)

DIN rail end stop for hazloc approvals

##### [5020-350](#)

AC current sensor (toroidal transformer); converts 0-20A AC to 0-11.17mA DC

##### [5028-565](#)

USB-OTG 6 inch cable

ISO9001  
AS9100



Tel 877-214-6267 ■ sales@acromag.com ■ www.acromag.com ■ 30765 Wixom Rd, Wixom, MI 48393 USA

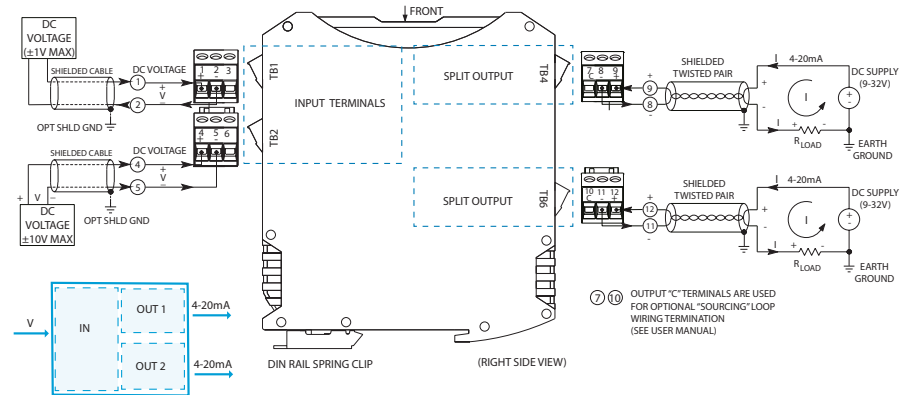


# Process Loop Splitter: SP230 Series

**SP237** Process voltage input signal splitter, two-wire



**USB  
Configured**



Multi-range  $\pm 1V$ ,  $\pm 5V$ , or  $\pm 10V$  input 4-20mA outputs (sink/source) 7-32V DC loop power

## Description

The SP237 model is a high-performance signal splitter that converts one process-level DC voltage input into two proportional isolated 4-20mA control signals. Power is received from one or both output loop currents.

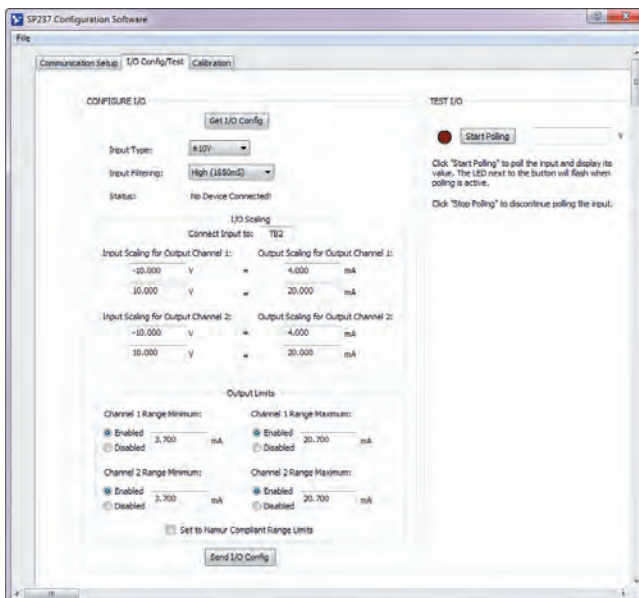
Setup is fast and easy with a USB connection to your PC and our Windows software. Acromag's Agility™ mobile app enables configuration on an Android smart phone or tablet. Software simplifies I/O range scaling, calibration, and advanced signal processing capabilities.

High-voltage isolation separates the input and between the output circuits. The isolation protects from surges, reduces noise, and eliminates ground loop errors.

These rugged instruments withstand harsh industrial environments to operate reliably across a wide temperature range with very low drift. They feature high immunity to RFI, EMI, ESD, and EFT, plus low radiated emissions.

## Key Features & Benefits

- Easy configuration via USB with Windows software or Agility app for Android
- Single unit accepts  $\pm 1V$ ,  $\pm 5V$ , and  $\pm 10V$  DC input ranges
- Input scales independently at each output
- User-selectable filtering (none, low, med, high)
- User-configurable output range clamp levels support NAMUR-compliant operation
- Supports reverse-acting (inverse) output
- Supports sink or source output wiring
- Very low 7V two-wire loop burden
- High accuracy, linearity, stability, and reliability
- 1500V isolation
- Space-saving 17.5mm (0.69 inch) design with pluggable terminals for easier wiring
- Shock (25g) and vibration (4g) resistant
- Wide ambient operation ( $-40$  to  $80^{\circ}C$ )
- CE compliant. UL/cUL Class I Div 2, ATEX / IECEx Zone 2 approvals.



Windows configuration software (FREE) at [www.acromag.com](http://www.acromag.com)

Android Agility™ app (FREE) at [Google Play Store](https://play.google.com/store/apps/details?id=com.acromag.agility)

Save configuration files for convenient copy/restore capability.

**Acromag** THE LEADER IN INDUSTRIAL I/O

Tel 877-214-6267 ■ [sales@acromag.com](mailto:sales@acromag.com) ■ [www.acromag.com](http://www.acromag.com) ■ 30765 Wixom Rd, Wixom, MI 48393 USA





# Process Loop Splitter: SP230 Series

## SP237 Process voltage input signal splitter, two-wire

### Performance Specifications

**IMPORTANT:** To prevent ground loop error between a grounded PC and a grounded input signal, Acromag strongly recommends use of a USB isolator like Acromag's USB-Isolator when configuring a SP230 Series transmitter.

#### ■ USB Interface

##### USB Connector

USB Mini-B type socket, 5-pin

##### USB Data Rate

12Mbps. USB v1.1 and 2.0 compatible

##### USB Transient Protection

Transient voltage suppression on power and data lines.

##### USB Cable Length

5.0 meters maximum

##### Driver

Not required. Uses built-in Human Interface Device (HID) USB drivers of the Windows operating system.

#### ■ Input

##### Default Configuration/Calibration

Input:  $\pm 10V$  DC, medium filtering.

Output: 4 to 20mA.

##### Input Ranges and Accuracy

Range	Accuracy (typical)
$\pm 1V$ DC	$\pm 0.05\%$ of span
$\pm 5V$ DC	$\pm 0.05\%$ of span
$\pm 10V$ DC	$\pm 0.05\%$ of span

Error includes the effects of repeatability, terminal point conformity, and linearization.

##### Ambient Temperature Effect

Better than  $\pm 80\text{ppm}/^\circ\text{C}$  ( $\pm 0.008\%/^\circ\text{C}$ )

##### Zero Scaling Adjust

0 to 95% of range, typical

##### Full Scale Adjust

5 to 100% of full scale range, typical

##### Input Impedance

$\pm 1V$  input: 15M ohms

$\pm 5V$  input: >1M ohms

$\pm 10V$  input: >1M ohms

##### Input Over-Voltage Protection

Bipolar Transient Voltage Suppressors (TVS),

14V working and 18V clamp level typical.

##### Input Resolution

Bipolar input: 1 part in 50000 ( $\pm 25000$ )

Unipolar input: 1 part in 25000

##### Input Filter

Selectable digital filtering settings (low, medium, high)

##### Input Filter Bandwidth

Normal mode plus digital filtering within the ADC. Bandwidth (-3dB) varies with digital filter setting from 4Hz without filtering to 0.33Hz with high filtering.

##### Noise Rejection (Common Mode, High Filter)

138dB @ 60Hz, typical with 100 ohm input unbalance.

#### ■ Output

##### Output Range

4 to 20mA DC

##### Output Compliance

$R_{LOAD} = (V_{SUPPLY} - 11V) / 0.020A$ .

$R_{LOAD} = 0$  to 850 ohms @ 24V DC.

##### Output Response Time (for step input change)

Time to reach 98% of final output value (typical)	
No filter	13 milliseconds
Low filter	34 milliseconds
Medium filter	133 milliseconds
High filter	956 milliseconds

#### ■ Environmental

##### Operating temperature

-40 to 80°C (-40° to 176°F)

##### Storage temperature

-40 to 85°C (-40 to 185°F)

##### Relative humidity

5 to 95% non-condensing

##### Power Requirement

7-32V DC SELV (Safety Extra Low Voltage), 24mA max.

##### Isolation

1500V AC peak. 250V AC (354V DC) continuous isolation between input and output circuits.

##### Shock and Vibration Immunity

Vibration: 4g, per IEC 60068-2-64.

Shock: 25g, per IEC 60068-2-27

##### Electromagnetic Compatibility (EMC) Compliance

Radiated Emissions: BS EN 61000-6-4, CISPR 16

RFI: BS EN 61000-6-2, IEC 61000-4-3

Conducted RFI: BS EN 61000-6-2, IEC 61000-4-6

ESD: BS EN 61000-6-2, IEC 61000-4-2

EFT: BS EN 61000-6-2, IEC 61000-4-4

Surge Immunity: BS EN 61000-6-2, IEC 61000-4-5

##### Approvals

CE compliant. Designed for UL/cUL Class I Division 2 Groups ABCD, ATEX / IECEx Zone 2.

#### ■ Physical

##### General

General-purpose enclosure designed for mounting on 35mm "T-type" DIN rail.

##### Case Material

Self-extinguishing polyamide, UL94 V-0 rated, color light gray. General-purpose NEMA Type 1 enclosure.

##### I/O Connectors

Removable plug-in terminal blocks rated for 12A/250V; AWG #26-12, stranded or solid copper wire.

##### Dimensions

17.5 x 114.5 x 99.0 mm (0.69 x 4.51 x 3.90 inches)

##### Shipping Weight

0.22 kg (0.5 pounds) packed

### Ordering Information

#### Models

[SP237-0600](#)

Two-wire splitter, process voltage input

#### Services

[SP230-Config/Cal](#)

Factory custom configuration/calibration service.

Specify input type, input/output zero and full-scale values, filtering, and sensor fault settings on order.

#### Software

[TTC-SIP](#) (recommend one kit per customer)

Windows Software Interface Package for Acromag SP Series signal splitters. Includes configuration software CD-ROM (5040-944), isolator (USB-ISOLATOR) and two USB cables (4001-112, 4001-113).

[Agility Mobile Application](#)

Software configuration software for an Android smart device. Download for free from the Google Play Store. Requires 5028-565 and 4001-113 cables

#### Accessories

[USB-Isolator](#)

USB-to-USB isolator, includes USB cable (4001-112)

[4001-112](#)

USB cable, 1 meter, with Type A to Type B plugs

[4001-113](#)

USB cable, 1 meter, with Type A to Mini-B plugs

[4001-252](#)

DIN rail end stop for hazloc approvals

[5028-565](#)

USB-OTG 6 inch cable

ISO9001  
AS9100



Tel 877-214-6267 ■ sales@acromag.com ■ www.acromag.com ■ 30765 Wixom Rd, Wixom, MI 48393 USA

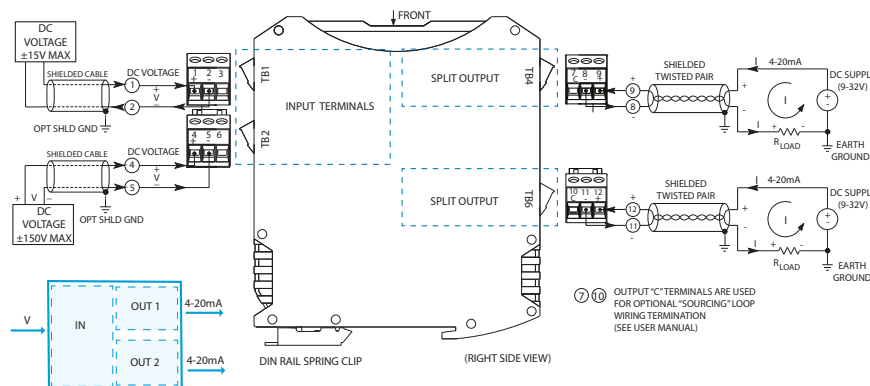


# Process Loop Splitter: SP230 Series

**SP238** High voltage input signal splitter, two-wire



**USB  
Configured**



Multi-range  $\pm 15V$ ,  $\pm 75V$ , or  $\pm 150V$  input ♦ 4-20mA outputs (sink/source) ♦ 7-32V DC loop/local power

## Description

The SP238 model is a high-performance signal splitter that converts one high-level DC voltage input into two proportional isolated 4-20mA control signals. power is received from one or both output loop currents.

Setup is fast and easy with a USB connection to your PC and our Windows software. Acromag's Agility™ mobile app enables configuration on an Android smart phone or tablet. Software simplifies I/O range scaling, calibration, and advanced signal processing capabilities.

High-voltage isolation separates the input and between the output circuits. The isolation protects from surges, reduces noise, and eliminates ground loop errors.

These rugged instruments withstand harsh industrial environments to operate reliably across a wide temperature range with very low drift. They feature high immunity to RFI, EMI, ESD, and EFT, plus low radiated emissions.

## Key Features & Benefits

- Easy configuration via USB with Windows software or Agility app for Android
- Single unit accepts  $\pm 15V$ ,  $\pm 75V$ , and  $\pm 150V$  DC input ranges
- Input scales independently at each output
- User-selectable filtering (none, low, med, high)
- User-configurable output range clamp levels support NAMUR-compliant operation
- Supports reverse-acting (inverse) output
- Supports sink or source output wiring
- Very low 7V two-wire loop burden
- High accuracy, linearity, stability, and reliability
- 1500V isolation
- Space-saving 17.5mm (0.69 inch) design with pluggable terminals for easier wiring
- Shock (25g) and vibration (4g) resistant
- Wide ambient operation (-40 to 80°C)
- CE compliant. UL/CUL Class I Div 2, ATEX / IECEx Zone 2 approvals.



Windows configuration software (FREE) at [www.acromag.com](http://www.acromag.com)

Android Agility™ app (FREE) at [Google Play Store](https://play.google.com/store/apps/details?id=com.acromag.agility)

Save configuration files for convenient copy/restore capability.

**Acromag** THE LEADER IN INDUSTRIAL I/O

Tel 877-214-6267 ■ sales@acromag.com ■ www.acromag.com ■ 30765 Wixom Rd, Wixom, MI 48393 USA



# Process Loop Splitter: SP230

## SP238 High voltage input signal splitter, two-wire

### Performance Specifications

**IMPORTANT:** To prevent ground loop error between a grounded PC and a grounded input signal, Acromag strongly recommends use of a USB isolator like Acromag's USB-Isolator when configuring a SP230 Series transmitter.

#### ■ USB Interface

##### USB Connector

USB Mini-B type socket, 5-pin.

##### USB Data Rate

12Mbps. USB v1.1 and 2.0 compatible.

##### USB Transient Protection

Transient voltage suppression on power and data lines.

##### USB Cable Length

5.0 meters maximum.

##### Driver

Not required. Uses built-in Human Interface Device (HID) USB drivers of the Windows operating system.

#### ■ Input (Passive)

##### Default Configuration/Calibration

Input:  $\pm 150V$ , medium filtering.

Output: 4 to 20mA.

##### Input Ranges and Accuracy

Range	Accuracy (typical)
$\pm 15V$ DC	$\pm 0.05\%$ of span
0-15V DC	$\pm 0.05\%$ of span
$\pm 150V$ / $\pm 75$ DC	$\pm 0.05\%$ of span
0-150V	$\pm 0.05\%$ of span
0-5V DC	$\pm 0.05\%$ of span

Error includes the effects of repeatability, terminal point conformity, and linearization.

##### Ambient Temperature Effect

Better than  $\pm 80\text{ppm}/^{\circ}\text{C}$  ( $\pm 0.008\%/^{\circ}\text{C}$ ).

##### Zero Scaling Adjust

0 to 95% of range, typical.

##### Full Scale Adjust

5 to 100% of full scale range, typical.

##### Input Impedance

Greater than 1M ohms.

##### Input Over-Voltage Protection

Bipolar Transient Voltage Suppressors (TVS), 220V working typical.

##### Input Resolution

Bipolar input: 1 part in 50000 ( $\pm 25000$ ).

Unipolar input: 1 part in 25000.

##### Input Filter

Selectable digital filtering settings (none, low, medium, high).

##### Input Filter Bandwidth

Normal mode plus digital filtering within the ADC. Bandwidth (-3dB) varies with digital filter setting from 4Hz without filtering to 0.33Hz with high filtering.

##### Noise Rejection (Common Mode, High Filter)

138dB @ 60Hz, typical with 100 ohm input unbalance.

#### ■ Output (Two Signals, Passive)

##### Output Range

4 to 20mA DC.

##### Output Compliance

$R_{LOAD} = (V_{SUPPLY} - 7V) / 0.020A$ .

$R_{LOAD} = 0$  to 850 ohms @ 24V DC.

##### Output Response Time (for step input change)

Time to reach 98% of final output value (typical)	
No filter	88 milliseconds
Low filter	100 milliseconds
Medium filter	237 milliseconds
High filter	1762 milliseconds

#### ■ Environmental

##### Operating temperature

-40 to 80°C (-40° to 176°F)

##### Storage temperature

-40 to 85°C (-40 to 185°F)

##### Relative humidity

5 to 95% non-condensing.

##### Power Requirement

7-32V DC SELV (Safety Extra Low Voltage), 24mA max.

##### Isolation

1500V AC peak. 250V AC (354V DC) continuous isolation between input and output circuits.

##### Shock and Vibration Immunity

Vibration: 4g, per IEC 60068-2-64

Shock: 25g, per IEC 60068-2-27

##### Electromagnetic Compatibility (EMC) Compliance

Radiated Emissions: BS EN 61000-6-4, CISPR 16

RFI: BS EN 61000-6-2, IEC 61000-4-3

Conducted RFI: BS EN 61000-6-2, IEC 61000-4-6

ESD: BS EN 61000-6-2, IEC 61000-4-2

EFT: BS EN 61000-6-2, IEC 61000-4-4

Surge Immunity: BS EN 61000-6-2, IEC 61000-4-5

##### Approvals

CE compliant. Designed for UL/cUL Class I Division 2 Groups ABCD, ATEX / IECEx Zone 2.

#### ■ Physical

##### General

General-purpose enclosure designed for mounting on 35mm "T-type" DIN rail.

##### Case Material

Self-extinguishing polyamide, UL94 V-0 rated, color light gray. General-purpose NEMA Type 1 enclosure.

##### I/O Connectors

Removable plug-in terminal blocks rated for 12A/250V; AWG #26-12, stranded or solid copper wire.

##### Dimensions

17.5 x 114.5 x 99.0 mm (0.69 x 4.51 x 3.90 inches).

##### Shipping Weight

0.22 kg (0.5 pounds) packed.

### Ordering Information

#### Models

##### [SP238-0600](#)

Two-wire splitter, high voltage input.

#### Services

##### [SP230-Config/Cal](#)

Factory custom configuration/calibration service.

Specify input type, input/output zero and full-scale values, filtering, and sensor fault settings on order.

#### Software

##### [TTC-SIP](#) (recommend one kit per customer)

Windows Software Interface Package for Acromag SP Series signal splitters. Includes configuration software CD-ROM (5040-944), isolator (USB-ISOLATOR) and two USB cables (4001-112, 4001-113).

##### [Agility Mobile Application](#)

Software configuration software for an Android smart device. Download for free from the Google Play Store. Requires 5028-565 and 4001-113 cables

#### Accessories

##### [USB-Isolator](#)

USB-to-USB isolator, includes USB cable (4001-112)

##### [4001-112](#)

USB cable, 1 meter, with Type A to Type B plugs

##### [4001-113](#)

USB cable, 1 meter, with Type A to Mini-B plugs

##### [4001-252](#)

DIN rail end stop for hazloc approvals

##### [5028-565](#)

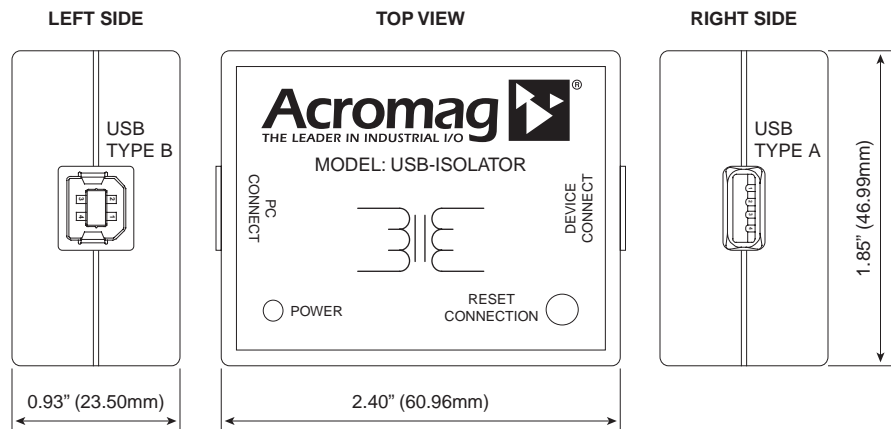
USB-OTG 6 inch cable

ISO9001  
AS9100



Tel 877-214-6267 ■ [sales@acromag.com](mailto:sales@acromag.com) ■ [www.acromag.com](http://www.acromag.com) ■ 30765 Wixom Rd, Wixom, MI 48393 USA

## USB-ISOLATOR USB-to-USB Isolator



USB-powered, USB 2.0 and 1.1 compatible ♦ 1500V AC / 2100V DC isolation ♦ No drivers required

### Description

This compact, industrial-grade isolator provides a high-voltage isolation barrier between a computer and a connected USB device. The isolation protects equipment from electrical surges and transient voltage spikes. It also eliminates ground loop currents flowing between the PC and peripherals which can cause damage and inaccurate measurements. Additionally, isolation minimizes conducted noise from static discharge, magnetic fields, and radio frequency interference.

Acromag's USB isolator is very easy to use. The isolator inserts in-line with the USB connection and operates transparently. No special software drivers are required. The unit receives power from the PC's USB port and isolates that power to the connected device. High noise immunity and low radiated emissions ensure reliable data transfer in sensitive applications.

A number of high-performance features help provide convenient and dependable operation. The green LED indicates that power is being received and blinks if the connected device draws too much current. An internal jumper lets you switch from Full Speed (12 Mbps) to Low Speed (1.5 Mbps) communication. The reset button offers a simple way to reinitialize a connected device without breaking the cable connection. High-retention USB sockets keep cables securely attached under shock and vibration.

### Key Features & Benefits

- Isolates and protects a USB peripheral from a USB host
- Electrical isolation up to 1500V AC / 2100V DC
- Common mode filtering on all data lines
- Built-in surge/transient suppression up to 8kV on all ports
- Self-powered through the USB port
- Supports USB 2.0 full speed (12 Mbps) and USB 1.1 low speed (1.5 Mbps) data rates with jumper-selection
- LED for power indication and diagnostics
- Reset button to reinitialize and re-enumerate peripheral devices
- Output short circuit protection with auto-retry
- No software or configuration required (transparent operation)
- Uses standard high-retention USB Type A/B cable connections (includes 1m cable)
- Compact size and rugged design for harsh environments
- Wide ambient temperature operation -40 to 70°C (-40 to 158°F)
- CE, FCC, UL/cUL approvals

### Ordering Information

#### Models

[Go to on-line ordering page >](#)

#### USB-ISOLATOR

USB isolator, includes USB cable (Part # 4001-112) for isolator-to-PC connection.

#### TTC-SIP

CD-ROM (Part #5040-944), USB isolator and two USB cables (Part # 4001-112, 4001-113) for configuration of Acromag DT, TT and ST Series Transmitters, and SP and uBSP Series Signal Splitters.

#### Accessories

##### 4001-112

USB cable, 1 meter, with Type A to Type B plugs.

##### 4001-113

USB cable, 1 meter, with Type A to Mini-B plugs.



Tel 877-214-6267 ■ sales@acromag.com ■ www.acromag.com ■ 30765 Wixom Rd, Wixom, MI 48393 USA





# Accessories

## USB-ISOLATOR USB-to-USB Isolator



### Performance Specifications

#### ■ USB Port Interface

##### Standards

USB 1.1 and 2.0 compatible, full speed (12Mbps, default) and low speed (1.5Mbps) data rates supported. For low speed data rates, an internal jumper is provided for user setting. Connection is transparent, no software or configuration is required. Isolator will not be enumerated in the device manager.

#### ■ Physical

##### Dimensions

2.40" Length x 1.85" Wide x 0.925" High  
(60.96mm x 46.99mm x 23.495mm).

##### Connectors

Standard high retention USB A/B connectors with minimum withdrawal force of 15 Newtons. 1 meter A/B cable included.

##### PC Connector

USB Type B receptacle

##### Device Connector

USB Type A receptacle

##### LED Indicator

Green LED indicates isolator receiving 5V power from the USB computer bus. Flashing indicates short circuit/ retries on peripheral side.

##### Reset Button

Resets the connection to the USB peripheral device for reinitialization and re-enumeration.

##### Enclosure Material

ABS Resin, UL94 rated, IP30 plastic case.

#### ■ Environmental

##### Operating temperature

-40 to 70°C (-40° to 158°F).

##### Storage temperature

-40 to 85°C (-40 to 185°F).

##### Relative humidity

5 to 95% non-condensing.

##### Power

PC Connect Side: Standard USB bus power (5V DC).

Device Connect Side: 5V DC / 120mA with full power connection from PC. Includes over-current protection with auto-retry.

##### Isolation

1500V AC / 2100V DC peak isolation.

250V AC continuous safety isolation.

##### Agency Approvals:

CE and FCC compliant. UL/cUL Class 1 Div. 2 Zone 2.

##### Radiated Field Immunity (RFI)

Designed to comply with IEC1000-4-3 Level 3 and EN50082-1.

##### Electromagnetic Compatibility (EMC)

Minimum immunity per EN61000-6-2:2001

##### Electrostatic Discharge (ESD) Immunity

Per IEC61000-4-2.

##### Radiated Field Immunity (RFI)

Per IEC61000-4-3.

##### Electrical Fast Transient Immunity (EFT)

Per IEC61000-4-4. Complies with IEC1000-4-4 Level 3 and EN50082-1.

##### Surge Immunity

Complies with IEC1000-4-5 Level 3 and EN50082-1.

Per IEC61000-4-5.

##### Conducted RF Immunity (CRFI)

Per IEC61000-4-6.

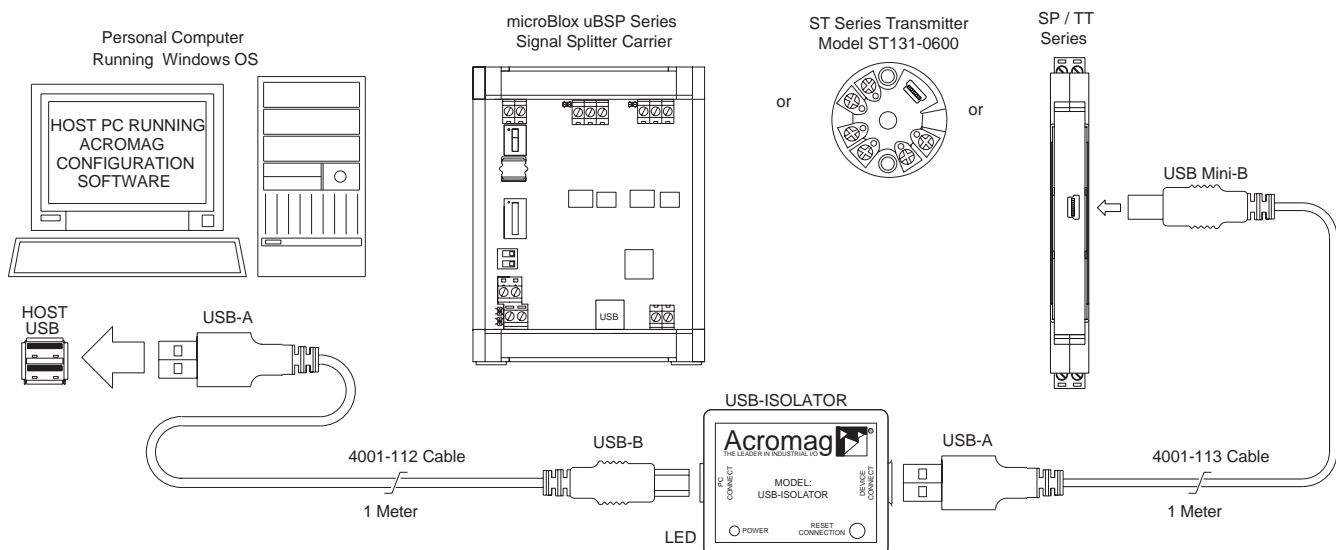
##### Emissions

Per EN61000-6-4:2001.

##### Radiated Frequency Emissions

Per CISPR11 Class A. Meets or exceeds EN50081-1 for Class B equipment.

### Example USB Connections (TT Series, SP Series, uBSP Series, or ST Series)



ISO9001  
AS9100  
  
MADE IN USA

**Acromag**  
THE LEADER IN INDUSTRIAL I/O


Tel 877-214-6267 ■ sales@acromag.com ■ www.acromag.com ■ 30765 Wixom Rd, Wixom, MI 48393 USA

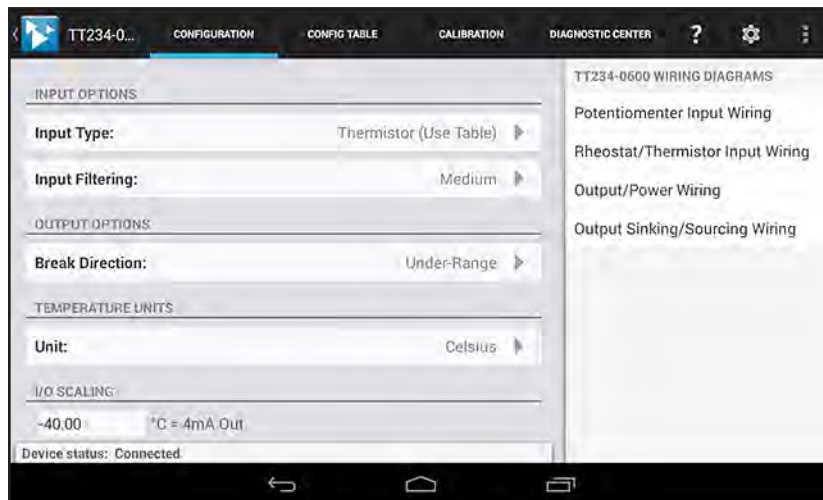
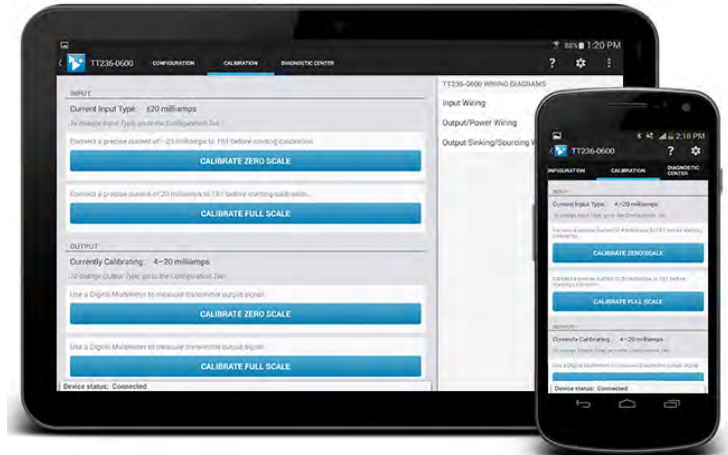
# Software Support: Agility Config

## Acromag Agility™ Config Tool Mobile Application

The Agility™ Config Tool is a mobile application that allows easy setup and configuration of Acromag DT and TT Series transmitters and SP Series signal splitters via a tethered mobile device.

This free app is available for Android devices at the Google Play store at [Acromag Agility™ Config Tool](#).

Demo the software, no need for a module.  
To enter demo mode simply tap the  icon in the upper left corner 8 times.



With a couple of taps, quickly configure input, output, unit and scaling options.

