

Monitoring and Control Solutions

SP330 Series Brochure

DIN-Rail Mount

Easy Configuration

Slim Design



Space-Saving 2/4-Wire Isolated Signal 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.















Compliant



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

SP Series Thin 2/4-Wire Splitters







⟨Ex⟩ ∰ IECEx C € (Rohs 24) ??

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

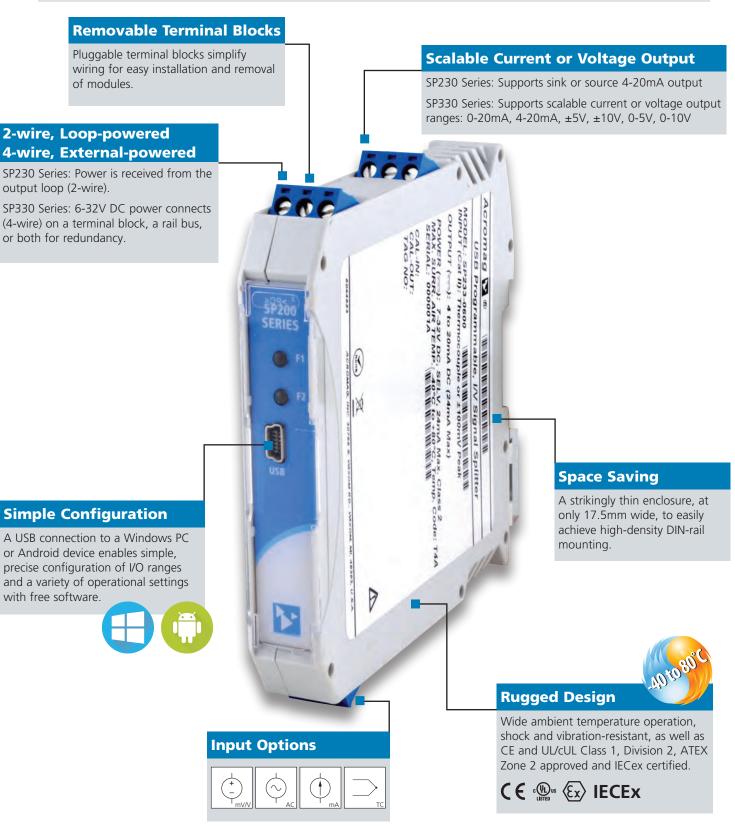
Key Features and Benefits

- 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	SP236 Current, Millivolt Input	SP237 Process Voltage Input	SP238 High Voltage Input
TC or mV IN OUT 1 4-20mA 4-20mA	V or mA IN = = 4-20mA OUT 2 4-20mA	V OUT 1 IN OUT 1 OUT 2 4-20mA	V OUT 1 IN OUT 2 4-20mA
Input	Input		
Type J,K,T,R,S,E,B,N	■ ±1mA, ±20mA	Input	Input
thermocouple	■ 0-20mA, 4-20mA	■ ±1V DC	■ ±15V DC
■ ±100mV	■ 0-11.17mA	■ ±5V DC	■ 0-15V DC
	(for AC sensor)	■ ±10V DC	■ ±150V / ±75 DC
	■ 0-500mV		■ 0-150V
	∎ ±5V		■ 0-5V DC
See data sheet	<u>See data sheet</u>	<u>See data sheet</u>	See data sheet
SP333	SP336	SP337	SP338
Thermocouple, Millivolt Input	Current, Millivolt Input	Process Voltage Input	High Voltage Input
TC or WV IN PWR OUT V or mA Power V or mA			
TC OUT V or mA or mV IN PWR Power	V OUT V or mA	V or mA	Input
TC or WV IN PWR OUT V or mA	V or MA IN PWR OUT V or MA Power V or mA	V OUT V or mA	V IN PWR OUT 4-20mA 4-20mA
Millivolt Input TC or WV IN PWR V or mA Power V or mA Power V or mA Power V or mA	Input v or MA IN PWR V or mA Power V or mA V or mA Power V or mA	Input	Input V V V V V V V V V V V V V
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Millivolt Input TC or WV UN PWR V or mA Power V or mA V or mA	Input v OUT V or mA or MA UPWR OUT V or mA Power V or mA Power Power V or mA Power Powe	Input V or mA Power V or mA Power V or mA V or mA Power V or mA Power V or mA Power V or mA Power V or mA Power V or mA	Input V V V V V V V V V V V V V



Key Features



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General Operation and Performance Specifications 🐼 🌚 IECEX C € 🕬 🕍

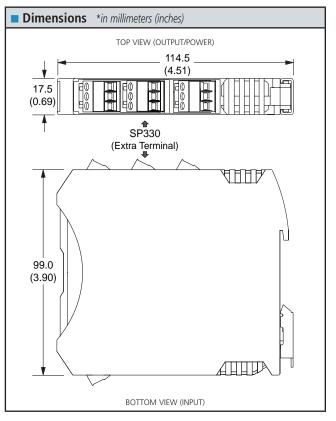
The following specifications are common to all SP Series splitter modules.

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

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

Environmenta	l
Operating Temperature	SP230 Series: -40 to 80°C (-40° to 176°F). SP330 Series: -40 to 75°C (-40° to 167°F).
Storage Temperature	-40 to 85°C (-40 to 185°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.



ଜନ୍ନିଲି **SP Series USB Splitter Connections** Personal Computer Running Windows OS USB-ISOLATOR (Recommended) ĥ HOST PC RUNNING ACROMAG CONFIGURATION 0 SOFTWARE DEVICE CONNECT MODEL: USB-ISOLATOR CABLE Model CABLE Model 4001-112 4001-113 <u>868</u> SP Series

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Module Configuration

SP236 Configuration Software

File

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.

(Ex) IECEX CE (Rohs 24)

	/O Config/Test. Calibration	SP236 Configuration Software	S.
		File	
DE	VICE SELECT	Communication Setup I/O Config/Test Calibration	
	Device: SP236-0600-1234567 Close Model: SP236-0600 erial Number: 1234567 Manufacturer: Acromag Inc Status: Device opened successfully	CONFIGURE I/O Get I/O Config Input Type: ±20mA • Input Filtering: High (1152mS) • Status: No Device Connected Input Scaling for Output Channel I: 1/O Scaling Comment Input Scaling for Output Channel I: -20.000 mA = 4.000 mA Input Scaling for Output Channel 2: -20.000 mA = 4.000 mA Input Scaling for Output Channel 2: -20.000 mA = 4.000 mA	TEST I/O Start Poling" to poli the input and display its value. The LED next to the button will flash when poling is active. Click "Stop Poling" to discontinue poling the input.
	Reset Device	Output Limits Channel 1 Range Minimum: © Bnabled © Disabled Channel 2 Range Minimum: © Disabled Channel 2 Range Minimum: © Disabled © Disabled	
CALIBRATION	Insut	Rev SETTINGS store Factory Calibration Restore to Factory Default Store Factory Calibration Restore to Factory Default Store Factory Calibration Counteration SP233-0660 Counterstore Calibration Currently Calibration: J Type To charge from the Configuration Tab.	8 T 103 PM ? * : SIP233-0600 WIRING DLAGRAMS Input Wiring
Output Cha	Coarse Adjustment	Connect a precise voltage of a million to TB1 before starting calibration. CALIBRATE ZERO SCALE Connect a precise voltage of 39.132 millionits to TB1 before starting calibration CALIBRATE FULL SCALE OUTPUT	Sinking Output Wring Alternative Sinking Ou Sourcing Output Wrin Communications of the Communication of the Communication Communication of the Communication of the Communication of the Communication Communication of the Communication of the Communication of the Communication Communication of the Communication of the
	Fine Adjustment	GOTEDT	

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Mounting Hardware

Power Supplies

USB Isolator

USB Cables

Acromag

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, configuation too mobile app for free download at the <u>Google Play Store</u>.

TT Bus-Kit

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

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.

Universal Slimline Power Supplies

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

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.

USB Cables

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



Ordering Information

TTC-SIP

Software Interface Package for Acromag SP/TT Series. Includes configuration software CD-ROM, UBS-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.

Ordering Information

TT BUS-Kit

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

Ordering Information

20RM-16-DIN 19" rack-mount kit with DIN rail.

<u>DIN RAIL 3.0</u> <u>DIN RAIL 16.7</u> DIN rail strip, Type T, 3 inches (75mm) or 16.7 inches (425mm)

Ordering Information

PS5R-VB24 Power supply, 15W, 0.65A at 24V DC PS5R-VD24 Power supply, 60W, 2.5A at 24V DC Visit www.acromag.com for additional models and more information.

Ordering Information

USB-Isolator

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

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

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ALL HOUR (Ex) RoHS **SP333** Thermocouple/millivolt splitter, four-wire EACH OUTPUT SUPPORTS CURRENT OR VOLTAGE THERMOCOUPLE TYPE J, K, T, E, R, S, B, N CURRENT OUTPUT SHIELDED CAB 8 SPLIT OUTPUT 1 SHIELDED CABL KRTN e e 🗆 INPUT TERMINAL INPLIT + TRS 10 11 1 B DC POWER Ì OPT EARTH GROUND OPT SHIFLD GROUND VOLTAGE OUTPI 0 NO CONNECTION SHIELDED CABLE Π SPLIT OUTPUT 2 TB ⇒⊐ OUT V OR mA TC or mV BUS POWER PWR DC SUPPLY POWER V OR m/ 2. OUT **USB** 1 (RIGHT SIDE VIEW) DIN RAIL SPRING CLIP Configured

Universal thermocouple or ±100mV input ◆ 0-20mA, ±10V or 0-10V outputs ◆ 6-32V DC external power

Description

SP333 Configuration Software

ONFIGURE 1/0

Input Type

Inout Filterin

Break Contro

CJC Contro

The SP333 is a high-performance signal splitter that converts one millivolt or thermocouple input into two isolated proportional control signals. A variety of current and voltage output ranges are supported. Power connects on a terminal block, a rail bus, or both for redundancy.

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

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.

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.

Windows configuration software (FREE) at www.acromag.com Get 1/O Config Type 3 * High (1650m6) Android Agility™ app (FREE) at Off v Google Play Store ne Output Range: 1/0 Sc Connect Input to: 5.000

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 ±100mV)
- Input can scale differently for each output
- User-selectable filtering (none, low, med, high)
- Scalable current or voltage output ranges: 0-20mA, 4-20mA, ±5V, ±10V, 0-5V, 0-10V
- Normal or reverse-acting output
- Wide-range DC power input from 6-32V with support for rail power bus and redundancy
- 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 75°C)
- CE compliant. UL/cUL Class I Div 2, ATEX / IECEx Zone 2 approvals.



Save configuration files for convenient copy/restore capability.

@ Deg.C . Deg Send I/O d

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SP333 Thermocouple/millivolt splitter, four-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 SP330 Series splitter.

USB Interface

USB Connector

USB Mini-B type socket, 5-pin. 5.0 meters cable length max. No driver required uses Windows HID drivers.

Data Rate

12Mbps. USB v1.1 and 2.0 compatible

USB Transient Protection

Transient voltage suppression on power and data lines

Input (Passive)

Default Configuration/Calibration

Input: TC J, -210 to 760°C, med. 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 (but not 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)

Scaling Adjust Zero: 0 to 95% of range, typical Full scale: 5 to 100% of full scale range, typical

Lead Break (Sensor Burnout) Detection Upscale/downscale ±5% full scale range typical

Input Over-Voltage Protection Bipolar Transient Voltage Suppressers (TVS), 5.6V clamp level typical

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

Input Filter Selectable digital filtering (none, low, med., and high)



Input Impedance Current input: 24.9 ohms Voltage input: 15M ohms

Noise Rejection (with high filter) Normal mode @ 60Hz: >80dB Common mode @ 60Hz: >134dB

Output (Two Signals, Active)

Output Range

Range	Over-Range	Resolution
±10V	±10.5V	1 part in 62415
±5V	±5.25V	1 part in 31208
0 to 10V	-0.5527 to +10.5V	1 part in 59240
0 to 5V	-0.27634 to +5.25V	1 part in 60262
0 to 20mA	-1.1054 to 21mA	1 part in 58596
4 to 20mA	-1.1054 to 21mA	1 part in 46877

Output Load

Voltage output: 1K ohms minimum Current output: 0-550 ohms

Output Response Time (for step input change)

Time to reach 98% of final output value (typical)

	1	
No filter	14 milliseconds	
Low filter	41 milliseconds	
Medium filter	137 milliseconds	
High filter	1141 milliseconds	
0 1 1 0 1		

Output Ripple

Less than $\pm 0.1\%$ of output span

Environmental

Operating Temperature -40 to 75°C (-40° to 167°F)

Storage Temperature -40 to 85°C (-40 to 185°F)

Relative Humidity 5 to 95% non-condensing

Power Requirement 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

Approvals

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

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

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 (0.7 x 4.51 x 3.90 inches)

Shipping Weight 0.22 kg (0.5 pounds) packed

Ordering Information

Models

<u>SP333-0700</u> Four-wire splitter, thermocouple/millivolt input

Services

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.

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

<u>TTBUS-KIT</u>

DIN rail bus power connector, left/right terminal blocks & two end stops #1027-222. One kit supports multiple splitters.

USB-ISOLATOR

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

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

<u>4001-113</u>

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

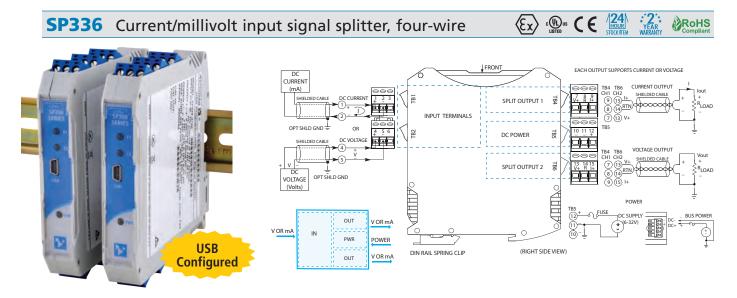
<u>4001-252</u>

DIN rail end stop for hazloc approvals

5028-565 USB-OTG 6 inch cable

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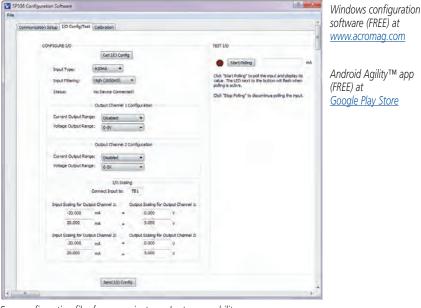
DC current and low voltage input • 0-20mA, ±10V outputs • 6-32V DC external power

Description

The SP336 is a high-performance signal splitter that converts one DC current or millivolt input into two isolated proportional control signals. A variety of current and voltage output ranges are supported. Power connects on a terminal block, a rail bus, or both for redundancy.

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

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 ±500mV, ±20mA DC, or 0-20A AC (with external sensor)
- Input can scale differently for each output
- User-selectable filtering (none, low, med, high)
- Scalable current or voltage output ranges: 0-20mA, 4-20mA, ±5V, ±10V, 0-5V, 0-10V
- Normal or reverse-acting output
- Wide-range DC power input from 6-32V with support for rail power bus and redundancy
- 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 75°C)
- CE compliant. UL/cUL Class I Div 2, ATEX / IECEx Zone 2 approvals.



Save configuration files for convenient copy/restore capability.

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SP336 Current/millivolt input signal splitter, four-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 SP330 Series splitter.

USB Interface

USB Connector

USB Mini-B type socket, 5-pin. 5.0 meters cable length maximum. No driver required.

USB Data Rate

12Mbps. USB v1.1 and 2.0 compatible

USB Transient Protection Transient voltage suppression on power and data lines

Input (Passive)

Default Configuration/Calibration Input: 4 to 20mA, medium filter. Output: 4 to 20mA.

Input Ranges and Accuracy

Range	Accuracy (typical)
±500mV	±0.05% of span
0 to 500mV	±0.05% of span
±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

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

Ambient Temperature Effect Better than ±80ppm/°C (±0.008%/°C)

Scaling Adjust Zero: 0 to 95% of range, typical Full scale: 5 to 100% of range, typical

Input Over-Voltage Protection Bipolar Transient Voltage Suppressers (TVS), 5.6V clamp level typical.

Input Resolution (normalized range) Bipolar input: 1 part in 50000 (±25000) Unipolar input: 1 part in 25000

Input Impedance Current input: 24.9 ohms (TB1) Voltage input: 15M ohms (TB2)

Input Filter

Selectable digital filtering (none, low, med., and high)



Noise Rejection (with high filter) Normal mode @ 60Hz: >80dB Common mode @ 60Hz: >139dB

Output (Two Signals, Active)

Output Range

Range	Over-Range	Resolution
±10V	±11V	1 part in 59577
±5V	±5.5V	1 part in 59577
0 to 10V	-0 to +11V	1 part in 59577
0 to 5V	-0 to +5.5V	1 part in 59577
0 to 20mA	0 to 24mA	1 part in 54612
4 to 20mA	0 to 24mA	1 part in 43689

Output Load

Voltage output: 1K ohms minimum Current output: 0-525 ohms for 21mA

Output Response Time (for step input change)

Time to reach 98% of final output value (typical)			
Filter	±0.5V Input Range	±20mA Input Range	
None	28 milliseconds	10 milliseconds	
Low	34 milliseconds	34 milliseconds	
Medium	115 milliseconds	136 milliseconds	
High	1060 milliseconds	1168 milliseconds	

Output Ripple

Less than ±0.1% of output span

Environmental

Operating temperature -40 to 75°C (-40° to 167°F)

Storage temperature -40 to 85°C (-40 to 185°F)

Power Requirement

1500V AC peak. 250V AC (354V DC) continuous

Shock and Vibration Immunity

Approvals

Groups ABCD, ATEX / IECEx Zone 2.

Electromagnetic Compatibility (EMC) Compliance

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

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 (0.7 x 4.51 x 3.90 inches)

Shipping Weight 0.22 kg (0.5 pounds) packed

Ordering Information

Models

SP336-0700

Four-wire signal splitter, current/millivolt input

Services

SP330-Config/Cal

Factory custom configuration/calibration service

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

TTBUS-KIT

DIN rail bus power connector, left/right terminal blocks & two end stops #1027-222. One kit supports multiple splitters.

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 transmformer); converts 0-20A AC to 0-11.17mA DC

5028-565

USB-OTG 6 inch cable



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Relative humidity 5 to 95% non-condensing 6-32V DC external supply, 1.5W max

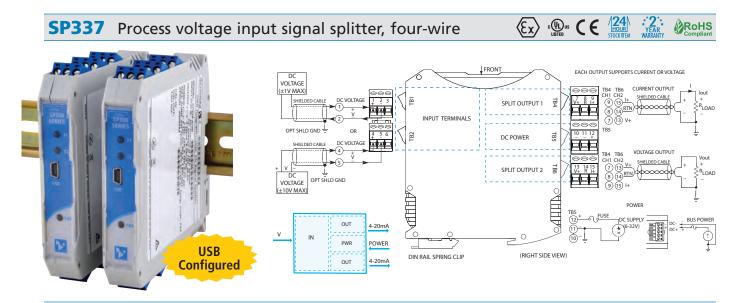
Isolation

between input, output, and power circuits.

Vibration: 4g, per IEC 60068-2-64 Shock: 25g, per IEC 60068-2-27

CE compliant. Designed for UL/cUL Class I Division 2

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



Multi-range ±1V, ±5V, or ±10V input ◆ 0-20mA, ±10V or 0-10V outputs

Description

The SP337 is a high-performance signal splitter that converts one process-level DC voltage input into two isolated proportional control signals. A variety of current and voltage output ranges are supported. Power connects on a terminal block, a rail bus, or both for redundancy.

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

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.

SP337 Configuration Software n 1/0 Config/Test Get I/O Config +10/ + nel 2 Configura altage Output Range: 1/0 50 Connect Input to: **TB2** Input Scaling for Output Channel 1: 10.000 0.000 10.000 5.000 10.000 5.000 Send I/O Config

Windows configuration software (FREE) at <u>www.acromag.com</u>

> Android Agility™ app (FREE) at <u>Google Play Store</u>

◆ 6-32V DC external power

Key Features & Benefits

- Easy configuration via USB with Windows software or Agility app for Android
- Single unit accepts ±1V, ±5V, and ±10V DC input ranges
- Input can scale differently for each output
- User-selectable filtering (none, low, med, high)
- Scalable current or voltage output ranges: 0-20mA, 4-20mA, ±5V, ±10V, 0-5V, 0-10V
- Normal or reverse-acting output
- Wide-range DC power input from 6-32V with support for rail power bus and redundancy
- 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 75°C)
- CE compliant. UL/cUL Class I Div 2, ATEX / IECEx Zone 2 approvals.



Save configuration files for convenient copy/restore capability.

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SP337 Process voltage input signal splitter, four-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 SP330 Series splitter.

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: ±10V, medium filter Output: 4 to 20mA

Input Ranges and Accuracy

	•
Range	Accuracy (typical)
±1V DC	±0.05% of span
±5V DC	±0.05% of span
±10V DC	±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 Over-Voltage Protection Bipolar Transient Voltage Suppressers (TVS), 14V working and 18V clamp level typical

Input Resolution Bipolar input: 1 part in 50000 (±25000) Unipolar input: 1 part in 25000

Input Impedance ±1V input: 15M ohms (TB1) ±5V / ±10V input: >1M ohms (TB2)

Input Filter Selectable digital filtering (none, low, med., and high) Noise Rejection (with high filter) Normal mode @ 60Hz: >80dB Common mode @ 60Hz: >133dB

Output (Two Signals, Active)

Output Range

Range	Over-Range	Resolution
±10V	±10.5V	1 part in 62415
±5V	±5V	1 part in 31208
0 to 10V	-0.5527 to +10.5V	1 part in 59293
0 to 5V	-0.27634 to +5.25V	1 part in 59293
0 to 20mA	-1.1054 to 21mA	1 part in 59293
4 to 20mA	-1.1054 to 21mA	1 part in 47434

Output Load

Voltage output: 1K ohms minimum Current output: 0-525 ohms for 21mA

Output Response Time (for step input change)

Time to reach 98% of final output value (typical)	
time to reach 98% of final output value (typical)	
mile to reach 50% of mild output funde (typical)	

No filter	11 milliseconds
Low filter	38 milliseconds
Medium filter	121 milliseconds
High filter	1050 milliseconds

Output Ripple Less than ±0.1% of output span

Environmental

Operating Temperature -40 to 75°C (-40° to 167°F)

Storage Temperature -40 to 85°C (-40 to 185°F)

Relative Humidity 5 to 95% non-condensing

Power Requirement 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

Approvals

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

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

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 (0.7 x 4.51 x 3.90 inches)

Shipping Weight 0.22 kg (0.5 pounds) packed

Ordering Information

Models

<u>SP337-0700</u> Four-wire splitter, process voltage input

Services

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.

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

TTBUS-KIT

DIN rail bus power connector, left/right terminal blocks & two end stops #1027-222. One kit supports multiple splitters.

USB-ISOLATOR

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

4001-112

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

 $\underline{4001-113}$ USB cable, 1 meter, with Type A to Mini-B plugs

<u>4001-252</u>

DIN rail end stop for hazloc approvals

<u>5028-565</u>

USB-OTG 6 inch cable



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(Ex) RoHS **SP338** High voltage input signal splitter, four-wire FACH OUTPUT SUPPORTS CURRENT OR VOLTAGE DC VOLTAGE ±15V MAX CURRENT OUTPUT SHIELDED CABL SPLIT OUTPUT 1 Ĕ thoost • • • • INPUT TERMINALS (13) V4 OPT SHLD GND OR B DC POWER VOLTA +++ pp-VOLTAGE OUTPUT SHIELDED CABLE V+ SPLIT OUTPUT 2 1 86 7 13 <u>V+</u> 8 14 <u>RTN</u> 4R OAD OPT SHLD GND ÞÞ VOLTAGE (±150V MAX) ATTINO OUT (+ 1. PWR POWER **USB** (RIGHT SIDE VIEW) DIN RAIL SPRING CLIF 4-20mA OUT Configured

Multi-range ±15, ±75, or ±150V input ◆ 0-20mA, ±10V or 0-10V outputs

Description

SP337 Configuration Software

n 1/0 Config/Test

altage Output Range:

10.000

10.000

Input Scaling for Output Channel 1: -10.000 V

The SP338 is a high-performance signal splitter that converts one high-level DC voltage input into two isolated proportional control signals. A variety of current and voltage output ranges are supported. Power connects on a terminal block, a rail bus, or both for redundancy.

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

Get I/O Config

nel 2 Configura

TB2

0.000

5.000

5.000

1/0 50

Connect Input to:

+10/ +

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.

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.

> Windows configuration software (FREE) at www.acromag.com

> > Android Agility™ app (FREE) at <u>Google Play Store</u>

Key Features & Benefits

■ Easy configuration via USB with Windows software or Agility[™] app for Android

6-32V DC external power

- Single unit accepts ±15V, ±75V, and ±150V DC input ranges
- Input can scale differently for each output
- User-selectable filtering (none, low, med, high)
- Scalable current or voltage output ranges: 0-20mA, 4-20mA, ±5V, ±10V, 0-5V, 0-10V
- Normal or reverse-acting output
- Wide-range DC power input from 6-32V with support for rail power bus and redundancy
- 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 75°C)
- CE compliant. UL/cUL Class I Div 2, ATEX / IECEx Zone 2 approvals.



Save configuration files for convenient copy/restore capability.

Send I/O Config

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

SP338 High voltage input signal splitter, four-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 SP330 Series splitter.

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: ±15V, medium filter Output: 4 to 20mA

Input Ranges and Accuracy

Range	Accuracy (typical)
±15V DC	±0.05% of span
±75V DC	±0.05% of span
±150V DC	±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 Over-Voltage Protection Bipolar Transient Voltage Suppressers (TVS), 220V working typical.

Input Resolution Bipolar input: 1 part in 50000 (±25000) Unipolar input: 1 part in 25000

Input Impedance Greater than 1M ohms

Input Filter

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

Noise Rejection (with high filter) Normal mode @ 60Hz: >80dB Common mode @ 60Hz: >91dB

Output (Two Signals, Active)

Output Range

Ra	nge	Over-Range	Resolution
±1	0V	±10.5V	1 part in 62415
±5		±5V	1 part in 31208
0 t	o 10V	-0.5527 to +10.5V	1 part in 59240
0 t	o 5V	-0.27634 to +5.25V	1 part in 60262
0 t	o 20mA	-1.1054 to 21mA	1 part in 58596
4 t	o 20mA	-1.1054 to 21mA	1 part in 46877

Output Load

Voltage output: 1K ohms minimum Current output: 0-525 ohms for 21mA

Output Response Time (for step input change)

Time to reach 98% of final output value (typical	ical)	(typi	value	output	final	of	98%	reach	to	Time	
--	-------	-------	-------	--------	-------	----	-----	-------	----	------	--

	i se ,e el inital e alpare falae
No filter	39 milliseconds
Low filter	59 milliseconds
Medium filter	158 milliseconds
High filter	1168 milliseconds

Output Ripple Less than ±0.1% of output span

Environmental

Operating Temperature -40 to 75°C (-40° to 167°F)

Storage Temperature -40 to 85°C (-40 to 185°F)

Relative Humidity 5 to 95% non-condensing

Power Requirement 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

Approvals

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

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

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 (0.7 x 4.51 x 3.90 inches)

Shipping Weight 0.22 kg (0.5 pounds) packed

Ordering Information

Models

SP338-0700

Four-wire splitter, high voltage input

Services

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.

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

<u>TTBUS-KIT</u>

DIN rail bus power connector, left/right terminal blocks & two end stops #1027-222. One kit supports multiple splitters.

USB-ISOLATOR

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

<u>4001-112</u>

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

4001-113 USB cable, 1 meter, with Type A to Mini-B plugs

<u>4001-252</u>

DIN rail end stop for hazloc approvals

<u>5028-565</u>

USB-OTG 6 inch cable



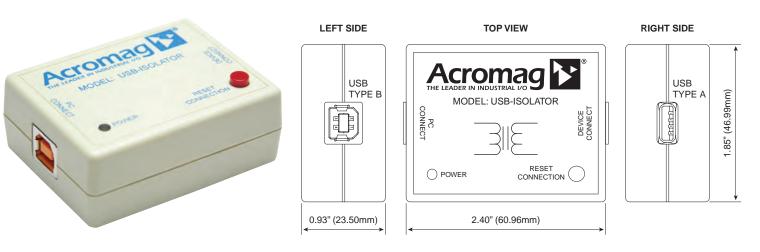
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Accessories

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

FC CE

c 🖳 us

RoHS

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.



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.

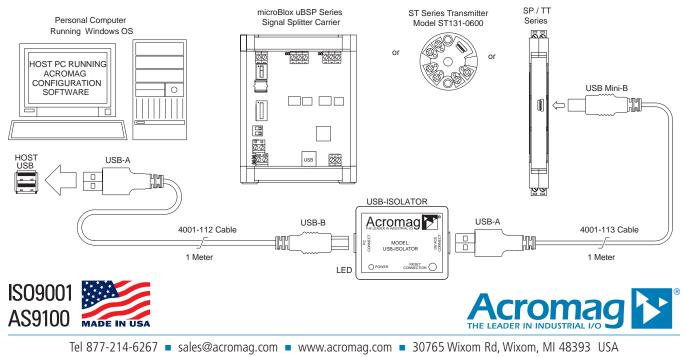
Conducted RF Immunity (CRFI) Per IEC61000-4-6.

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)



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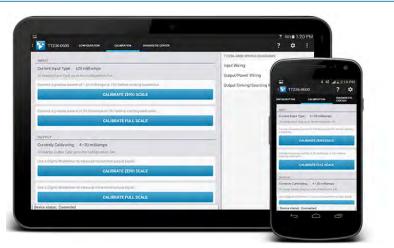
Software Support: Agility Config

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.

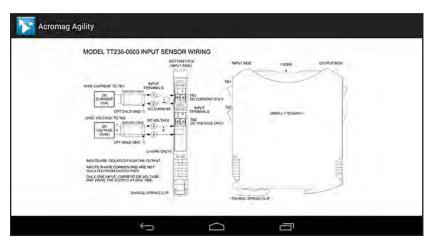
This free app is available for Android devices at the Google Play store at <u>Acromag Agility™ Config Tool</u>.

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



		Care of the providence of the
Thermistor (Use Table)	F	Potentiomenter Input Wiring
Medium	F.	Rheostat/Thermistor Input Wiring Output/Power Wiring Output Sinking/Sourcing Wiring
Under-Range	Þ	
Celsius	×.	
	Medium Under-Range	Thermistor (Use Table) Medium Under-Range Celsius

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



Quick and easy access to the wiring diagram, even offline without internet access.

Key Features & Benefits

- Connects to Acromag DT and TT Series transmitters (except model TT231), and SP Series signal splitters.
- Requires the use of USB OTG Cable (Acromag part # 5028-565) and USB A to Mini B Cable (Acromag part # 4001-113)
- Configures and calibrates DT, TT, and SP Series products via phone or tablet running Android 4.3 ICS (Ice Cream Sandwich) or later.
- View wiring diagrams, even without an internet connection.
- Perform quick and easy field diagnostics and troubleshooting.
- Ideal for field technicians.

