

## **Monitoring and Control Solutions**

# **DT330 Series Catalog**

**Dual Channel Transmitters** 

**Easy Configuration** 

**Slim Design** 



**USB-Programmable** Saves Space and Cost



## 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.















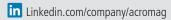












# **Depend on Acromag**



## 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



## **DT Series** Programmable Dual-Channel Transmitters











#### Introduction

The new DT Series transmitters are designed to offer a cost-effective space-saving solution to interface a variety of process and sensor signals to your control systems. Each model supports several input ranges and can output proportional 0/4-20mA, 0-10V, or ±10V DC signals.

#### Input

Thermocouple/Millivolt, RTD/Resistance, Process Voltage, High Voltage, Current/Millivolt

Proportional 0/4-20mA, 0-10V, or ±10V DC

#### **Power**

■ DT330 Series: 6-32V DC local/bus power

#### **Key Features and Benefits**

- USB-programmable (allows easy selection of options that is not possible with pots or jumpers
- Dual unit saves space and reduces costs
- Signal splitter capability
- Selectable filtering levels
- Configurable output clamp levels (NAMUR)
- Removable, front-facing terminal blocks (simplify your wiring tasks)
- Rail power bus and redundancy
- Supports sink/source wiring
- -40 to 70° C operation (DT330 Series)
- Hazloc approvals UL C1D2, ATEX/IECEx Zone 2



#### **DT333** Thermocouple, Millivolt Input



#### Input

- Type J,K,T,R,S,E,B,N thermocouple
- ±100mV

#### See data sheet

#### **DT335** RTD/resistance Input



#### Input

- RTD Pt (100/200/500Ω) Ni (120Ω)
- $Cu(10\Omega)$ ■ Resistance  $0-4500 \Omega$

#### See data sheet

#### **DT336 Current/millivolt** Input

mA/V	IN 1 OUT 1	V/mA
<del></del>	PWR	Power
mA/V	IN 2 OUT 2	V/mA

#### Input

- ±20mA
- ±500mV

#### See data sheet

#### **DT337 Medium DC** Voltage Input



#### Input

- ±1V
- ±10V

#### **DT338 High Voltage** Input



#### Input

- ±15V
- ±150V

See data sheet

See data sheet



DT200 SERIES

## **Key Features**













#### **Removable Terminal Blocks**

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

#### 4-wire, External-powered

DT330 Series: 6-32V DC power connects (4-wire) on a terminal block, a rail bus, or both for redundancy.

#### **Scalable Current or Voltage Output**

DT330 Series: Supports scalable current or voltage output ranges: 0-20mA, 4-20mA, ±5V, ±10V, 0-5V, 0-10V DC

## **Space Saving**

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

## **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.





## **Input Options**









## **Rugged Design**

Wide ambient temperature operation, shock and vibration-resistant, as well as CE Compliant, UL/cUL Class I Div 2, ATEX/IECEx Zone 2 approval.







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



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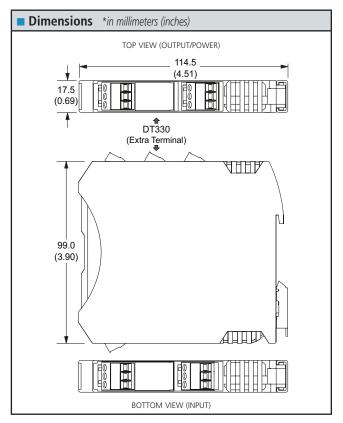
The following specifications are common to all DT Series transmitter modules.

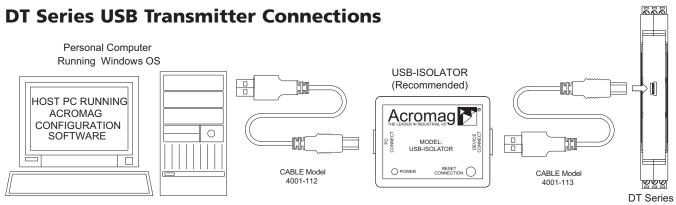
■ USB Interface	
USB Connector	USB Mini-B type socket, 5-pin.
USB Data Rate	12Mbps. USB v1.1 and 2.0 compatible.

Output	
Output Ranges	0-20mA, 4-20mA, ±5V, ±10V, 0-5V, 0-10V DC
Accuracy	±0.05%, typical. ±0.1%, maximum.

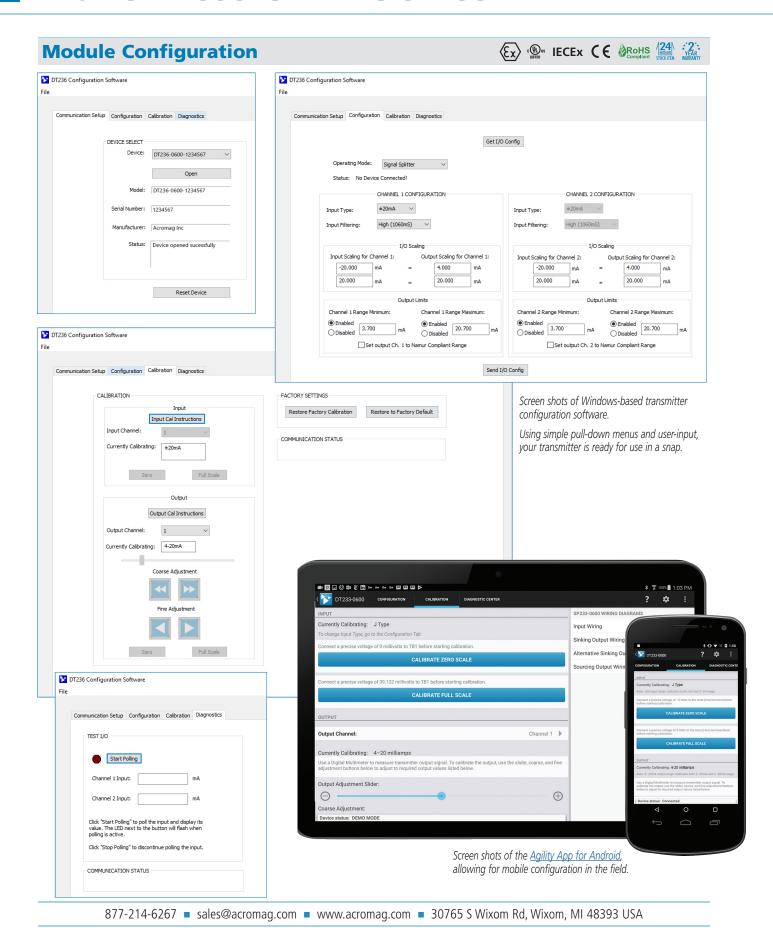
<b>■</b> Environmenta	ıl
Operating Temperature	DT230 Series: -40 to 80°C (-40° to 176°F). DT330 Series: -40 to 70°C (-40° to 158°F).
Storage Temperature	-40 to 85°C (-40 to 185°F).
Relative Humidity	5 to 95% non-condensing.
Power Requirement	DT230 Series: 7-32V DC SELV, 24mA max, loop power. DT330 Series: 6-32V DC SELV, 1.5W max.
Isolation	1500V AC peak. 250V AC (354V DC) continuous isolation between input, output, and power (5-way).
Shock and Vibration Immunity	Vibration: 4g, per IEC 60068-2-6 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 61000-6-1, IEC 61000-4-5
Approvals	CE compliant. UL/cUL listed Class I Div. 2. Groups ABCD. ATEX/IECEx Zone 2.

■ Physical		
General	General-purpose plastic 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.	







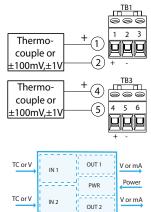




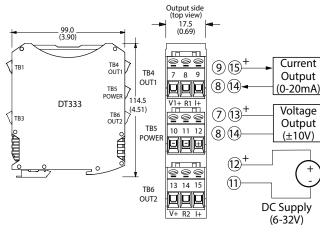
## Thermocouple/millivolt input four-wire dual transmitter







Input side (bottom)



Dual channels ◆ Universal thermocouple, mV inputs ◆ 6-32V DC local/bus power

#### **Description**

DT330 series signal conditioners provide two independent I/O channels in a single, space-saving unit. The DT333 model is a four-wire dual transmitter that isolates and converts millivolt or thermocouple sensor inputs to proportional control signals. Each channel supports DC current or voltage output. An optional DIN rail bus can deliver primary or redundant power to multiple units.

High-voltage isolation separates inputs, outputs, and power from each other. Isolation protects from surges, reduces noise, and eliminates ground loop errors.

Setup and calibration are fast and easy with a convenient USB connection to your PC and Acromag's Windows configuration software. The Android app enables setup with mobile devices.

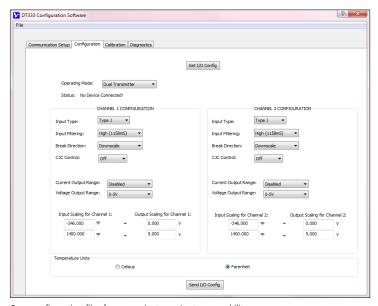
Advanced signal processing capabilities, variable range input/output, and convenient USB programming make this instrument very versatile. These transmitters can withstand harsh industrial environments and operate reliably across a wide temperature range with very low drift. They feature RFI, EMI, ESD, EFT, and surge protection plus low radiated emissions.

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

Android Agility™ app (FREE) at Google Play Store

## **Key Features & Benefits**

- Operate as a dual transmitter, a single transmitter, or a signal splitter
- Easy configuration via USB with Windows software or Agility™ app for Android
- Independently adjustable and scalable input and output ranges
- Selectable thermocouple/millivolt input types: (TC Type J, K, T, R, S, E, B, N, ±100mV, ±1V)
- Selectable current and voltage output ranges: 0-20mA, 4-20mA, ±5V, ±10V, 0-5V, 0-10V DC
- Supports reverse-acting (inverse) output
- High accuracy, linearity, stability, and reliability
- User-selectable filtering (none, low, med., high)
- Selectable up/downscale fault detection
- Bus power, local power, or both (redundancy)
- Space-saving 17.5mm (0.7 inch) unit with pluggable terminals for convenient wiring
- 1500V input isolation, 5-way, (power/input/output)
- Wide ambient operation (-40 to 70°C)
- CE compliant. UL/cUL Class I Div 2, ATEX/IECEx Zone 2



Save configuration files for convenient copy/restore capability.



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### **DT333** Thermocouple/millivolt input four-wire dual transmitter

#### **Performance Specifications**

IMPORTANT: To prevent damage or errors from grounded PCs and surges, Acromag strongly recommends use of their USB-ISOLATOR when configuring a DT330 Series transmitter.

#### USB Interface

#### **USB** Connection

Type: USB Mini-B type socket, 5-pin.

Data rate: 12Mbps. USB v1.1 and 2.0 compatible.

Maximum cable length: 5.0 meters.

Transient voltage suppression on power and data lines.

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

#### Input (two channels)

#### Default Configuration/Calibration

Input: TC J, -210 to 760°C, medium filter. Output: 4 to 20mA, upscale break detect.

#### 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 170°C (-382 to -274°F)	±1.0°C
TC N	-230 to 1300°C (-382 to 2372°F)	±0.5°C
mV	-100 to 100mV	±0.5%

#### Thermocouple Reference (Cold Junction Compensation)

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

#### Ambient Temperature Effect

Better than  $\pm 80$ ppm/°C ( $\pm 0.008$ %/°C).

#### Scaling Adjust

Full range.

#### Lead Break (Sensor Burnout) Detection

Upscale/downscale full range.

#### Input Impedance

15M ohms.

#### Input Over-Voltage Protection

Bipolar Transient Voltage Suppression (TVS) and diode clamping.

ISO9001 🔀

RC filter plus variable digital filter (none, low, med., high).

#### Noise Rejection

Common Mode: 96dB no filter (134dB high filter). Normal Mode: 0.12dB no filter, 60Hz (>80dB med/high filter).

#### Output (two channels)

#### D/A Converters (DAC)

Two 16-bit D/A converters.

#### **Output Ranges**

±10V (±11V maximum).

±5V (±5.5V maximum).

0 to 10V (11V maximum).

0 to 5V (5.5V maximum).

0 to 20mA (24mA maximum).

4 to 20mA (24mA maximum).

#### **Output Accuracy**

±0.05%, typical. ±0.1%, maximum.

#### **Output Load**

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

#### **Output Compliance**

11V, typical.

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

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

No filter: 13 milliseconds Low filter: 38 milliseconds Medium filter: 122 milliseconds High filter: 1158 milliseconds

#### **Output Ripple**

Less than ±0.1% of output span.

#### Environmental

#### **Operating Temperature Range**

Operation: -40 to 70°C (-40° to 158°F). Storage: -40 to 85°C (-40 to 185°F).

#### Relative humidity

5 to 95% non-condensing.

#### **Power Requirement**

6-32V DC SELV, 1.6W max.

#### Isolation

1500V AC peak, 250V AC (354V DC) continuous isolation between inputs, outputs, and power (5-way).

#### Shock and Vibration Immunity

Vibration: 4q, per IEC 60068-2-6.

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

#### **Approvals**

CE compliant. UL/cUL listed Class I Division 2 Groups ABCD. ATEX, IECEx certified 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.

#### I/O Connectors

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

17.5 x 114.5 x 99.0 mm (0.7 x 4.51 x 3.90 inches). Unit weight: 0.16 kg (0.35 pounds). Shipping Weight: 0.22 kg (0.5 pounds) packed.

#### **Ordering Information**

#### Models

#### DT333-0700

Four-wire dual transmitter, thermocouple/millivolt inputs, isolated current or voltage outputs.

#### Services

#### DT330-Config/Cal

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

\* Sensor fault settings are only available for models DT233, DT235, DT333 and DT335.

#### Software

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

Windows Software Interface Package for Acromag DT Series transmitters. 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

#### TT BUS-KIT

DIN rail bus power connector and left/right terminal blocks. One kit supports multiple transmitters.

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

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

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.

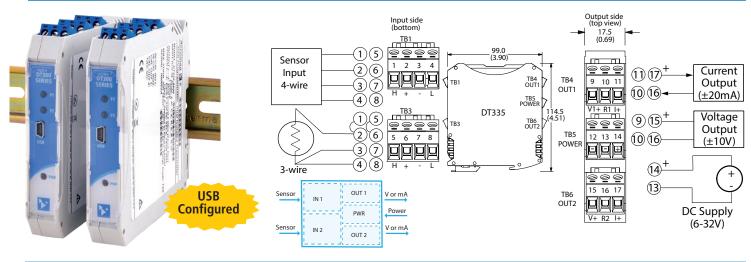






## **DT335** RTD/Resistance input four-wire dual transmitter





Dual channels ◆ RTD (Pt, Ni, Cu) or 0-4500 ohm input ◆ 0-20mA, ±10V outputs ◆ 6-32V DC local/bus power

#### **Description**

DT330 series signal conditioners provide two independent I/O channels in a single, space-saving unit. The DT335 model is a four-wire dual transmitter that isolates and converts RTD or linear resistance sensor inputs to proportional control signals. Each channel supports DC current or voltage output. An optional DIN rail bus can deliver primary or redundant power to multiple units.

High-voltage isolation separates inputs, outputs, and power from each other. Isolation protects from surges, reduces noise, and eliminates ground loop errors.

Setup and calibration are fast and easy with a convenient USB connection to your PC and Acromag's Windows configuration software. The Android app enables setup with mobile devices.

Advanced signal processing capabilities, variable range input/output, and convenient USB programming make this instrument very versatile. These transmitters can withstand harsh industrial environments and operate reliably across a wide temperature range with very low drift. They feature RFI, EMI, ESD, EFT, and surge protection plus low radiated emissions.

T335 Configuration Software	₹ ×			
File				
Communication Setup Configuration Calibration Diagnostics				
Ge	t I/O Config			
Operating Mode: □Dual Transmitter ▼				
Status: No Device Connected!				
CHANNEL 1 CONFIGURATION	CHANNEL 2 CONFIGURATION			
Input Type: RTD Pt100 ▼	Input Type:   RTD Pt100   ▼			
Input Range: alpha = 0.00385 ▼	Input Range: ■ alpha = 0.00385 ▼			
Input Filtering: Medium (144ms) ▼	Input Filtering: Medium (144ms) ▼			
Configuration: Three-wire ▼	Configuration: Three-wire ▼			
Break Direction: Upscale ▼	Break Direction: Upscale ▼			
Current Output Range: 4-20mA ▼	Current Output Range: 4-20mA ▼			
Voltage Output Range: □isabled ▼	Voltage Output Range: Disabled  ▼			
Input Scaling for Channel 1: Output Scaling for Channel 1:	Input Scaling for Channel 2: Output Scaling for Channel 2:			
-200.00 °C = 4.000 mA	-200.00 °C = 4.000 mA			
850.00 °C = 20.000 mA	850.00			
Temperature Units				
Celsius	Farenheit ( Kelvin			
Send I/O Config				

Windows configuration software (FREE) at <a href="https://www.acromag.com">www.acromag.com</a>

Android Agility™ app (FREE) at Google Play Store

#### **Key Features & Benefits**

- Operate as a dual transmitter, a single transmitter, or a signal splitter
- Easy configuration via USB with Windows software or Agility™ app for Android
- Independently adjustable and scalable input and output ranges
- Selectable RTD and linear resistance input types: Pt 100/200/500Ω, Ni 120Ω, Cu 10Ω, 0-4500Ω
- Supports 2, 3, and 4-wire sensor connections
- Selectable current and voltage output ranges: 0-20mA, 4-20mA, ±5V, ±10V, 0-5V, 0-10V DC
- High accuracy, linearity, stability, and reliability
- User-selectable filtering (none, low, med., high)
- Selectable up/downscale break detection
- Bus power, local power, or both (redundancy)
- Space-saving 17.5mm (0.7 inch) unit with pluggable terminals for convenient wiring
- 1500V input isolation, 5-way, (power/input/ output)
- Wide ambient operation (-40 to 70°C)
- CE compliant. UL/cUL Class I Div 2, ATEX/IECEx Zone 2



Save configuration files for convenient copy/restore capability.



### DT335 RTD/Resistance input four-wire dual transmitter

#### **Performance Specifications**

IMPORTANT: To prevent damage or errors from grounded PCs and surges, Acromag strongly recommends use of their USB-ISOLATOR when configuring a DT330 Series transmitter.

#### USB Interface

#### **USB** Connection

Type: USB Mini-B type socket, 5-pin.

Data rate: 12Mbps. USB v1.1 and 2.0 compatible.

Maximum cable length: 5.0 meters.

Transient voltage suppression on power and data lines.

#### USB Driver

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

#### Input (two channels)

#### **Default Configuration**

Input:  $100\Omega$  Pt RTD, 3-wire, =0.00385, -200 to 850°C, medium filter.

Output: 4 to 20mA, upscale break detect.

#### A/D Converters (ADC)

Two 24-bit Sigma Delta ADCs (only 16-bits used).

#### Input Ranges

Input Type	Input Range	Accuracy
Pt 100Ω	-200 to 850°C	±0.25°C
Pt 200Ω	-200 to 850°C	±0.30°C
Pt 500Ω	-200 to 850°C	±0.50°C
Pt 1000Ω	-200 to 850°C	±1.00°C
Ni 120Ω (Minco 7-120)	-80 to 320°C	±0.08°C
Cu 10Ω (Minco 16-9)	-200 to +270°C	±1.00°C
Linear Resistance	0 to 250Ω	±0.05Ω
Linear Resistance	0 to 450Ω	±0.10Ω
Linear Resistance	0 to 900Ω	±0.90Ω
Linear Resistance	0 to 2250Ω	±2.25Ω
Linear Resistance	0 to 4500Ω	±4.50Ω

#### Ambient Temperature Effect

Better than ±80ppm/°C (±0.008%/°C).

#### Scaling Adjust

full-range.

#### Lead Break (Sensor Burnout) Detection

Upscale/downscale full-range.

#### Input Over-Voltage Protection

Bipolar Transient Voltage Suppression (TVS) and diode clamping.

#### Input Filter

RC filter plus variable digital filter (none, low, med., high).

#### Input Bandwidth

-3dB @ 16Hz (no filtering).

# IS09001 AS9100 MADE IN USA

#### Noise Rejection

Common Mode: 106dB no filter.

Normal Mode: 1dB no filter, 60Hz (>80dB med./high filter).

#### Output (two channels)

#### D/A Converters (DAC)

Two 16-bit D/A converters.

#### Output Ranges

±10V (±11V maximum).

±5V (±5.5V maximum).

0 to 10V (11V maximum).

0 to 5V (5.5V maximum).

0 to 20mA (24mA maximum).

4 to 20mA (24mA maximum).

#### Output Accuracy

±0.05% typical, ±0.1% maximum.

#### **Output Load**

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

#### **Output Compliance**

11V, typical.

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

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

No filter: 25 milliseconds Low filter: 44 milliseconds Medium filter: 146 milliseconds High filter: 1068 milliseconds

#### **Output Ripple**

Less than ±0.1% of output span.

#### Environmental

#### Operating Temperature Range

Operation: -40 to 70°C (-40° to 158°F). Storage: -40 to 85°C (-40 to 185°F).

#### Relative humidity

5 to 95% non-condensing.

#### **Power Requirement**

6-32V DC SELV, 1.6W max.

#### Isolation

1500V AC peak. 250V AC (354V DC) continuous isolation between inputs, outputs, and power (5-way).

#### **Shock and Vibration Immunity**

Vibration: 4g, per IEC 60068-2-6.

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

#### Approvals

CE compliant. UL/cUL listed 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.

#### 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). Unit weight: 0.16 kg (0.35 pounds). Shipping Weight: 0.22 kg (0.5 pounds) packed.

#### **Ordering Information**

#### Models

#### DT335-0700

Four-wire dual transmitter, isolated RTD/resistance input, isolated current or voltage outputs.

#### **Services**

#### DT330-Config/Cal

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

\* Sensor fault settings are only available for models DT233, DT235, DT333 and DT335.

#### Software

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

Windows Software Interface Package for Acromag DT Series transmitters. 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**

#### TT BUS-KIT

DIN rail bus power connector and left/right terminal blocks. One kit supports multiple transmitters.

#### **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.





#### c⊕us C € RoHS **DT336** Current/millivolt input four-wire dual transmitter Output side (top view) Input side (bottom) 17.5 (0.69) TB1 999 А В 1 2 3 Current Current TB4 OUT1 999 (9) (15)<del>+</del> <del>-</del>(1)(4) 7 8 9 TB4 Output Input OUT1 (2)(5)(8) (14)-TB5 POWER (0-20mA) (±20mA) DT336 V1+ R1 I+ TB6 OUT2 Voltage Voltage <del>+</del>(3)(6) $(7)(13)^{-1}$ 000 Output Input TB5 2 (5) 4 5 6 10 11 12 (8) (14) (±10V) (±0.5V) POWER A2+ R2 B2+ (12)-(11)13 14 15 V OR mA V or mA TR6 **USB** OUT2 Configured Power DC Supply PWR (6-32V) V OR mA V or mA OUT 2

Dual channels ◆ ±20mA, ±500mV inputs ◆ 0-20mA, ±10V outputs ◆ 6-32V DC local/bus power

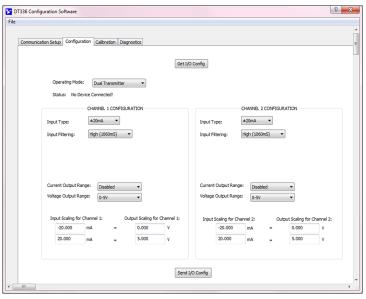
#### Description

DT330 series signal conditioners provide two independent I/O channels in a single, space-saving unit. The DT336 model is a four-wire dual transmitter that isolates and converts DC current or low voltage inputs to proportional control signals. Each channel supports DC current or voltage output. An optional DIN rail bus can deliver primary or redundant power to multiple units.

High-voltage isolation separates inputs, outputs, and power from each other. Isolation protects from surges, reduces noise, and eliminates ground loop errors.

Setup and calibration are fast and easy with a convenient USB connection to your PC and Acromag's Windows configuration software. The Android app enables setup with mobile devices.

Advanced signal processing capabilities, variable range input/output, and convenient USB programming make this instrument very versatile. These transmitters can withstand harsh industrial environments and operate reliably across a wide temperature range with very low drift. They feature RFI, EMI, ESD, EFT, and surge protection plus low radiated emissions.



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

Android Agility™ app (FREE) at Google Play Store

#### **Key Features & Benefits**

- Operate as a dual transmitter, a single transmitter, or a signal splitter
- Easy configuration via USB with Windows software or Agility™ app for Android
- Independently adjustable and scalable input and output ranges
- Selectable current and voltage input ranges: 0/4-20mA, ±1mA, ±20mA, ±0.5V, 0-500mV DC
- Compatible with 0-20A AC sensor input
- Selectable current and voltage output ranges: 0-20mA, 4-20mA, ±5V, ±10V, 0-5V, 0-10V DC
- Supports reverse-acting (inverse) output
- High accuracy, linearity, stability, and reliability
- User-selectable filtering (none, low, med., high)
- Space-saving 17.5mm (0.7 inch) unit with pluggable terminals for convenient wiring
- Bus power, local power, or both (redundancy)
- 1500V input isolation, 5-way, (power/input/output)
- Wide ambient operation (-40 to 70°C)
- CE compliant. UL/cUL Class I Div 2, ATEX/IECEx Zone 2

Save configuration files for convenient copy/restore capability.

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### DT336 Current/millivolt input four-wire dual transmitter

#### **Performance Specifications**

IMPORTANT: To prevent damage or errors from grounded PCs and surges, Acromag strongly recommends use of their USB-ISOLATOR when configuring a DT330 Series transmitter.

#### USB Interface

#### **USB** Connection

Type: USB Mini-B type socket, 5-pin.

Data rate: 12Mbps. USB v1.1 and 2.0 compatible. Maximum cable length: 5.0 meters.

Transient voltage suppression on power and data lines.

#### USB Drive

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

#### Input (two channels)

#### Default Configuration/Calibration

Input: 4 to 20mA, medium filter.

Output: 4 to 20mA.

#### A/D Converters (ADC)

Two 24-bit Sigma Delta ADCs (only 16-bits used).

#### **Input Ranges**

Path A: ±1mA, ±20mA, 0 to 11.17mA, 0-20mA, 4-20mA DC.

Path B: ±0.5V, 0-500mV DC.

#### **Ambient Temperature Effect**

Better than ±80ppm/°C (±0.008%/°C).

#### Scaling Adjust

Full-range.

#### Input Impedance

Current input: 24.9 ohms. Voltage input: 15M ohms.

#### Input Over-Voltage Protection

Bipolar Transient Voltage Suppression (TVS) and diode clamping.

#### Input Filter

RC filter plus variable digital filter (none, low, med., high).

#### Input Bandwidth

-3dB @ 34Hz (no filtering).

#### Noise Rejection

Common Mode: 100dB, no filter (120dB, high filter). Normal Mode: 7dB 60Hz, no filter (>80dB med./high filter).

#### Output (two channels)

#### D/A Converters (DAC)

Two 16-bit D/A converters.

#### **Output Ranges**

±10V (±11V maximum).

±5V (±5.5V maximum).

0 to 10V (11V maximum).

0 to 5V (5.5V maximum).

0 to 20mA (24mA maximum).

4 to 20mA (24mA maximum).

#### **Output Accuracy**

 $\pm 0.05\%$  typical,  $\pm 0.1\%$  maximum.

#### **Output Load**

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

#### **Output Compliance**

11V, typical.

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

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

No filter: 25 milliseconds Low filter: 41 milliseconds Medium filter: 140 milliseconds High filter: 1140 milliseconds

#### **Output Ripple**

Less than ±0.1% of output span.

#### Environmental

#### Operating Temperature Range

Operation: -40 to 70°C (-40° to 158°F). Storage: -40 to 85°C (-40 to 185°F).

#### Relative humidity

5 to 95% non-condensing.

#### **Power Requirement**

6-32V DC SELV, 1.6W max.

#### Isolation

1500V AC peak. 250V AC (354V DC) continuous isolation between inputs, outputs, and power (5-way).

#### Shock and Vibration Immunity

Vibration: 4g, per IEC 60068-2-6. Shock: 25g, per IEC 60068-2-27.

#### Approvals

CE compliant. UL/cUL listed 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

#### 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). Unit weight: 0.16 kg (0.35 pounds).

Shipping Weight: 0.22 kg (0.5 pounds) packed.

#### **Ordering Information**

#### Models

#### DT336-0700

Four-wire dual transmitter, current/millivolt inputs, isolated current or voltage outputs.

#### **Services**

#### DT330-Config/Cal

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

#### Software

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

Windows Software Interface Package for Acromag DT Series transmitters. 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**

#### TT BUS-KIT

DIN rail bus power connector and left/right terminal blocks. One kit supports multiple transmitters.

#### **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.

#### DIN rail end stop for hazloc approvals.

5028-565 USB-OTG 6 inch cable.

#### 5020-350

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

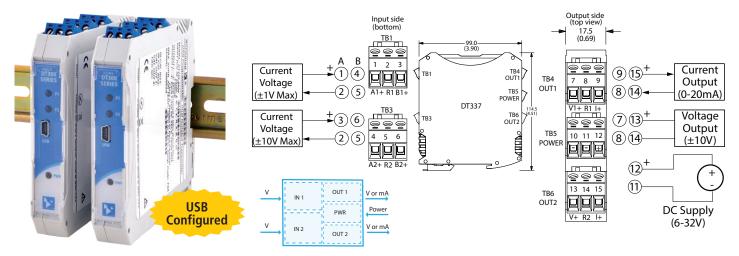






## DT337 Medium DC voltage input four-wire dual transmitter





Dual channels ◆ ±1V, ±10V inputs ◆ 0-20mA, ±10V outputs ◆ 6-32V DC local/bus power

#### **Description**

DT330 series signal conditioners provide two independent I/O channels in a single, space-saving unit. The DT337 model is a four-wire dual transmitter that isolates and converts process-level DC voltage inputs to proportional control signals. Each channel supports DC current or voltage output. An optional DIN rail bus can deliver primary or redundant power to multiple units.

High-voltage isolation separates inputs, outputs, and power from each other. Isolation protects from surges, reduces noise, and eliminates ground loop errors.

Setup and calibration are fast and easy with a convenient USB connection to your PC and Acromag's Windows configuration software. The Android app enables setup with mobile devices.

Advanced signal processing capabilities, variable range input/output, and convenient USB programming make this instrument very versatile. These transmitters can withstand harsh industrial environments and operate reliably across a wide temperature range with very low drift. They feature RFI, EMI, ESD, EFT, and surge protection plus low radiated emissions.

# File Communication Setup Configuration Calbration Diagnostics Get I/O Config Coperating Mode: Dual Transmitter Status: No Device Connected! CHANNEL 1 CONFIGURATION Input Type: 1810V Input Filtering: High (1850mS) Current Output Range: Deabled Voltage Output Range: Deab

Windows configuration software (FREE) at <a href="https://www.acromag.com">www.acromag.com</a>

Android Agility™ app (FREE) at Google Play Store

#### **Key Features & Benefits**

- Operate as a dual transmitter, a single transmitter, or a signal splitter
- Easy configuration via USB with Windows software or Agility™ app for Android
- Independently adjustable and scalable input and output ranges
- Selectable medium voltage input ranges: ±1V, ±5V, ±10V, 0-1V, 0-5V, 0-10V DC
- Selectable current and voltage output ranges:
   0-20mA, 4-20mA, ±5V, ±10V, 0-5V, 0-10V DC
- Supports reverse-acting (inverse) output
- High accuracy, linearity, stability, and reliability
- User-selectable filtering (none, low, med., high)
- Bus power, local power, or both (redundancy)
- Space-saving 17.5mm (0.7 inch) unit with pluggable terminals for convenient wiring
- 1500V input isolation, 5-way, (power/input/output)
- Wide ambient operation (-40 to 70°C)
- CE compliant. UL/cUL Class I Div 2, ATEX/IECEx Zone 2

Save configuration files for convenient copy/restore capability.



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### DT337 Medium DC voltage input four-wire dual transmitter

#### **Performance Specifications**

IMPORTANT: To prevent damage or errors from grounded PCs and surges, Acromag strongly recommends use of their USB-ISOLATOR when configuring a DT330 Series transmitter.

#### USB Interface

#### **USB** Connection

Type: USB Mini-B type socket, 5-pin. Data rate: 12Mbps. USB v1.1 and 2.0 compatible.

Maximum cable length: 5.0 meters.

Transient voltage suppression on power and data lines.

#### USB Drive

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

#### Input (two channels)

#### Default Configuration/Calibration

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

#### A/D Converters (ADC)

Two 24-bit Sigma Delta ADCs (only 16-bits used).

#### **Input Ranges**

Path A: ±1V, 0-1V.

Path B: ±5V, ±10V, 0-5V 0-10V DC.

#### **Ambient Temperature Effect**

Better than ±80ppm/°C (±0.008%/°C).

#### Scaling Adjust

Full range.

#### Input Impedance

Path A:  $15M\Omega$ .

Path B: 1MΩ.

#### Input Over-Voltage Protection

Bipolar Transient Voltage Suppression (TVS) and diode clamping.

#### Input Filter

RC filter plus variable digital filter (none, low, med., high).

#### Input Bandwidth

-3dB @ 34Hz (no filtering).

#### Noise Rejection

Common Mode: 100dB, no filter (120dB high filter). Normal Mode: Path A 7dB, Path B 29dB, 60Hz, no filter. (>80dB med./high filter).

#### Output (two channels)

D/A Converters (DAC)

Two 16-bit D/A converters.

#### **Output Ranges**

±10V (±11V maximum).

±5V (±5.5V maximum).

0 to 10V (11V maximum).

0 to 5V (5.5V maximum).

0 to 20mA (24mA maximum).

4 to 20mA (24mA maximum).

#### **Output Accuracy**

±0.05% typical, ±0.1% maximum.

#### **Output Load**

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

#### **Output Compliance**

11V, typical.

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

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

No filter: 25 milliseconds Low filter: 41 milliseconds Medium filter: 140 milliseconds High filter: 1140 milliseconds

#### **Output Ripple**

Less than ±0.1% of output span.

#### Environmental

#### Operating Temperature Range

Operation: -40 to 70°C (-40° to 158°F). Storage: -40 to 85°C (-40 to 185°F).

#### Relative humidity

5 to 95% non-condensing.

#### **Power Requirement**

6-32V DC SELV, 1.6W max.

#### Isolation

1500V AC peak. 250V AC (354V DC) continuous isolation between inputs, outputs, and power (5-way).

#### Shock and Vibration Immunity

Vibration: 4g, per IEC 60068-2-6.

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

#### Approvals

CE compliant. UL/cUL listed 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.

#### 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). Unit weight: 0.16 kg (0.35 pounds). Shipping Weight: 0.22 kg (0.5 pounds) packed.

#### **Ordering Information**

#### Models

#### DT337-0700

Four-wire dual transmitter, medium voltage DC inputs, isolated current or voltage ouputs.

#### **Services**

#### DT330-Config/Cal

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

#### Software

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

Windows Software Interface Package for Acromag DT Series transmitters. 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

#### **TT BUS-KIT**

DIN rail bus power connector and left/right terminal blocks. One kit supports multiple transmitters.

#### **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.

#### 4001-252 DIN rail end stop for hazloc approvals.

5028-565 USB-OTG 6 inch cable.

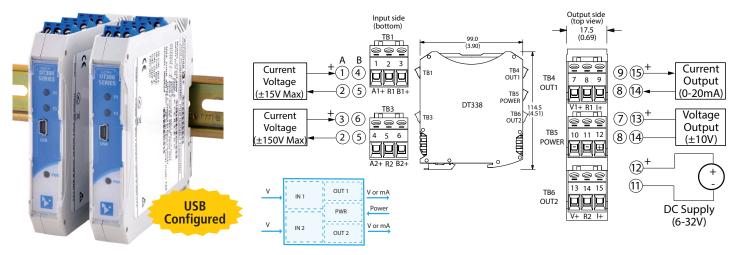






#### High DC voltage input four-wire dual transmitter **DT338**





Dual channels ◆ ±15V, ±150V inputs ◆ 0-20mA, ±10V outputs ◆ 6-32V DC local/bus power

#### **Description**

DT330 series signal conditioners provide two independent I/O channels in a single, space-saving unit. The DT338 model is a four-wire dual transmitter that isolates and converts high-level DC voltage inputs to proportional control signals. Each channel supports DC current or voltage output. An optional DIN rail bus can deliver primary or redundant power to multiple units.

High-voltage isolation separates inputs, outputs, and power from each other. Isolation protects from surges, reduces noise, and eliminates ground loop errors.

Setup and calibration are fast and easy with a convenient USB connection to your PC and Acromag's Windows configuration software. The Android app enables setup with mobile devices.

Advanced signal processing capabilities, variable range input/output, and convenient USB programming make this instrument very versatile. These transmitters can withstand harsh industrial environments and operate reliably across a wide temperature range with very low drift. They feature RFI, EMI, ESD, EFT, and surge protection plus low radiated emissions.

## 9 X DT338 Configuration Software mmunication Setup | Configuration | Calibration | Diagnostics Get I/O Config Dual Transmitter ±150V ▼ ±150V -High (1168mS) 🔻 5.000 Send I/O Config

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

Android Agility™ app (FREE) at Google Play Store

#### **Key Features & Benefits**

- Operate as a dual transmitter, a single transmitter, or a signal splitter
- Easy configuration via USB with Windows software or Agility™ app for Android
- Independently adjustable and scalable input and output ranges
- Selectable high voltage input ranges: ±15V, ±75V, ±150V, 0-15V, 0-75V, 0-150V DC
- Selectable current and voltage output ranges: 0-20mA, 4-20mA, ±5V, ±10V, 0-5V, 0-10V DC
- Supports reverse-acting (inverse) output
- High accuracy, linearity, stability, and reliability
- User-selectable filtering (none, low, med., high)
- Bus power, local power, or both (redundancy)
- Space-saving 17.5mm (0.7 inch) unit with pluggable terminals for convenient wiring
- 1500V input isolation, 5-way, (power/input/output)
- Wide ambient operation (-40 to 70°C)
- CE compliant. UL/cUL Class I Div 2, ATEX / IECEx Zone 2



Save configuration files for convenient copy/restore capability.

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#### High DC voltage input four-wire dual transmitter

#### **Performance Specifications**

IMPORTANT: To prevent damage or errors from grounded PCs and surges, Acromag strongly recommends use of their USB-ISOLATOR when configuring a DT330 Series transmitter.

#### USB Interface

#### **USB** Connection

Type: USB Mini-B type socket, 5-pin.

Data rate: 12Mbps. USB v1.1 and 2.0 compatible.

Maximum cable length: 5.0 meters.

Transient voltage suppression on power and data lines.

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

#### Input (two channels)

#### Default Configuration/Calibration

Input: ±150V, medium filter. Output: 4 to 20mA.

#### A/D Converters (ADC)

Two 24-bit Sigma Delta ADCs (only 16-bits used).

#### Input Ranges

Path A: ±15V, 0-15V.

Path B: ±75V, ±150V, 0-75V 0-150V DC. .

#### **Ambient Temperature Effect**

Better than ±80ppm/°C (±0.008%/°C).

#### Scaling Adjust

Full range.

#### Input Impedance

Path A: 500KΩ. Path B: 1MΩ.

#### Input Over-Voltage Protection

Bipolar Transient Voltage Suppression (TVS) and diode clamping.

RC filter plus variable digital filter (none, low, med., high).

#### Input Bandwidth

-3dB @ 34Hz (no filtering).

#### Noise Rejection

Common Mode: 100dB no filter (120dB high filter). Normal Mode: Path A 32dB, Path B 52dB, 60Hz no filter. (>80dB med./high filter).

#### Output (two channels)

D/A Converters (DAC) Two 16-bit D/A converters.

#### **Output Ranges**

±10V (±11V maximum).

±5V (±5.5V maximum).

0 to 10V (11V maximum).

0 to 5V (5.5V maximum).

0 to 20mA (24mA maximum).

4 to 20mA (24mA maximum).

#### **Output Accuracy**

±0.05% typical, ±0.1% maximum.

#### Output Load

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

#### **Output Compliance**

11V, typical.

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

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

No filter: 25 milliseconds Low filter: 41 milliseconds Medium filter: 140 milliseconds High filter: 1140 milliseconds

#### **Output Ripple**

Less than ±0.1% of output span.

#### Environmental

#### **Operating Temperature Range**

Operation: -40 to 70°C (-40° to 158°F). Storage: -40 to 85°C (-40 to 185°F).

#### Relative humidity

5 to 95% non-condensing.

#### **Power Requirement**

6-32V DC SELV, 1.6W max.

Approvals

1500V AC peak. 250V AC (354V DC) continuous isolation between inputs, outputs, and power (5-way).

#### Shock and Vibration Immunity

Vibration: 4q, per IEC 60068-2-6.

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

CE compliant. UL/cUL listed 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.

#### 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). Unit weight: 0.16 kg (0.35 pounds) Shipping Weight: 0.22 kg (0.5 pounds) packed.

#### **Ordering Information**

#### Models

#### DT338-0700

Four-wire dual transmitter, high voltage DC inputs, isolated current or voltage ouputs.

#### **Services**

#### DT330-Config/Cal

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

#### Software

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

Windows Software Interface Package for Acromag DT Series transmitters. 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

#### TT BUS-KIT

DIN rail bus power connector and left/right terminal blocks. One kit supports multiple transmitters.

#### **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.

DIN rail end stop for hazloc approvals.

#### 5028-565

USB-OTG 6 inch cable.







#### Accessories

#### Configuration Software



#### **DT 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>.

#### **Ordering Information**

#### TTC-SIP

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

Ex Brohs 124 22.

#### DT330-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 DT Series transmitters.

#### **Ordering Information**

#### TT BUS-Kit

DIN rail bus power connector and left/right terminal blocks for DT, 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**

#### PS5R-VB24

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

#### PS5R-VD24

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

Visit <u>www.acromag.com</u> 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**

#### <u>USB-Isolator</u>

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-totransmitter 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

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