DSCP62

Thermocouple-to-DC Current/Voltage Converter with Relay Output

DESCRIPTION

The DSCP62 thermocouple converter provides a single channel of thermocouple-input which is amplified, linearized, and converted to a high-level current or voltage output. Thermocouple type, measurement range, filter, output type and range, and fault indication may be configured by dip-switch. An auxiliary relay output is provided to generate an alarm or act as a thermostat. Power can be applied directly to the converter's terminals or through a DIN-rail mounted bus connector accessory, eliminating the need to wire power to each individual converter.



FEATURES

- Input: Thermocouple types J, K, E, N, S, R, B, T
- Output Current: 0-20mA, 4-20mA, 20mA-0, 20-4mA
- Output Voltage: 0-5VDC, 1-5VDC, 0-10VDC, 10-0VDC
- Auxiliary Relay for Alarm or Control
- 1500Vrms Galvanic Isolation, 3-way
- 19.2-30VDC Power
- Spring-cage Clamp Connection
- 14-bit Resolution
- Better than ±0.1% Accuracy
- Configuration by Dip-switch
- Compact 6.2mm DIN Housing
- CE Compliant

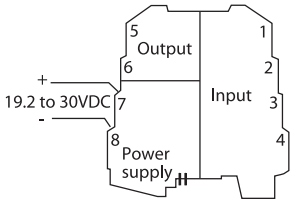
BENEFITS

- Robust Interference-free Signal
- Enables Use of Copper Extension Cable in Place of More Expensive Solutions

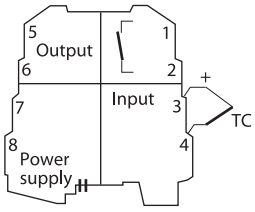
APPLICATIONS

- Data Acquisition
- Test and Measurement
- Control Systems

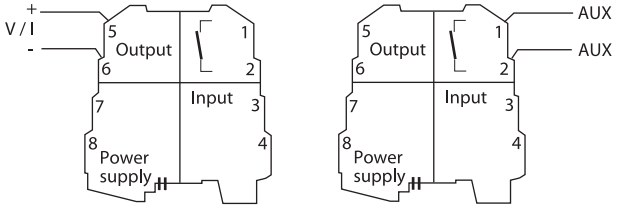
Power Supply



Input



Ouput



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DSCP62 Electrical Connections

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Specifications

Typical* at T_A = +25°C and +24VDC Loop Power

Module	DSCP62
Input (selectable) Thermocouple Type EN 60584-1 Input Impedance	 J, K, E, N, S, R, B, T Measurement Range: Depends on Thermocouple Type and Dip-switch Setting Span: 100°C (min) 10MΩ
Accuracy Cold Junction Error Thermal Drift A/D Conversion Processing Response Time, 90% Span (selectable) CMRR Isolation Dip-switch Configuration Status Indicators (LED)	±0.1% (max) 1.5°C (max) <120ppm/°K 14-bit Floating Point 32-bit <25ms (without filter), <55ms (with filter) >135dB, Referred to Power Supply Side 1500Vrms (1 minute), 3-way Sets Input and Output Ranges, Sensor Type, Filter and Faults Internal Fault, Configuration Error, Connection Fault
Output (selectable) Current Current Output Protection Fault Output Voltage Auxiliary Relay Output	 0-20mA, 4-20mA, 20mA-0 or 20-4mA Load Resistance: 500Ω (max) 25mA (max) 102.5% or 105% of Full-scale Value in Case of Over-range 0-5VDC, 1-5VDC, 0-10VDC or 10-0VDC Load Resistance: 2kΩ (min) Rated 60mA (max) at 24VAC
Power Supply Power Consumption Hot Swapping	19.2-30VDC <600mW (24mA at 24VDC) Yes
Mechanical Dimensions (w x h x d)	0.24" x 3.67" x 4.04" (6.2mm x 93.1mm x 102.5mm)
Housing	Terminal Housing for Mounting on 35mm DIN 46277
Connections	Spring-cage Clamp
Weight	1.6 ounces (46g)
Environmental Operating Temp. Range Storage Temp. Range Relative Humidity IP Protection Emissions Immunity	 –20°C to +65°C –40°C to +85°C 0 to 90%, Noncondensing IP20 EN61000-6-4 EN61000-6-2

Ordering Information

Model	Description
DSCP62	Thermocouple Converter

Accessories

Model	Description
DSCX-02	DIN-rail Expandable Power-bus Connector
DSCP70	Power Supply Connection Module

NOTES:
*Contact factory or your local Dataforth sales office for maximum values.

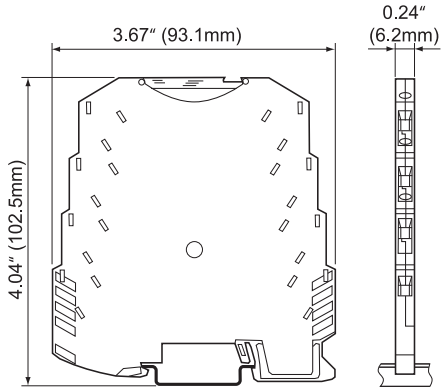
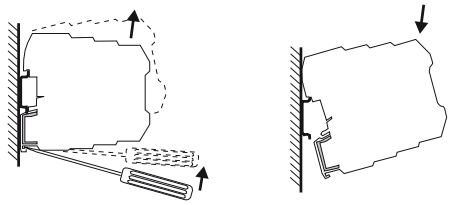
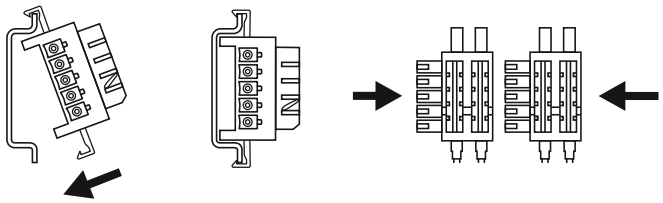


Figure 1: Dimensional Drawing

Inserting/Extracting Module on DIN Guide



Expandable Power-bus Connector



Spring-cage Clamp Connection

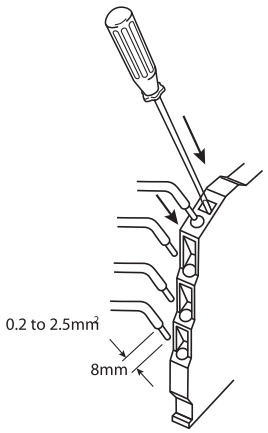


Figure 2: Module Installation

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