DSCP61

Pt100-to-DC Current/Voltage Converter

Description

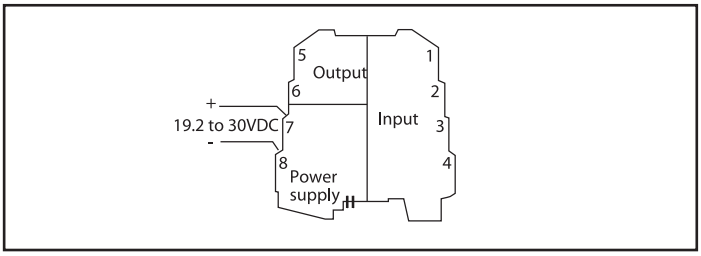
Each DSCP61 RTD Pt100 Converter provides a single channel of RTD input which is amplified, linearized and converted to a high-level current or voltage output. Inputs may be connected by 2, 3, or 4 wires and measurement range may be configured by dip-switch to cover a range of –150°C to +650°C. Power 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

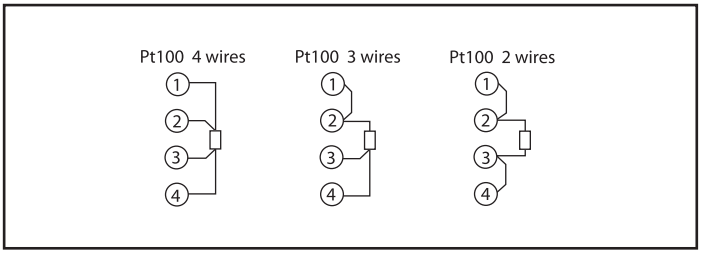
- Input: Pt100 (2, 3, 4 wires, –150°C to +650°C)
- Output Current: 0 to 20, 4 to 20, 20 to 0, 20 to 4mA
- Output Voltage: 0 to 5, 1 to 5, 0 to 10, 10 to 0VDC
- 1500Vrms Galvanic Isolation, 3-Way
- 19.2 to 30VDC Power
- Spring Cage Clamp Connection
- 14-Bit Resolution
- Better than ±0.1% Accuracy
- Configuration by Dip-Switch
- Compact 6.2mm DIN Housing
- CE Compliant

Electrical Connections

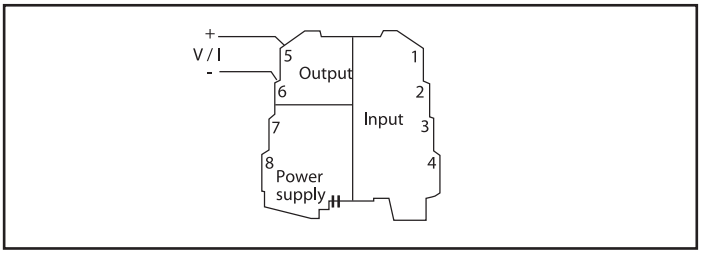
Power supply



Input



Output



Specifications

Typical* at T_A = +25°C and +24VDC loop power

Module	DSCP61
Input (selectable) Pt100 Probe EN 60751	 Accepts 2-, 3-, or 4-wire RTDs Sensor current: <900µA Cable resistance: 20Ω per wire (max) Measurement range: –150°C to +650°C (settable) Span: 50°C (min) Input voltage: 32VDC (max)
Accuracy Thermal Drift A/D Conversion Processing Response Time, 90% Span (selectable) Isolation Dip-Switch Configuration Status Indicators (LED)	±0.1% (max) <100ppm/°K 14-bit Floating point 32-bit <50ms (without filter), <200ms (with filter) 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 Maximum Fault Output Voltage	 0 to 20, 4 to 20, 20 to 0 or 20 to 4mA Load resistance: 500Ω (max) 25mA 102.5% or 105% of full-scale value in case of over-range 0 to 5, 1 to 5, 0 to 10 or 10 to 0VDC Load resistance: 2kΩ (min)
Power Supply Power Consumption Hot Swapping	19.2 to 30VDC 500mW (21mA 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	1.8 ounces (50g)
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
DSCP61	Pt100-to-DC Current/Voltage Converter

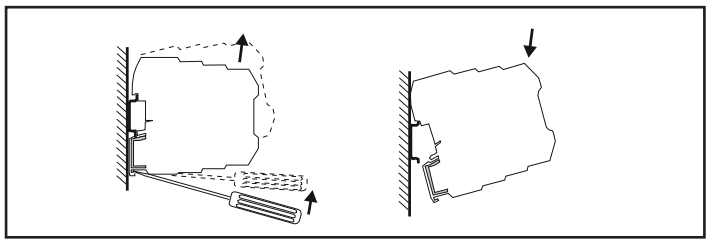
Accessories

Model	Description
DSCX-02	DIN Rail Expandable Power-Bus Connector
DSCP70	Power Supply Connection Module

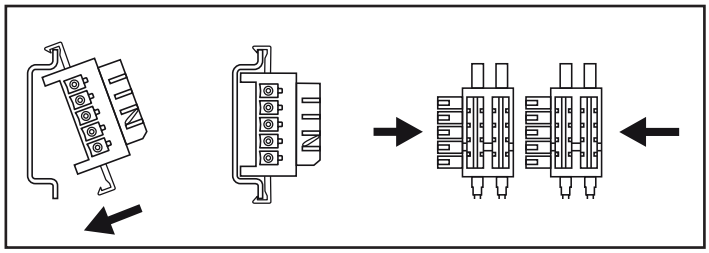
NOTES: *Contact factory or your local Dataforth sales office for maximum values.

Installation

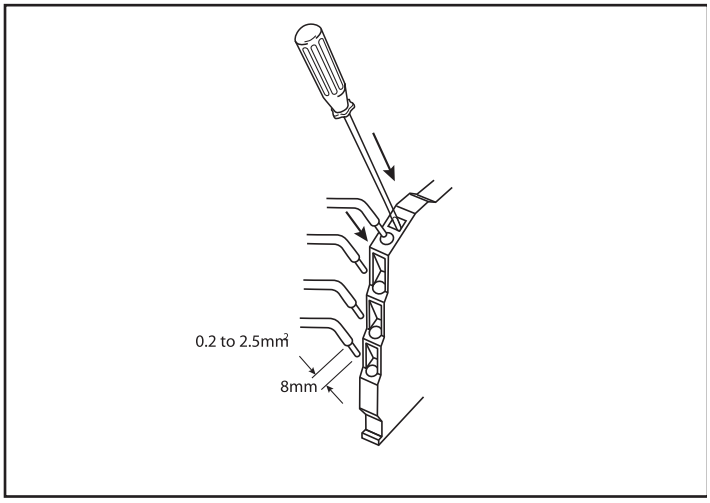
Inserting/extracting module on DIN guide



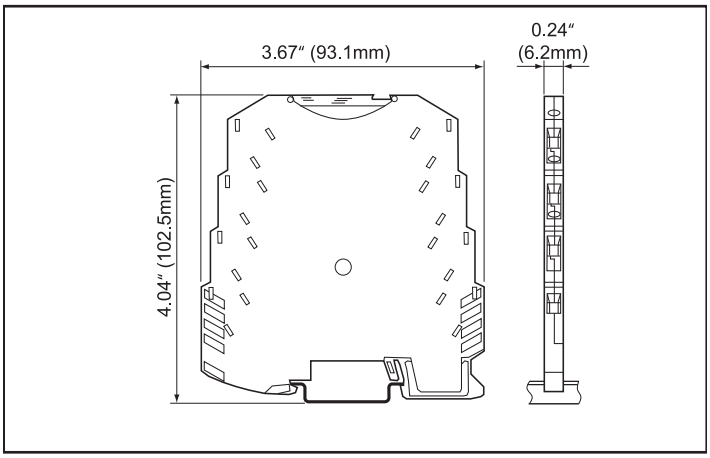
Expandable power-bus connector



Spring cage clamp connection



Dimensional Drawing



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