DSCP55

Pt100, Ni100/Loop-powered Converter

DESCRIPTION

The DSCP55 RTD loop-powered converter provides a single channel of RTD-input which is amplified, linearized, and converted to a high-level 4-20mA or 20-4mA output. Inputs may be connected by 2-, 3-, or 4-wires and measurement range may be configured by dip-switch.



FEATURES

- Input: Pt100 (–200°C to + 650°C) Ni100 (–60°C to + 250°C)
- Output Current: 4-20mA or 20-4mA
- Spring-cage Clamp Connection
- 16-bit Resolution
- Better than ±0.1% Accuracy
- Configuration by Dip-switch
- Compact 6.2mm DIN Housing
- CE Compliant

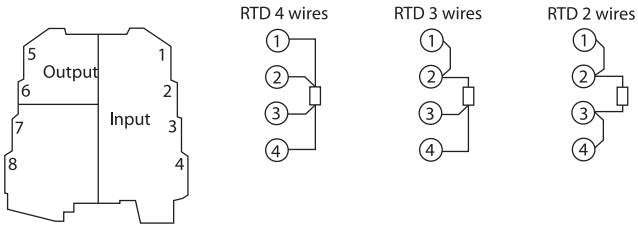
BENEFITS

- No Additional Power Supply Required
- Easy Wiring
- Lower Cost
- Hazardous Area Approvals

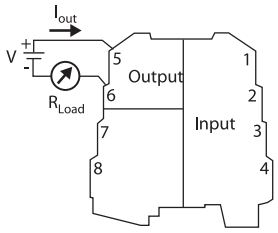
APPLICATIONS

- Data Acquisition
- Test and Measurement
- Control Systems
- Current Repeater
- Resistive Load Drives
- Medical, Industrial, etc. Needing Electrical Isolation for Safety

Input



Output and Power Supply



DSCP55 Electrical Connections

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Specifications

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

Module	DSCP55
Input (selectable)	
Pt100 Probe EN 60751	Accepts 2-, 3-, or 4-wire RTDs Sensor Current: 750µA Cable Resistance: 25Ω (max) per Wire Measurement Range: – 200°C to +650°C (settable) Span: 20°C (min)
Ni100 Probe	Accepts 2-, 3-, or 4-wire RTDs Sensor Current: 750µA Cable Resistance: 25Ω (max) per Wire Measurement Range: –60°C to +250°C (settable) Span: 20°C (min)
Accuracy	±0.1% (max)
Thermal Drift	<100ppm/°K
A/D Conversion	16-bit
Response Time, 90% Span (selectable)	<220ms (without filter), <620ms (with filter)
Isolation	No
Dip-switch Configuration	Sets Input and Output Ranges, Sensor Type, Filter and Faults
Status Indicators (LED)	Internal Fault, Configuration Error, Connection Fault
Output (selectable)	
Current	4-20mA or 20-4mA Load resistance: 1200Ω (max)
Current Output Maximum	30mA
Fault Output	102.5% or 105% of Full-scale Value in Case of Over-range
Hot Swapping	Yes
Loop Supply Voltage	5-30VDC
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 (45g)
Environmental	
Operating Temp. Range	–20°C to +65°C
Storage Temp. Range	–40°C to +85°C
Relative Humidity	0 to 90%, Noncondensing
IP Protection	IP20
Emissions	EN61000-6-4
Immunity	EN61000-6-2

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

Ordering Information

Model	Description
DSCP55	Pt100, Ni100 Loop-powered Converter

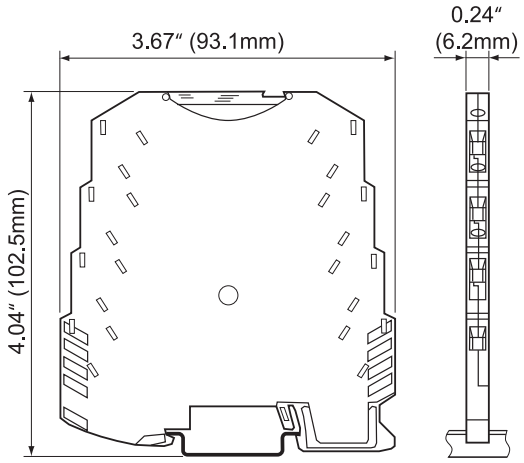


Figure 1: Dimensional Drawing

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