DSCP55

Pt100, Ni100/Loop-Powered Converter

Description

Each DSCP55 RTD Loop-Powered Converter provides a single channel of RTD input which is amplified, linearized and converted to a highlevel 4 to 20mA or 20 to 4mA output. Inputs may be connected by 2, 3, or 4 wires and measurement range may be configured by dip-switch.
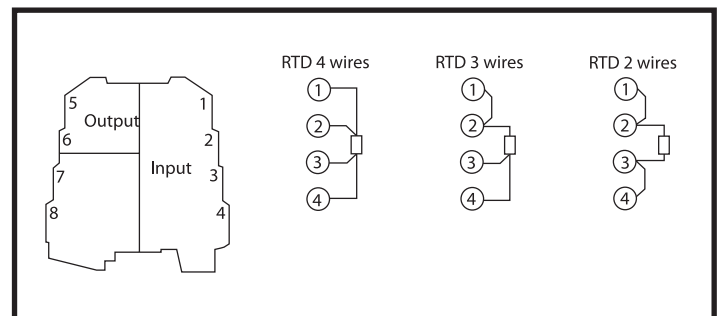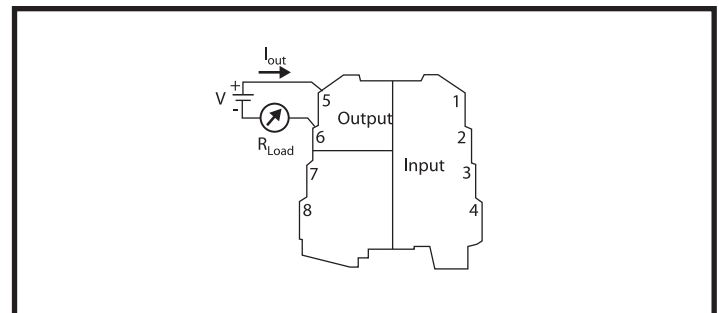

▶ **Features**

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

Electrical Connections

Input

Output and power supply

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 to 20 or 20 to 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 to 30VDC
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
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)

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

Ordering Information

Model	Description
DSCP55	Pt100, Ni100 Loop-Powered Converter

Dimensional Drawing