

# 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 high-level 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.

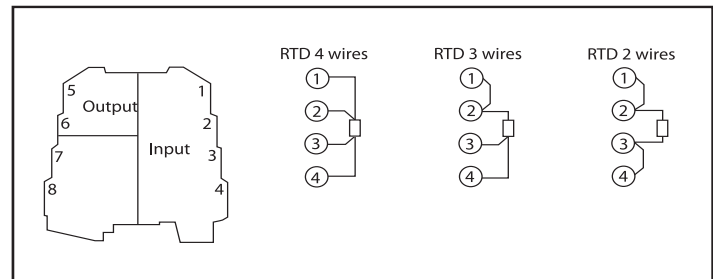


### Features

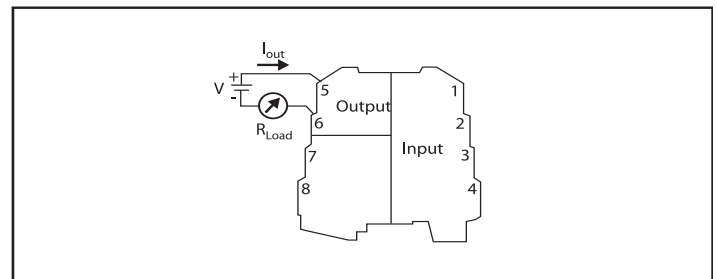
- Input: Pt100 (–200°C to + 650°C)  
Ni100 (–60°C to + 250°C)
- Output Current: 4 to 20 or 20 to 4mA
- Spring Cage Clamp Connection
- 16-Bit Resolution
- Better than ±0.1% Accuracy
- Configuration by Dip-Switch
- Compact 6.2mm DIN Housing
- CE Compliant

### Electrical Connections

#### Input



#### Output and power supply



**Specifications** Typical\* at  $T_A = +25^\circ\text{C}$  and +24VDC loop power

Module	DSCP55
Input (selectable) Pt100 Probe EN 60751	Accepts 2-, 3-, or 4-wire RTDs Sensor current: 750 $\mu\text{A}$ Cable resistance: 25 $\Omega$ (max) per wire Measurement range: $-200^\circ\text{C}$ to $+650^\circ\text{C}$ (settable) Span: 20 $^\circ\text{C}$ (min)
Ni100 Probe	Accepts 2-, 3-, or 4-wire RTDs Sensor current: 750 $\mu\text{A}$ Cable resistance: 25 $\Omega$ (max) per wire Measurement range: $-60^\circ\text{C}$ to $+250^\circ\text{C}$ (settable) Span: 20 $^\circ\text{C}$ (min)
Accuracy Thermal Drift A/D Conversion Response Time, 90% Span (selectable) Isolation Dip-Switch Configuration Status Indicators (LED)	$\pm 0.1\%$ (max) <100ppm/ $^\circ\text{K}$ 16-bit <220ms (without filter), <620ms (with filter) No Sets input and output ranges, sensor type, filter and faults Internal fault, configuration error, connection fault
Output (selectable) Current Current Output Maximum Fault Output Hot Swapping Loop Supply Voltage	4 to 20 or 20 to 4mA Load resistance: 1200 $\Omega$ (max) 30mA 102.5% or 105% of full-scale value in case of over-range Yes 5 to 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 Storage Temp. Range Relative Humidity IP Protection Emissions Immunity	$-20^\circ\text{C}$ to $+65^\circ\text{C}$ $-40^\circ\text{C}$ to $+85^\circ\text{C}$ 0 to 90% Noncondensing IP20 EN61000-6-4 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

**Dimensional Drawing**

