

DSCP65

DC Low Voltage Converter



DESCRIPTION

The DSCP65 low voltage converter provides a single channel of low-voltage input which is converted to a current or voltage output. It is designed for industrial-standard voltage or current signals. Input/output range, filter, fault indication, and other functions may be configured by dip-switch. 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 Voltage: 25mV to 2VDC in 15 Settable Steps
- Output Voltage: 0-5VDC, 0-10VDC, 1-5VDC, 2-10VDC
- Output Current: 0-20mA, 4-20mA, 20mA-0, 20-4mA
- 1500Vrms Galvanic Isolation, 3-way
- 19.2-30VDC Power
- Spring-cage Clamp Connection
- 14-bit Resolution
- Better than $\pm 0.1\%$ Accuracy
- Configuration by Dip-switch
- Compact 6.2mm DIN Housing
- CE Compliant

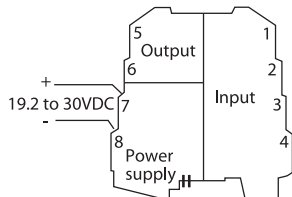
BENEFITS

- High Efficiency and Performance
- Reduced Power Loss During Conversion

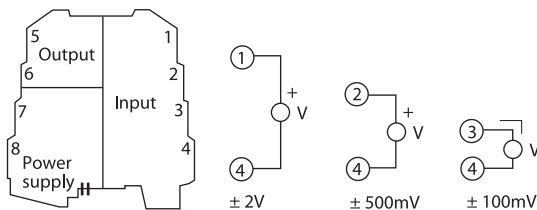
APPLICATIONS

- Data Acquisition
- Test and Measurement
- Control Systems

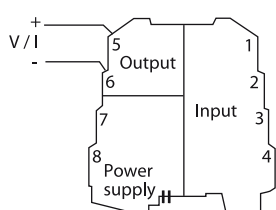
Power Supply



Input



Output



DSCP65 Electrical Connections

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

Module	DSCP65
Input (selectable) Voltage (Terminals 3 and 4) Voltage (Terminals 2 and 4)	25, 50, 60, 75, 80, or 100mV (Input R = 50k Ω) 120, 150, 200, 250, 300, 400, or 500mV (Input R = 250k Ω)
Voltage (Terminals 1 and 4) Maximum Input Voltage	1000 or 2000mV (Input R = 1M Ω) $\pm 50\text{VDC}$
Accuracy Thermal Drift A/D Conversion Processing Response Time, 90% Span (selectable) CMRR Isolation Dip-switch Configuration Status Indicators (LED)	$\pm 0.1\%$ (max) <120ppm/ $^{\circ}\text{K}$ 14-bit Floating Point 32-bit <23ms (without filter), <51ms (with filter) >160dB 1500Vrms (1 minute), 3-way Sets Input and Output Ranges, Filter and Faults Internal Fault, Configuration Error, Connection Fault
Output (selectable) Current Current Output Maximum Fault Output Voltage Voltage Output Maximum	0-20mA, 4-20mA, 20mA-0 or 20-4mA Load Resistance: 500 Ω (max) 25mA 102.5% or 105% of Full-scale Value in Case of Over-range 0-5VDC, 1-5VDC, 0-10VDC or 2-10VDC Load Resistance: 2k Ω (min) 12.5VDC
Power Supply Power Consumption Hot Swapping	19.2-30VDC <600mW (22mA 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	-20 $^{\circ}\text{C}$ to +65 $^{\circ}\text{C}$ -40 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$ 0 to 90%, Noncondensing IP20
Emissions Immunity	EN61000-6-4 EN61000-6-2

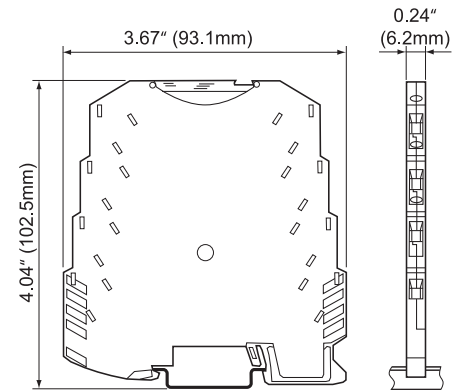
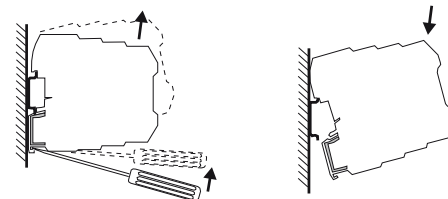
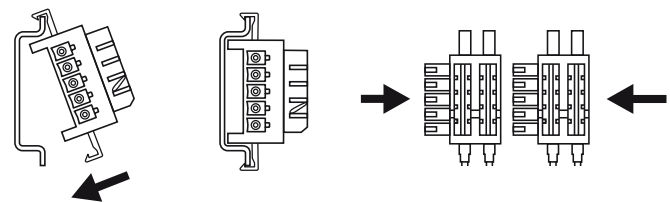
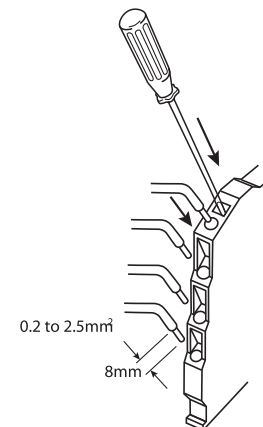
Ordering Information

Model	Description
DSCP65	DC Low 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.


Figure 1: Dimensional Drawing
Inserting/Extracting Module on DIN Guide

Expandable Power-bus Connector

Spring-cage Clamp Connection

Figure 2: Module Installation