

# DSCP65

## DC Low Voltage Converter



### Description

Each 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.

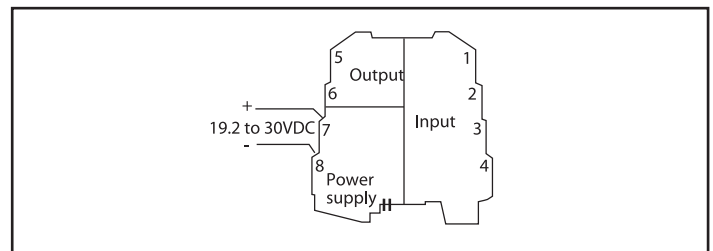


### Features

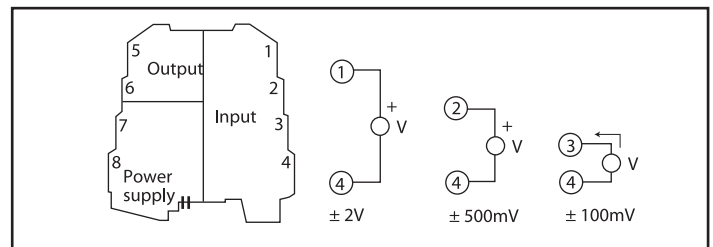
- Input Voltage: 25mV to 2VDC in 15 Settable Steps
- Output Voltage: 0 to 5, 1 to 5, 0 to 10, 2 to 10VDC
- Output Current: 0 to 20, 4 to 20, 20 to 0, 20 to 4mA
- 1500Vrms Galvanic Isolation, 3-Way
- 19.2 to 30VDC Power
- Spring Cage Clamp Connection
- 14-Bit Resolution
- Better than  $\pm 0.1\%$  Accuracy
- Configuration by Dip-Switch
- Compact 6.2mm DIN Housing
- CE Compliant

### Electrical Connections

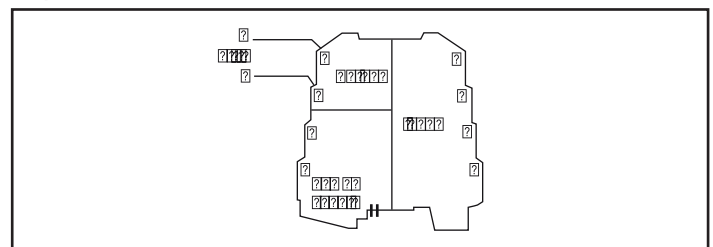
#### Power supply



#### Input



#### Output



**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 $\Omega$ ) 120, 150, 200, 250, 300, 400, or 500mV (input R = 250k $\Omega$ )
Voltage (Terminals 1 and 4) Maximum Input Voltage	1000 or 2000mV (input R = 1M $\Omega$ ) $\pm 50\text{VDC}$
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) $\pm 60\text{dB}$ 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 to 20, 4 to 20, 20 to 0 or 20 to 4mA Load resistance: 500 $\Omega$ (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 2 to 10VDC Load resistance: 2k $\Omega$ (min) 12.5VDC
Power Supply Power Consumption Hot Swapping	19.2 to 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 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

**Ordering Information**

Model	Description
DSCP65	DC Low Voltage Converter

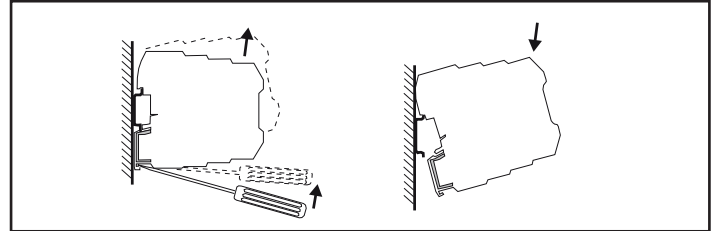
**Accessories**

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

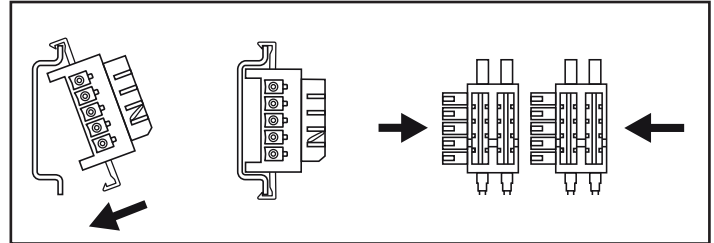
NOTES:  
\*Contact factory or your local Dataforth sales office for maximum values.

**Installation**

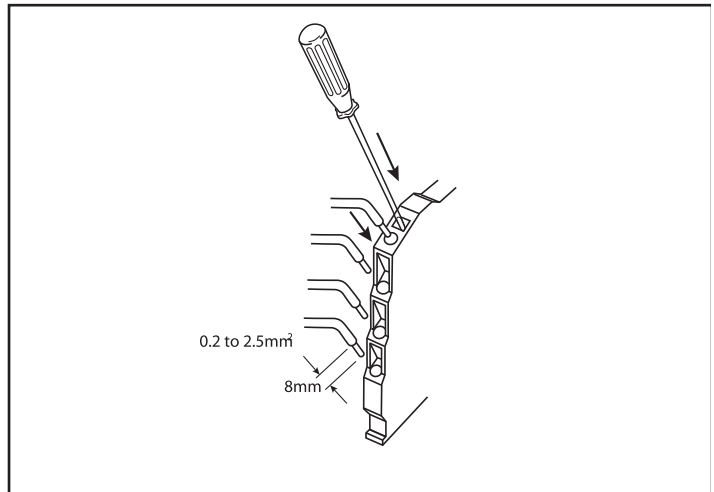
Inserting/extracting module on DIN guide



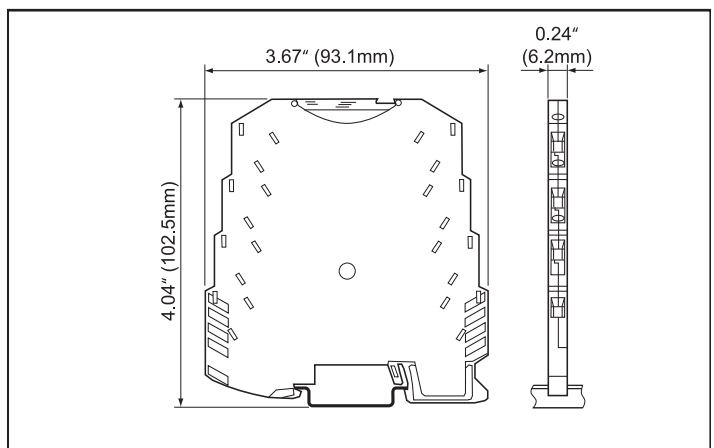
Expandable power-bus connector



Spring cage clamp connection



**Dimensional Drawing**



**DSCP**