

DSCP63

DC Voltage/Current Converter



Description

Each DSCP63 Voltage/Current Converter provides a single channel of voltage or current input which is converted to a voltage or current output. It is designed for industrial standard voltage or current signals. Input/output range, filter, fault indication, square root function 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.

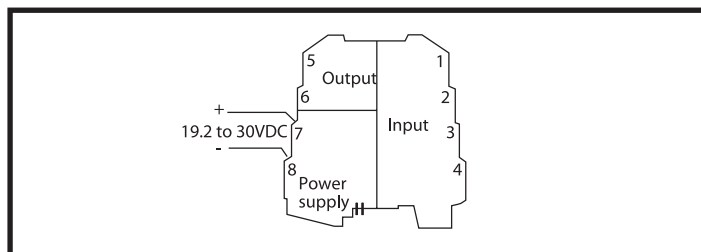


► Features

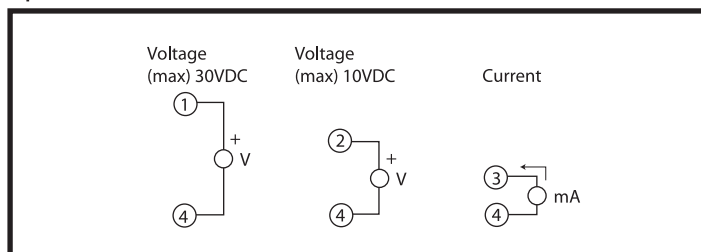
- Input Voltage: 0 to 5, 0 to 10, 0 to 15, 0 to 30, 1 to 5, 2 to 10VDC
- Input Current: 0 to 20, 4 to 20mA
- Output Voltage: 0 to 5, 0 to 10, 1 to 5, 2 to 10VDC
- Output Current: 0 to 20, 4 to 20, 20 to 0, 20 to 4mA
- 1500Vrms Galvanic Isolation, 3-Way
- 19.2 to 30VDC Power
- Spring Cage Clamp Connection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

Electrical Connections

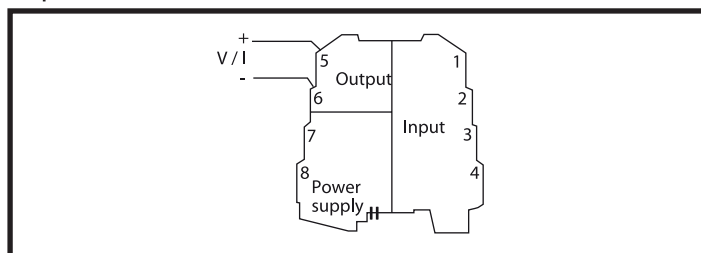
Power supply



Input



Output



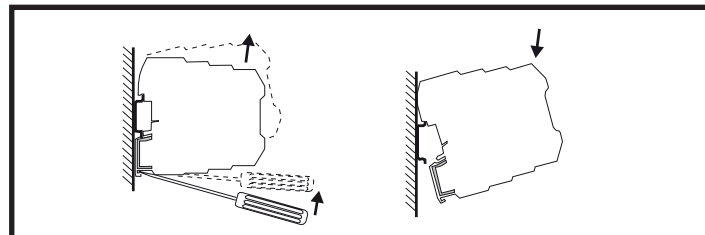
Specifications

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

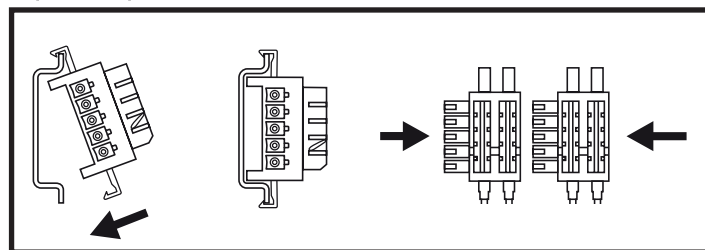
Module	DSCP63
Input (selectable)	
Voltage (maximum 50VDC)	0 to 15, 0 to 30VDC (input R = 325k Ω)
Voltage (maximum 30VDC)	0 to 5, 1 to 5, 0 to 10, 2 to 10VDC (input R = 110k Ω)
Current (maximum 24mA)	0 to 20, 4 to 20mA (input R = 35 Ω)
Accuracy	$\pm 0.1\%$ (max)
Thermal Drift	<120ppm/ $^{\circ}\text{K}$
A/D Conversion	14-bit
Processing	Floating point 32-bit
Response Time, 90% Span, (selectable)	<35ms (without filter), <74ms (with filter)
Isolation	1500Vrms (1 minute), 3-Way
Dip-Switch Configuration	Sets input and output ranges, filter and faults
Status Indicators (LED)	Internal fault, configuration error, connection fault
Output (selectable)	
Current	0 to 20, 4 to 20, 20 to 0 or 20 to 4mA
Current Output Maximum	Load resistance: 500 Ω (max) 25mA
Fault Output	102.5% or 105% of full-scale value in case of over-range
Voltage	0 to 5, 1 to 5, 0 to 10 or 2 to 10VDC Load resistance: 2k Ω (min)
Power Supply	19.2 to 30VDC
Power Consumption	<600mW (22mA at 24VDC)
Hot Swapping	Yes
Environmental	
Operating Temp. Range	-20 $^{\circ}\text{C}$ to +65 $^{\circ}\text{C}$
Storage Temp. Range	-40 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$
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	1.8 ounces (50g)

Installation

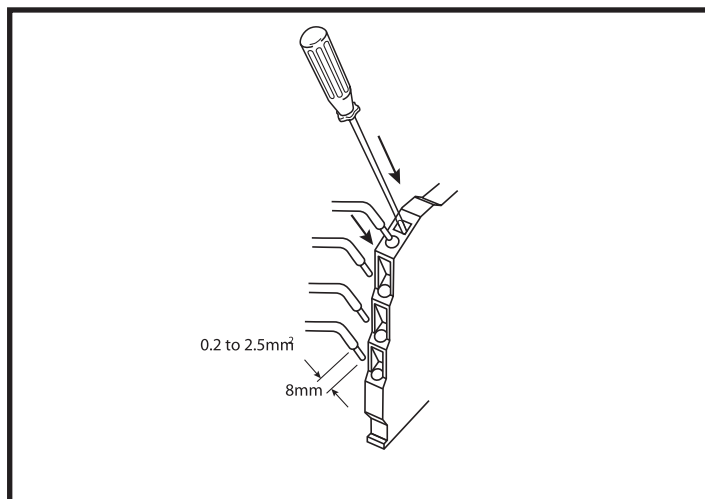
Inserting/extracting module on DIN guide



Expandable power-bus connector



Spring cage clamp connection



Ordering Information

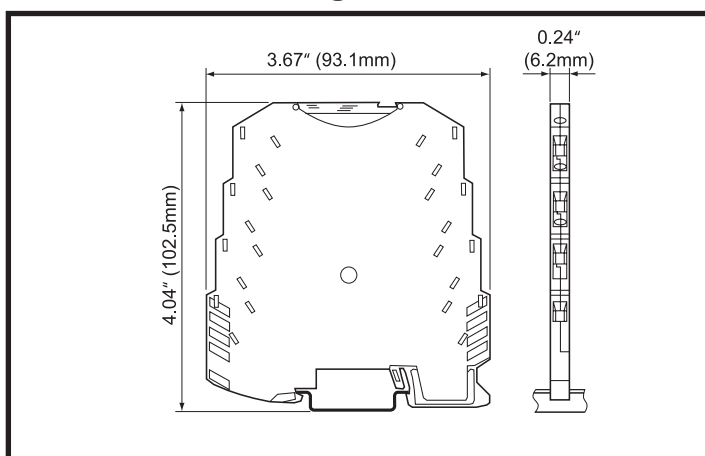
Model	Description
DSCP63	DC Voltage/Current Converter

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.

Dimensional Drawing


DSCP