

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.

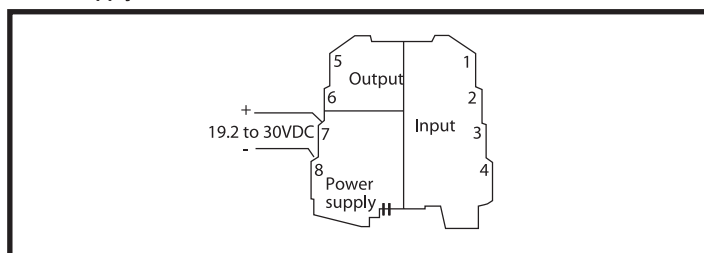


► Features

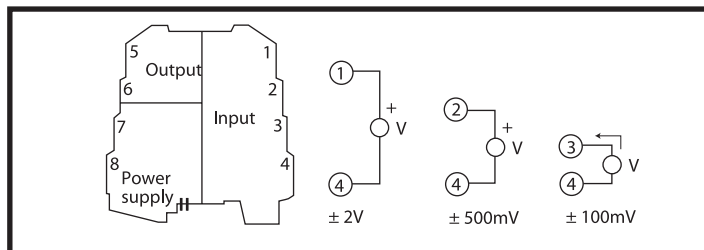
- Input Voltage: 25mV to 2VDC in 15 Settable Steps
- Output Voltage: 0 to 5, 1 to 5, 0 to 10, 2 to 10VDC
- Output Current: 0 to 20, 4 to 20, 20 to 0, 20 to 4mA
- 1500Vrms Galvanic Isolation, 3-Way
- 19.2 to 30VDC Power
- Spring Cage Clamp Connection
- 14-Bit Resolution
- Better than $\pm 0.1\%$ Accuracy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

Electrical Connections

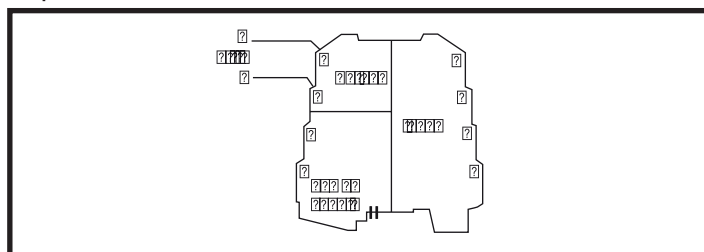
Power supply



Input



Output



Specifications

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

Module	DSCP65
Input (selectable)	
Voltage (Terminals 3 and 4)	25, 50, 60, 75, 80, or 100mV (input R = 50k Ω)
Voltage (Terminals 2 and 4)	120, 150, 200, 250, 300, 400, or 500mV (input R = 250k Ω)
Voltage (Terminals 1 and 4)	1000 or 2000mV (input R = 1M Ω)
Maximum Input Voltage	$\pm 50\text{VDC}$
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)	<23ms (without filter), <51ms (with filter)
CMRR	>160dB
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 Load resistance: 500 Ω (max)
Current Output Maximum	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)
Voltage Output Maximum	12.5VDC
Power Supply	19.2 to 30VDC
Power Consumption	<600mW (22mA at 24VDC)
Hot Swapping	Yes
Environmental	
Operating Temp. Range	-20°C to $+65^{\circ}\text{C}$
Storage Temp. Range	-40°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	1.6 ounces (46g)

Ordering Information

Model	Description
DSCP65	DC Low Voltage Converter

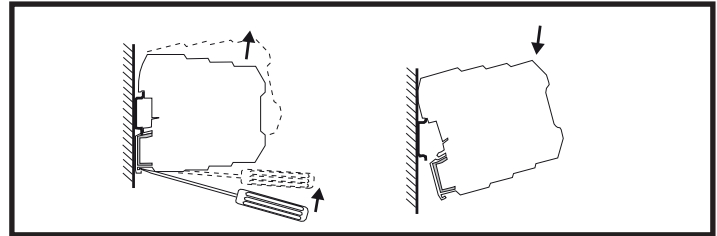
Accessories

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

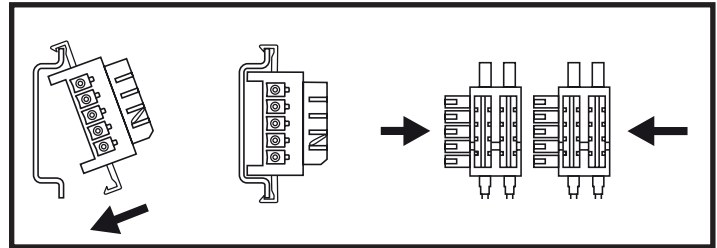
NOTES: * Contact factory or your local Dataforth sales office for maximum values.

Installation

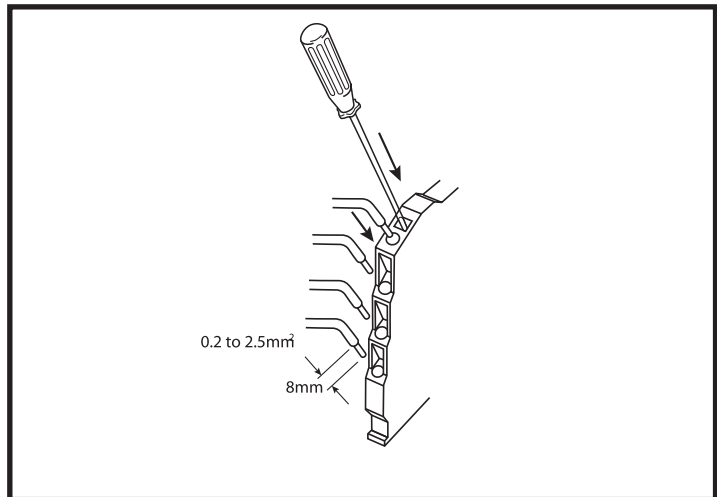
Inserting/extracting module on DIN guide



Expandable power-bus connector



Spring cage clamp connection



Dimensional Drawing

