DSCL and DSCP

Industrial Loop Isolators and Transmitters

DESCRIPTION

Dataforth's DSCL and DSCP series of products is a complete family of loop and universal AC/DC powered isolators and transmitters in component, DIN and head-mount packages. They include basic loop-powered isolators, wide-range AC/DC powered isolators and transmitters, and fixed-gain or hardware and software configurable models. Depending on the model, they accept a wide range of voltage, current, thermocouple, or RTD-input signals then filter, isolate, amplify, linearize, and convert these signals to high-level analog outputs suitable for use in data acquisition, test and measurement, and control system applications. They protect valuable measurement and control signals as well as connected equipment from the dangerous and degrading effects of noise, transient power surges, internal ground loops, and other hazards present in industrial environments.



FEATURES

- Full Family of Loop Isolators and Transmitters
- Signal-powered Passive Loop Isolator Models
- Wide Range 24V to 60V or 85V to 230V AC/DC Powered Models
- Jumper and Software Configurable Models
- 6.2mm Dip-switch Configurable Models
- 4000Vrms Isolation
- Multiple Channels per Package Available
- PCB, DIN-rail, Panel, and Instrument Head Mounting Options
- No Recalibration or Maintenance Required
- Fault Detection of Input Signal Available
- CE Compliant
- Manufactured per RoHS III Directive 2015/863

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Loop Isolators and Transmitters Selection Guide

Characteristic	DSCL20	DSCL21
Channels per Module	1	1
Mechanical Format	Component	DIN
Isolation Voltage Type	500Vrms Signal and Power	500Vrms Signal and Power
Input Range from Field	0/4-20mA	0/4-20mA
Output Range to System	0/4-20mA	mA or V
Output Split to 2 Channels	—	—
Accuracy	<±0.1%	<±0.1%
Bandwidth	750Hz	750Hz
Load Range Current Voltage	0-600Ω —	0-600Ω >5MΩ
Power Supply	Passive	Passive
Dimensions (h x w x d)	0.8 x 0.4 x 1.6 in	2.9 x 0.5 x 1.9 in
Operating Temp Range	–20°C to +65°C	–20°C to +65°C

Configurable Transmitters Selection Guide

Characteristic	DSCP20	DSCP55	DSCP61	DSCP62	DSCP63	DSCP64	DSCP65	DSCP81
Channels per Module	1	1	1	1	1	1	1	1
Mechanical Format	DIN	DIN	DIN	DIN	DIN	DIN	DIN	DIN
Isolation Voltage Type	Non-Isolated —	1500Vrms Signal	1500Vrms Signal	1500Vrms Signal	1500Vrms Signal	1500Vrms Signal	1500Vrms Signal	2300Vrms 3-Way
Input Range from Field	Configurable	mV, V, mA, TC, RTD	RTD	TC	mA or V	mA or V for 2WTX	mV	Configurable
Output Range to System	Configurable	mA	mA or V	mA or V	mA or V	mA or V	mA or V	Configurable
Accuracy	<±0.2%	±0.1%	±0.1%	±0.1%	±0.1%	±0.1%	±0.1%	<±0.2%
Bandwidth	Configurable	1Hz	1Hz	1Hz	1Hz	1Hz	1Hz	Configurable
Load Range Current Voltage	0-900Ω —	500Ω 1kΩ	500Ω 2kΩ	500Ω 2kΩ	500Ω 2kΩ	500Ω 2kΩ	500Ω 2kΩ	0-600Ω >2kΩ
Power Supply	Loop Power	Passive/DC Pwr	19.2-30VDC	19.2-30VDC	19.2-30VDC	19.2-30VDC	19.2-30VDC	Univ AC/DC Pwr
Dimensions (h x w x d)	2.4 x 0.7 x 2.7 in	3.67 x 0.24 x 4.04 in	3.67 x 0.24 x 4.04 in	3.67 x 0.24 x 4.04 in	3.67 x 0.24 x 4.04 in	3.67 x 0.24 x 4.04 in	3.67 x 0.24 x 4.04 in	2.7 x 0.7 x 4.5 in
Operating Temp Range	–25°C to +80°C	–20°C to +65°C	–20°C to +65°C	–20°C to +65°C	–20°C to +65°C	–20°C to +65°C	–20°C to +65°C	–25°C to +55°C

Accessory

Model	Description
DSCP70	Power Supply Connection Module for DIN-rail Power Bus

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