DSCIA

Analog Signal Conditioning & Isolation Products

Description

DSCIA module is a signal channel isolated analog input or output.Input modules are designed to accept various analog input signals such as voltage or current from various types of field sensors/tramsitters,sources and filters, amplify/ Attenuate,isolate,linearize and convert them in different standard outputs signals suitable for data aquisition,Digital control systems discrete Indicator and controllers.Output modules accept high level analog voltage signals from a system,then buffer,isolate,amplify and provide current or voltage output to a field device. All the signals from and to field are protected against accidental connection to highline Voltage upto 250V AC. All the Outputs are protected against short circuit.

➔ *Features*

- ±0.03% Accuracy
- ±0.01% Linearity
- Industry Standard Output of either 0 to 10V/±10V, 0 to 5V, 1 to 5V, 0 to 20mA, or 4 to 20mA
- 1.5KV Isolation
- ANSI/IEEE C37.90.1 Transient Protection
- 250V AC Continuous Protected on Field side
- True 3-Way Isolation
- Wide 15-30VDC supply voltage Range
- 85dB NMR at 60Hz, 80dB at 50Hz
- Highest Performance to Cost Value
- Easily Mounts on Standard DIN Rail
- Screw Terminals and Plug-in Terminals Blocks for Simple Wiring and Measurement
- -40°C to +85°C Operating Temperature
- UL, CSA , FM , CE and ATEX Compliant

➔DSCIA Selection Guide

MODEL	INPUT RANGE	OUTPUT RANGE
DSCIA30-01	-10mV to +10mV	1
DSCIA30-02	-50mV to +50mV	1
DSCIA30-03	-100mV to +100mV	1
DSCIA30-04	-10mV to +10mV	2,3,4,5,7
DSCIA30-05	-50mV to +50mV	2,3,4,5,7
DSCIA30-06	-100mV to +100mV	2,3,4,5,7
DSCIA30-07	0 to +10mV	2,3,4,5,7
DSCIA30-08	0 to +10mV	2,3,4,5,7
DSCIA30-09	0 to +10mV	2,3,4,5,7
DSCIA31-01	-1V to +1V	1
DSCIA31-02	-5V to +5V	1
DSCIA31-03	-10V to +10V	1
DSCIA31-04	-1V to +1V	2,3,4,5,7
DSCIA31-05	-5V to +5V	2,3,4,5,7
DSCIA31-06	-10V to +10V	2,3,4,5,7
DSCIA31-07	-20V to +20V	1
DSCIA31-08	-20V to +20V	2,3,4,5,7
DSCIA31-09	-40V to +40V	1
DSCIA31-10	-40V to +40V	2,3,4,5,7
DSCIA31-11	0 to +1V	2,3,4,5,7
DSCIA31-12	0 to +5V	2,3,4,5,7
DSCIA31-13	0 to +10V	2,3,4,5,7
DSCIA31-14	0 to +20V	2,3,4,5,7
DSCIA31-15	0 to +40V	2,3,4,5,7

ANALOG CURRENT INPUT MODULES

MODEL	INPUT RANGE	OUTPUT RANGE
DSCIA32-01	4mA to 20mA	2,3,4,5,7
DSCIA32-02	0mA to 20mA	2,3,4,5,7
DSCIA32-03	-20mA to 20mA	1
DSCIA32-04	-20mA to 20mA	2,3,4,5,7

ISOLATED TRUE RMS INPUT MODULES

MODEL	INPUTRANGE (rms)	OUTPUT RANGE (DC)
DSCIA33-01	0 to 100mV	2,3,4,5,7
DSCIA33-02	0 to 1V	2,3,4,5,7
DSCIA33-03	0 to 10V	2,3,4,5,7
DSCIA33-04	0 to 150V	2,3,4,5,7
DSCIA33-05	0 to 300V	2,3,4,5,7
DSCIA33-06	0 to 1A	2,3,4,5,7
DSCIA33-07	0 to 5A	2,3,4,5,7

LINEARIZED 2-or 3-WIRE RTD INPUT MODULES

MODEL	INPUT RANGE	OUTPUT RANGE (DC)
100Ω PT**		
DSCIA34-01	-100°C to +100°C [-148°F to +212°F]	2,3,4,5,7
DSCIA34-02	0°C to +100°C [+32°F to +212°F]	2,3,4,5,7
DSCIA34-03	0°C to +200°C [+32°F to +392°F]	2,3,4,5,7
DSCIA34-04	0°C to +600°C [+32°F to +1112°F]	2,3,4,5,7
DSCIA34-05	-50°C to +350°C [-58°F to +662°F]	2,3,4,5,7
100ΩNi **		
DSCIA34N-01	0°C to +300°C [+32°F to +572°F]	2,3,4,5,7

DSCIA Selection Guide

POTENTIOMETER INPUT MODULES

MODEL	INPUT RANGE	OUTPUT RANGE
DSCIA36-01	100Ω	2,3,4,5,7
DSCIA36-02	500Ω	2,3,4,5,7
DSCIA36-03	1KΩ	2,3,4,5,7
DSCIA36-04	10KΩ	2,3,4,5,7

THERMOCOUPLE INPUT MODULES

MODEL	TYPE	INPUT RANGE	OUTPUT RANGE
DSCIA37J-01	J	-100°C to +760°C [-148°F to +1400°F]	2,3,4,5,7
DSCIA37K-02	K	-100°C to +1350°C [-148°F to +2462°F]	2,3,4,5,7
DSCIA37T-03	T	-100°C to +400°C [-148°F to +752°F]	2,3,4,5,7
DSCIA37E-04	E	0°C to +900°C [+32°F to +1652°F]	2,3,4,5,7
DSCIA37R-05	R	0°C to +1750°C [+32°F to +3182°F]	2,3,4,5,7
DSCIA37S-06	S	0°C to +1750°C [+32°F to +3182°F]	2,3,4,5,7
DSCIA37B-07	B	0°C to +1800°C [+32°F to +3272°F]	2,3,4,5,7
DSCIA37N-08	N	-100°C to +1300°C [-148°F to +2372°F]	2,3,4,5,7

STRAIN GAUGE INPUT MODULES

MODEL	INPUT RANGE	IEXCITATION VOLTAGE	SENS	OUTPUT RANGE
DSCIA38-01	-10mV to +10mV	+3.333V	3mV/V	1
DSCIA38-02	-30mV to +30mV	+10.0V	3mV/V	1
DSCIA38-03	-10mV to +10mV	+3.333V	3mV/V	1
DSCIA38-04	-30mV to +30mV	+10.0V	3mV/V	1
DSCIA38-05	-20mV to +20mV	+10.0V	2mV/V	1
DSCIA38-06	-33.3mV to +33.3mV	+3.333V	10mV/V	1
DSCIA38-07	-100mV to +100mV	+10.0V	10mV/V	1
DSCIA38-08	-10mV to +10mV	+3.333V	3mV/V	2,3,4,5,7
DSCIA38-09	-30mV to +30mV	+10.0V	3mV/V	2,3,4,5,7
DSCIA38-10	-10mV to +10mV	+3.333V	3mV/V	2,3,4,5,7
DSCIA38-11	-30mV to +30mV	+10.0V	3mV/V	2,3,4,5,7
DSCIA38-12	-20mV to +20mV	+10.0V	2mV/V	2,3,4,5,7
DSCIA38-13	-33.3mV to +33.3mV	+3.333V	10mV/V	2,3,4,5,7
DSCIA38-14	-100mV to +100mV	+10.0V	10mV/V	2,3,4,5,7
DSCIA38-15	0 to +10mV	+3.333V	3mV/V	2,3,4,5,7
DSCIA38-16	0 to +30mV	+10.0V	3mV/V	2,3,4,5,7
DSCIA38-17	0 to +10mV	+3.333V	3mV/V	2,3,4,5,7
DSCIA38-18	0 to +30mV	+10.0V	3mV/V	2,3,4,5,7
DSCIA38-19	0 to +20mV	+10.0V	2mV/V	2,3,4,5,7
DSCIA38-20	0 to +33.3mV	+3.333V	10mV/V	2,3,4,5,7
DSCIA38-21	0 to +100mV	+10.0V	10mV/V	2,3,4,5,7

CURRENT OUTPUT MODULES

MODEL	INPUT RANGE	OUTPUT RANGE
DSCIA39-01	0 to 10V	4mA to 20mA
DSCIA39-02	-10 to +10V	4mA to 20mA
DSCIA39-03	0 to 10V	0mA to 20mA
DSCIA39-04	-10 to +10V	0mA to 20mA
DSCIA39-07	-10 to 10V	-20mA to 20mA

ANALOG VOLTAGE INPUT MODULES,3k Hz B.W

MODEL	INPUT RANGE	OUTPUT RANGE
DSCIA40-01	-10mV to +10mV	1
DSCIA40-02	-50mV to +50mV	1
DSCIA40-03	-100mV to +100mV	1
DSCIA40-04	-10mV to +10mV	2,3,4,5,7
DSCIA40-05	-50mV to +50mV	2,3,4,5,7
DSCIA40-06	-100V to +100mV	2,3,4,5,7
DSCIA40-07	0V to +10mV	2,3,4,5,7
DSCIA40-08	0V to +50mV	2,3,4,5,7
DSCIA40-09	0V to +100mV	2,3,4,5,7
DSCIA41-01	-1V to +1V	1
DSCIA41-02	-5V to +5V	1
DSCIA41-03	-10V to +10V	1
DSCIA41-04	-1V to +1V	2,3,4,5,7
DSCIA41-05	-5V to +5V	2,3,4,5,7
DSCIA41-06	-10V to +10V	2,3,4,5,7
DSCIA41-07	-20V to +20V	1
DSCIA41-08	-20V to +20V	2,3,4,5,7
DSCIA41-09	-40V to +40V	1
DSCIA41-10	-40V to +40V	2,3,4,5,7
DSCIA41-11	0 to +10mV	2,3,4,5,7
DSCIA41-12	0 to +30mV	2,3,4,5,7
DSCIA41-13	0 to +20mV	2,3,4,5,7
DSCIA41-14	0 to +33.3mV	2,3,4,5,7
DSCIA41-15	0 to +100mV	2,3,4,5,7

2-WIRE TRANSMITTER INTERFACE MODULES

MODEL	INPUT RANGE	OUTPUT RANGE
DSCIA42-01	4mA to 20mA	2,3,4,5,7
DSCIA42-02	4mA to 20mA	2 to +10V

GENERAL PURPOSE INPUT MODULES DC EXCITATION

MODEL	INPUT RANGE	OUTPUT RANGE
DSCIA43-01	-1 to +1V	1
DSCIA43-02	-2 to +2V	1
DSCIA43-03	-3 to +3V	1
DSCIA43-04	-4 to +4V	1
DSCIA43-05	-5 to +5V	1
DSCIA43-06	-6 to +6V	1
DSCIA43-07	-7 to +7V	1
DSCIA43-08	-8 to +8V	1
DSCIA43-09	-9 to +9V	1
DSCIA43-10	-10 to +10V	1
DSCIA43-11	-1 to +1V	2,3,4,5,7
DSCIA43-12	-2 to +2V	2,3,4,5,7
DSCIA43-13	-3 to +3V	2,3,4,5,7
DSCIA43-14	-4 to +4V	2,3,4,5,7
DSCIA43-15	-5 to +5V	2,3,4,5,7
DSCIA43-16	-6 to +6V	2,3,4,5,7
DSCIA43-17	-7 to +7V	2,3,4,5,7
DSCIA43-18	-8 to +8V	2,3,4,5,7
DSCIA43-19	-9 to +9V	2,3,4,5,7
DSCIA43-20	-10 to +10V	2,3,4,5,7

➔ DSCIA Selection Guide

FREQUENCY INPUT MODULES

MODEL	INPUT RANGE	OUTPUT RANGE
DSCIA45-01	0-500Hz	2,3,4,5,7
DSCIA45-02	0-1KHz	2,3,4,5,7
DSCIA45-03	0-3.5KHz	2,3,4,5,7
DSCIA45-04	0-5KHz	2,3,4,5,7
DSCIA45-05	0-10KHz	2,3,4,5,7
DSCIA45-06	0-25KHz	2,3,4,5,7
DSCIA45-07	0-50KHz	2,3,4,5,7
DSCIA45-08	0-100KHz	2,3,4,5,7

LINEARIZED THERMOCOUPLE INPUT MODULE

MODEL	TYPE	INPUT RANGE	OUTPUT RANGE
DSCIA47J-01	J	0°C to +760°C [+32°F to +1400°F]	2,3,4,5,7
DSCIA47J-02	J	-100°C to +100°C [-148°F to +572°F]	2,3,4,5,7
DSCIA47J-03	J	0°C to +500°C [+32°F to +932°F]	2,3,4,5,7
DSCIA47K-04	K	0°C to +1000°C [+32°F to +1832°F]	2,3,4,5,7
DSCIA47K-05	K	0°C to +500°C [+32°F to +932°F]	2,3,4,5,7
DSCIA47K-13	K	-100°C to +1350°C [-148°F to +2462°F]	2,3,4,5,7
DSCIA47K-14	K	0°C to +1200°C [+32°F to +2192°F]	2,3,4,5,7
DSCIA47T-06	T	-100°C to +400°C [-148°F to +752°F]	2,3,4,5,7
DSCIA47T-07	T	0°C to +200°C [+32°F to +392°F]	2,3,4,5,7
DSCIA47E-08	E	0°C to +1000°C [+32°F to +1832°F]	2,3,4,5,7
DSCIA47R-09	R	+500°C to +1750°C [+932°F to +3182°F]	2,3,4,5,7
DSCIA47S-10	S	+500°C to +1750°C [+932°F to +3182°F]	2,3,4,5,7
DSCIA47B-11	B	+500°C to +1700°C [+932°F to +3272°F]	2,3,4,5,7
DSCIA47N-15	N	-100°C to +1300°C [-148°F to +2372°F]	2,3,4,5,7

VOLTAGE OUTPUT MODULE

MODEL	INPUT RANGE	OUTPUT RANGE
DSCIA49-04	0 to +10	-10 to +10
DSCIA49-05	-10 to +10	-10 to +10
DSCIA49-06	-10 to +10	0 to +10

ACCESSORIES **Page**

MODEL	DESCRIPTION
DPWR-RPS5A	Power supply, 24V, 0.3A 100-240VAC input
DPWR-RPS5B	Power supply, 24V, 0.6A 100-240VAC input
DPWR-RPS5C	Power supply, 24V, 1.3A 100-240VAC input
DPWR-RPS5D	Power supply, 24V, 2.1A 100-240VAC input
DPWR-RPS5E	Power supply, 24V, 4.2A 100-240VAC input
SCIMXRAIL1-XX	DIN EN50022-35x7.5(slotted steel),length-xx meters
SCIMXRAIL3-XX	DIN EN50022-35x15(slotted steel),length-xx meters

THERMOCOUPLE ALLOY COMBINATIONS

Standards: DIN IEC584, ANSIMC96-1-82, JIS C 1602-1981

TYPE	INPUT RANGE
J	Iron vs. Copper-Nickel
K	Nickel-Chromium vs. Nickel-Aluminum
T	Copper vs. Copper-Nickel
E	Nickel-Chromium vs. Copper-Nickel
R	Platinum-13% Rhodium vs. Platinum
S	Platinum-10% Rhodium vs. Platinum
B	Platinum-30% Rhodium vs. Platinum-6% Rhodium
N	Nickel-14.2% Chromium-1.4% Silicon vs. Nickel-4.4% Silicon-0.1% Magnesium

** RTD STANDARDS

TYPE	ALPHA COFFICIENT	DIN	JIS
100Ω Pt	0.00395	DIN-43760	JISC-1604-1981
100Ω Ni	0.00672		

OUTPUT RANGES AVAILABLE

Output Range	Part No.Suffix	Examples
1. -10 to +10V	None	DSCIA30-01
2. 0 to +10V	None	DSCIA30-04
3. 4 to +20mA	C	DSCIA30-01C
4. 0 to +20mA	E	DSCIA30-04E
5. 0 to +5V	A	DSCIA33-01A
6. 0 to +1mA	B	DSCIA33-01B
7. 1 to +5V	F	DSCIA33-01F

Installation Notes:

1). This equipment is suitable for Use in class I, Division 2, Group A,B,C,D or Non-Hazardous Locations only.
2). These Modules are suitable for Hazardous areas provided thy are placed in suitable enclosure or placed in Non-Hazardous Locations only.
3). For Hazard enclosure Pl. contact our Sales Department