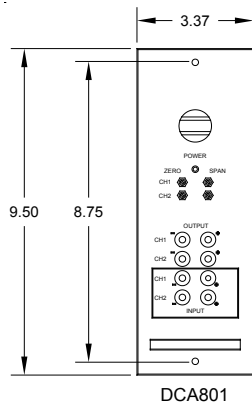


The DCA801 Dual Channel Isolator has the following functions:

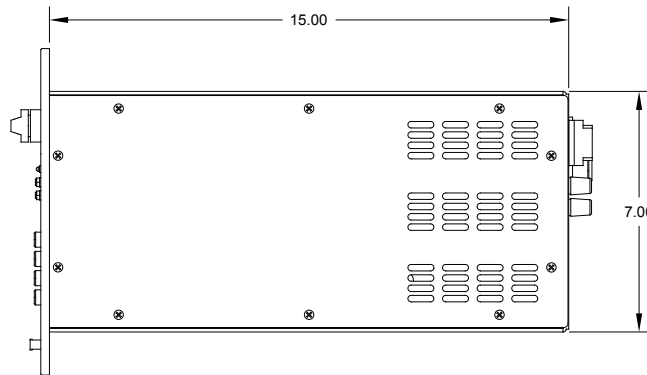
- Electrically isolates an input signal from faults at the output or on the power line, to prevent output-side problems from affecting safety-related inputs.
- Acts as a signal buffer (repeater) that enables more connections to the output.
- Performs voltage-to-current signal conversion.



DCA801



DCA801



### SPECIFICATIONS

Power Supply Voltage:	120 Vac RMS ( $\pm 10\%$ ), 60 Hz ( $\pm 5\%$ )
Power Consumption:	2 W typical, 3 W maximum per channel; 50 A maximum inrush
Accuracy:	$\pm 0.1\%$ of output full scale, repeatable to 0.05%
Linearity:	Better than $\pm 0.05\%$ of output full scale
Dielectric Withstand:	1500 Vdc and 1000 Vac (RMS) from input to output 1000 Vdc and 1000 Vac (RMS) from input to case
Output Fault Withstand:	480 Vac, 140 Vdc at 20 A
Surge Withstand:	Using the waveform described in IEEE-472-1974
Temperature Effects:	Less than 0.50% change of output full scale per 50 °F change in temperature for overall module gains less than 1.7; otherwise, less than 0.05% of output full scale change for 1 °C change in temperature
Electrical Qualification:	Plant protection, qualified to IEEE 323 1974/1983 and IEEE 344 1975/1987
Ambient Temperature:	35 °F to 122 °F (2 °C to 50 °C) (normal operation) 122 °F to 135 °F (50 °C to 57 °C) (abnormal operation for 200 hours) -40 °F to 185 °F (-40 °C to 85 °C) (storage)
Relative Humidity:	0% RH to 95% RH, non-condensing
Pressure:	Atmospheric
Radiation Limits:	$10^4$ rad TID gamma over forty years

# NUSI 800 Series

## Dual Channel Isolator

### HOW TO ORDER

The model number and configuration typically should be specified as follows:

Example: DCA801-05-07-08

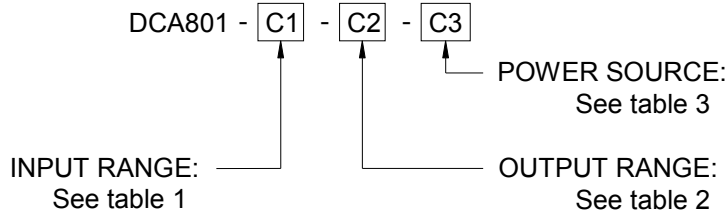


Table 1 — Input Range			Table 2 — Output Range		
Code	Input Range	Impedance $\Omega$	Code	Output Range	Impedance $\Omega$
00	Not Loaded		00	Not Loaded	
01	0 to 100 mVdc	100 M	01	0 to 100 mVdc	32.9
02	0 to 51 mVdc	100 M	02	0 to 51 mVdc	17.3
03	0 to 1 Vdc	100 M	03	0 to 1 Vdc	299
04	0 to 5 Vdc	100 M	04	0 to 5 Vdc	825
05	1 to 5 Vdc	5.2 M	05	1 to 5 Vdc	825
06	0 to 10 Vdc	400 k	06	0 to 10 Vdc	1000
07	4 to 20 mA dc	249	07	4 to 20 mA dc	1050 *
08	10 to 50 mA dc	100	08	10 to 50 mA dc	600 *
09	0 to 1 mA dc	50	09	0 to 180 mA dc	59.3
10	0 to 132 Vac	3.4 M	10	0 to 3.5 Vac	825
11	0 to 20 mA dc	249	11	0 to 20 mA dc	1050 *
12	0 to 50 mA dc	100	12	0 to 50 mA dc	600 *
13	50 to 10 mA dc	100	13	1 to 5 Vdc	249
14	Variable	1 M	14	10 to 44.29 mA dc	660 *
15	0 to 8 Vdc	428 k	15	N/A	
16	-10 to 10 Vdc	3.7 M	16	0 to 1 mA dc	30 k *
17	-2 to 15 Vdc	2.4 M	17	4 to 22.49 mA dc	1050 *
18	5 to 1 Vdc	100 M	18	10 to 56.22 mA dc	550 *
19	3.6 to 11.6 Vdc	477 k			
20	2 to 10 Vdc	427 k			
21	-2 to 2 Vdc	3.5 M			
22	-20 to 20 mA dc	249			
23	N/A				
24	1 to 2 Vdc	3.2 M			
25	0 to 4 Vdc	100 M			
26	10 to 32.4 mA dc	200			
27	4 to 10 mA dc	475			
28	0 to 10 V (Hi-Z)	1013			
29	0 to 120 Vdc	2.5 M			
30	Group 1 Selectable	Varies			
31	2, 4 or 10 Vdc	Varies			
32	0 to 2 Vdc	100 M			
33	0 to 3.45 Vdc	100 M			
34	1.08 to 5.4 Vdc	5.2 M			

Table 3 — Power Source	
Code	Power
00	Not Loaded
01	$\pm 15 \pm 1$ Vdc
02	$28 \pm 2$ Vdc
03	$5 \pm 0.25$ Vdc
04	$12 \pm 1$ Vdc
05	$15 \pm 1$ Vdc
06	$24 \pm 2$ Vdc
07	$48 \pm 2$ Vdc
08	85 to 132 Vac, 125 Vdc

\* These are not output impedances; these are the output drive capabilities of the current output models.

#### CONTACT INFORMATION:

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