

DC Voltage Transducers/Ground Fault Detectors

Dual-purpose units that provide an analog output proportional to the DC input and that check for grounding of either pole of a floating battery system. mTech offers these transducers for various battery voltages and ground leakage sensitivities (as little as 5 mA at 125 VDC). Transient protection is through multipole input and output filters. Advanced operational amplifiers with ultra-high input impedance ensures a high degree of input/output isolation and very low battery burden. The NO or NC* contact remains energized only as long as the alarm condition exists. Two top-mounted LEDs indicate whether the fault was positive or negative and stay lit until the RESET button is pushed.

*Shipped NO unless NC is specified.

Standard Features

- Low battery drain
- Sensitive ground leakage detection
- High accuracy and linearity
- Transient protection
- Low temperature coefficient
- Standardized wiring and mounting
- ABS DIN rail mount or metal surface mount cases

Specifications

Accuracy (@ 25°C ±2°C): 0.2% of reading ±0.01% of rated output

Temperature Range: -20°C to +70°C

Temperature Coefficient: 0.005%/°C, 50 ppm typical

Operating Humidity: 0-95% non-condensing

Output Ripple (Peak): Less than 0.5% of full scale

Burden: Less than 0.10 watts at full scale

Overload with Accuracy: 1.2 x full scale

Overload without Damage: 1.33 x full scale

Dielectric Test: 1,500 VAC for 1 minute

Surge Withstand: ANSI C37.90a (IEEE 472); BEAMA 219; special 5 kV

Response Time: 200 msec to 90%, 400 msec to 99%

Calibration Adjustment: ±10% standard

Zero Adjustment: ±2% standard

Available Models – DC Voltage Transducers/Ground Fault Detectors

To Order, Specify:

A. ENCLOSURE

B. MODEL

DC Voltage	DCV
DC Current	DCA

C. CONFIGURATION

DC Current	0
DC Voltage Only	1
DC Voltage + Ground Fault*	2
Ground Fault Only*	3

*Not available in DIN mount.

D. FULL SCALE VOLTAGE

0 - 150 V	0
0 - 60 V	1
0 - 30 V	2
0 - 300 V	3
0 - 750 V	4
Current	Specify
Special	X

E. NOMINAL BATTERY VOLTAGE

125 V	0
48 V	1
24 V	2
250 V	3
600 V	4
Special	X

F. OUTPUT

0 - 1 mA	0 - 10,000 Ohms	0
0 - 3 mA	0 - 3,300 Ohms	1
0 - 5 mA	0 - 2,000 Ohms	2
0 - 10 mA	0 - 1,000 Ohms	3
4 - 20 mA	0 - 750 Ohms	4
0 - 100 mV	20 Ohms min.	5
0 - 1 V	200 Ohms min.	6
0 - 5 V	1,000 Ohms min.	7
0 - 10 V	2,000 Ohms min.	8
1 - 5 V	1,000 Ohms min.	9
Special		X

G. AUXILIARY POWER

120 VAC	0
240 VAC	1
DC Aux Power (Please Specify)	K
Special	X

H. SUFFIX (If Applicable)

25 to 125% Calibration	A
Case Ground Terminal ^①	G
4 - 20 mA two-wire loop output	T
Special	X

^① Metal case models only.

EXAMPLE: DDCV-2-0-1-9-0 is the ordering code for a DC Voltage Transducer/Ground Fault Detector in a DIN rail mount case, 0 - 150 V full scale voltage, 48 V battery voltage, 1 - 5 V 1,000 Ohms min. output, and 120 VAC auxiliary power.

See page 37 for connections.