

DCS35/36 Series

Hall-Effect DC Current Sensor 400, 500 and 600 Amps

Electronic Battery Current Sensor Interfaces to Electronic Instrument Systems.



The DCS35/36 Series is a family of highly accurate electronic sensors for measuring dc current, and are available in maximum capacities of 400, 500 and 600 amps. The current sensor consists of a Hall-effect based sensor unit with an output interface that is compatible with electronic instrument systems. The non-intrusive design allows the sensors to be installed without the need to cut and re-terminate the high current dc cables as required with the installation of mechanical meter shunts. Also, the DCS35/36 sensors occupies less space, do not generate heat, and have no exposed electrical potentials as with mechanical meter shunts.

The sensor's opening is 1.23 inches, which will accommodate typical battery cables. It utilizes a four-pin Packard Metri-Pak 150 sealed connector.

The DCS35/36 sensors are designed to interface to electronic vehicle systems such as instrument clusters and multiplex systems. Sensor outputs are available in 0.5 to 4.5 Volt and 0 to 5.0 Volt, with ground reference. They require a power source of +12 Vdc @ 8.1 milliamps. The DCS35 models measure bi-directional current (e.g., -100 to +100 amps). The DCS36 models measure unidirectional current (e.g., Zero to 100 amps).

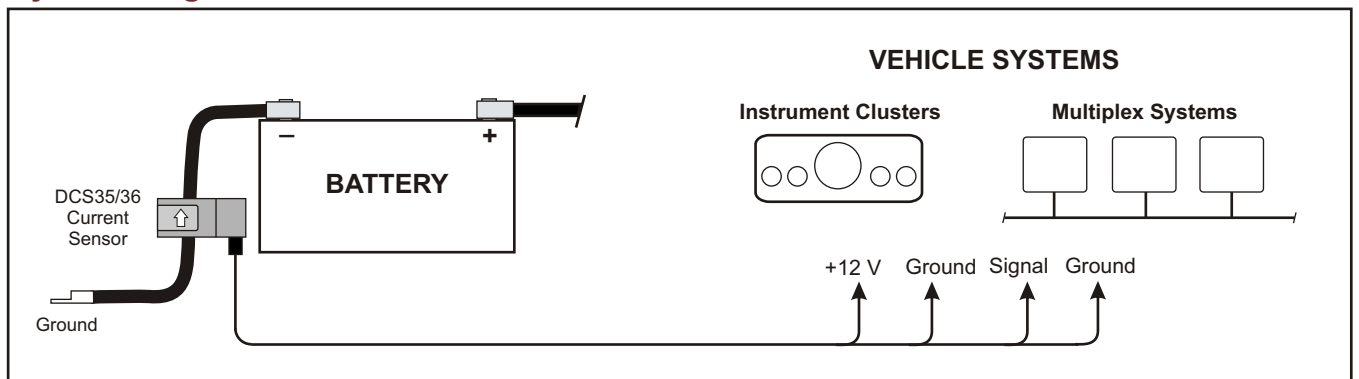
Key Features

- *Electronic Hall-Effect Sensor Design* - Eliminates the need for heat-producing mechanical shunts.
- *Sealed Construction* - No exposed electrical potentials as in mechanical meter shunts.
- *Non-Intrusive* - No need to cut and re-crimp battery cables.
- *Analog Output* - 0.5 - 4.5 V or 0 - 5.0 V output interfaces to electronic instrument systems.
- *Fits Most Vehicle and Marine Applications* - Available in 400 through 600 Amp Capacities.
- *Weather Resistant Connector* - Allows use in severe environments.

DC Current Sensor Models

Model	Current Range	Sensor Output
DCS35-400-1	± 400 Amps	2.5 V ± 2.0 V
DCS35-500-1	± 500 Amps	2.5 V ± 2.0 V
DCS35-600-1	± 600 Amps	2.5 V ± 2.0 V
DCS35-400-2	± 400 Amps	2.5 V ± 2.5 V
DCS35-500-2	± 500 Amps	2.5 V ± 2.5 V
DCS35-600-2	± 600 Amps	2.5 V ± 2.5 V
DCS36-400-2	0 to 400 Amps	0 to 5.0 V
DCS36-500-2	0 to 500 Amps	0 to 5.0 V
DCS36-600-2	0 to 600 Amps	0 to 5.0 V

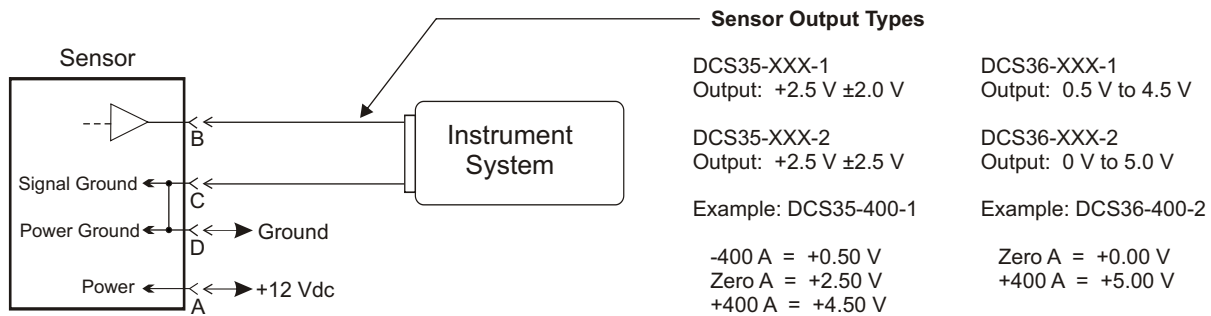
System Diagram



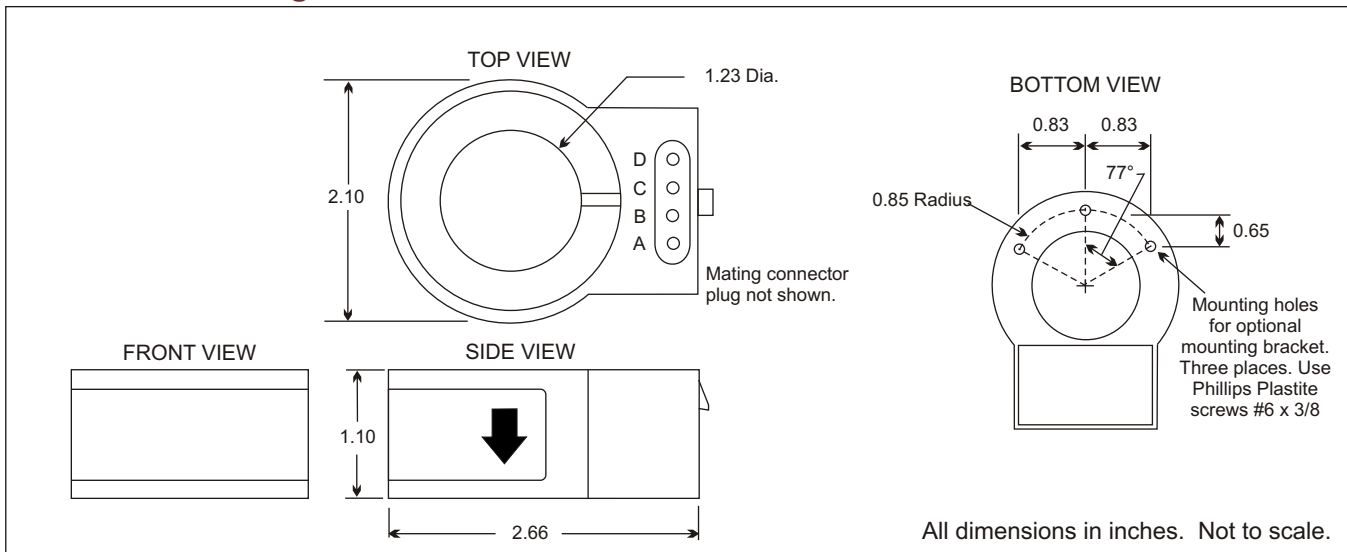
DCS35/36 Series Hall-Effect DC Current Sensor

Specifications

Sensor Type:	Open loop Hall-effect		
Linearity:	1.5 %		
Supply Voltage Range:	+7 to + 20 Vdc		
Current Consumption:	8.1 milliamps maximum		
Output:	0.5 to 4.5 Vdc or 0 to 5.0 Vdc		
Operating Temperature:	-40° C to +125° C		
Storage Temperature:	-40° C to +125° C		
Aperture Size:	1.23 inches		
Weight:	0.30 lbs		
Connector System:	Packard Sealed Metri-Pak 150. Note - Mating plug not supplied with sensor. See InPower Technical Bulletin TB-31 for details and purchasing source.		
Connector Interface:	Pin A +Vdc	Pin C	Ground (Signal Return)
Sensor Wiring:	Pin B Output	Pin D	Ground (Power Return)



Mechanical Drawing



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Specifications subject to change without notice.