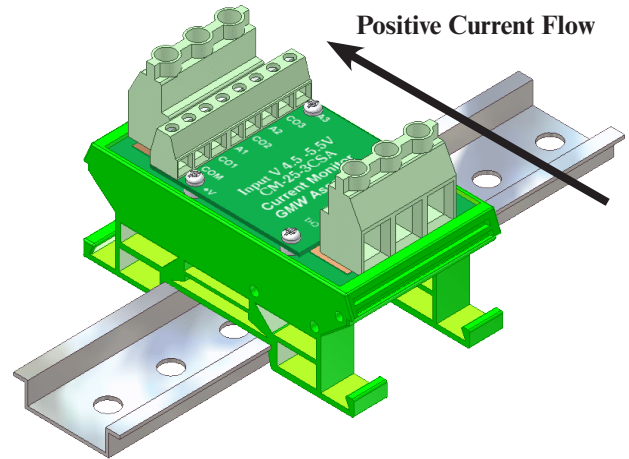


The Ametes CM-25A-3CSA is a three channel current sensing module which demonstrates the use of the Sentron CSA-1VG Hall Effect magnetic sensor IC to monitor DC or AC currents in three adjacent conductors. The CM-25A-3CSA operates from a 4.5 to 5.5V_{DC} power source and provides an analog voltage proportional to the current for three adjacent conductors.

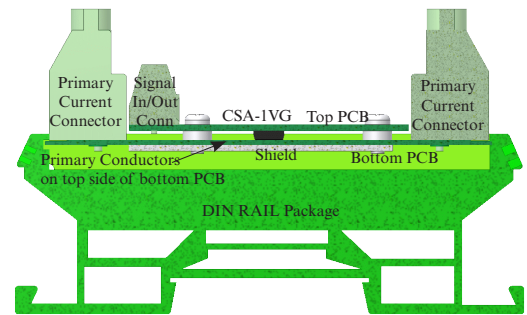
The CM-25A-3CSA current monitor consists of two stacked PCBs mounted in a standard DIN Rail package. The lower PCB has the three current conducting traces on the top side with a magnetic shield on the bottom side. The top PCB includes three CSA-1VG sensors positioned over the center of the three traces located on the lower PCB. There is 5kV_{rms} isolation between the primary current conductors and the sensor electronic circuitry.

Features

- Three 25A Primary Current Channels
- Analog Output of Primary AC & DC Current
- High Dielectric Isolation >5kV_{rms}
- DIN RAIL package



CM-25A-3CSA shown on a 35mm DIN Rail



Cutaway side view of CM-25A-3CSA

Specifications - Electrical CH1, CH2 & CH3

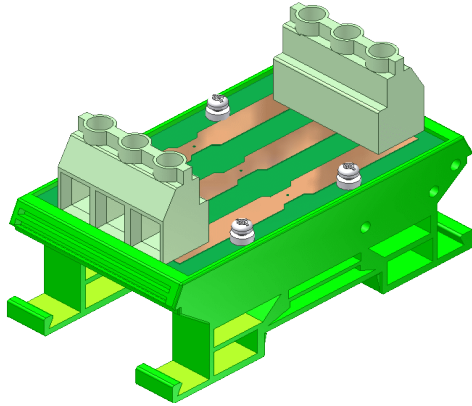
Symbol	Parameter	CM-25A-3CSA	Units
I _{PN}	Primary Current, nominal continuous	25	A _{rms}
I _{PM}	Primary Current, max peak	32	A
S _A	Analog Output Sensitivity of Primary Current	40 to 50	mV/A
V _O	Analog Output Voltage Range - Ref to Common	2.5 ± 2.0	V
V _O	Analog Output Voltage Range - Ref to CO_OUT	0 ± 2.0	V
V _{OS}	Offset Voltage, I _{pri} = 0A - Ref to CO_OUT	±15	mV
CO_OUT	Reference Voltage	0.5V _{sup} ± 0.03V	V
X	Accuracy, I < 25A _{rms} , DC to 60Hz	<10	%
X _L	Non Linearity, I < 25A _{rms} , 60Hz	<1	%
TC _{V_O}	Temperature Coefficient, Offset Voltage	<0.2	mV/°C
TC _{V_S}	Temperature Coefficient, Sensitivity	<200	ppm/°C
r	Resolution, Primary Current	25	mA
V _{DD}	Supply Voltage	4.5 to 5.5	V
I _{DD}	Max Supply Current Draw	35	mA
V _D	Voltage for AC Isolation Test	5	kV _{rms}
BW _{V_O}	Bandwith- Analog Output	DC to 75k	Hz

Revision Date: 19 FEB 2010

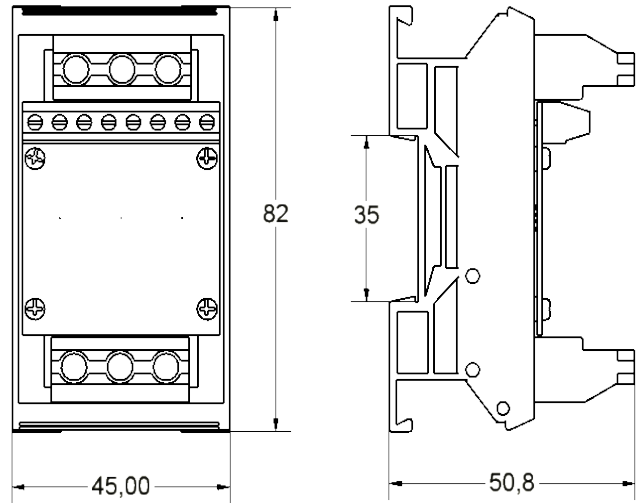
North American Distributor:

GMW Associates • 955 Industrial Road • San Carlos, CA 94070 • USA
 Tel +1 (650) 802-8292 • Fax +1 (650) 802-8298 • sales@gmw.com • www.gmw.com

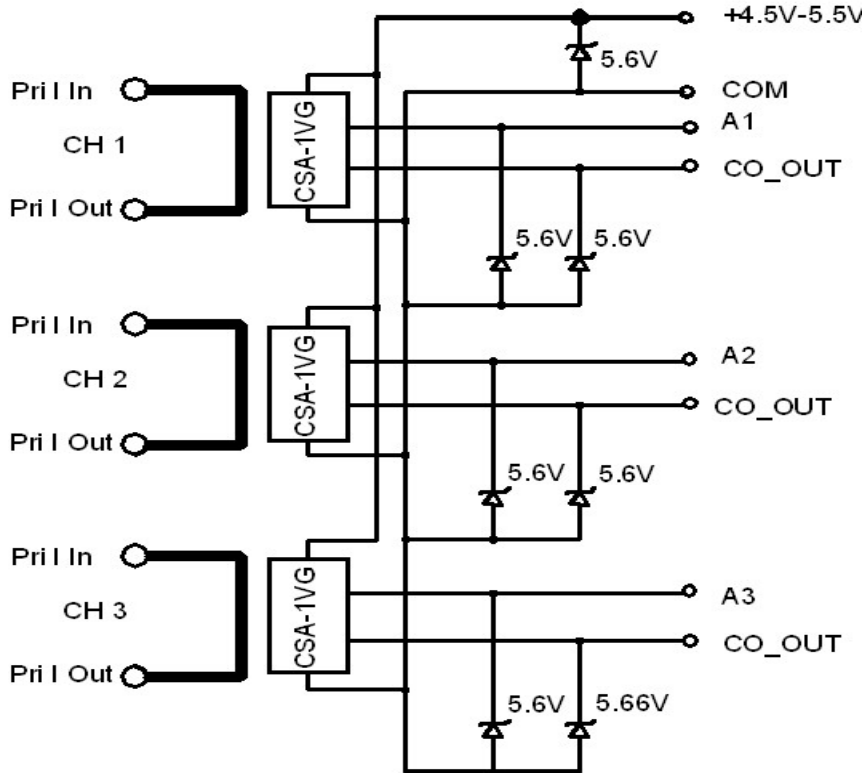
Temperature			
Sym	Parameter		Units
TA	Ambient Operating Temperature	-40 to 100	°C
TS	Ambient Storage Temperature	40 to 100	°C



CM-25A-3CSA with top PCB removed to show primary current conductors



CM-25A-3CSA Outline Drawing, dimensions in mm



CM-25A-3CSA Block Diagram

Revision Date: 19 FEB 2010