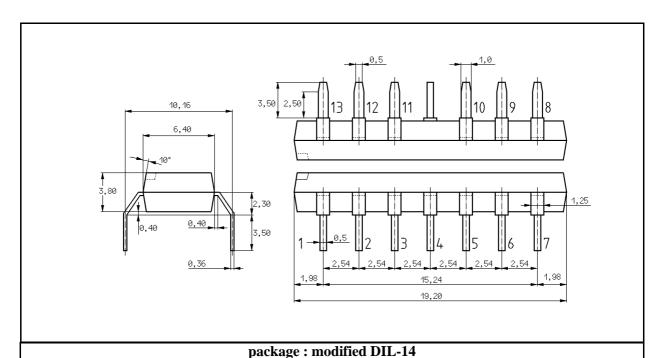


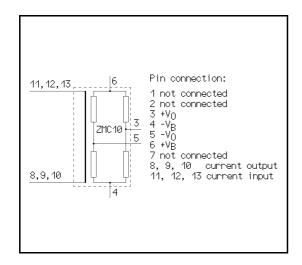
## **Current Sensor**

Issue 2 - July 2006

**ZMC10** 



1, 2, 7: not connected 3:  $+V_O$  4:  $-V_B$  5:  $-V_O$  6:  $+V_B$  8, 9, 10: current output 11, 12, 13: current input  $V_O$  - output voltage  $V_B$  - supply voltage



## **FEATURES**

- Package: mod. DIL-14
- A magnetic sensor chip (employing the magnetoresistive effect of thin film permalloy) measures the magnetic field generated by an internal currentcarrying conductor
- $\bullet$  measurable direct or alternating current  $I_M$  up to 10A
- supply voltage 12 V
- no auxiliary field Hx required
- it's possible to overload the conductor (between pin's 8,9,10 and 11,12,13) with 300A for 10 ms at  $T_{amb} = 25 \, ^{\circ}C$

## ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol		Unit
Supply voltage	$V_{\rm B}$	12	V
Isolation voltage	V <sub>ISOL</sub>	2	kV
Measurable current	I <sub>M</sub>	10	A
Operating temperature range	T <sub>amb</sub>	-40 to +120	°C
Storage temperature range	T <sub>stg</sub>	-65 to +120	°C

## **ELECTRICAL CHARACTERISTICS** (at T<sub>amb</sub> = 25 °C unless otherwise stated)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Test conditions
Bridge resistance	R <sub>br</sub>	1.2	1.7	2.2	$\mathrm{k}\Omega$	
Offset voltage	V <sub>Off</sub>	-	-	±2	mV/V	
Open circuit sensitivity	S	-	0.5	-	(mV/V)/A	
Resistance of the conductor	R	-	0.7	-	mΩ	
Operating frequency	f <sub>max</sub>	-	-	100	kHz	
Temperature coefficient of open circuit sensitivity	TC	-	-	-0.3	%/K	

Devices are identified by type on the body of the device

ZMC10 ..... ZMC10

Ordering information:

ZMC10 ..... in boxes (10 components per box)

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