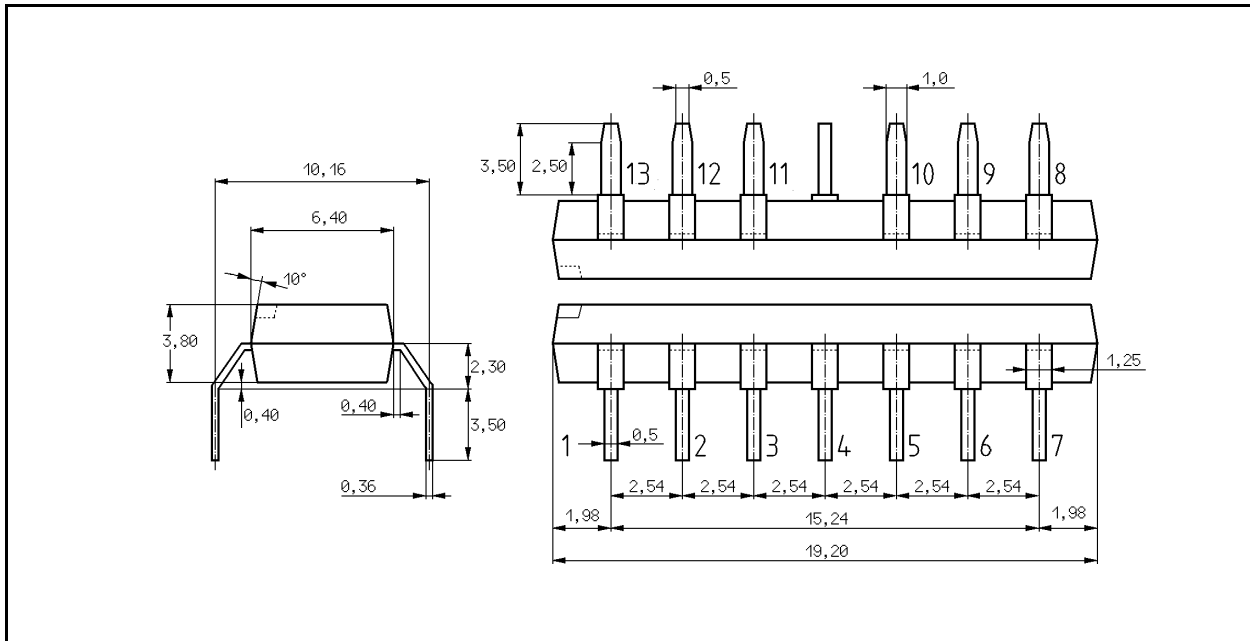


# Current Sensor

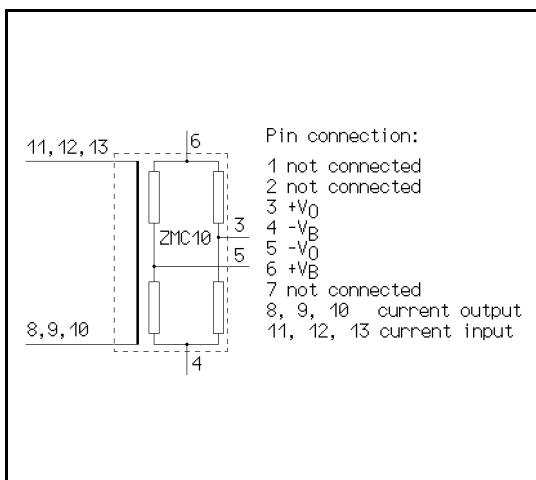
Issue 2 - July 2006

## ZMC10



**package : modified DIL-14**

1, 2, 7: not connected 3: +V<sub>O</sub> 4: -V<sub>B</sub> 5: -V<sub>O</sub> 6: +V<sub>B</sub> 8, 9, 10: current output 11, 12, 13: current input  
V<sub>O</sub> - output voltage V<sub>B</sub> - 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 current-carrying conductor
- measurable direct or alternating current I<sub>M</sub> up to 10A
- supply voltage 12 V
- no auxiliary field H<sub>X</sub> 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<sub>amb</sub> = 25 °C

## ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol		Unit
Supply voltage	$V_B$	12	V
Isolation voltage	$V_{ISOL}$	2	kV
Measurable current	$I_M$	10	A
Operating temperature range	$T_{amb}$	-40 to +120	°C
Storage temperature range	$T_{stg}$	-65 to +120	°C

## ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25\text{ °C}$ unless otherwise stated)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test conditions
Bridge resistance	$R_{br}$	1.2	1.7	2.2	$k\Omega$	
Offset voltage	$V_{Off}$	-	-	$\pm 2$	mV/V	
Open circuit sensitivity	S	-	0.5	-	(mV/V)/A	
Resistance of the conductor	R	-	0.7	-	$m\Omega$	
Operating frequency	$f_{max}$	-	-	100	kHz	
Temperature coefficient of open circuit sensitivity	$T_C$	-	-	-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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