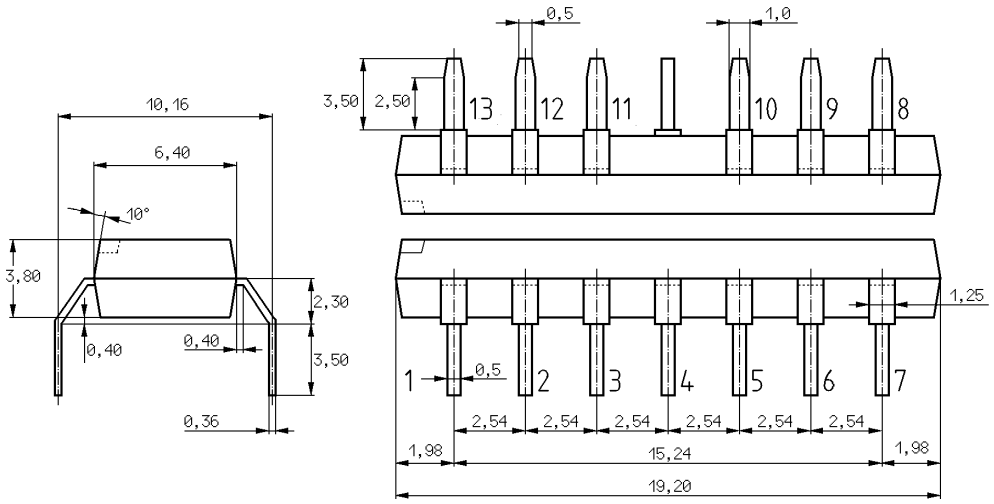
Current Sensor

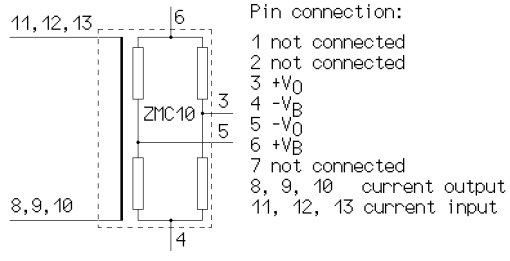
ZMC10



package : modified DIL-14

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 current-carrying conductor
- measurable direct or alternating current I_M up to 10A
- supply voltage 12 V
- no auxiliary field H_X 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 °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 °C unless otherwise stated)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test conditions
Bridge resistance	R_{br}	1.2	1.7	2.2	kΩ	
Offset voltage	V_{Off}	-	-	±2	mV/V	
Open circuit sensitivity	S	-	0.5	-	(mV/V)/A	
Resistance of the conductor	R	-	0.7	-	mΩ	
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)

APPLICATION