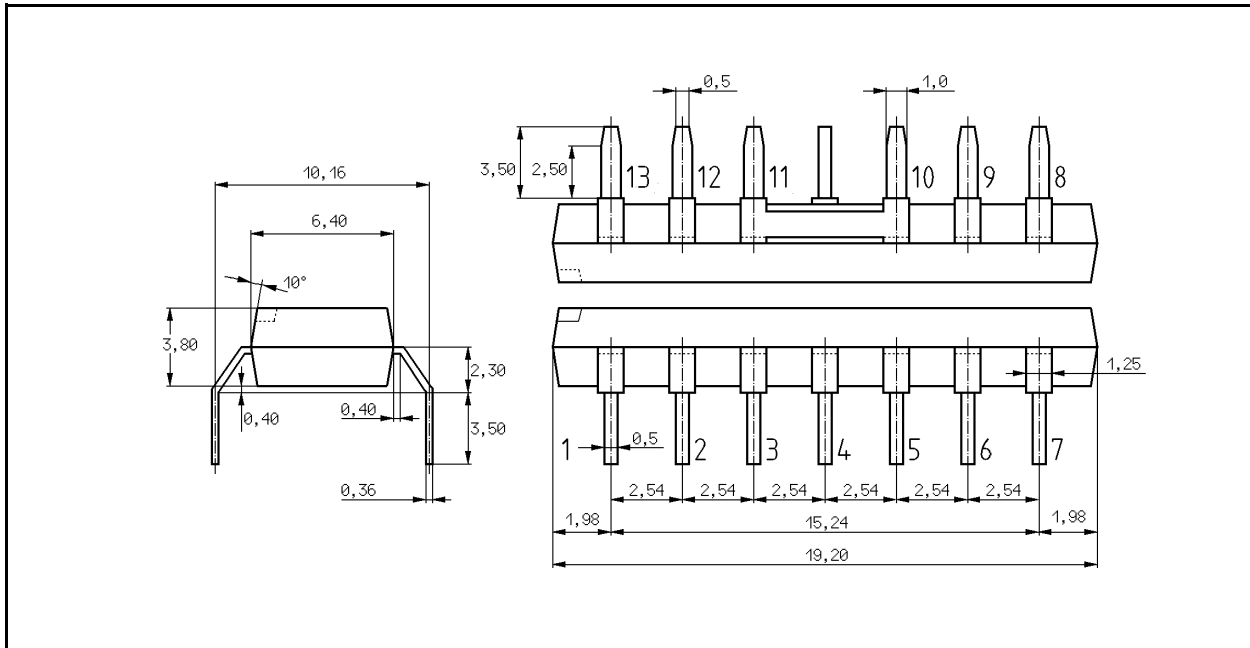


Current Sensor

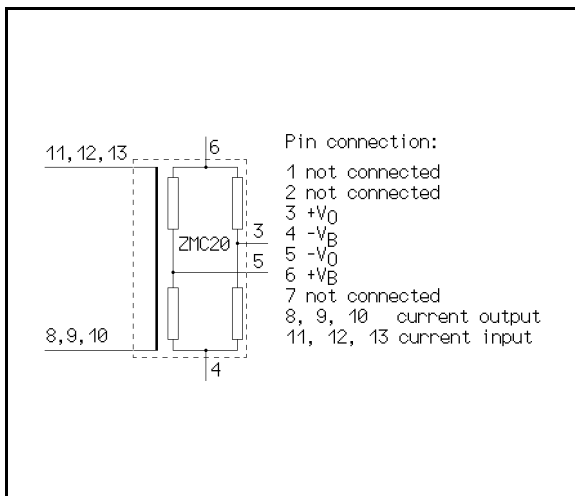
Issue 2 - July 2006

ZMC20



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 20A
- 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} = 20 °C

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol		Unit
Supply voltage	V_B	12	V
Isolation voltage	V_{ISOL}	2	kV
Measurable current	I_M	20	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 Ω	
Offset voltage	V_{Off}	-	-	± 2	mV/V	
Open circuit sensitivity	S	-	0.25	-	(mV/V)/A	
Resistance of the conductor	R	-	0.7	-	m Ω	
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

ZMC20 ZMC20

Ordering information:

ZMC20 in boxes (10 components per box)
--

Europe	Americas	Asia Pacific	Corporate Headquarters
Zetex GmbH Streitfeldstraße 19 D-81673 München Germany	Zetex Inc 700 Veterans Memorial Highway Hauppauge, NY 11788 USA	Zetex (Asia Ltd) 3701-04 Metroplaza Tower 1 Hing Fong Road, Kwai Fong Hong Kong	Zetex Semiconductors plc Zetex Technology Park, Chadderton Oldham, OL9 9LL United Kingdom
Telefon: (49) 89 45 49 49 0 Fax: (49) 89 45 49 49 49 europe.sales@zetex.com	Telephone: (1) 631 360 2222 Fax: (1) 631 360 8222 usa.sales@zetex.com	Telephone: (852) 26100 611 Fax: (852) 24250 494 asia.sales@zetex.com	Telephone: (44) 161 622 4444 Fax: (44) 161 622 4446 hq@zetex.com

For international sales offices visit www.zetex.com/offices

Zetex products are distributed worldwide. For details, see www.zetex.com/salesnetwork

This publication is issued to provide outline information only which (unless agreed by the company in writing) may not be used, applied or reproduced for any purpose or form part of any order or contact or be regarded as a representation relating to the products or services concerned. The company reserves the right to alter without notice the specification, design, price or conditions of supply of any product or service.