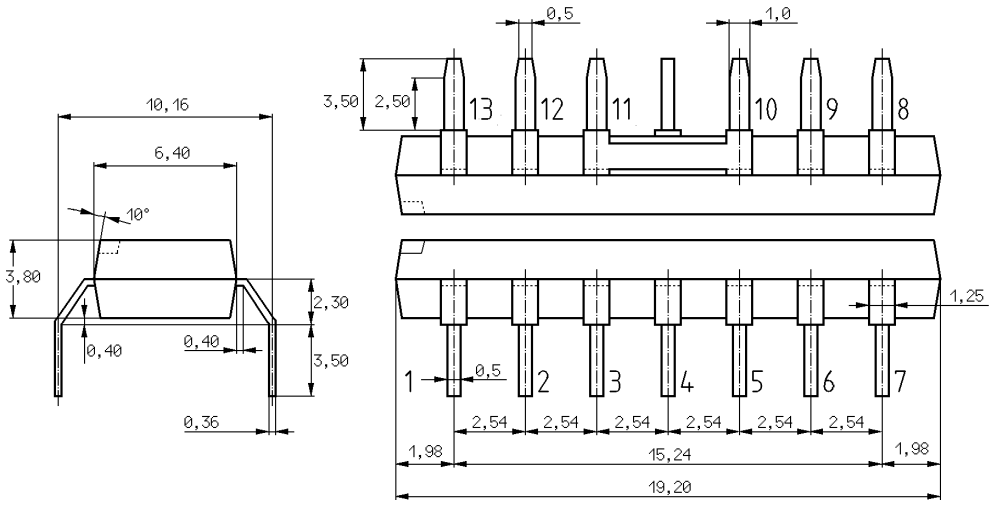
Current Sensor

Issue 2 - July 2006

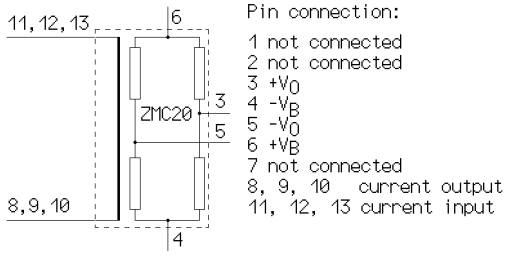
ZMC20



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

© Zetex Semiconductors plc 2006

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 °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	-	0.25	-	(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

ZMC20 ..... ZMC20

Ordering information:

ZMC20 ..... in boxes (10 components per box)

Europe
Zetex GmbH
Streitfeldstraße 19
D-81673 München
Germany
Telefon: (49) 89 45 49 49 0
Fax: (49) 89 45 49 49 49
europe.sales@zetex.com

Americas
Zetex Inc
700 Veterans Memorial Highway
Hauppauge, NY 11788
USA
Telephone: (1) 631 360 2222
Fax: (1) 631 360 8222
usa.sales@zetex.com

Asia Pacific
Zetex (Asia Ltd)
3701-04 Metroplaza Tower 1
Hing Fong Road, Kwai Fong
Hong Kong
Telephone: (852) 26100 611
Fax: (852) 24250 494
asia.sales@zetex.com

Corporate Headquarters
Zetex Semiconductors plc
Zetex Technology Park, Chadderton
Oldham, OL9 9LL
United Kingdom
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.

Issue 2 - July 2006 **www.zetex.com**

© Zetex Semiconductors plc 2006