

Technical description (Current Sensor)

Features

- High EM compatibility
- 16 bit resolution
- very high accuracy
- low offset
- low drift
- very low noise
- isolated
- low energy consumption
- FPWM-signal transmission
- legible using one digital input
- max. 64 kHz sampling

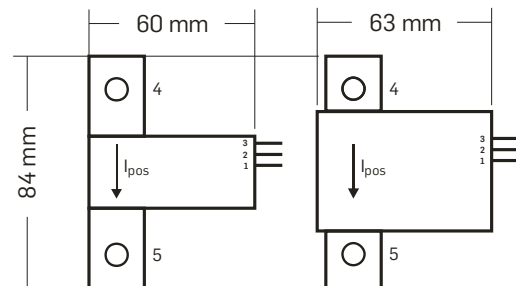
Applications

- Batterymanagement for automotive
- AC/DC current measurement in drivetrains
- Solar-inverter
- Industrial applications

Development and sales in collaboration with (IPD-series):

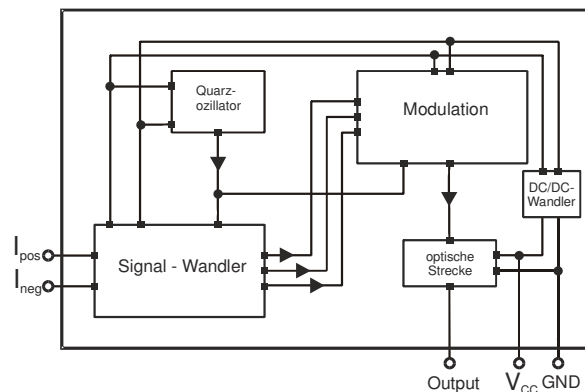
Isabellenhütte GmbH & co.KG
 Eibacher Weg 3-5
 35664 Dillenburg
 mail: info@isabellenhuette.de
 web: <http://www.isabellenhuette.de>

Pin configuration



Pin	Parameter
1	Supply voltage
2	Ground connection
3	Output signal
4	Current input
5	Current output

Block diagram



Electrical parameters	Symbol	Min.	Typ.	Max.	
Supply voltage [V]	V_{CC}	3.3		5	
Measuring range ¹⁾ [A]	I_{out}	± 3		± 1000	¹⁾ Depending on shunt-resistor
Conversion rate ²⁾ [Hz]	f	195		16000	²⁾ Clock 8.192 MHz, others available
Output level ³⁾ [V]	V_{out}	3.3		5	³⁾ Other level available
Accuracy					
Error over all [%]	X		<0.2	<0.4	
Linearity error [%]	ϵ_L		<0.1	<0.3	
Offset error [ppm]	ϵ_{Off}	<-400	<200	400	
Temperature drift [ppm/K]	T_{drift}	-35	± 10	35	

Contact and further information:

Prof. Dr.-Ing. C. Sourkounis
 Ruhr-University of Bochum, Power Systems Technology and Power Mechatronics
 Universitaetsstrasse 150 - 44780 Bochum - Germany;
 mail: mail@enesys.rub.de; web: <http://www.enesys.rub.de>