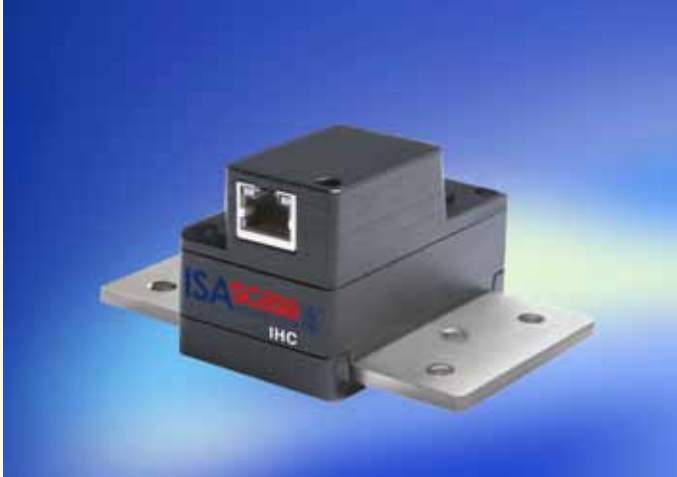


High precision measurement system for current and voltage

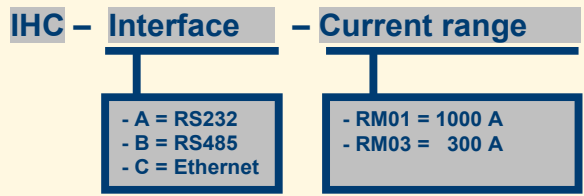


The IHC is a high precision measurement system of the ISAscale® product range and offers an interesting solution for current and voltage measurement directly on the bus bar (1000 A, 300 V). This system is characterised by its accuracy, versatility and compact design. It is fully electrically isolated and with its comparatively very low power loss, the IHC is an excellent alternative to common current measurement systems like DIN shunts, Hall-effect sensors or transducers. Compared with a DIN shunt, IHC has a lower power loss, and compared with Hall-effect sensors or transducers, IHC is more accurate, considering all conditions and possible errors.

The measurement is done with the offset-free and low-noise 16 bit data acquisition system ISA-ASIC (active component) with a sample rate of up to 3500 Hz.

The communication with an external PC or laptop is realized with a standard RS232-, RS485- or ethernet interface. With its ethernet interface remote measurement via internet is possible.

A number of measurement functions like DC and AC current measurement, peak current measurement, effective value of AC current, Ah meter open a wide field of applications. Some examples are stationary battery buffered power supplies, current and voltage monitoring in control units, Ah meter in electroplating plants, wind power stations, heavy drives etc. The included Windows® software enables the programming, data transfer and storage as well as graphical display function of the measurement results. Also all well known port monitoring software programmes are usable.



Example:
IHC-A-RM01

Type	Order number
IHC-A-RM01	IHC-A-00001
IHC-A-RM03	IHC-A-00002
IHC-B-RM01	IHC-B-00001
IHC-B-RM03	IHC-B-00002
IHC-C-RM01	IHC-C-00001
IHC-C-RM03	IHC-C-00002

Absolute maximum ratings	RM01 ($R_{Shunt} 12 \mu\Omega$)	RM03 ($R_{Shunt} 30 \mu\Omega$)
Pulse current: I_{eff} AC/DC (1 sec)	±2,000 A	±600 A
Measurement voltage I_{eff} AC/DC	±300 V	
Operating temperature range	-40 ... +85 °C	
Power supply	min. 21 VDC max. 26 VDC, 50 mA	

Specifications	RM01 ($R_{Shunt} 12 \mu\Omega$)	RM03 ($R_{Shunt} 30 \mu\Omega$)
Accuracy DC current measurement	0.3 % ±300 mA	0.1 % ±100 mA
Accuracy AC current measurement	1 %	0.3 %
Resolution current measurement	0.015 A	0.005 A
Accuracy DC voltage measurement	0.1 % ±100 mV	
Accuracy AC voltage measurement	0.3 %	
Resolution voltage measurement	0.001 V	
Linearity error	< 10 ppm	
Frequency range AC measurement	40 ... 70 Hz	
Internal heat resistance R_{th}	< 0.1 K/W	
Isolated Interface	RS232, RS485, Ethernet	

Measurement functions	
- current: DC rate	- voltage: DC rate
- current: effective value AC rate	- voltage: effective value AC rate
- current: effective value AC+DC	- voltage: effective value AC+DC
- current: peak value	- voltage: peak value
- current: oscilloscope function	- voltage: oscilloscope function
- current: time integral (Ah meter)	
- apparent power	
- real power	
- real power time integral (kWh meter)	



ISABELLENHÜTTE



Cooperation with
German Commission for
Electrical, Electronic &
Information Technologies
of DIN and VDE



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ISO/TS 16949:2002 and
DIN EN ISO 9001:2000
certified

