

MSI 01 Sensor – Interface – IC

PRODUCT INFORMATION

Applications

- *Sensor electronic based on battery (pressure, temperature, strain measurement stripe)*
- *data logger for measurement of pressure and temperature in gas and water nets*
- *autonomous gas pressure measures*
- *meteorological stations*
- *gas meters*



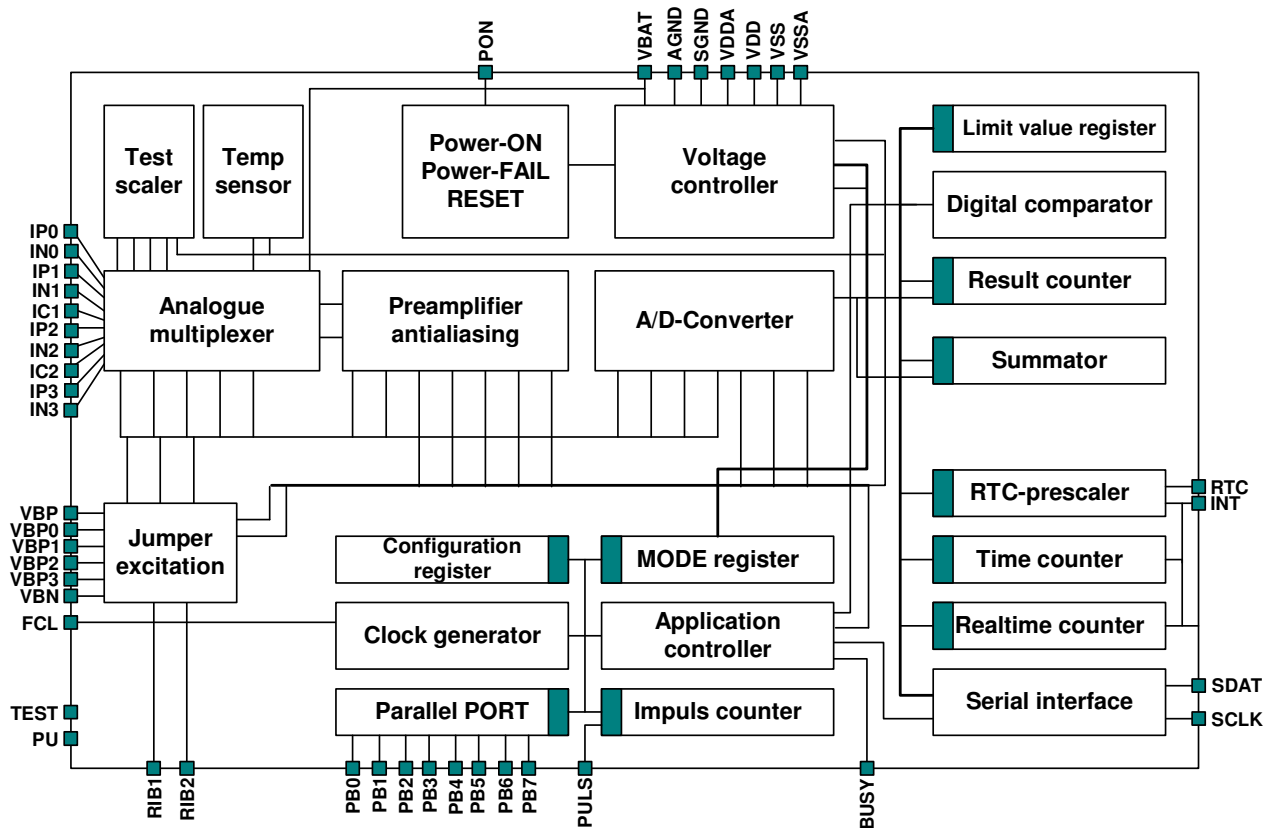
Features

- 4 separate input channels
- bridge current respectively power supply via IC (bridge supply is off in power down mode)
- low power design enables batteries operate
- 15 bit resolution
- high interference suppression by means of Charge Balancing-ADC
- unipolar and bipolar measurement feasible
- mode "background measuring" enables measurement without μC -activation
- low temperature running due to on-chip temperature compensation
- interrupt generating in the case of limit overshoot
- data output via serial interface
- scaler for the application as a gas meter is available

Typical characteristics

maximal resolution of the ADC:	15 bit
maximal integration time:	128 ms
differential non-linearity:	< 0,9 LSB
working temperature range:	-20°C ... +70°C
operating voltage range:	3,7 ... 6,6 V
power consumption in the 'Power Down Mode':	3 μA typ., 5 μA maximal

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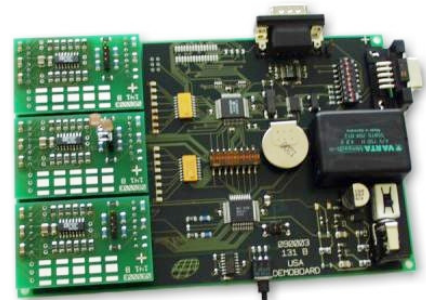


block diagram of the Sensor-Interface-IC - MSI 01

Evaluation board MSI-EB1

The evaluation board is supplied with 3 sockets for sensor modules. These enable an individual connection for the sensors of the customer to be evaluated. The test environments are accomplished by a surface, based on Windows, that allows a rapid access to the functionality of the MSI. Surface characteristics are: sample configurations of the MSI, consecutive measurements including graphical representations of results, access to all configurations (Bits) of the IC. The operating surface facilitates the expeditious entrance to the functional range and parameters of the MSI.

- operational amplifier (AD8594AR) for signal-conditioning
- configuration via serial interface by means of a 8052-compatible controller
- RC232-Interface, test connectors, connector for HITEX-8051-emulator
- connections for a SPI-Download-cable.



Evaluationboard MSI-EB1

For more information please visit our web site at <http://www.MAZeT.de>

or contact our sales offices!