

Company Profile

Introduction:

MIB GmbH is developing, manufacturing and selling measuring instruments and system-solutions for liquid media. The ultrasound-flow-measuring instruments "Flowmax®" of the MIB GmbH are one of the best Ultrasonic Flowmeters for small diameters with a very well price/performance ratio

The flow meter Flowmax ® is the result of more than 12 years experience in development of new technologies. The products still benefit of the CIP and knowledge in the different industries (chemical industry, semi conductor market, solar cell market, food industry, factory automation, automotive, water and wastewater treatment.....).

Fact Sheet

Company name:
MIB GmbH Messtechnik & Industrieberatung

Address:
Ihringen, Im Bürgerstock 7

Founding year:
1999

Employees:
12

Management:
Martin Deutscher, Betriebswirt VWA
Thomas Will, Dipl.-Wirt. Ing.

Corporate purpose	<ul style="list-style-type: none"> • Development / marketing / sales of measuring instruments based on ultrasonic technology • Key technology is protected by patents of its own
Production/Logistic	<ul style="list-style-type: none"> • Electronic and housing production are outsourced. The installation and calibration is controled by MIB.
Products for	<ul style="list-style-type: none"> • Flow measurement of liquids • Analysis of liquids online/inline
Applications	<ul style="list-style-type: none"> • Process- and Factory automation • Machinery- and equipment • Continuous and batch processes • Food • Chemistry • Semiconductor production • Solar wafer production • Cooling circuits • Pharmaceuticals

Right solution for controlling?



Know How



Experience for many years in development, production and industrial management for flow meters helped to create innovative solutions in ultrasonic flow measuring.

In association with our costumers in the different industrial branches we have developed products with the priority on following aspects:

- Our products shall work as a "Plug and Play" system which is easy to install and,
- as "Fit and Forget" solution, which is absolutely maintenance free
- and also we want to help the costumer to minimize his operating costs.

Products



Speedmax 400i



Flowmax 44i



Flowmax 400i

Flowmax 44i



Flowmax 44i is a flowmeter for measuring liquid flow. Based on the Ultrasonic-Technology Flowmax is able to measure conductible and not conductible liquids contactless.

Flowmax suits for continuous volume measurements and also for very dynamic applications. Flowmax has no moving parts and is free of wear. The design of the pipe minimizes dead volumes over the whole geometry. All parts having contact to the medium are PSU. Therefore Flowmax can be used for a big amount of different medias like: distillated water, body cares, cosmetics, fluid food, alkaline liquids, toxic or aggressive media like concentrated acids and leaches. CIP cleaning processes are possible. Flowmax advantage is its high measuring accuracy and repeatability. The integrated gas control with empty pipe detection at the alarm output offers additional information

The measuring result is provided over a scalable pulse output. Flowmax 44i shows the measured flow in series on a background lighted display with actual flow and volume counter. Standard programming can be done by the keypad. Additional to the editable pulse output there are, current output, two digital outputs and one digital input available. The flow meter is available in four diameters: DN10, DN15, DN20 and DN25.

Flowmax 400i



Flowmax is a flowmeter for measuring liquid flow. Flowmax is especially suited to measure dynamic processes in closed pipes of an automation environment. Flowmax is fitting excellent for “Spiking” and “On-Site-Mixing” applications.

Flowmax 400i has no moving parts and is free of wear. The design of the pipe minimizes dead volumes over the whole geometry. All parts having contact to the medium are PFA (New Teflon). Therefore Flowmax 400i can be used for very alkaline, very toxic and/or very aggressive media like concentrated acids and leaches. The measuring result is provided over a scalable pulse output and a programmable current output. All parameters of the flowmeter are individually configurable with MIB PC-Software FlowSoft and USBtoRS485-Converter.

The integrated gas control with empty pipe detection at the alarm output offers additional information. Process connection of Flowmax 400i is free of seals using flare technology or NPT-screwing.

Speedmax 400i



Speedmax 400i is a flow meter for measuring liquid flow and also ultrasonic velocity. The integrated gas control with empty pipe detection at the alarm output offers additional information. The measured sonic velocity can be used to draw conclusions about the concentration or the purity of a liquid. All parameters of the flowmeter are individually configurable with MIB PC-Software FlowSoft and USBtoRS485-Converter.

Process connection of Speedmax 400i is free of seals using flare technology or NPT-screwing.

Calibration Protocol

Flowmax 400i Calibration Protocol

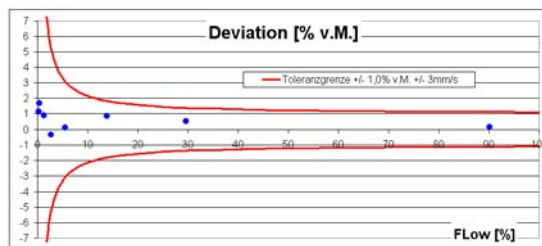
Fabrikations-Nr. / Fab.-number : 799

Nenn Durchmesser / Nominal diameter : 3/8 "

Messbereichsendwert / Max of Measuring Range [l/h]: 360

Wassertemperatur / Water Temperature [°C] : 21,8

	Flow [%]	given Flow [l/h]	real Flow [l/h]	Deviation [%]
1	0,3	1,080	1,044	1,15
2	0,4	1,800	1,614	1,67
3	1,3	5,040	4,766	0,91
4	2,7	10,080	9,702	-0,37
5	5,5	19,800	19,962	0,09
6	13,8	50,400	49,761	0,83
7	29,6	108,000	106,506	0,51
8	90,1	324,000	324,360	0,15



To grant high accuracy and repeatability of our flow meters every Flowmax is calibrated and checked on a special test facility.

Also a special LowFlow calibration for applications with a very low flow range of minimum 0,5ml/s is possible. On request every Flowmax can be delivered inclusive a calibration protocol like in the picture.

FlowSoft & USBtoRS485 Converter

FlowSoft service software is a helpful tool to analyse and visualize processes by using the internal measuring data of the Flowmax.

Flow processes can be visualized by using the converter together with the service software „FlowSot“. Data like actual flow, volume counter, date, time, signal strengths can be recorded and saved on a PC.

Based on the included RS-485 interface it is possible to change adjustments of the Flowmax.

Medium

Choice of media
Application Mediumname Operatorname
Accept data set from file
Store data set in file

Configuration data
Guilty for device Basic trim

Medium matrix
General alteration
0 % Apply No. of basic values 8

	Raw flow [ml/s]		Corrected flow [ml/s]		Correction[%]
	ACTUAL	SET	ACTUAL	SET	
Basic value 1	10.00	10.00	10.00	10.00	0
Basic value 2	30.00	30.00	30.00	30.00	0
Basic value 3	50.00	50.00	50.00	50.00	0
Basic value 4	100.0	100.0	100.0	100.0	0
Basic value 5	150.0	150.0	150.0	150.0	0
Basic value 6	200.0	200.0	200.0	200.0	0
Basic value 7	250.0	250.0	250.0	250.0	0
Basic value 8	350.0	350.0	350.0	350.0	0

Measured values
Amplitude 4.6 [V] Flags
Amplification 70
Raw flow -0.01 [ml/s]
Corrected flow 0.00 [ml/s]
Volume counter 10.484 Liter
Counter reset

Cancel Transmit set values to device



Startup project of MIB in 2001



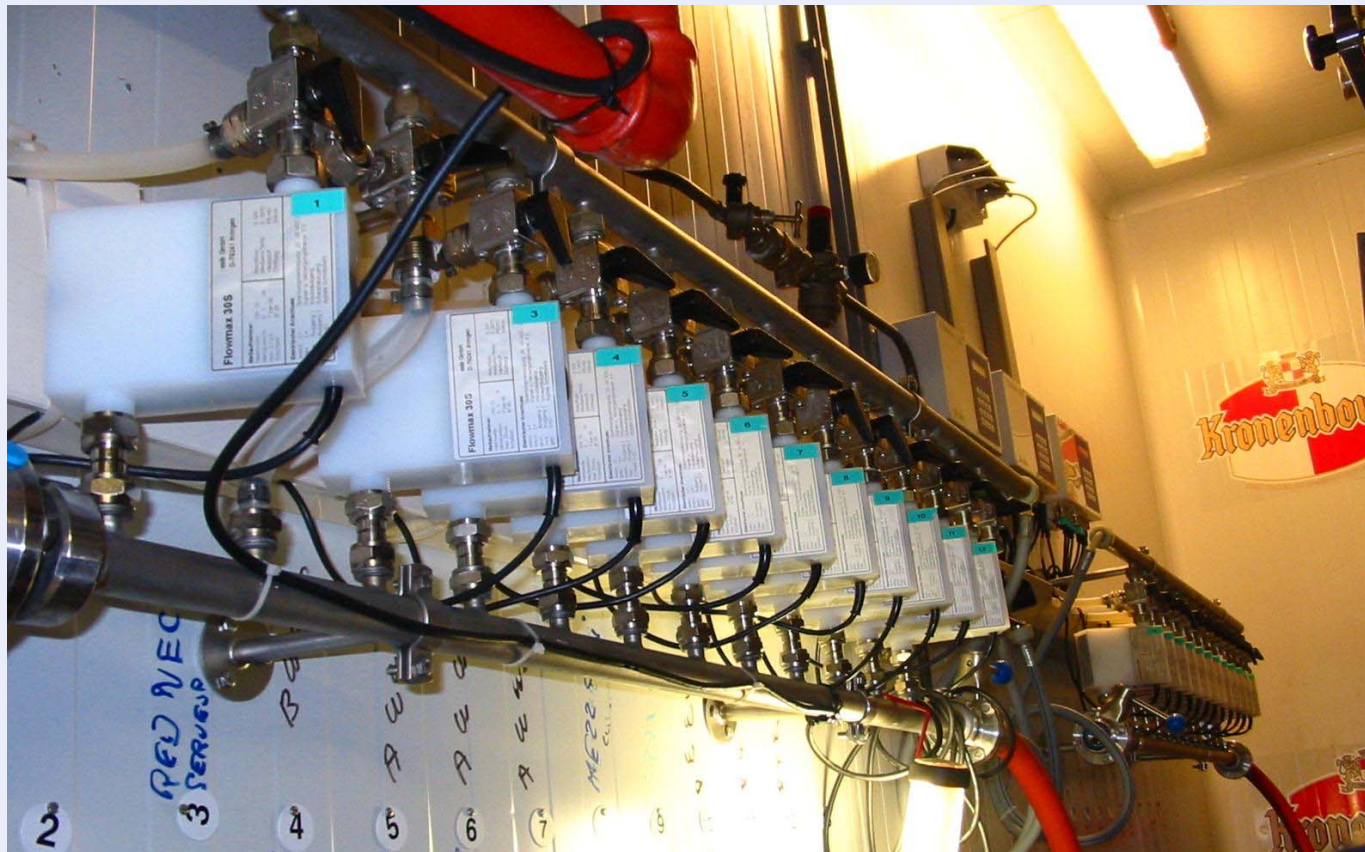
Soccer arena "Schalke 04
Gelsenkirchen".

Sales controlling of beer.

124 lines equipped with
Flowmax 30S.



Right solution for controlling !



Applications



Flowmax 44i in use in a filling machine for filling of special high viscous liquid used in the automotive industry. Medium, Latex. To use for tire-fit repair set in cars.

The Flowmax is the most important device in this filling machine because he has to do the dosing of this expensive liquid with a very high accuracy.

Applications



Dosing system for industrial laundry.

Flowmax 44i measuring up to 12 different cleaning liquids. The liquids are pumped with hydraulic or electric piston pumps.



Applications

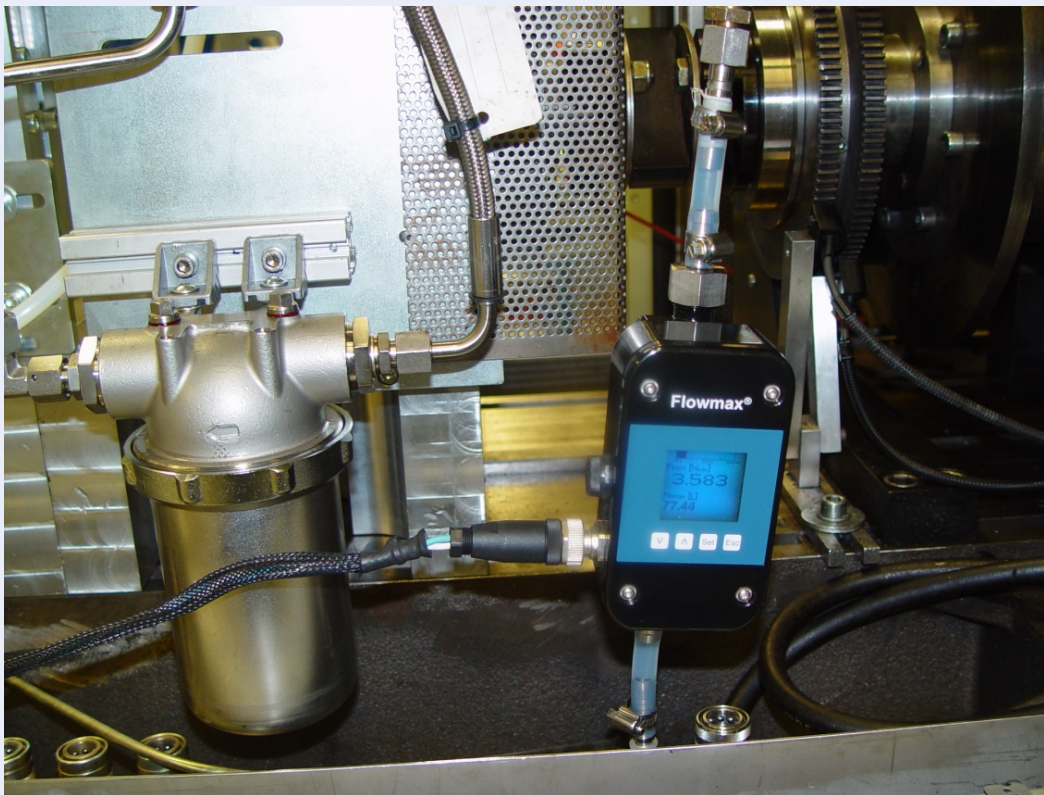


Dosing system for industrial waste water cleaning.

Flowmax 44i measuring Polymer, Polysulfid. The liquids are pumped with hydraulic or electric piston pumps.



Applications



The meter is used for consumption metering of a generator. Measured is fuel flow into the generator. Not only the consumption is measured, the meter also ensures that always enough fuel running to the generator.

Applications



Flowmax 44i in a filling machine with 3 lines. The medium is a synthetic oil. Important in this application is the accurate dosing quantity.

Applications



Flowmax 44i is used as a mobile test equipment. The technician connects the Flowmax to a cooling system while maintenance.

Medium: Water and oil

Pressure up to 10 bar.

Applications



Flowmax 44i can also be used in the pharmaceutical sector. On the picture a special cleaning machine for medical reagents is shown. Flowmax is used to ensure the function and the flow through the jet nozzles.

Applications



Production line for the food industry.
Flowmax is used for the batch process
of liquid in the production of foods.

Applications



Flowmax 44i in use in a production machine for solar cells. The Flowmax 44i (with PSU housing) is measuring HCL and DI-Water

Applications



Flowmax 44i in use in a production machine for solar cells. The Flowmax 44i (with PSU housing) is measuring DI-Water.

In this machine type Flowmax is used for the exact dosing of the different chemicals and also DI-Water. Very aggressive acids are measured with the Flowmax 400i because of its high chemical resistance (body material is PFA). Other chemicals and DI-Water are measured with Flowmax 44i.

Applications

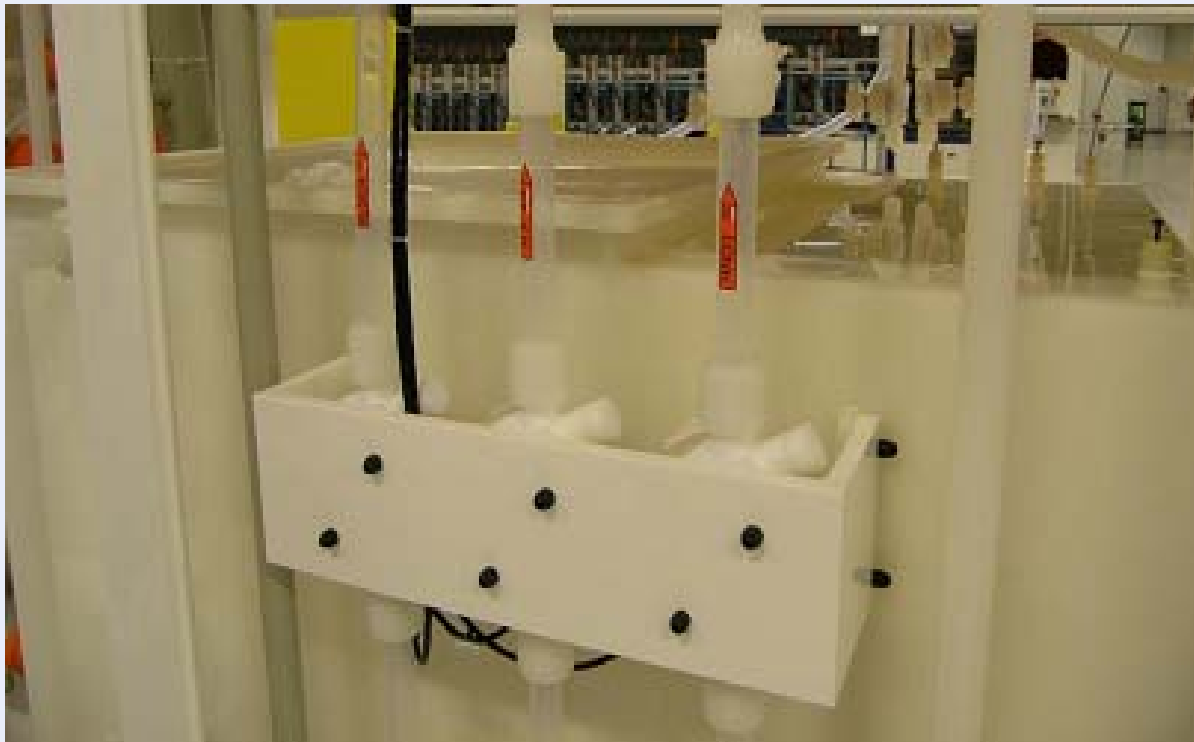


Flowmax 400i in use in a chemical facility.

The customer is a producer of high power transistors in the semi conductor market.



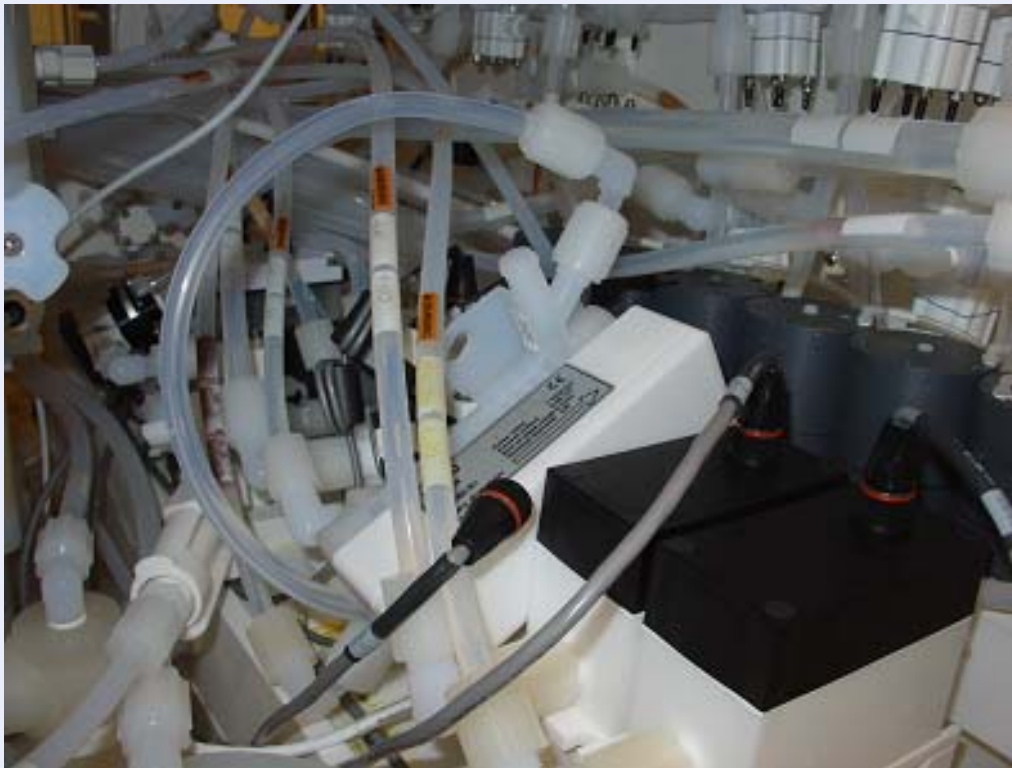
Applications



Flowmax 400i (high purity version)
in use in a chemical facility in
production of solar cells.

Measured liquids: HF, HNO₃,
H₂SO₄

Applications



Flowmax 400i (high purity version) in use in a chemical cabinet in the production of semi conductor wavers.

Flowmax is required to do the exact dosing of chemicals sprayed on the wavers.

Applications



Flowmax 400i in use in a chemical cabinet in the production of semi conductor wafers. Caused by the narrow space in this machines we produced Flowmax 400i with a smaller electronic housing. To grant a better repeatability and accuracy in the lower flow range we also offer a special LowFlow calibration for this flow meters.

In this application an “on-site-mixing” is done. The dosing of the chemicals is done by using the analog output to analyse the actual flow rate by the PLC. Due to the very fast measurement and output the process can be done very fast (in a few seconds).

Applications



Here Flowmax was qualified to dose chemicals in a production line for solar cells. Most of the installation on the left and right side to Flowmax is not applicable when Flowmax is used. With a hydrostatic pressure of only about 0.02 Bar a flow of 180ml/s is reached. Flowmax works with an accuracy of 1% or better. In process flows between 15ml/s up to 180ml/s are measured.

Applications

High production safety, less waste and better quality control through the use of the ultrasonic flow meter Flowmax 400i.

In the production of medical implants highest quality standards have to be met. Production tolerances while production must be minimized to avoid waste. An important factor in the production of these implants is the continuous and stable cooling of the tools with a special coolant. An insufficient flow of cooling medium has a direct impact on the quality of produced goods. Therefore, one of the leading manufacturers of medical implants is using our flowmeter Flowmax 400i. Via the integrated RS-485 interface measured values are transmitted directly to a IPC control. All relevant measured values can be visualized and saved for quality control.

Applications

Cheap, viable and accurate liquid dosing with Flowmax 44i

When liquids are dosed the most important factor for a good process or product is the accuracy of the flow metering. By using the integrated dosing function of Flowmax 44i it is possible to design an easy and cheap dosing control. Especially in low technology areas the demand for simple and cheap dosing solution is very high. The flexible dosing control and the easy handling makes Flowmax 44i a perfect solution for semi-automated dosing applications.

Applications

Doing three jobs with only one instrument: Flowmax is used for dosing, controlling and concentration control.

The latest innovation of some equipment manufacturer in the wet process sector is the add-on of a multifunctional flowmeter. In this equipment's Flowmax is used for accurate dosing of chemicals, consumption controlling and quality control of the concentration. The needed concentration of chemical mixtures is controlled and regulated automatically.

Applications

Reliable consumption metering of fuel with Flowmax.

Most big factories and plants have their own electric generators. To check and optimize the consumption of the generator an accurate flow monitoring is needed. A leak in the line or a failure in the burning will be detected by the Flowmax. Measured values can be read on the user display on site or be transmitted to a PC for analyzing.

Applications

High quality flowmeters for the Research and Development in universities and institutes

Cause of their high accuracy and functionality many of our meters find their way to different institutes and universities. A university is using Flowmax to measure artificially blood in a simulation of the human circulatory system. The scientists get interesting new information about blood circulation and in different situations of the human organism.

Applications

Flow metering for irrigation of crops

In order to ensure the fruit yield of crops and to improve the growth, large farms need to ensure an optimum irrigation in greenhouses. By using Flowmax costumers are able to find out the perfect quantity of water and the best irritation cycle.

Applications



Speedmax 400i is used for a continuous quality control of special cleaning liquids (e.g. cleaning of electronic boards).

By measuring the ultrasonic sound speed Speedmax 400i is able to control the quality of cleaning liquids. Therefore the actual ultrasonic speed is compared to the basic value. When reaching a specific limit, new cleaning liquid gets dosed automatically.

It works very well when there are 1 or 2 mediums in side the process

Contact

MIB GmbH
Messtechnik & Industrieberatung
Im Bürgerstock 7
D-79241 Ihringen-Wasenweiler
Telefon +49 (0) 76 68 - 90 98 9 - 0
Telefax +49 (0) 76 68 - 90 98 9 - 99
e-mail: zentrale@mib-gmbh.com
Internet: www.mib-gmbh.com