Lorenz *amplifiers*

worldwide

Lorenz *amplifiers*

Our quality management system ensures quality at the highest level:
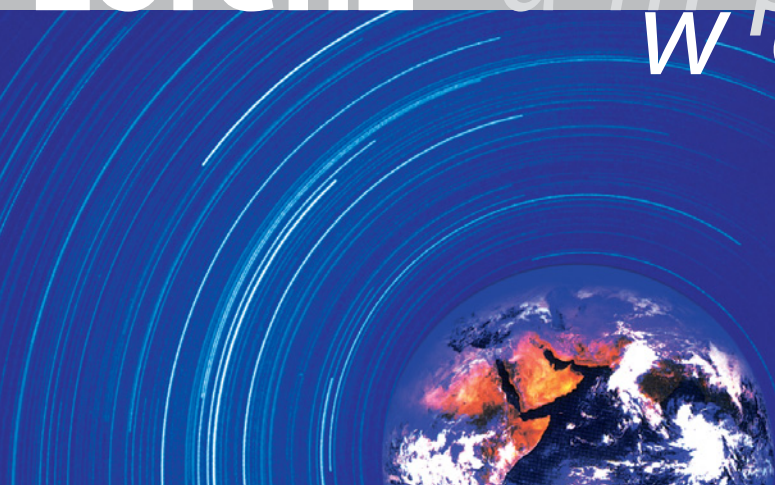
**Our customers include companies in the following sectors:**

- Automotive Industry
- Process Measuring and Control Technology
- Manufacturing and Automation Technology
- Development and Research Institutes
- Aerospace Engineering
- Chemical Industry
- Mechanical Engineering
- Food Industry
- Medical Technology
- Pharmaceutical Industry
- Universities
- Electrical Engineering
- Construction of Apparatus
- Scales Manufacturing
- Metal Industry
- Drive Systems and Components Engineering
- Household Appliance Industry
- Building Industry
- Packaging Technology
- ...

Sensor Interfaces

DIN Mounting Rail Devices

Built-In Measuring Devices

Portable Systems

Tabletop and Laboratory Measuring Devices

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Lorenz® *messtechnik* gmbh

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Lorenz amplifiers and measured data evaluation units   Lorenz torque sensors
Lorenz weighing technology   Lorenz customized sensor and system solutions
Lorenz custom-designed test benches and facilities   Lorenz force sensors
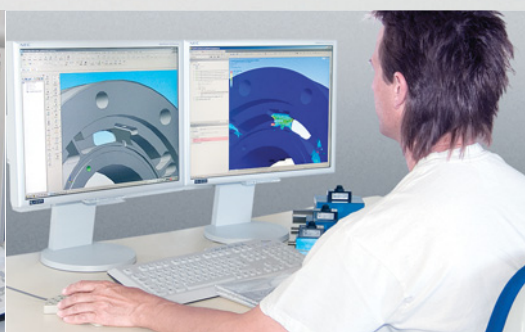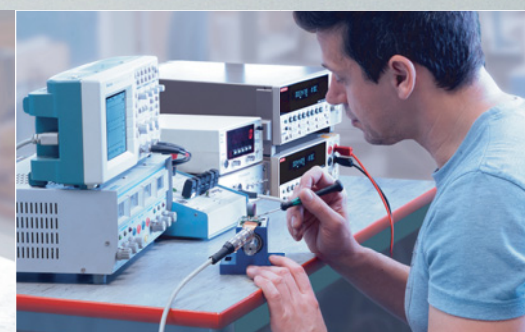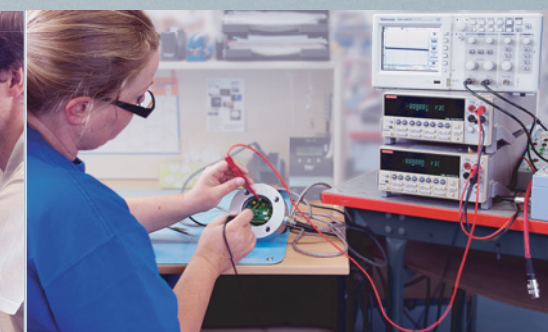

Development   Engineering   Application   Production   Calibration   Repair Service

The Lorenz Messtechnik production spectrum:

Torque sensors, force sensors, load cells as well as the related measuring amplifiers.

Furthermore testing devices and system solutions which act for the acquisition, processing and analyses of torque, speed and angle of rotation as well as other physical and electrical sizes.
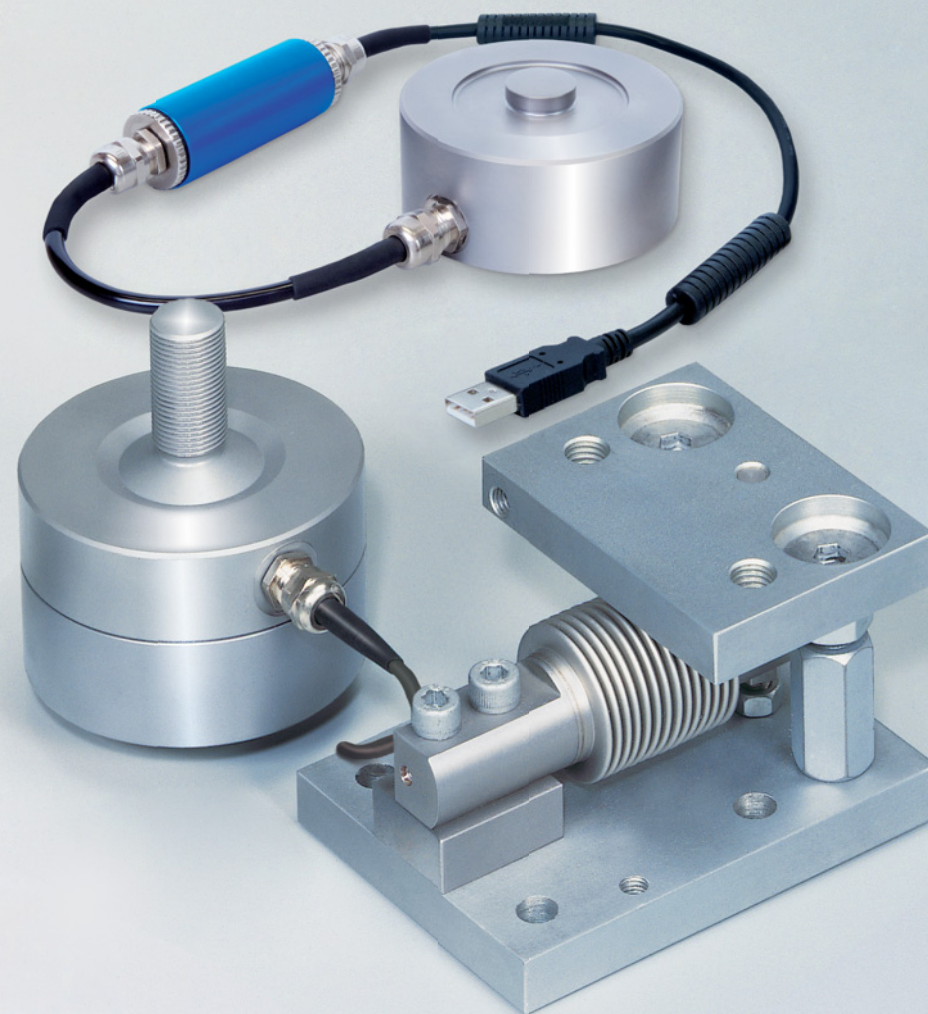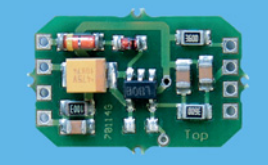
Calibration:
DAkkS- Calibration
Proprietary Calibration

DAkkS
Deutsche
Akkreditierungsstelle
D-K-17603-01-00

GM 80 - TG

Sensor Interfaces

Digital	Type	Technical Details
	LCV-USB2	USB-Sensor-Interface with freely available Configuration and Evaluation Software VS2. The Evaluation and Excitation of the connected Sensor occurs via the USB Interface of the PC. Sensors with Output Signals of mV/V, ±5V, ±10V, 0/4 … 20 mA, 10±10 mA or 12±8 mA are suitable for the Connection. Through the Measuring Rate of up to 5000/s, high-dynamic Measurements are realizable. This Measuring Amplifier is also very suitable for rough Industry Applications by the high Level of Protection IP67 of the Housing, It is also available as a Board without Housing which allows direct Integration in many Sensors.
	SI-USB	2 Channel USB-Sensor-Interface with freely available Configuration and Evaluation Software VS2. The Evaluation and Excitation of the connected Sensor occurs via the USB Interface of the PC. Sensors with Output Signals of mV/V, ±5V, ±10V or 0/4 … 20 mA are suitable for the Connection. Through the Measuring Rate of up to 2500/s, high-dynamic Measurements are realizable. This Measuring Amplifier is also very suitable for heavy Industry Applications by its robust Aluminum Die Cast Housing.
	SI-RS485	2 Channel RS485-Sensor-Interface with freely available Configuration and Evaluation Software VS2. The Evaluation and Excitation of the connected Sensor occurs via the RS485 Interface. Sensors with Output Signals of mV/V, ±5V, ±10V or 0/4 … 20 mA are suitable for the Connection. Through the Measuring Rate of up to 2500/s, high-dynamic Measurements are realizable. This Measuring Amplifier is also very suitable for heavy Industry Applications by its robust Aluminum Die Cast Housing.
	SI-ETH	2 Channel Ethernet-Sensor-Interface SI-ETH with freely available Configuration and Evaluation Software VS2. The Evaluation and Excitation of the connected Sensor occurs via the Ethernet Interface of the PC. Sensors with Output Signals of mV/V, ±5V, ±10V or 0/4 … 20 mA are suitable for the Connection. Through the Measuring Rate of up to 2500/s, high-dynamic Measurements are realizable. This Measuring Amplifier is also very suitable for heavy Industry Applications by its robust Aluminum Die Cast Housing.
	SI-USB3	4 Channel Sensor-HUB-Interface with freely available Configuration and Evaluation Software VS3. The Evaluation and Excitation of the connected Sensor occurs via the USB Interface of the PC. Sensors with Output Signals of mV/V, ±5V, ±10V, 0/4 … 20 mA, 10±10 mA or 12±8 mA are suitable for the Connection. Through the Measuring Rate of up to 5000/s, high-dynamic Measurements are realizable. This Measuring Amplifier is also very suitable for heavy Industry Applications by its robust Aluminum Die Cast Housing.

Sensor Interfaces

Analog	Type	Technical Details
	LCV	Strain Gauge (SG) Sensor-Interface for the Conversion of SG-based Sensor (e.g. Force and Torque Sensors or Load Cells) Output Signals to normed Voltage Signals of ±5V, ±10V, 0/4 ... 20 mA, 10±10 mA or 12±8 mA for the direct Connection to e.g. a PLC or Production Machine. By the high Level of Protection IP67 of the Housing, the Measuring Amplifier is also suitable for rough Industry Applications. The Measuring Amplifier is also available as a Board without Housing which allows direct integration in many Sensors.
	SI	Strain Gauge (SG) Measuring Amplifier for the Conversion of SG-based Sensor (e.g. Force and Torque Sensors or Load Cells) Output Signals to normed Voltage Signals of ±5V, ±10V, 0/4 ... 20 mA, 10±10 mA or 12±8 mA for the direct Connection to e.g. a PLC or Production Machine. Through its robust Aluminum Die Cast Housing with high Level of Protection IP66, this Measuring Amplifier is also very suitable for heavy Industry Applications.
	LMV	Strain Gauge (SG) Measuring Amplifier for the Conversion of SG-based Sensor (e.g. Force and Torque Sensors or Load Cells) Output Signals to normed Voltage Signals of 1 ... 9V or 5±4V for the direct Connection to e.g. a PLC or Production Machine. Through the very small Dimensions of the Amplifier Board, this Measuring Amplifier allows direct Integration in many Sensors.

Portable Systems

	Type	Technical Details
	GM 77	DC Voltage Measuring Amplifier for Strain Gauge Sensors, Mains-Independent, a 4½ Digit LCD-Display, Calibration Control Switch and Maximum Value Memory.
	GM 80	Measuring Amplifier with Data Logger for over 15000 Measured Values for Active and Passive Sensors, USB-Interface, RS 232-Interface, 10 Sensor Parameter Sets, Fast Measurement of up to 1000/s, Mains-Independent and with freely available Configuration and Evaluation Software GM80-VS2.
	AL 202	Measuring Amplifier, latest Generation V7 with Data Logger Function for D7 Transducers (Passive Sensors with mV/V Output Signal and D7 Plug), Sensor-Specific Parameters in the Digital Measurement Plug, Fast Measurements up to 1000/s, Mains-Independent. Wide Range of Functions and Applications (e.g. Peak, Average and Limit Values).

Additional data is available from: http://www.lorenz-messtechnik.de

Built-In Measuring Devices

Type	Technical Details
GM 80-PA	Measuring Amplifier with Data Logger for up to 3000 Measured Values for Active and Passive Sensors, with adressable RS 232 Bus, 3 Control Inputs for External Control, 10 Sensor Parameter Sets, Fast Measurement of up to 1000/s and with freely available Configuration and Evaluation Software GM80-VS2.
IPE50 Panel	Digital Weighing Indicator with OIML- Approval, Connection of up to 8 Strain Gauge Sensors. Output: RS485, RS232, PROFIBUS DP in Option
PAX	Programmable Industry- Digital Built-In Measuring Devices
PAX-DP	Programmable 2-Channel Industry- Built-In Measuring Devices

Tabletop and Laboratory Measuring Devices

Type	Technical Details
GM 80-TG	Measuring Amplifier with Data Logger for up to 3000 Measured Values for Active and Passive Sensors, with adressable RS 232 Bus, 3 Control Inputs for External Control, 10 Sensor Parameter Sets, Fast Measurement of up to 1000/s and with freely available Configuration and Evaluation Software GM80-VS2.
PAX-LC-TG	Micro- Processor Controlled Display Device in Small Housing, for Passive and Active Signals, RS 232-Interface.
DD-2002	2 Channel Digital Display for Torque/Speed, Torque/Angle, or Force/Displacement Measurement.

DIN Mounting Rail Devices

Type	Technical Details
GM 40	Amplifier for Strain Gauge Sensors for DIN Mounting Rails, Voltage Output or Voltage and Current Output.
GM 42-MAX	Minimum and Maximum Value Memory Device for DIN Mounting Rails, with 0 ... ±10V Input Universally Applicable.
GM 44-GW	The Limit Value Evaluation with 2 Adjustable Limit Values, 0 ... ±10V Input, Universally Applicable.
CPJ / CPJ2S	Measuring Amplifier for Strain Gauge Sensors in 4- or 6- Wire Circuit for DIN Mounting Rails with Voltage and Current Output, 4 Parallel Sensor Connections, Shunt Calibration Signal Push Button, Low Pass Filter and 2 Adjustable Set Points.
GM62	Measuring Amplifier for Strain Gauge Sensors for DIN Mounting Rails with Voltage Output, 2 Parallel Sensor Connections, External Control, Abatable Clamps.
IPE50 DIN	Digital Weighing Indicator with OIML- Approval for DIN Mounting Rails, Connection of up to 8 Strain Gauge Sensors. Output: RS485, RS232, PROFIBUS DP in Option
GM 41-NT	PSU (Power Supply Unit) for DIN Mounting Rail Assembly with Overload Protection, Output Adjustable (23 ... 28.5V). The GM 41-NT is an efficient, primary Switched Mode Power Supply Unit for use in Switch Cabinets, Clip Fastening TH 35-Rail Assembly in slim Design. A powerful and flexible Option that's still light and compact. By its Wide Range Input it is world-wide applicable. The Output Voltage is adjustable in the Front and it is Short Circuit protected. By Regulator Controller Technology, High Efficiency and thus small Heat Development are ensured. The DIN Rail Fastening Method and Push-In Connection Terminals enable fast and secure Mounting. The GM 41-NT is also comply with the EN 60335-1 Standard for domestic Appliances.

Additional data is available from: http://www.lorenz-messtechnik.de

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