
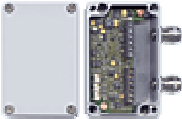


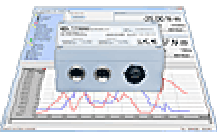








# Measurement electronics


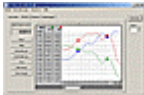



## Sensor Interface

| Analog  | Type     | Technical details  |
|---|----------|--|
|    | LCV      | <p>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 <math>\pm 5\text{ V}</math>, <math>\pm 10\text{ V}</math>, <math>0/4\dots 20\text{ mA}</math>, <math>10\pm 10\text{ mA}</math> or <math>12\pm 8\text{ mA}</math> 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.</p>  |
|    | SI       | <p>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 <math>\pm 5\text{ V}</math>, <math>\pm 10\text{ V}</math>, <math>0/4\dots 20\text{ mA}</math>, <math>10\pm 10\text{ mA}</math> or <math>12\pm 8\text{ mA}</math> 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.</p>   |
|    | LMV      | <p>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 <math>1\dots 9\text{ V}</math> or <math>5\pm 4\text{ V}</math> 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.</p>  |
| Digital   | Type     | Technical details  |
|  | LCV-USB2 | <p>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 <math>\text{mV/V}</math>, <math>\pm 5\text{ V}</math>, <math>\pm 10\text{ V}</math>, <math>0/4\dots 20\text{ mA}</math>, <math>10\pm 10\text{ mA}</math> or <math>12\pm 8\text{ mA}</math> 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.</p> |
|  | SI-USB   | <p>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 <math>\text{mV/V}</math>, <math>\pm 5\text{ V}</math>, <math>\pm 10\text{ V}</math> or <math>0/4\dots 20\text{ mA}</math> 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.</p>   |
|  | SI/RS485 | <p>RS485-Sensor-Interface, 1- or 2-Channel Type, with freely available Configuration and Evaluation Software VS2. The Evaluation of the connected Sensor(s) occurs through the RS485-Interface. Sensors with Output Signals of <math>\text{mV/V}</math> or <math>+5\text{ V}</math> 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.</p>   |


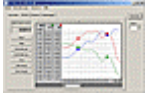



## DIN Mounting Rail Devices

| Image  | 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.  |
|   | GM 62     | Measuring Amplifier for Strain Gauge Sensors for DIN Mounting Rails with Voltage Output, 2 Parallel Sensor Connections, External Control, Abatable Clamps. |
|  | GM 40-NT  | PSU (Power Supply Unit) for DIN Mounting Rail Assembly with Overload Protection, Output Adjustable (13.5...17.25V).  |



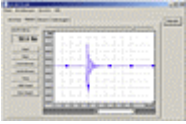

## Tabletop and Laboratory Measuring Devices

| Image   | Type          | Technical Details  |
|---|---------------|--|
|  | GM80-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. |
|  | GM80 TG/PA-VS | Measuring and Evaluation Software for Easy Analysis and Graphical Presentation on a PC for up to 4 Sensors Simultaneously, and for the Adjustment and Control of the GM80-PA.  |
|  | PAX-LC-TG     | Micro- Processor Controlled Display Device in Small Housing, for Passive and Active Signals, RS 232- Interface.  |
|  | DD-2002       | Dual-Range Digital Display for Torque/Speed, Torque/Angle, or Force/Displacement Measurement.  |
|  | PAX-XLS       | Measuring and Evaluation Software for DD-2002, PAX-LC-TG, PAX-DP and PAX; for Easy Evaluation and Graphical Presentation on a PC. Up to 3 Channels Simultaneously, Auto-Scaling X- and Y-Axes, Data Logger.                        |

## Built-In Measuring Devices

| Image   | Type          | Technical Details  |
|---|---------------|--|
|  | GM80-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. |
|  | GM80 TG/PA-VS | Measuring and Evaluation Software for Easy Analysis and Graphical Presentation on a PC for up to 4 Sensors Simultaneously, and for the Adjustment and Control of the GM80-PA.  |
|  | PAX           | Programmable Industry- Digital Built-In Measuring Devices.   |
|  | PAX-DP        | Programmable 2-Channel Industry- Built-In Measuring Devices.   |
|  | PAX-XLS       | Measuring and Evaluation Software for DD-2002, PAXLC-TG, PAX-DP and PAX; for Easy Evaluation and Graphical Presentation on a PC. Up to 3 Channels Simultaneously, Auto-Scaling X- and Y-Axes, Data Logger.                         |

## Portable Systems

| Image   | Type       | Technical Details   |
|---|------------|---|
|  | GM77       | DC Voltage Measuring Amplifier for Strain Gauge Sensors, Mains-Independent, a 4½ Digit LCD-Display, Calibration Control Switch, Maximum Value Memory ....   |
|  | GM80       | Measuring Amplifier with Data Logger for up to 3000 Measured Values for Active and Passive Sensors, RS 232- Interface, 10 Sensor Parameter Sets, Fast Measurement of up to 1000/s, Mains-Independent. |
|  | GM80-VS    | Measuring and Evaluation Software for Easy Analysis and Graphical Presentation on a PC and for the Adjustment and Control of the Hand-Held Unit GM80.   |
|  | AL-2390-5S | Portable Measuring System for Strain Gauge Sensors with Data Logger. Sensor Specific Parameters in Interface Connector.   |