

Messtechnik GmbH & Co. KG



2025

Product overview

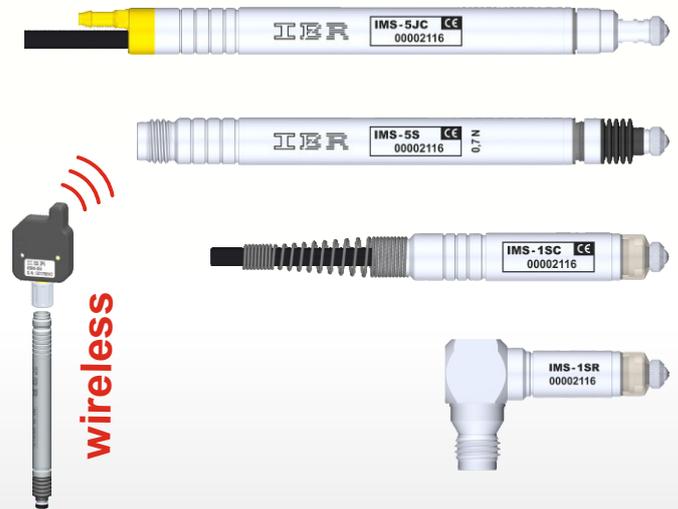


Inductive measuring probes of the IMS series

IMS measuring probe - a new generation of inductive measuring probes with integrated signal processing and digital interface for the measuring value output. The measuring probes are based on the reliable clearance-free ball bearings and the robust inductive measuring principle. But the sensible and sensitive analogue measuring signals are no longer transferred out of the measuring probe via cables and then measured externally by electronics, instead they are processed and digitised directly inside the measuring probes. An innovative measuring principle and highly integrated electronics make this milestone of new generation IMS measuring probes possible.

Technical data : IMS measuring probes

Metrological characteristics	
Measuring range	1 mm / 5 mm / 10 mm
Variants	spring / pneu. pushed, vacuum lifted
Resolution	0.1 μm (optionally 0.01 μm)
Accuracy	$< \pm 1 \mu\text{m}$
Measuring rate	2500 values / second (0.1 μm)
Measuring force	0.7 N / (optional 0.4 ... 2.0 N)
Electrical characteristics	
Supply voltage	2.7 ... 3.6 V
Power consumption	2.8 μA / measurement per second
Characteristics of integrated temperature sensor	
Measuring range	-20 $^{\circ}\text{C}$... 80 $^{\circ}\text{C}$
Resolution	0.25 K
Accuracy	$\pm 1.5 \text{ K}$
Environmental conditions	
Operation / Storage temp.	0 ... 50 $^{\circ}\text{C}$ / -20 ... +70 $^{\circ}\text{C}$



Additional information : https://www.ibr.com/Flipbook/IMS_E.htm

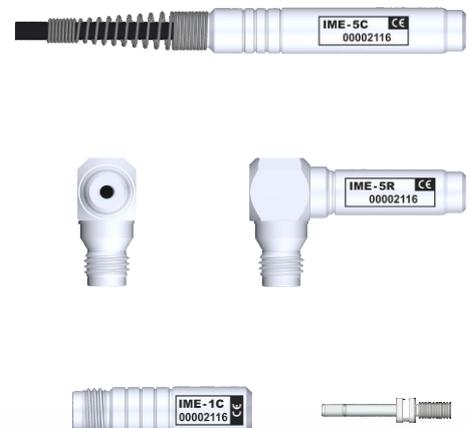


Inductive displacement sensors of the IME series

IME displacement sensor - a new generation of inductive displacement sensors with integrated signal processing and digital interface for the measuring value output. The new IME displacement sensors are based on the same measuring electronics as the IMS measuring probes and allow the use in OEM applications with own guidance of the core.

Technical data : IME displacement sensor

Metrological characteristics	
Measuring range	1 mm / 5 mm / 10 mm
Resolution	0.1 μm (optional 0.01 μm)
Accuracy	$< \pm 1 \mu\text{m}$
Measuring rate	2500 values / second (0.1 μm)
Electrical characteristics	
Supply voltage	2.7 ... 3.6 V
Power consumption	2.8 μA / measurement per second
Characteristics of integrated temperature sensor	
Measuring range	-20 $^{\circ}\text{C}$... 80 $^{\circ}\text{C}$
Resolution	0.25 K
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Environmental conditions	
Operation / Storage temp.	0 ... 50 $^{\circ}\text{C}$ / -20 ... +70 $^{\circ}\text{C}$



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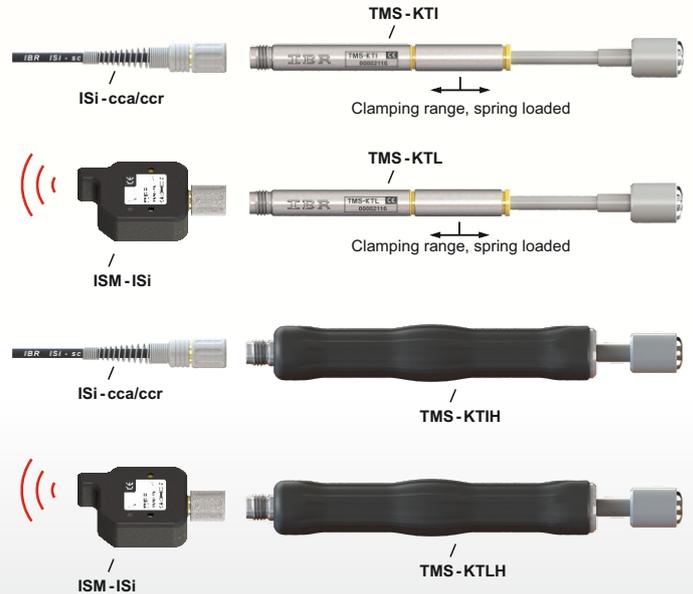


Temperature sensors of the TMS series

The temperature sensor series TMS-KTx has a very short reaction time and is designed for rapid measurement of workpiece temperature. The sensors are with integrated signal processing, digital interface for measuring value output and measure with a K-Type thermocouple. The TMS-KTI(H) contain a galvanic separation for isolation of the measuring head. The TMS-KTL(H) are especially for battery operation with extrem low power consumption. Both versions contain a spring-loaded clamping shaft 8h6 for usage in measuring fixtures. The version (H) contains a handle for manual measurements.

Technical data : TMS-KTx temperature sensor

Metrological characteristics	
Measuring range	0 °C ... 250 °C
Resolution	0.1 K
Accuracy	±2.5 K, optional ±1.0 K
Time to measure the surface temperature	< 2 seconds
Electrical characteristics	
Supply voltage	2.7 ... 3.6 V
Power consumption	5.7 µA / measurement per second
Environmental conditions	
Operation / Storage temp.	0 ... 50 °C / -20 ... +70 °C

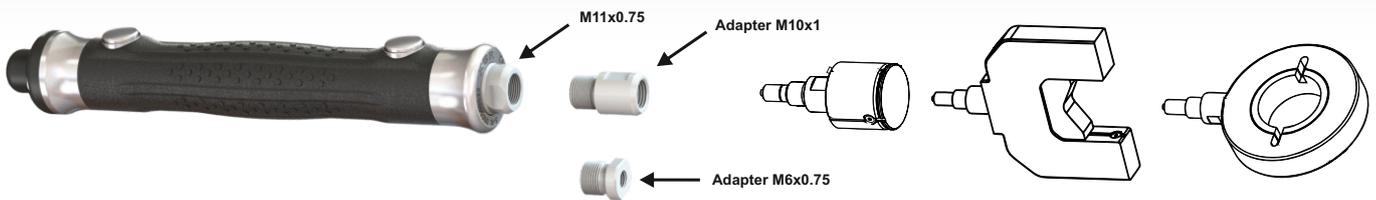


Additional information : https://www.ibr.com/Flipbook/TMS_E.htm



Wireless gauge handles of the H1 series

H1-M wireless gauge handles allow connection of various mechanical gauge heads for measurement of bores, outer and inner diameters, gears and depths. The integrated precision measuring probe IMS-5S has a resolution of 0.1 µm and a precision of $\pm 1 \mu\text{m}$.



H1-T wireless gauge handles serve for rapid measurement and wireless transmission of temperatures from workpieces. The integrated temperature sensor TMS-KTL has a measuring range of 0°C ... 250°C.



The measuring data is continuously transferred for live display to the receiver and is stored in software by pressing the button of the wireless gauge handle. The integrated radio module from the ISM series has a high transmission range and a long battery life time (approx. 1-2 years).

Additional information : https://www.ibr.com/Flipbook/H1_E.htm



Wireless data transmission with IBR radio modules

The ISM radio module series allows wireless transmission of measured values from gauges, measuring probes and sensors to a PC, PLC units, tablets, smartphones, The miniature radio modules are a technology step in interface technology and replace gauge connection cables as well as interface boxes.

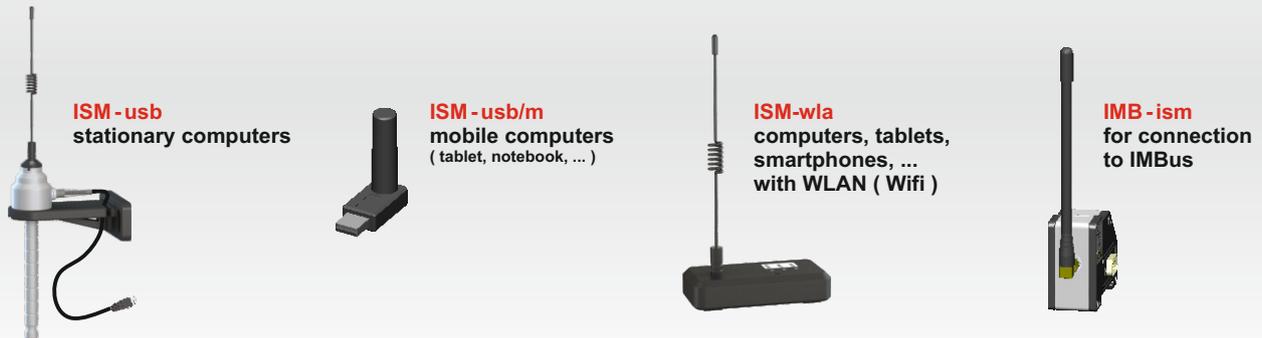
Features

- Connection of all gauges
- Easy handling
- Full data security
- Transmission confirmation
- Compact size
- Long range
- Long battery life time
- Up to 500 gauges
- Up to 500 PC stations
- Individually programmable
- Low cost
- Data transfer on measuring value change (live display)
- Tolerance reply



ISM radio receivers

The ISM radio receivers serve for receiving measuring data and for communication with the gauges and sensors.



ISM radio transmitters for gauges and sensors

The ISM radio transmitters serve for transmitting of measuring data and for communication with the gauges and sensors. With a few exceptions radio transmitters can, alternatively to a cable, directly plugged into the gauge.



Additional information : https://www.ibr.com/Flipbook/ISM_E.htm



High precision dial gauges SD1-IB5 / SD1-IB10

The SD1-IB5 / SD1-IB10 are high precision dial gauges with a free of clearance ball bearing and a linearized, inductive, absolute measuring system. The dial gauges are specially designed for industrial use in rough manufacturing environment.

Type	Article
SD1-IB5 / IB10	High precision dial gauge, spring pushed
SD1-IB5P / IB10P	High precision dial gauge, pneumatically pushed
SD1-IB5J / IB10J	High precision dial gauge, pneumatically pushed
SD1-IB5V / IB10V	High precision dial gauge with vacuum lifting

Technical data : SD1-IB5 / SD1-IB10

Mechanical characteristics	
Case	Plastic, rubber shock protection
Front plane	Acryl glass (scratch-proof coated)
Dimensions / Weight	(WxHxD) 58 x 111 x 35.9 mm / 192 g
Electrical characteristics	
Power supply	Battery (CR2032)
Battery lifetime	approx. 8000 h
Metrological characteristics	
Measuring range	5 mm / 10 mm
Resolution	0.1 μ m
Accuracy	< ± 1 μ m
Measuring rate	adjustable, 2 ... 20 values / sec
Measuring force	0.7 N (optional 0.4 ... 2.0 N)
Environmental conditions	
Operation / Storage temp.	0 ... 50 °C / -20 ... +60 °C
Protection class	IP64 (CEI / IEC 529)

EMC according to EN50081 - 2 and EN50082 - 2



Compact display SD1 for sensors with ISi bus

The SD1 in combination with connection adapter CC1 is a very compact display unit with ISi bus connection. The ISi bus allows the connection of 1 - 2 sensors plus foot and hand switch as well as the connection of tolerance outputs.

Technical data : SD1+ CC1

Mechanical characteristics	
Case	Plastic, rubber shock protection
Front plane	Acryl glass (scratch-proof coated)
Dimensions / Weight	(WxHxD) 58 x 58 x 32.8 mm / 149 g
Electrical characteristics	
Power supply	Battery (CR2032)
Battery lifetime	approx. 6000 h (incl. 2 probes)
Measuring rate	adjustable, 2 ... 20 values / second
Connections	
ISi interface	Bus connection for sensors, hand / foot switch, tolerance adapter, ...
Triple-I interface	Connection for IBR radio modules or cable with USB / RS232 / Digimatic / RS485 interface
Environmental conditions	
Operation / Storage temp.	0 ... 50 °C / -20 ... +60 °C
Protection class	IP64 (CEI / IEC 529)

EMC according to EN50081 - 2 and EN50082 - 2

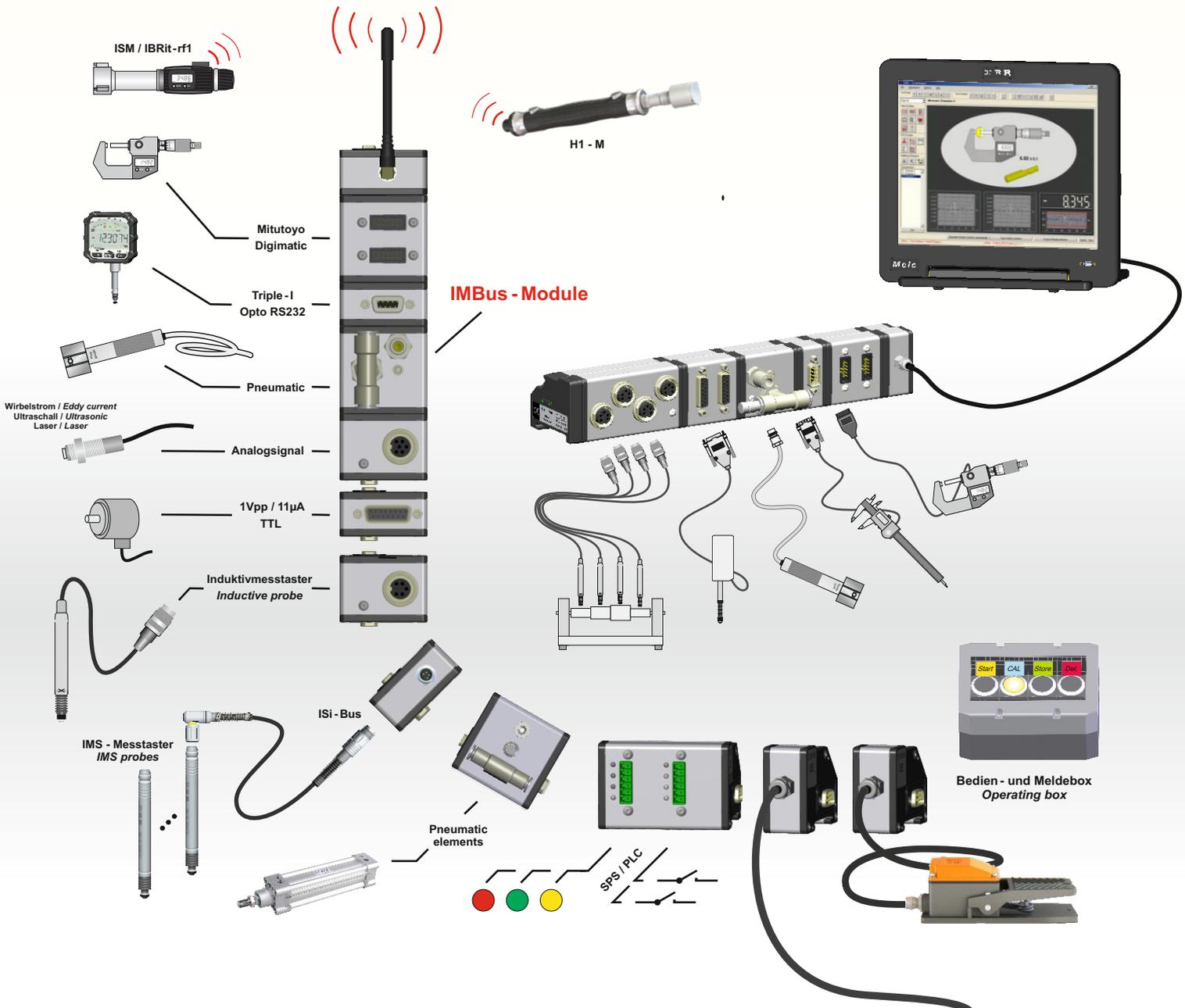


Additional information : https://www.ibr.com/Flipbook/SD1_CD_E.htm#page/4

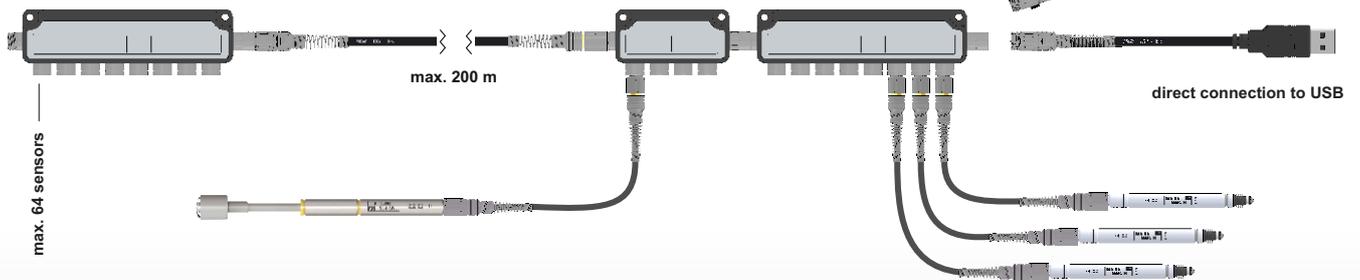


IMBus a universal measuring bus

The IBR Measuring Bus [**IMBus**] is a technology step in metrology and interface technology. Powerful connection modules for all sensors, gauges and control signals as well as maximum flexibility for connection to computer and PLC interfaces (USB, RS232, Ethernet, Wireless LAN, EtherCAT, Profinet, Profibus, Ethernet/IP as well as Modbus/TCP) characterize the IMBus series.



IMBs - ca4 / ca8 connection adapters



Additional information : https://www.ibr.com/Flipbook/IMBus_E.htm



Measuring computers and displays for industrial use

Measuring computer Meic

Robust industrial computer for manual and automatic collection of measured values with statistical analysis, solid metal housing (IP54) and 17" TFT. Adjustable tilt, touch optional. 1 ... 512 measuring inputs (IMBus).



Meic

Additional information :

https://www.ibr.com/Flipbook/Meic_E.htm



Measuring computer Meic-Core

Robust industrial computer for manual and automatic collection of measured values with statistical analysis, solid metal housing (IP54), monitor connector (VGA). 1 ... 512 measuring inputs (IMBus).



Meic-Core

Additional information :

https://www.ibr.com/Flipbook/Meic-Core_E.htm



Computer displays CD43 / CD70

Computer displays CD43 and CD70 with ISI bus interface for connection of 1 ... 16 IMS probes / TMS temperature sensors / IME sensors. USB interface for connection of radio receivers and IMBus. LAN interface for network connection.



CD43



CD70

Additional information :

https://www.ibr.com/Flipbook/SD1_CD_E.htm#page/8



Compact measuring computer Mecc

Compact measuring computer Mecc with connections for IMBus modules / IMS probes / IME sensors / TMS temperature sensors / radio receivers and LAN interface for network connection.



Mecc

Additional information :

https://www.ibr.com/Flipbook/Mecc_E.htm

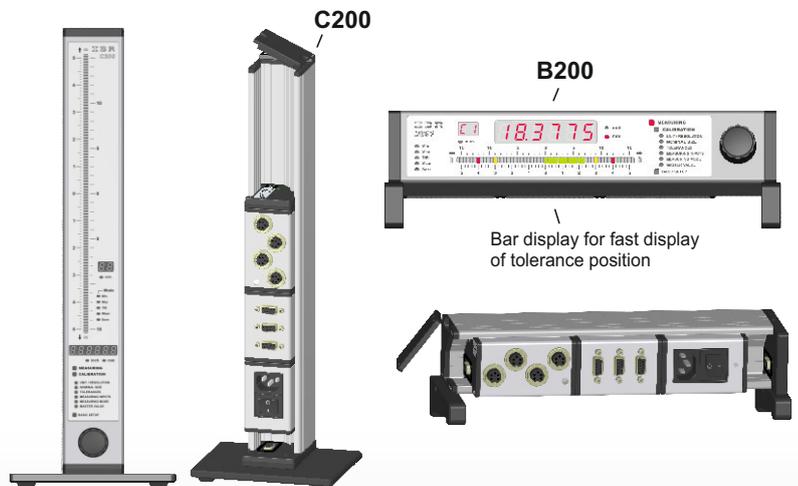


Column display C200

The column gauge C200 is an electronic gauge for connecting 1... 8 inductive and incremental probes, pneumatic gauge heads, sensors with analogue current or voltage output, The high flexibility concerning the connection of sensors and gauges is achieved due to the modular design and the usage of IMBus modules.

Digital display B200

The digital gauge B200 is an electronic gauge for connecting 1... 8 inductive and incremental probes, pneumatic gauge heads, sensors with analogue current or voltage output, The high flexibility concerning the connection of sensors and gauges is achieved due to the modular design and the usage of IMBus modules.



Additional information :

https://www.ibr.com/Flipbook/C200_E.htm



Additional information :

https://www.ibr.com/Flipbook/B200_E.htm



Software support

IBR_DDK.DLL

Universal Device Driver Kit for linking all IBR measuring and interface instruments in Windows XP ... 11 and CE programs. (Examples for VC++, VB, LabView, Delphi, ... available.) The IBR_DDK.DLL is already integrated in most of the CAQ / SPC software packages.

IBREXDLL

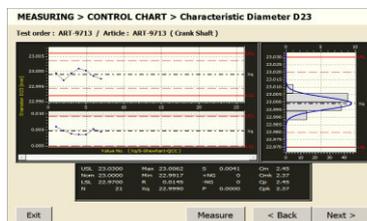
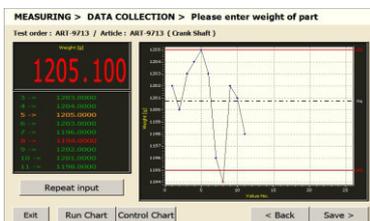
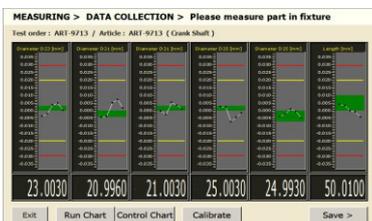
Excel-Workbook for reading in, visualising and analysing measurement data in MS-Excel.

Additional information : https://www.ibr.com/Flipbook/IBREXDLL_E.htm



ComGage

Software for metrology and statistical process control in manufacturing facilities.

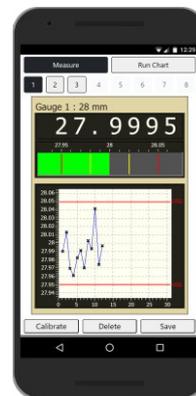
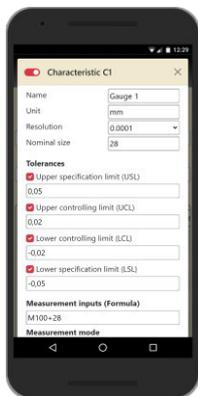


Additional information : https://www.ibr.com/Flipbook/ComGage_E.htm



WebGage Light

The browser application WebGage Light allows to collect, to display, to store and to evaluate measured data with PC's, tablets, smartphones, ... and with a web browser.



Additional information : https://www.ibr.com/Flipbook/WebGage_Light_E.htm



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