

## Angle meter with Bluetooth® Interface

# KeMes A200 / A205

The precision solution for integration into the machine system



KeMes was primarily designed for users of press brakes to allow angle deviations to be directly detected during the production process, thereby saving valuable process time. Thanks to the innovative measurement principle, the device can be used both for fully automatic angle verification directly on the machine and as a hand-held measuring device. Equipped with a Bluetooth® interface, the variants KeMes A200 / A205 now enable direct communication with the machine controls. Therefore automatic processing of the angle values is possible.

### Einfach – User-friendly

Thanks to the intuitive user guidance, the angle measurement instrument KeMes can quickly be brought into operation. It simplifies not only automatic angle checking at the press brake, but also manual quality control of sheet metal angles.

### Faster – Measure without losing time

KeMes is simply fastened to the upper die of the press brake using the integrated magnets, saving time normally spent for manual spot checks and calibration work. Consistent quality



control is guaranteed and deviations are immediately identifiable. Unlike other hand-held measurement devices, the measurement blade does not need to be held against the workpiece, thereby resulting in considerable time savings.

### Measure angles – Maximum quality and precision

KeMes is based on an innovative laser technology. The measurement is contactless, wear-free and gentle on the workpiece. Only a narrow gap between the upper dies of the press brake is needed. This can easily be created by appropriately arranging the dies. Horn-shaped or slotted tools can also be used.

### Data transfer via Bluetooth®

The patented KeMes solution functions for a wide range of machine types and manufacturers. The variants KeMes A200 (suitable for machine and manual measurement) and KeMes A205 (supporting manual measurement only) have a Bluetooth® interface. With this, the machine manufacturer can integrate them with the press brake controls. Angle values can be transmitted wirelessly, quickly and easily to be used for angle correction.

Drivers for Windows and Linux are available for customer-specific control solutions. Delem customers benefit from the already complete integration of KeMes A205 in the DA-60Touch software.

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## Technical data KeMes A2xx

### Measurement

- Patented laser measurement principle
- Measurement range: 30-150°
- Measuring accuracy:  $\pm 0.2^\circ$  \*)
- Repeatability: 0.1°
- Resolution: 0.01°

\*) See "Reference measurement accuracy" in the operating instructions

### Laser

- Laser class: 2 according to IEC 60825-1:2014
- Wavelength: 660 nm
- Laser output: 7 mW (pulsed)
- Calibration uncertainty +/- 0.9 mW
- Laser beam diameter: 3 mm (at the exit point)
- Beam divergence: 35 mrad
- Pulse frequency: 167 Hz
- IEC 60825-1:2014, Table 10, Condition 3: 200 mm (most restrictive location); 36  $\mu$ s (impulse duration in measuring aperture)

### Display

- High-contrast OLED display
- Measurement values in degrees resp. arcminutes

### Power supply

- 5V DC; 500 mA
- Battery type: lithium-ion polymer
- Charging time: approx. 2 h
- Charging: via USB High Power

### Housing

- W x H x D: 162 x 48.5 x 15.3 mm
- Protection rating: IP20
- Material: zinc / glass / plastic

### Certifications

- CE
- UL LISTED
- FCC ID: XPNINAB1
- IC: 8595A-NINAB1

### Environmental conditions

- Operating temperature: 5 to 40 °C
- Temperature during charging: 5 to 40 °C
- Storage temperature: -20 to 45 °C
- Rel. humidity: 5 to 95 % (non-condensing)

### Delivery contents

- KeMes angle meter
- USB charger incl. cable and country adapter (optional)
- Bluetooth smart USB dongle (optional)
- Storage box
- Quick start guide
- Measurement aid incl. centering adapter

### Bluetooth® function

- Bluetooth® 5.0 Low Energy



**LASERSTRAHLUNG**  
**NICHT IN DEN STRAHL BLICKEN**  
Laser Klasse 2, IEC 60825-1:2014,  
660 nm; 7 mW; gepulst

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