

# Safecontrol 4.0

Control is good –  
Measuring with Kelch is better!

# KELCH

Pioneer for precision and efficiency

Digital measuring system to measure the pull force of machine tool spindles as well as extensions, reducers and zero point clamping systems.

## The benefits:

- Easy-to-operate and robust base unit
- Measured values appear on a display with position orientation integrated in the handle – for improved legibility and identification of the spindle being measured
- App for 100% process reliability
- Fast, smooth and reliable measurement immediately after clamping into the machine spindle
- Excellent measuring accuracy (0.5 % of the upper range value)
- Wide measuring range (0-100 kN)
- One base unit fits all adapters (HSK, PSC und SK)
- Data is displayed on a tablet or PC via Bluetooth
- Calibration and repair service



## Safecontrol 4.0 – an important component for quality assurance, and for process reliability and operating safety in production!

Safecontrol 4.0 helps to safeguard the service life of components and machine tools. The electronic measuring system also prevents greater tool and machine wear. Other benefits include guaranteed machining quality and accuracy, reduced reject rates and down time and improved operating safety and process reliability.

### You're buying a cost-effective measuring system with Safecontrol 4.0

- You need only one base unit for all taper interfaces and machines with a clamping force of 0-100 kN.
- The adapters are inexpensive to procure and manage.
- Only the base unit needs to be recalibrated – not each individual adapter.
- The base unit and adapters are compatible with each other and interchangeable.
- Permanently free app for your tablet or PC.

\*1 See reverse side for scope of delivery.

\*2 Other cases are available on request.

| Item no. | Measuring adapter                          | Item no. | Measuring adapter | Item no.        | Measuring adapter |
|----------|--|----------|-------------------|-----------------|-------------------|
| 309.311  | SK 30                                      | 309.322  | PSC 32            | 309.331         | HSK 25            |
| 309.312  | SK 40                                      | 309.323  | PSC 40            | 309.332         | HSK 32            |
| 309.315  | BT 40                                      | 309.324  | PSC 50            | 309.333         | HSK 40            |
| 309.316  | SK 45                                      | 309.325  | PSC 63            | 309.334         | HSK 50            |
| 309.313  | SK 50                                      | 309.326  | PSC 80            | 309.335         | HSK 63            |
| 309.314  | SK 60                                      | 309.327  | PSC 100           | 309.336         | HSK 80            |
|          |  |          |                   | 309.337         | HSK 100           |
|          |  |          |                   | 309.338         | HSK 125           |
| Item no. | Case for base unit and measuring adapter*2 |          | Item no.          | Safecontrol 4.0 |                   |
| 309.301  | SK 40/50   HSK 50/63/100   PSC 50/63/80    |          | 309.300           | Base unit*1     |                   |
| 309.302  | SK 30   HSK 25/32/40/80   PSC 32/40/100    |          |                   |                 |                   |
| 309.303  | SK 30/40/50                                |          |                   |                 |                   |
| 309.304  | HSK 25 up to 100                           |          |                   |                 |                   |
| 309.305  | PSC 32 up to 100                           |          |                   |                 |                   |
| 309.306  | SK 45 / SK 60   HSK 125                    |          |                   |                 |                   |

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## Ready for Industrie 4.0

A unique feature of Safecontrol 4.0 is the addition of a tablet solution with software that communicates with the force sensing bar via Bluetooth.

### The principle:

The spindles to be measured are uniquely identified using a QR code. The system then measures the pull force and assigns the measured value immediately to the right machine spindle in the database. This innovation means that incorrect mapping of results is now a thing of the past.

Other test functions are also integrated for Industrie 4.0. The machine spindles are thus fully automatically included in separate statistics, ensuring that the operator can promptly identify any trends indicating when spindle pull force is declining.

Factories can also help to prevent machine damage and consequential costs with Safecontrol 4.0.



### Technical data (base unit):

|                     |  |
|---------------------|--|
| Dimensions (WxHxD): | 65 x 200 x 65 mm   |
| Weight:             | 1.6 kg   |
| Power supply:       | 4.75 - 5.25 V DC, 500 mA   |
| Operating time:     | 24 hours continuous operation  |
| Readout unit:       | Integrated LCD TFT display, LED background lighting and position orientation   |
| Operation:          | 2 soft keys in the handle, On/Off and Save/Delete  |
| Internal memory:    | for up to 1000 measurements with date and time stamp for simple documentation  |
| Measuring accuracy: | 0.5 % of the upper range value   |
| Measuring range:    | 0-100 kN   |
| Protection class:   | IP 64  |
| Mini-USB port:      | for battery charging and to read out the measured values   |
| Screw thread:       | for easy and fast assembly of the tapered adapter  |
| Tapered adapter:    | available in the following sizes (others on request)<br>SK 30 / 40 / BT 40 / 45 / 50 / 60<br>HSK 25 / 32 / 40 / 50 / 63 / 80 / 100 / 125<br>PSC 32 / 40 / 50 / 63 / 80 / 100 |

### Software/App:

- Simple-to-use app for mobile devices for identification and assignment of the machine spindles by means of process-reliable QR code.
- Bluetooth link to the base unit.
- Live transmission and display of the measured value to the mobile device.
- Management of machine spindles.
- Display of the force measured as a CSV file and line diagram.
- Printout of the measured results as a tamper-proof PDF document (for spindle repair service).
- Displays the serial number and calibration interval at the start, informing the operator when Safecontrol 4.0 needs to be recalibrated.

### Scope of delivery:

- 1 base unit without case and tablet\*3
- USB cable
- Functional description and test certificate

\*3 The tablet needs to be purchased separately from the Safecontrol 4.0 – alternatively you can use your own Android tablet. The app is only available for Android (version 6.0.1 and later).