



# Smart Ergo Level

## Perfect measurement - maximum ergonomics

Smart Ergo Level is a mobile measuring device which is used to measure the steering wheel angle and the steering wheel inclination on vehicles in end-of-line wheel alignment machines. The measured values steering wheel angle and steering wheel inclination are continuously transmitted to the x-line host PC. Furthermore, the device performs an evaluation of the measuring results and signalizes this via LEDs as well as via an acoustical signaller.

The measuring results are transmitted wireless or via cable to the test system PC.

### APPLICATION

- Measuring device and auxiliary device for adjustment of the wheel geometry in wheel alignment stands
- Measuring device and auxiliary device for the toe angle setting considering the steering angle hysteresis

### BENEFITS



Indication and evaluability of the steering wheel inclination to control the setting process

Very low weight 1.35 Kg and favourable centre of gravity lead to stable operation on steering wheel

Own development of Durr Assembly Products, customer specific adaptations are easy to verify

Shaped in an ergonomic way and can be operated with one hand

Complete integration in Durr automation system x-line, easy to access

# Smart Ergo Level

## Mobile measuring device

### GENERAL CHARACTERISTICS

- Fixed connection to the steering wheel geometry which does not change during measurement thanks to the support system
- $\mu$ -controller with data memory for device control and buffering of parameters
- Inductive charging technology for wireless operation
- Complete integration in the PC application software x-line
- Measurement widely independent of steering wheel geometry, adjustable support
- Designed for ergonomic use and can be operated with one hand
- 'Airbag-safe', i.e. no parts are located within the deployment area of an airbag (vehicle-dependent)
- Final adjustment via x-line dialog on standard calibration gauge
- Very long-running continuous operation: > 28 hours without having to recharge the battery



Smart Ergo Level in wheel alignment stand

### TECHNICAL DATA

| Steering angle measurement     |  |
|--------------------------------|--|
| Measuring range                | + 30° steering wheel angle, 15° to 90° inclination of steering wheel   |
| Total tolerance measurement    | < 0,1° for steering wheel angle $\pm 10^\circ$ and inclination of steering wheel 30° to 75°                        |
| Transfer range clamping device | 60 mm continuously variable (clamping on steering wheel rim)   |
| Design/technology              |  |
| Operator interface             | 1x Status-LEDs RGB<br>3x Evaluation LEDs red-green-red<br>1x Status-LEDs radio RGB                                 |
| Sequenz control                | Remote control via host PC with x-line   |
| Required system environment    | x-line host PC with respective interface and components  |
| Host/interfaces                |  |
| Hard-wired                     | 2 x RS 232   |
| Radio                          | FHSS @ 2,4 GHz   |
| General data                   |  |
| Wireless operation, radio      | Integrated lithium ion battery, exchangeable<br>Vb: 3,6 V; 2,9 Ah, with temperature monitoring; runtime: min. 28 h |
| Hard-wired operation, RS232    | Voltage: 24 V DC control voltage from the system,<br>power consumption: approx. 2,5 W                              |
| Start-up time                  | approx. 2 s  |
| Range of operation temperature | 0° C - 40° C   |
| Design of housing              | Robust plastic housing for industrial application, incl. fall protection   |
| Weight                         | approx. 1,35 kg  |