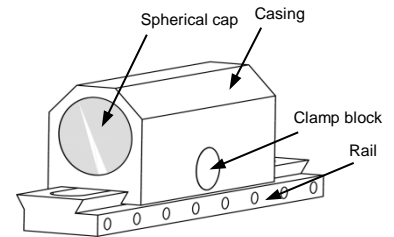
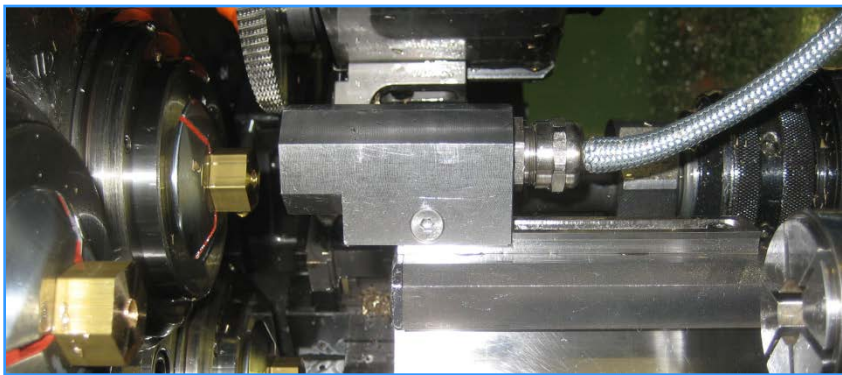


## Workpiece length detector WLT



### Specifications:

Casing, Rail, Clamp bolt:	Chrome nickel steel
Spherical cap:	High-alloyed reinforcement steel, TiN-coated
Weight :	1105 g
Power supply:	± 15 V
Temperature range:	+5°C to +70°C
Temperature drift :	≤ 3 µm/°C (at 18 - 25°C)
Measuring range:	0.60 mm (0.1 mm / V )
Measuring voltage in neutral position (spherical cap not inserted ):	2 V
Connecting lead:	Metal mesh hose protection (Ø = 10 mm) LiYCY 3 x 0.14 mm <sup>2</sup> + Shield / L = 5.00 m

- **Robust model**
- **Easy to adjust via a guide rail.**
- **Integrated measurement amplifier**

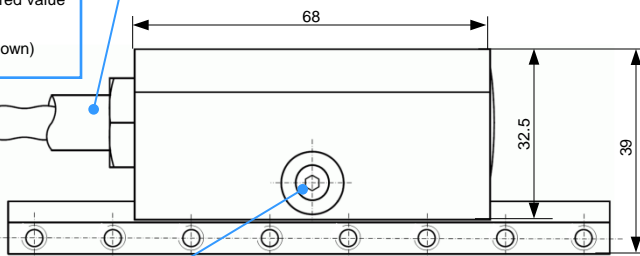
### Measuring principle:

Work pieces touch the measuring spherical cap during indexing from one slide to the next slide. Compared with the smaller WLT-Mini ([Order No. 8.2.4](#)) the TiN coated measuring spherical cap is housed in a solid casing, so that collisions with work pieces that are too long do not have to result in damage of the sensor.

**Terminal assignment:**

- 0V (black)
- -15V (green)
- Measured value (white)
- 15V (brown)

Metal mesh protection hose (external Ø = 10 mm)  
 LiYCY 3x0,14 mm² + Shield  
 Minimum bending radius = 25 mm

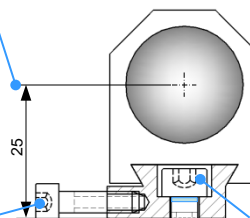


Clamp bolt for stopping M4 screws (DIN EN ISO 10642)  
 Tightening torque = 1 Nm

Alternative lateral fastening option via M4 screws (DIN EN ISO 4762) (not included in scope of delivery)  
 Tightening torque = 3 - 4 Nm

Stackable rail system  
 Elevation of the measuring point by, in each case, 10 mm

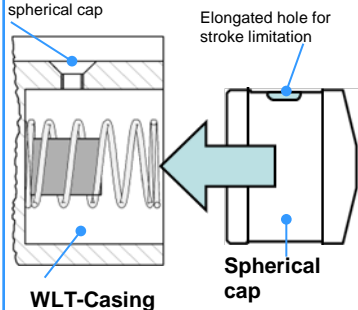
Center of the measuring spherical cap  
 Installation dimensions from the central measurement point of the spherical cap



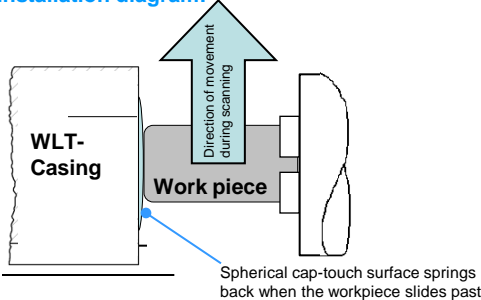
2 x M5 (DIN EN ISO 4762) with breakneck groove (in the scope of delivery)  
 Tightening torque = 4 - 5 Nm

**Replacing the spherical cap:**

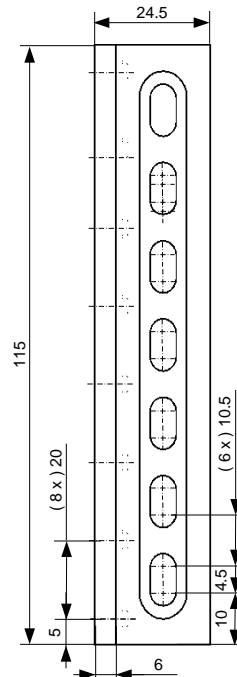
Countersunk screw M3 DIN EN ISO 10642 for the fixation and stroke limitation of the spherical cap



**Installation diagram:**



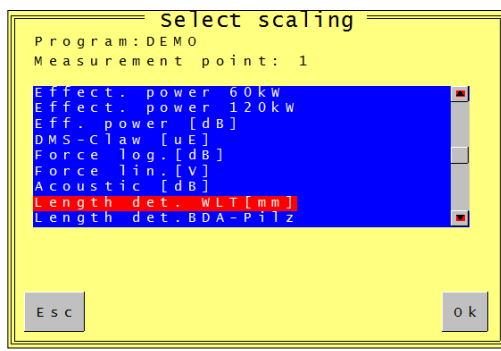
The measurement requires a precise alignment of the WLT. The spherical cap should not spring back more than 0.3 mm when scanning, and the overall stroke of the spherical cap amounts to 2 mm.



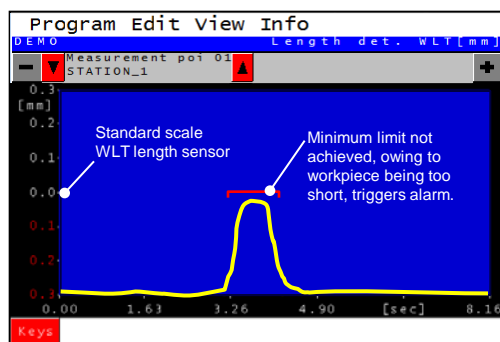
Using the WLT scanner, the length of workpiece can be checked by guiding the work piece between two machining stations along its slightly arched spherical cap (see [installation diagram](#)).

The measured value provided by the WLT can be shown by the tool monitor SEM module via a standard scale provided for this and be checked for sufficient height via a minimum limit (see [a\) Screenshot Tool Monitor](#)). When reaching this minimum limit, a reject switch or / and a machine stop can be triggered, optionally: only after a predefined number of directly successive workpieces that are too short. (see [b\) Screenshot Tool Monitor](#))

**a) Screenshot Tool Monitor:**

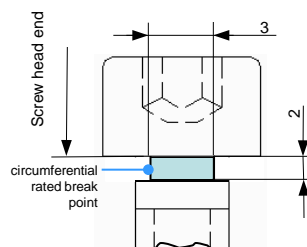


**b) Screenshot Tool Monitor:**



**Installation with third-party screws:**

For installation with longer screws not included in the scope of delivery, a breakneck groove should be screwed off at the bolt head (see [diagram](#)) and the above-mentioned tightening torque must be respected! Mounting of screws with the greatest possible distance from each other!



**Order number:**

WLT (complete) 8.2.2

**Spare parts:**

- WLT-Rail 8.2.4 .S
- WLT-Spherical cap 8.2.2 .K