

# GLÖTZL Baumeßtechnik

## CONVERGENCE BOLTS with LIGHT EMITTING DIODE

**Type: GK . . .**  
**Art. No.: 90.10**

Convergence bolts with light emitting diode for construction of e.g. tunnel inner shells and structure surfaces.

The parts are manufactured of stainless steel and are fixed by means of dowels 6 mm. For connection and operation, a two-core cable is needed which is installed like conventional electric installations in protection channels, protection tubes or cable clamps.

For connection of the current supply, **type GKBK** or **GKB**, connection parts are available.



Figure:  
Convergence bolt, **type GKA 35**,  
manufactured size Ø 25 mm, height 35 mm,  
with 200 mm connection cable



Figure:  
Bolt for current supply with protection cap,  
**type GKE 40**, with 200 mm connection cable,  
manufactured size with protection cap 60 mm

### Consoles for measuring instruments

For measurement of bolts with light emitting diode, consoles for the measuring instruments are available. The beside figure shows a console for wall fixing and adjustable tool bar.

These fixed mounted consoles enable an accurate alignment of the measuring instrument and thus offer optimal presuppositions for subsequent measurements.



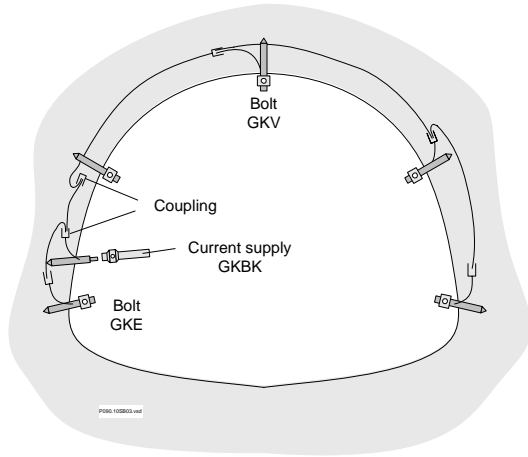
Bolt with light emitting diode and built-in battery for screwing on standard bolts. The light emitting diode is automatically switched on when setting down.  
**Type GKLB 235**, manufactured size 235 mm



The convergence bolts, **type GKV** and **GK**, are installed in the same manner than conventional convergence bolts.

If the bolts are installed before the concreting procedure, the tubings are protected in the concrete. In the other case they have to be placed on the concrete surface.

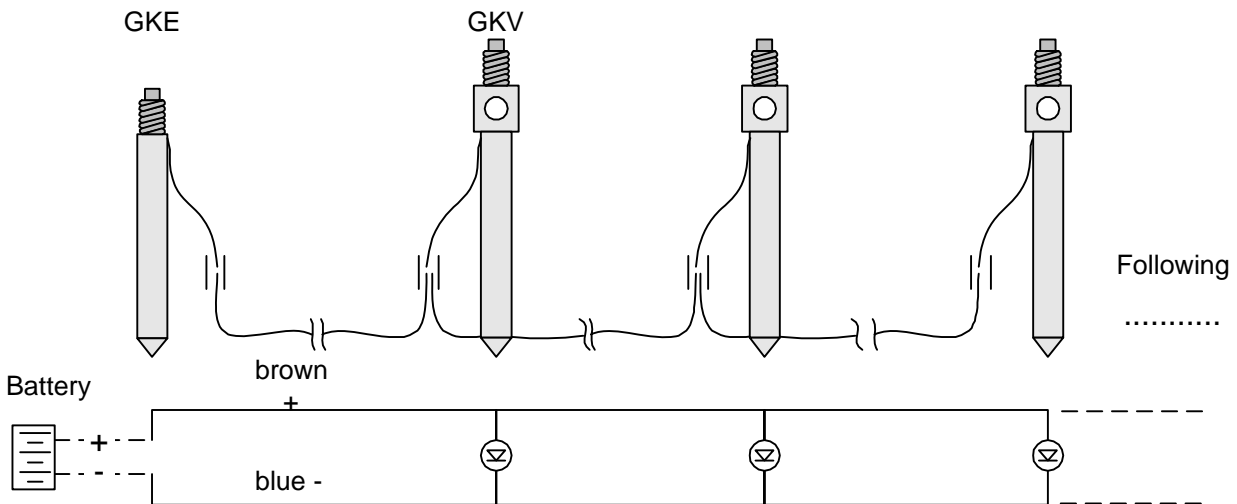
The bolt for current supply, **type GKE**, has to be installed at an accessible location for screwing on the current supply **GKBK**.



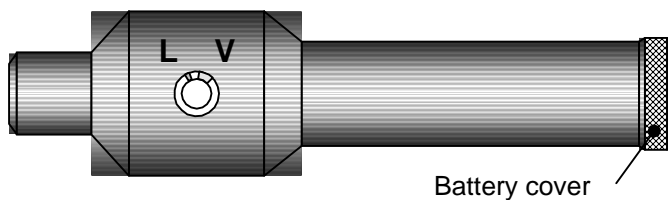
**Required assembly material :**

- Connection line 2-core 2 x 0.5 mm<sup>2</sup>
- Insulating joint connector 1.5 –2.5 mm<sup>2</sup> with squeezing pincers or wire connector
- Key for adjustment of luminous heads, Allen key 2.5 mm
- When placing the tubings on the concrete surface, corresponding fixing material for the tubings

**Assembly: Important** Please take care that all connection lines of the same colour are connected, e.g. +brown to brown and –blue to blue.  
In case of poling the + and –lines the function is disturbed.



**Current supply: Type GKBK**, with 3 baby cells each 1.5 V. Please only use leakage-protected batteries.



- TEST of battery by red button
- V red range 50-100 % capacity
- L black range 0-50 % capacity

Battery cover