

# GLÖTZL Baumeßtechnik

## ELECTRIC DISPLACEMENT TRANSDUCERS

with resistance element passive

Typs: GWLO 22/ . . .

GWLG 22/ . . .

Art. No.: 65.12

**Type GWLO** with open casing for extensometer head

**Type GWLG** with closed casing

The displacement transducers GWLO 22 and GWLG 22 are equipped with a flexible insulated foil with internal resistance strip. The foil itself is attached on a carrier of brass (casing is nickel-plated). A scanning device connected to the tracer finger is loading the foil which is operated as potential divider. The recorded voltage value is reacting proportionally to the measuring distance, defined by position of scanning device. Connection of the displacement transducer is done in three-conductor technics.

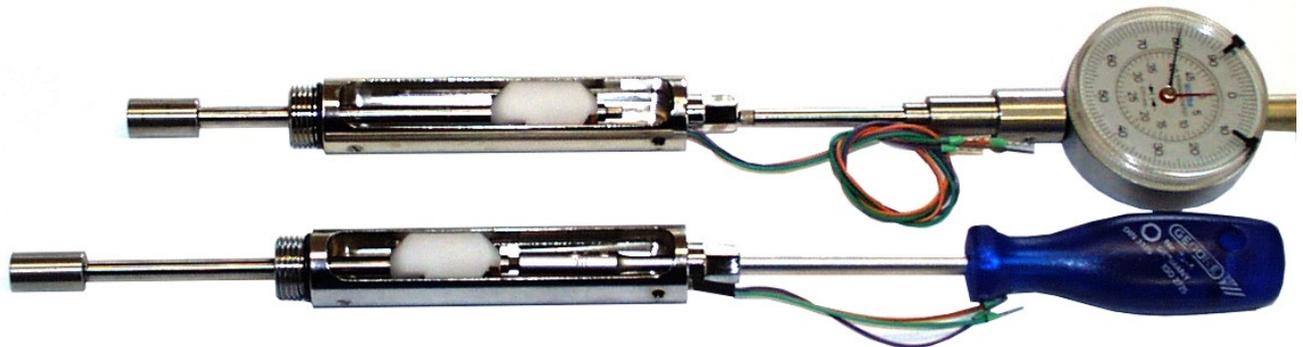


Figure: Displacement transducer type GWLO 22/60 with dial gauge and socket spanner

The displacement transducers of series GWLO 22 and GWLG 22 are assigned for an installation in boreholes or other inaccessible fields of application. Therefore, we wilfully decided against an installation of electronic measuring amplifiers. In standard version, connection is done by teflon wires sealed in the displacement transducer. As option, also plug connections are available. Evaluation electronics for measured value processing of 0-10 V, 0-20 mA, 4-20 mA a.s.o. can be delivered in different casing designs on client's request.

At tracer finger, the casing of model GWLG is protected against penetration of dust and fluids by a radial gland ring.

A mechanical control measurement at the displacement transducer can be carried out in installed condition, if an access is possible. Acquisition is done by dial gauge whereby the distance from casing end to position of scanning device is recorded. Assembly is done by screwing in of displacement transducer casing in a carrier by hexagon connection at casing end. The shaft of displacement transducer (tracer finger) is rotatable resp. adjustable by means of socket spanner.



Figure: Displacement transducer at the top, type GWLO 22/60, displacement transducer at the bottom, type GWLG 22/100

Article Nos.	GWL 22/60	GWL 22/100	GWL 22/250
Type <b>GWL<sub>Q</sub></b> with open casing for extensometer head	65.12.10	65.12.20	65.12.30
Type <b>GWL<sub>G</sub></b> with closed casing	65.12.11	65.12.21	65.12.31

### Technical data of types GWL<sub>Q</sub> and GWL<sub>G</sub>

Technical data	GWL 22/60	GWL 22/100	GWL 22/250
Voltage supply	1 V DC	1 V DC	1 V DC
Measuring output	mV/V	mV/V	mV/V
Temperature range	-30 up to +70 °C	-30 up to +70 °C	-30 up to +70 °C
Scanning current	max. 1 mA	max. 1 mA	max. 1 mA
Potentiometer resistance	4.7 KOhm	4.7 KOhm	4.7 KOhm
Resistance tolerance	±20 %	±20 %	±20 %
Reproducibility	0.05 mm	0.05 mm	0.05 mm
Max. operating pressure	1.5 bar	1.5 bar	1.5 bar
Linearity	±1 %	±1 %	±1 %
Measuring range	60 mm	100 mm	250 mm
Resolution	0.01 mm	0.01 mm	0.01 mm
Protection class IP 66	Dust- and jet water protected	Dust- and jet water protected	Dust- and jet water protected
<b>Dimensions displacement transducer GWL<sub>Q</sub></b>			
Casing Ø	22 mm	22 mm	22 mm
Tracer finger Ø	5.5 mm	5.5 mm	5.5 mm
Overall length	155 mm	195 mm	345 mm
Length of casing without tracer finger	130 mm	170 mm	320 mm
Length of connecting cable	300 mm	300 mm	300 mm
<b>Dimensions displacement transducer GWL<sub>G</sub></b>			
Casing Ø	22 mm	22 mm	22 mm
Tracer finger Ø	5.5 mm	5.5 mm	5.5 mm
Overall length	210 mm	250 mm	400 mm
Length of casing without tracer finger	155 mm	195 mm	345 mm
Length of connecting cable	PE 4 x 0.5 mm <sup>2</sup> - Cable length on client's request		

To obtain measured values with only a very small distortion, the measured value should be scanned by using high impedance. The supply voltage of potentiometer should not exceed 10 V.

Further connection types available on request.

**Accessories:** - Battery-operated meas. devices, e.g. FMG 01-2  
 - Change-over manifolds with readout units  
 - Special instruments on client's request  
 - Change-over manifolds  
 - Automatic measuring devices



Fig.: FMG 01-2



Fig.: VMG 14.2

Subject to technical alterations