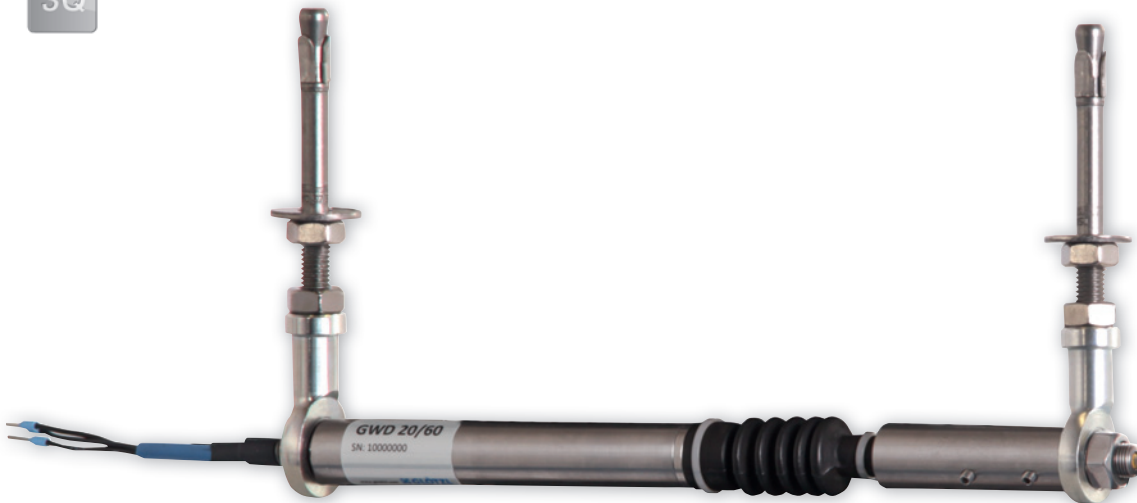


# GWD 20 W

Electrical displacement transducers for monitoring joint gaps

3Q



Art.-No. 65.11.

The displacement transducer GWD 20 W consists of a flexible insulated foil with a resistive track inside plus connection plugs and ball joints and it is used for monitoring joint gaps. The foil itself is assembled to a carrier of special steel. A slider connected to a tracer pin is charging the foil and working as voltage divider. Load value is proportional to the measuring displacement with regards to the position of the slider. Connection of the displacement transducer is made in 3-wire-technique. The displacement transducers of the series GWD 20 are foreseen for installation in boreholes or also other application ranges where access is difficult. For this reason we did installation without electronic measuring amplifiers. When using the standard version, connection is made via Teflon wires which are grouted in the displacement transducer. Optionally, plug connectors are available. Evaluation electronics for processing of measured data 0 - 10 V, 0 - 20 mA, 4 - 20 mA etc. are available in various housing types according customers' request. All housing connections are sealed by O-rings against environmental influences. At the tracer pin the housing is protected against penetration of dust and fluid by a radial shaft-sealing ring.

| Technical data                            |   |
|---|---|
| Type GWD 20/60 W:                         | displacement 60 mm housing length 325 mm  |
| Type GWD 20/100 W:                        | displacement 100 mm housing length 365 mm |
| Type GWD 20/250 W:                        | displacement 250 mm housing length 675 mm |
| Bore hole position (central):             | 290 ±30 mm<br>360 ±50 mm<br>640 ±125 mm   |
| Housing:                                  | Ø 20 mm                                   |
| Tracer pin:                               | Ø 6 mm                                    |
| Max. power-handling capacity:             | 0.5 W at 40°                              |
| Potentiometer resistance:                 | 4.7 kOhm                                  |
| Resistance tolerance:                     | ± 10 %                                    |
| Linearity:                                | < ± 1 %                                   |
| Resolution:                               | 0.01 mm                                   |
| Reproducibility:                          | 0.1 mm                                    |
| Sliding current:                          | max. 1 mA                                 |
| Max. operating load:                      | 10 V                                      |
| Factory-made calibration with supply 1 V: | meas. output: mV/V                        |
| Temperature range:                        | - 30 °C, + 70 °C                          |
| Max. operating pressure:                  | 1.5 bar                                   |
| Protection type:                          | IP 66                                     |

