GLÖTZL Baumeßtechnik

ELECTRIC DISPLACEMENT TRANSDUCER

intrinsically safe EEx ia IIC T4
with resistivity element

Type: GWW 30/. . Ex
Art. No.: 65.20

The displacement transducer type GWW ...Ex, is encapsulated in a stainless steel casing and has a splash-proof plug connector.

Model explosion-protected „intrinsically reliability “ EEx ia IIC T4.

The tracing tip is provided with a hardened ball. The tracer finger is of rust- and acid-proof material and is led in a brass bushing.

For fixing at a construction part, the transducer is equipped with a thread M 18x1.5.

By means of a threaded bushing (see figure) the displacement transducer is directly threaded on the measuring head of the plastic rod extensometer for electric remote transmission.

Figure: Displacement transducer , type GWW 100 Ex for rod extensometer

Function:

The displacement transducer consists of a conductive plastic resistivity element with shiftable scanning contact. The element is operating as potential divider and is converting a displacement into an analog, electric voltage. The signal is fed – amplified by an electronic circuit – to the output as standardized signal 4-20 mA in 2-conductors technics. Thus, it can be used for remote transmission and also for analog recording.

Technical data		GWW 30/50 Ex	GWW 30/100 Ex	GWW 30/200 Ex
Voltage supply	± Volt DC	10 - 30	10 - 30	10 - 30
Current consumption	mA	max. 20	max. 20	max. 20
Temperature range	°C	- 15...70	- 15...70	- 15...70
Temperature coefficient f.s.	% / °C	< 0.01	< 0.01	< 0.01
Linearity	%	0.15	0.15	0,15
Measuring range	mm	+50	+100	+200
Resolution	mm	0.01	0.02	0.05
Output signal	mA/mm	0.32	0.16	0.08
Output signal full meas. range	mA	4-20	4-20	4-20
Casing diameter	mm	30	30	30
Overall length	mm	325	450	765
Casing length without tracer finger and plug connector	mm	275	350	565
Installation length with connector	mm	380	460	580

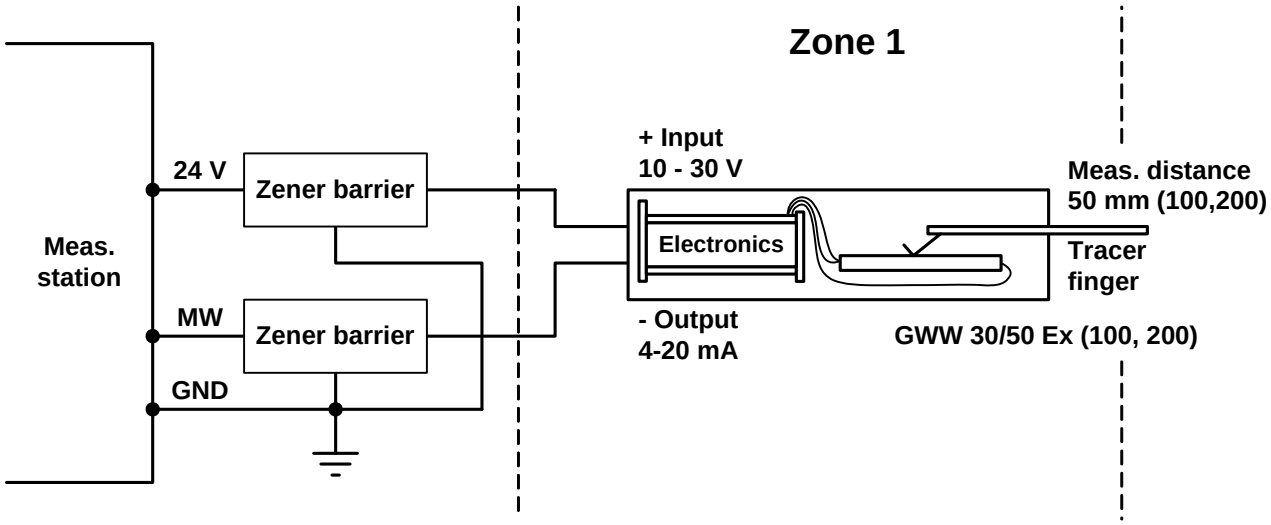
Accessories:

- Battery-operated measuring devices
- Change-over manifolds
- Change-over manifolds with readout unit
- Automatic measuring devices
- Special instruments on clients’ specification

The displacement transducer, type GWW 30/... Ex is measuring distance changes which are recorded with the conductive plastic resistivity displacement transducers and is converting them into a standardized measuring signal 4 - 20 mA.

The displacement transducers must be operated with intrinsically-safe electric circuits.

Example:



Connection values of current supply

U_z = 28 V
I = 98 mA
P = 688 mW

Resistance bar:	50 KOhm (+/-10%) total resistance
Supply:	0.5 V constant voltage is taken at input 0 - 0.5 V.
Measuring value:	Amplifier output 4 - 20 mA

Registration:

EEx ia IIC T4 PTB Nr. EX_92.C.2165

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