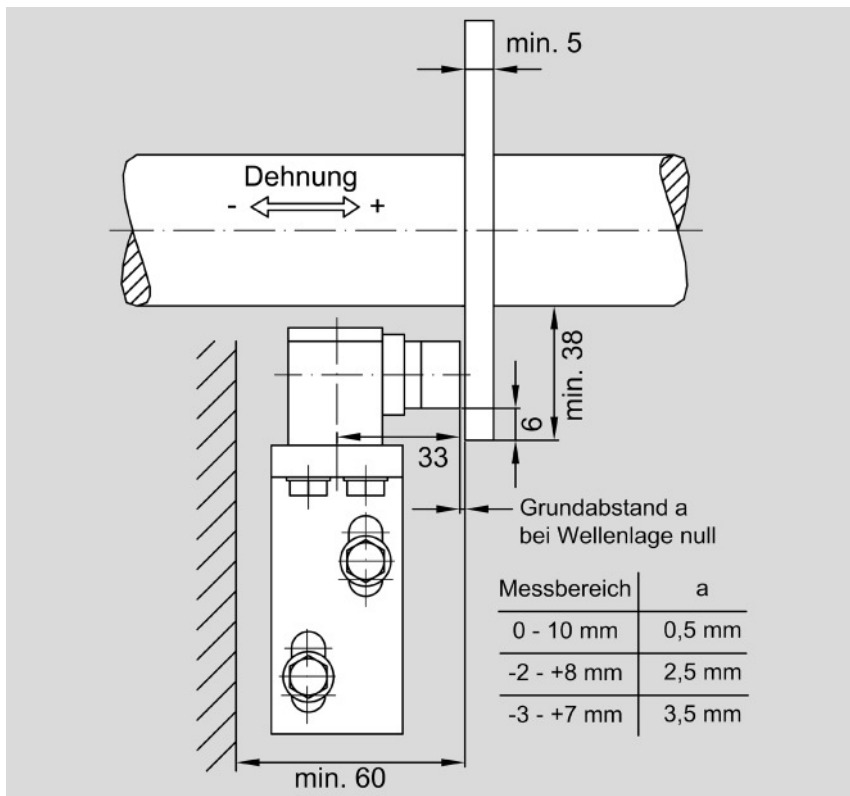


Measuring Relative Elongation

Non Contact Eddy-Current Transducer RDG 87



Advantages

- Insensitive against oil and other dielectrics in the measurement gap
- Intrinsically safe design
- according to API 670 and/or DIN 45670

Applications

- Measuring relative axial elongation
- Connection to monitoring devices

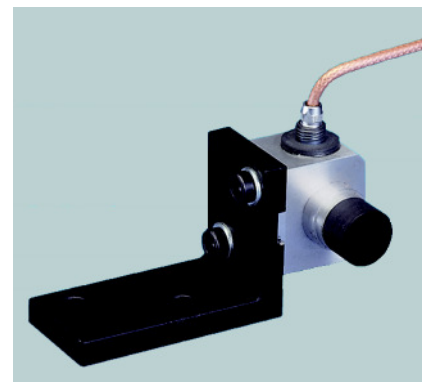
Description

To measure the relative axial shaft elongation, the RDG 87 is attached to the bearing housing using an adjustable holder. The measurement value results from the difference between the current distance to a shaft collar and the respective zero position.

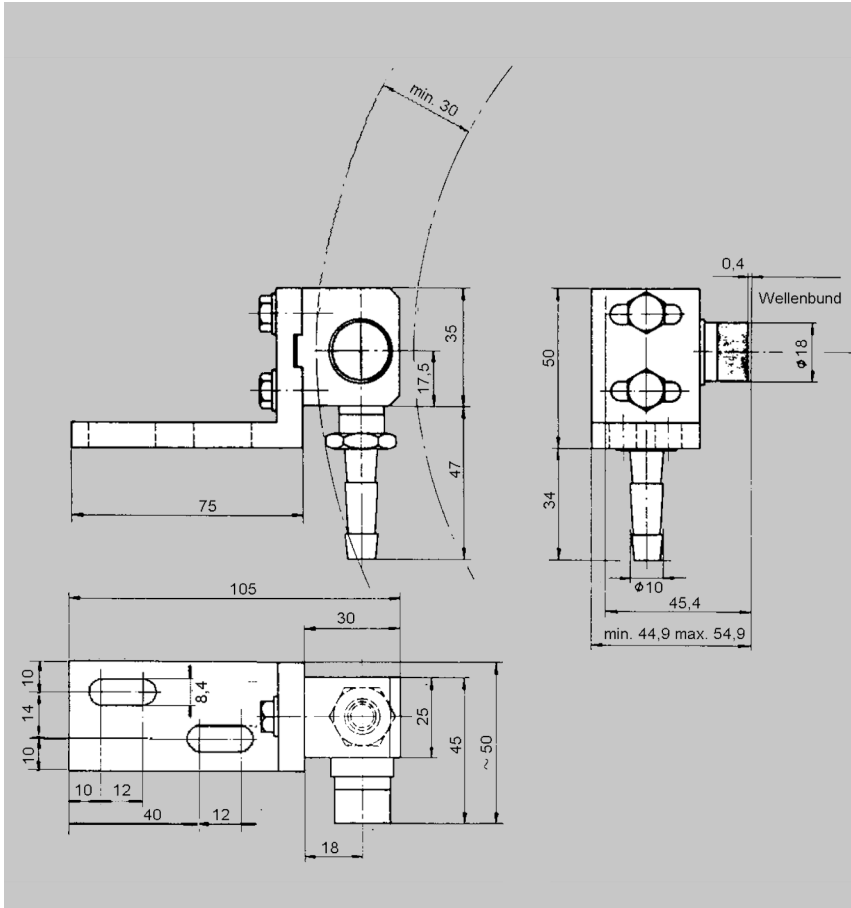
The measuring concept of the eddycurrent transducer is based on the physical principle of the dampening of a high frequency field through conductive materials. The attenuation ratio is proportional to the overlap between the conductive shaft and the coil of the transducer.

Each transducer requires an adaptor unit containing an oscillator and a demodulator.

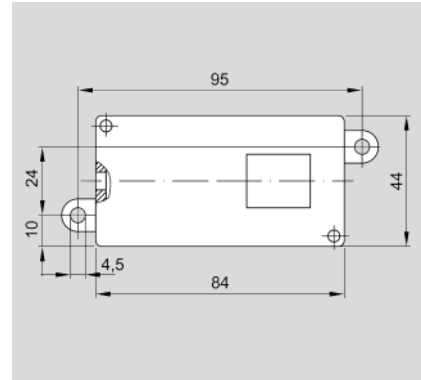
The transducer and the adaptor unit correspond to the specifications API 670 and DIN 45670 regarding supply voltage (-24 VDC) and tolerance. However, the sensitivity differs with respect to these standards (1.6 V/mm).



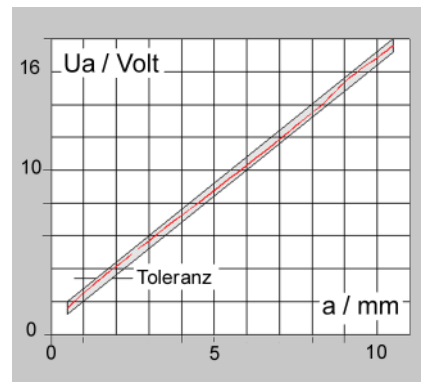
RDG 87



Dimensions RDG 87



RD adaptor unit



Typical characteristic curve of transducer RDG 87 under reference conditions according to DIN 45670

Technical data

Transducer	RDG 87
Head diameter	18 mm
Head material	Ceramic
Connection cable	5 m, divided
Cable division	at 300 mm
Cable material	Teflon RG 195
Connector	Brass gold plated
Linear range	10 mm
Voltage sensitivity	1.6 mV / μ m
Basic gap	min. 0.5 mm
Operating temperature	-20 to +110 °C
Adaptor unit	347-0075
Supply voltage	-24 V
Measurement range	0 - 10 mm
Sensitivity	1.6 V/ mm
Storage temperature	-20 to +100 °C
Operating temperature	-20 to +65 °C
Dimensions	105 mm x 45 mm x 55 mm
Weight	approx. 300 g

Scope of supply

- Transducer RDG 87
- Adaptor unit

Options

- Protective hoses
- Protective housing for adaptor unit
- Cable division

All information without obligation, subject to change without notice!