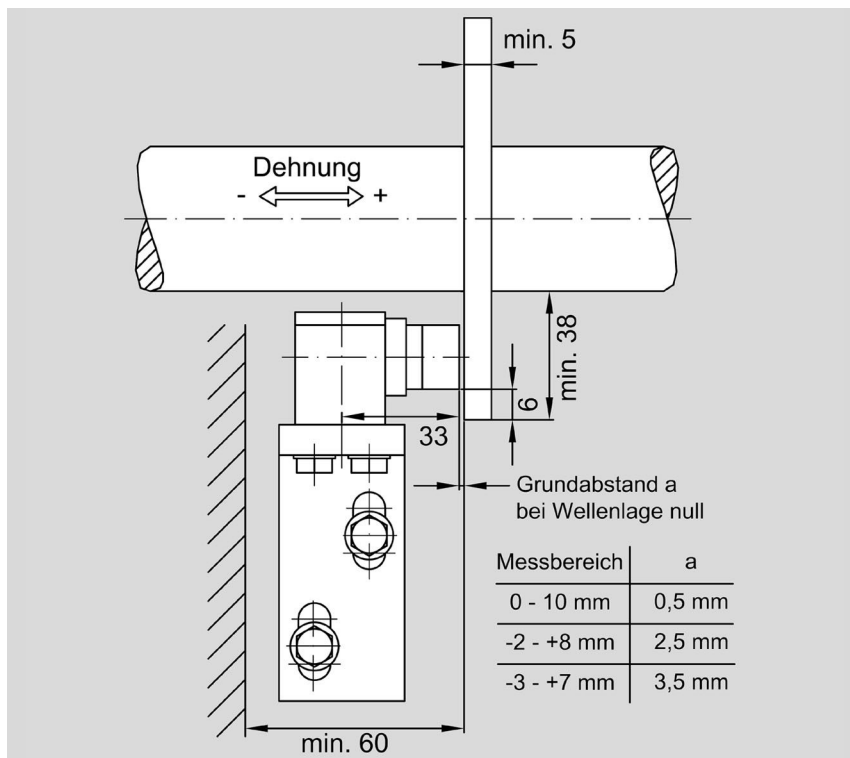


## Measuring Relative Elongation

### 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

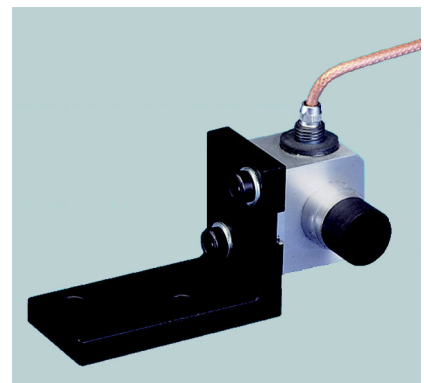
#### Description

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.

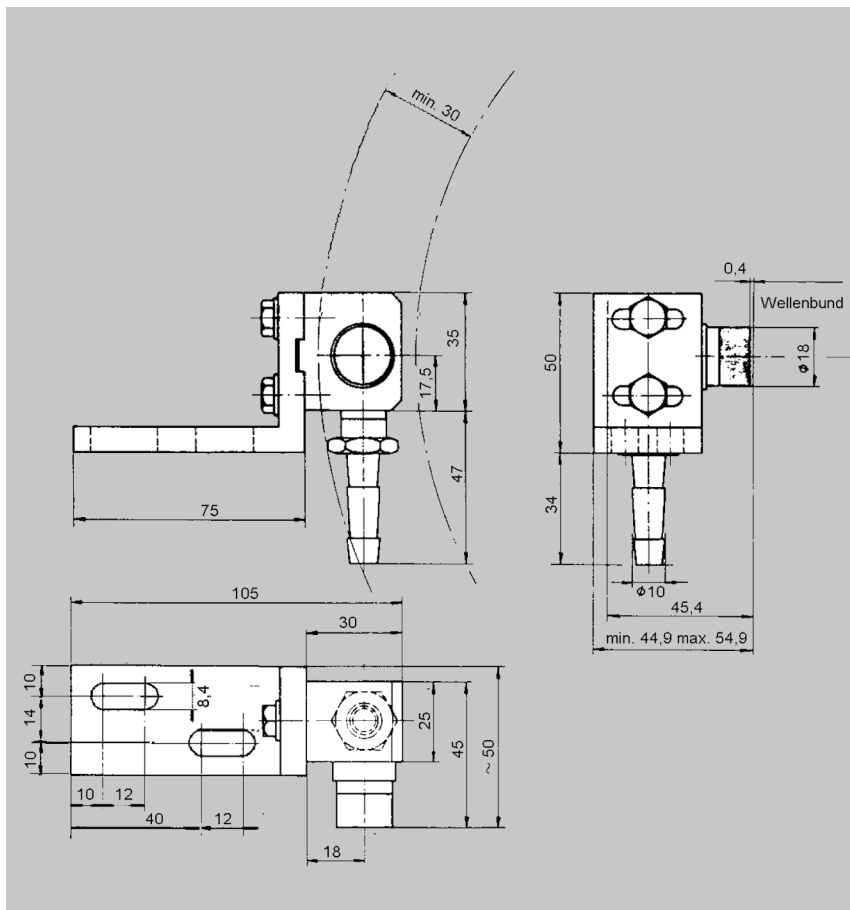
The transducer and the adaptor unit correspond to the specifications API 670 and DIN 45670 regarding supply voltage (-24 VDC) and tolerance. However, the sensitivity differs with respect to these standards (1.6 V/mm).



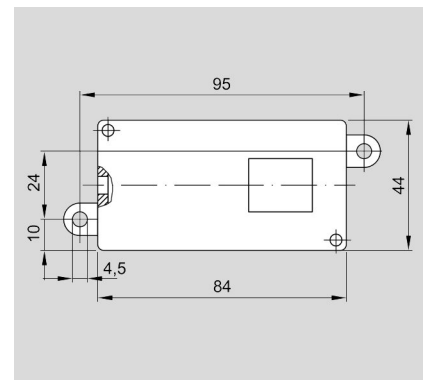
RDG 87

## Technical data

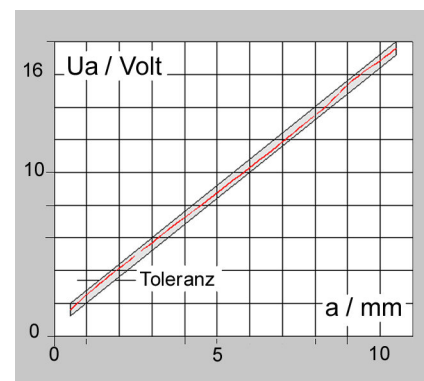
Transducer	RDG 87	Adaptor unit	347-0075
Head diameter	18 mm	Supply voltage	-24 V
Head material	Ceramic	Measurement range	0 - 10 mm
Connection cable	5 m, divided	Sensitivity	1.6 V/ mm
Cable division	at 300 mm	Storage temperature	-20 to +100 °C
Cable material	Teflon RG 195	Operating temperature	-20 to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



Dimensions RDG 87



RD adaptor unit



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

## 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!