

# W1E

## Inductive Displacement Transducers



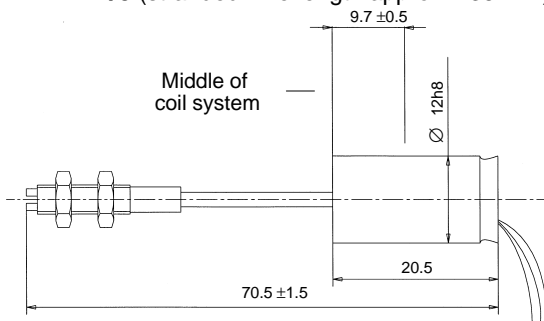
**W1EL/0**

### Special features

- Wear-resistant inductive measurement system
- Interchangeability error < 1 %
- Flexible plunger
- W1E with straight-through plunger channel protected against damages due to over-stroke
- Summation and subtraction by parallel or antiparallel circuit
- Explosion-protected versions (Ex)i available

### Dimensions (in mm; 1 mm= 0.03937 inches)

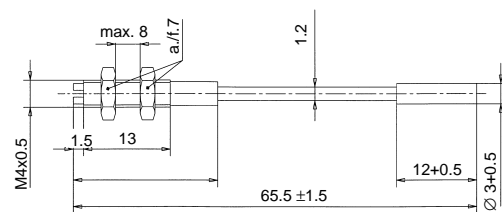
**W1 EL/0** (stranded wire length approx. 235 mm)



Plunger in mid position (auxiliary quantity for core assembly, zero balancing see Operating manual)

Dimensional variation to DIN 7168 coarse

### Plunger W1EL/0



## Specifications

Transducer type		W1E
Nominal displacement (Nominal displ. span)	mm	± 1 (2)
Nominal sensitivity (nominal output signal at nominal displacement, output not loaded)	mV/V	± 80
Sensitivity tolerance (deviation of sensitivity from nominal sensitivity)	%	± 1
Nominal output-signal range	mV/V	160
Temperature effect per 10 K in the nominal temperature range on the sensitivity (rel. to the actual value)	%	± 0.2
on the zero signal (rel. to the nominal sensitivity)	%	± 0.05
Linearity deviation (incl. hysteresis rel. to the nominal output-signal range)	%	± 0.2
Nominal excitation voltage (rms value)	V	2.5 ± 5%
Service range of the excitation voltage	V	1...6
Carrier frequency	kHz	4.8 <sup>1)</sup>
Protection to EN 60529		IP 20
Nominal temperature range <sup>1)</sup>	°C [°F]	-55...+130 [-67...+266]
Service temperature range <sup>1)</sup>	°C [°F]	-200...+130 [-328...+266]
Transducer weight, approx.	g	11
Plunger weight, approx.	g	3

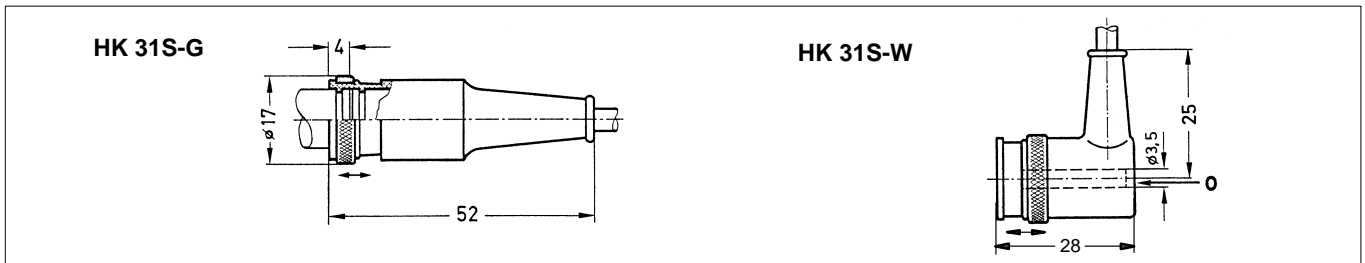
<sup>1)</sup> The specified standard connection cables may only be used in the temperature range from -20...+80 °C [-4...176 °F]. Cable for higher or lower temperatures on request.

## Permissible accelerations of the displacement transducers

Transducer type		W1E
Permissible acceleration transducer body	m/s <sup>2</sup>	500
Permissible acceleration plunger	m/s <sup>2</sup>	1000

<sup>2)</sup> With core for high acceleration, 2500 m/s<sup>2</sup> max.

## Dimensions plug (in mm)



## Accessories (to be ordered separately):

**WS/ZB12 Mounting set:** Mounting-block set for 3 mounting options for 12 mm diameter

**Measurement inserts to DIN 878**

Hard metal ball, Order no. 3-6061.0003

**Connection cable W1T3, W5TK,**

**Kab0104-3**, 3 m long (cable socket HK31S-G - free ends)

**Kab0104-10**, 10 m long (cable socket HK31S-G - free ends)

**With mounted D-plug**, Order no. D-15D/MONT

**Kab0106-3**, 3 m long (cable socket HK31S-G - MS3106A16S-1P)

**Kab0119-3**, 3 m long (cable socket HK31S-W - free ends)

**With mounted MS-plug**, Order no. D-MS/MONT

**Displacement transducers with plug connection are also available with permanently mounted connection cable**

3 m long, with free ends, Order no. D-FIXKAB

3 m long, with plug MS3106A16S-1P, Order no. D-FIXKAB/MS

3 m long, with 15 pol. D-plug, Order no. D-FIXKAB/15D

Modifications reserved.

All details describe our products in general form only. They are not to be understood as express warranty and do not constitute any liability whatsoever.

**Hottinger Baldwin Messtechnik GmbH**

Postfach 10 01 51, D-64201 Darmstadt

Im Tiefen See 45, D-64293 Darmstadt

Tel.: +49/61 51/ 8 03-0; Fax: +49/61 51/ 8039100

E-mail: support@hbm.com www.hbm.com



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