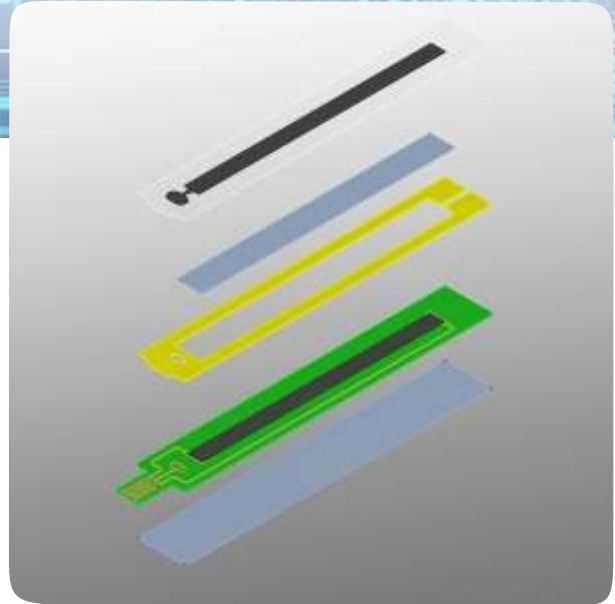


Datasheet

Sensofoil® PET-Hybrid

- › Resistor track printed on polyester film
- › linear potentiometer
- › no "denting effect"
- › particularly resistant
- › Operating temperature: -25 °C to +85 °C



How does a Sensofoil® PET-Hybrid work?

A Sensofoil® PET-Hybrid foil potentiometer consists of a lower foil printed with the resistor track and an upper foil printed with the collector track. These two foils are kept apart by a spacer adhesive or spacer. Only when an "actuator", a so-called slider, connects the two foils with each other by means of mechanical pressure, a signal is generated that can be tapped via the collector track. In the non-actuated state, the collector pin is open.

The special feature of the hybrid version is that an additional spring plate always returns the upper foil to its original shape, even under prolonged pressure or higher temperature ranges. This results in a wider range of applications than with comparable Sensofoil® systems.

Ideally, a DC voltage in the low-voltage range is connected to the resistor track and tapped off at the collector track as a voltage divider. There is a linear relationship between the length of the resistance track, or the angle in the case of radial sensors, and the applied voltage. At 50% of the distance travelled, 50% of the applied voltage is measured.

The quality characteristics of Sensofoil® foil potentiometers are the resistance value, its tolerance and the non-linearity. This represents the actual deviation of the output signal from an ideal reference line and is expressed in % of the applied supply voltage.

Sensofoil® PET-Hybrid

| | | 67600062 | 67600208 | | | 67600154 |
|---|---|--------------------|----------|--|--|----------|
| Mechanical data (at room temperature) ⁽¹⁾ | | | | | | |
| Length sensor range | A | 123 mm | 223 mm | | | 523 mm |
| Wide sensor range | B | 22 mm | | | | |
| Start of effective adjustment travel of potentiometer edge | C | 9 mm | | | | |
| Electrically effective adjustment travel ⁽²⁾ | D | 100 mm | 200 mm | | | 500 mm |
| Total electrical adjustment travel | E | 105 mm | 205 mm | | | 505 mm |
| Length connecting strap | F | 50 mm | | | | |
| Width connection strap | G | 10,5 mm | | | | |
| Thickness sensor area | H | 0,5 mm | | | | |
| Grid dimension connector | I | 2,54 mm | | | | |
| Traversing speed | | ≤ 3m/s | | | | |
| Lifetime (tested to date) | | 2 Mio Movements | | | | |
| Mounting type | | self-adhesive foil | | | | |

Environmental conditions

| | |
|---------------------------------|----------------------|
| Operating temperature | from -25 °C to 85 °C |
| Storage temperature unactuated | from -25 °C to 85 °C |
| Protection class ⁽³⁾ | IP65 |

Electrical data (at room temperature)

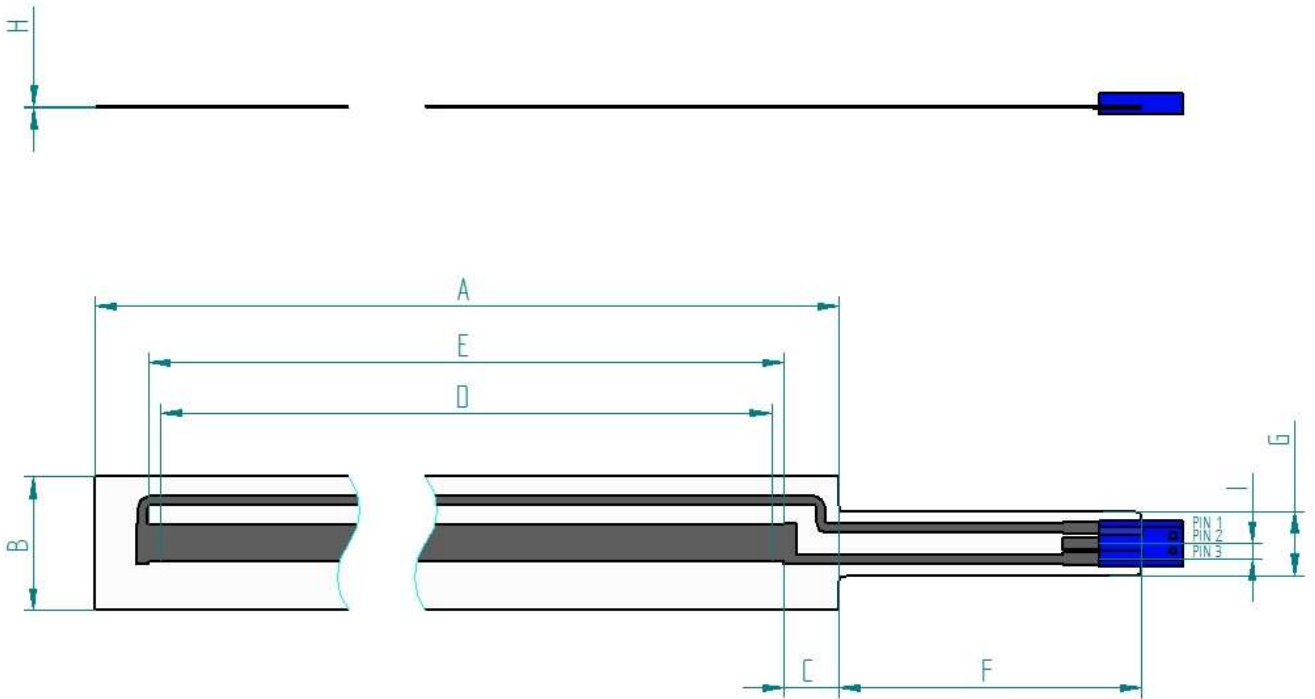
| | | | | | |
|--|----------|----------|--|--|-----------|
| Resistance value | 2,5 kOhm | 5,5 kOhm | | | 13,7 kOhm |
| Resistance tolerance | +/- 30% | | | | |
| Independent linearity tolerance ⁽⁴⁾ | 2% | | | | |
| Max. wiper current in case of fault | 0,1A | | | | |
| Recommended wiper current during operation | 0,1 µA | | | | |
| Operating voltage | 1-42 VDC | | | | |

All values refer to the tests defined by Hoffmann + Krippner and represent typical values. Under varying conditions, they are not guaranteed to be complete or absolutely correct. Definitions of the test conditions can be obtained from Hoffmann + Krippner. Hoffmann + Krippner reserves the right to make changes.

- (1) Free size tolerances according to DIN ISO 2768 medium
 (2) Range in which the specified linearity is granted. Approx. 90% of the total electrical adjustment travel.
 (3) In the sensor area; connection band and plug excluded
 (4) Defined according to "connection-related linearity"

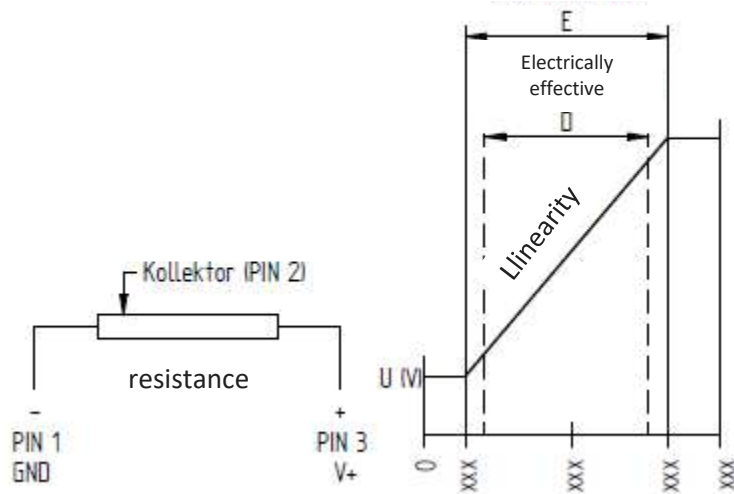
All technical data are not guaranteed properties, but may deviate depending on the customer-specific design.

Sensofoil® PET-Hybrid



Electrical
Function

electrically active



Sensofoil® PET linear

Slider for foil potentiometer (separate data sheets available on request)



Slider H+K no. 60300002 (thread M6x1)



Slider H+K no. 60300007 (For pressing in)

Contacts for foil potentiometer with PET surface (separate data sheets available on request)



Duflex 3-pole (standard)
female



Crimflex 3-pole,
Solder pins without housing



Crimflex 3-pole
female



Crimflex 3-pole
lockable

Further contacts or soldered wires on request.

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