

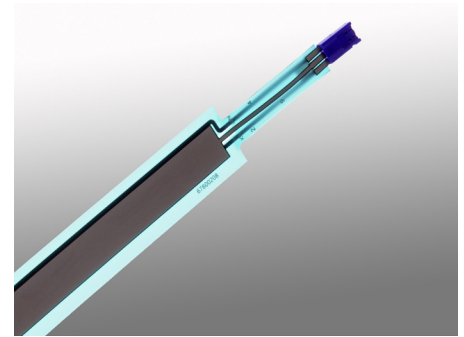
## DATASHEET

### Sensofoil® PET-HYBRID

#### Resistive track printed on PET foil

Features:

- Linear design
- No “dent-effect“
- Operating temperature -25 °C to +85 °C
- Particularly robust



#### How does it work? Sensofoil® PET-Hybrid

A Sensofoil® membrane potentiometer PET-Hybrid consists of a resistive track printed the bottom PET foil layer and a collector track printed onto the top PET foil layer. These layers are separated by a so-called spacer. Only when the layers connect through mechanical pressure using a wiper a signal is produced.

The special feature of the Hybrid version is the additionally integrated flexible metal strip, ensuring that the upper foil always returns to its original form after being exposed to long lasting pressure at high temperatures. This integrated Hybrid technology provides broader application possibilities due to the increased operating temperature range.

Ideally, a low DC voltage is connected to the resistive track and tapped at the collector track in the form of a voltage divider. A linear relation exists between the length of the resistive track, or the angle of the resistive track for rotary sensors, and the applied voltage. At 50% of distance traveled, 50% of the applied voltage is measured.

Quality characteristics of the Sensofoil® membrane potentiometers are resistance values, their corresponding tolerances and the non-linearity. The non-linearity represents the actual deviation of the output signal to an ideal reference line and is expressed as a percentage of the applied supply voltage.

**DATASHEET**

**Sensofoil® PET-HYBRID**

Part Numbers (standard portfolio)

	67600062	67600208			67600154
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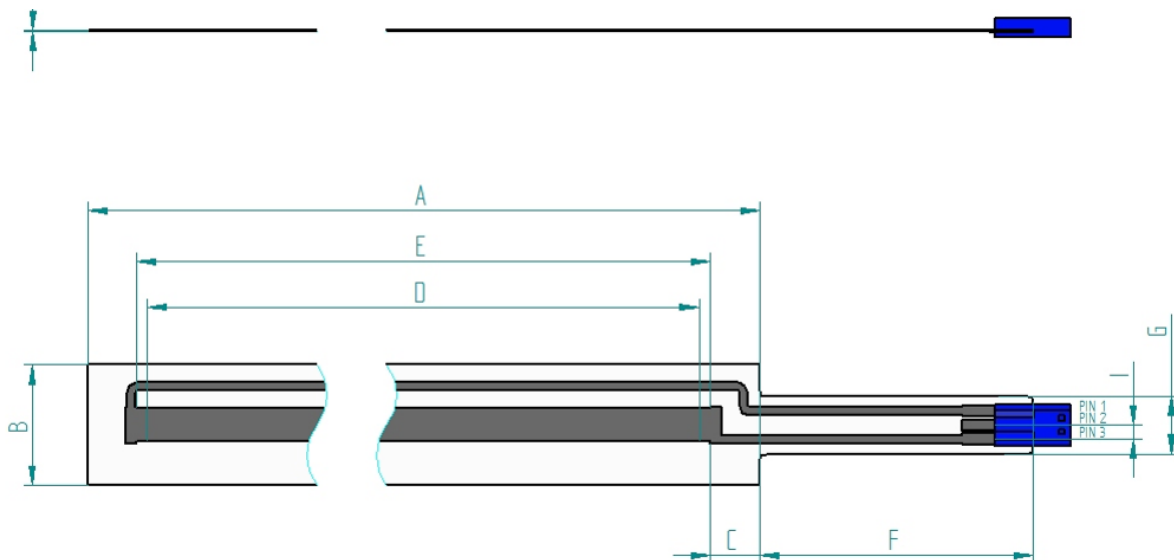
**Mechanical Data** (at room temperature) <sup>(1)</sup>

Total length	A	123 mm	223 mm		523 mm
Total width	B	22 mm			
Beginning of effective electrical length	C	9 mm			
Effective electrical length <sup>(2)</sup>	D	100 mm	200 mm		500 mm
Active length	E	105 mm	205 mm		505 mm
Length connector tail	F	50 mm			
Width connector tail	G	10.5 mm			
Height	H	0.5 mm			
Contact spacing	I	2.54 mm			
Travel speed		≤ 3 m/s			
Life cycles (tested to date)		10 Million cycles			
Mounting type		self-adhesive foil			

Above values are based on internal tests and inspections and represent typical values.  
 Hoffmann + Krippner does not guarantee completeness or absolute accuracy based on varying conditions.  
 Test set up information and conditions can be obtained.

(1) Tolerances based on DIN ISO 2768

(2) Area in which the specified linearity is guaranteed. Approx. 90% of the total active length.



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**Environmental Conditions**

Operating temperature	-25°C to +85°C
Storage temperature	-25°C to +85°C
Protection Class <sup>(3)</sup>	IP 65

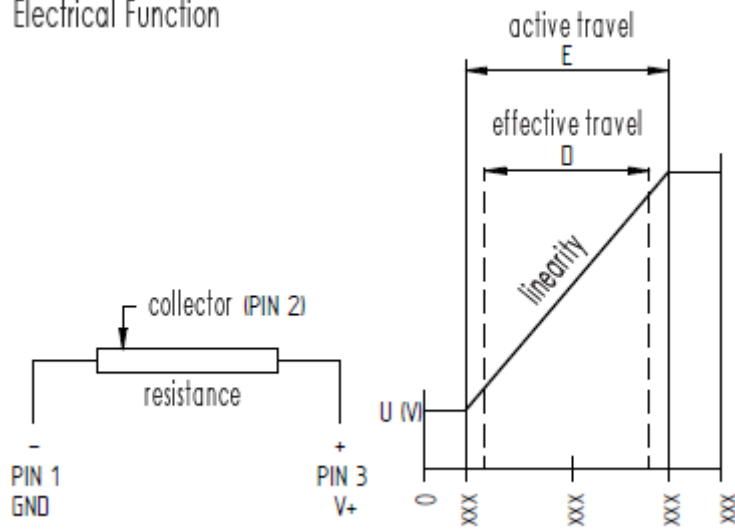
**Electrical Data (at room temperature)**

Resistance	2.5 kOhm	5.5 kOhm		13.7 kOhm
Tolerance	+/- 30%			
Independent linearity	2%			
max. wiper current in case of failure	0.1A			
suggested wiper current during operation	0.1µA			
Operating voltage	1-42 VDC			

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(3) Protection class for sensor ONLY.

Electrical Function



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**Sensofoil® PET-Hybrid Accessories**

Wiper for membrane potentiometers with integrated hybrid technology  
(datasheet available upon request)



Wiper H+K part number 60300002 (M6x1 thread)



Wiper H+K part number 60300007 (for mounting)

Contacts for membrane potentiometers with PET surface  
(datasheets available upon request)



3-pin Duflex (standard)  
female



for ZIF connector, 3-pin, con-  
tacts covered with graphite,  
grid: 1mm



3-pin Crimpflex  
female



3-pin Crimpflex, solder pins  
without housing



3-pin Crimpflex  
female, locking

Other connector and soldering options available upon request.