

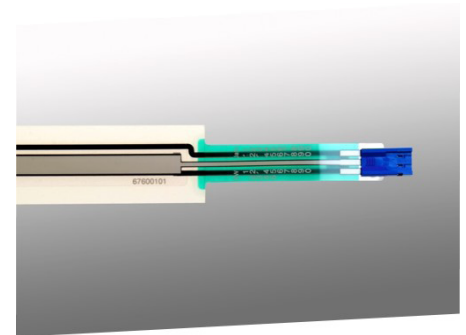
DATASHEET

Sensofoil® PET-PET

Resistive track printed on PET foil

Features:

- Linear design
- Flat, durable and fully sealed
- Operating temperature -25 °C to +55 °C
- Compact design



How does it work? Sensofoil® PET-PET

A Sensofoil® membrane potentiometer PET-PET consists of a resistive track printed onto 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.

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.

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Part Numbers (standard portfolio)

67600100	67600101	67600102	67600103	67600104	67600105
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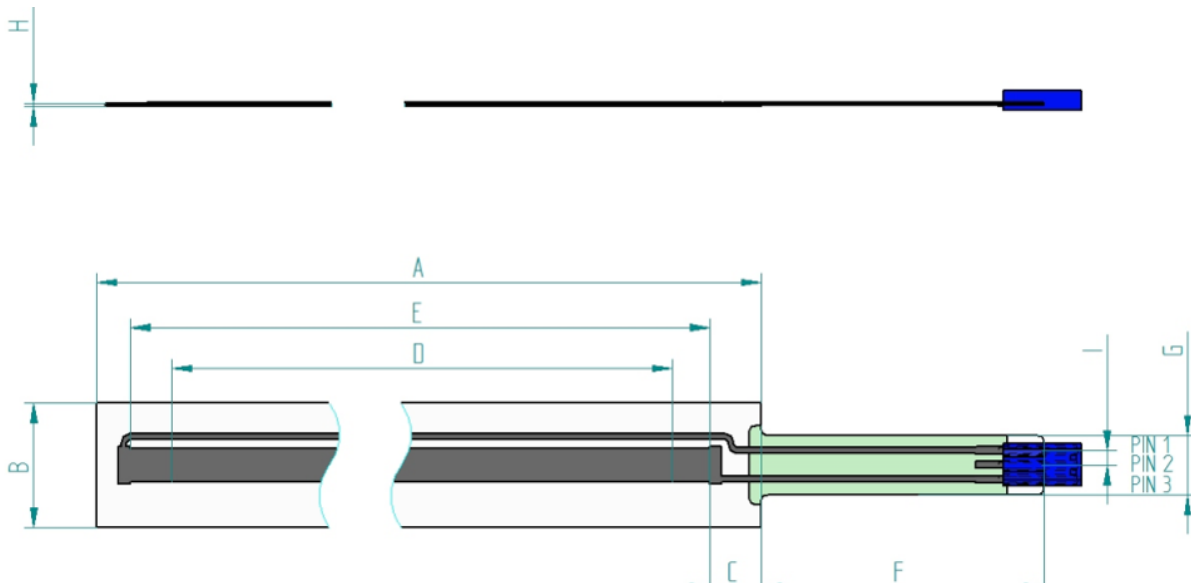
Mechanical Data (at room temperature) ⁽¹⁾

Total length	A	68 mm	118 mm	218 mm	318 mm	418 mm	518 mm
Total width	B	22 mm					
Beginning of effective electrical length	C	9 mm					
Effective electrical length ⁽²⁾	D	45 mm	90 mm	180 mm	270 mm	360 mm	450 mm
Active length	E	50 mm	100 mm	200 mm	300 mm	400 mm	500 mm
Length connector tail	F	50 mm					
Width connector tail	G	10.5 mm					
Height	H	0.5mm					
Contact spacing	I	2.54 mm					
Travel speed		≤ 3 m/s					
Life cycles (tested to date)		3 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 +55°C
Storage temperature	-25°C to +85°C
Protection Class ⁽³⁾	IP 65

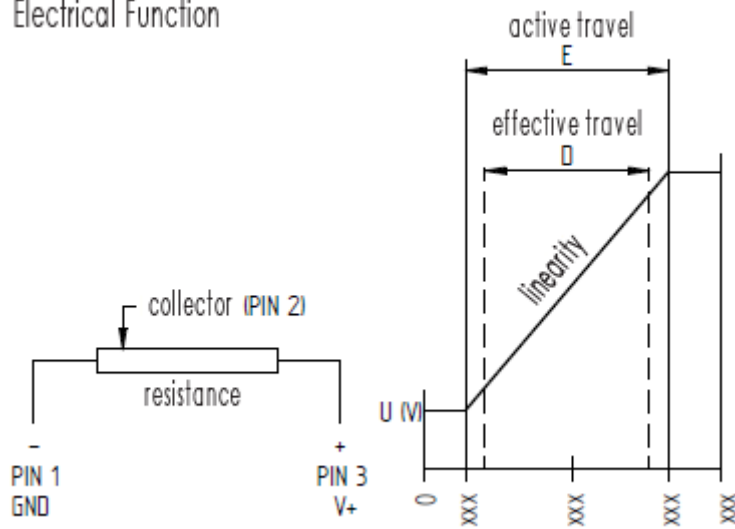
Electrical Data (at room temperature)

Resistance	1.3 kOhm	2.5 kOhm	5.0 kOhm	7.5 kOhm	10.0 kOhm	12.5 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



DATASHEET

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Sensofoil® PET-PET Accessories

Wiper for membrane potentiometers with PET surface
(datasheet available upon request)



Wiper H+K part number 60300001 (M6x1 thread)



Wiper H+K part number 60300009 (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.