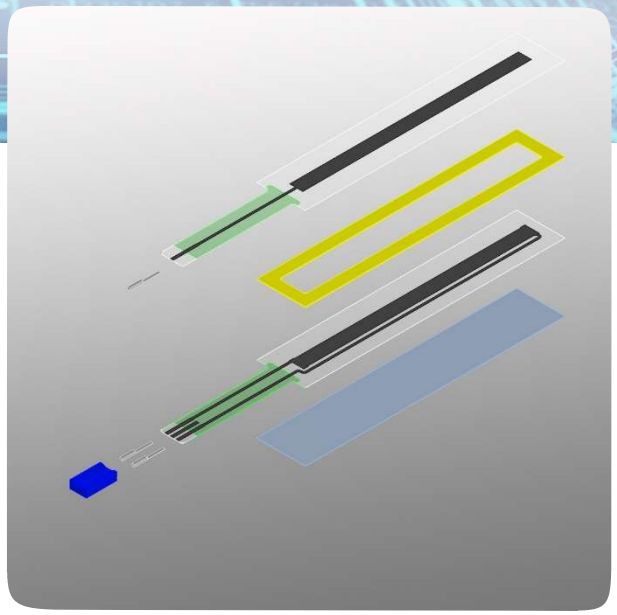
Hoffmann + Krippner

Datasheet

Sensofoil® PET linear



- Resistor track printed on polyester film
- linear potentiometer
- -25 °C to +55 °C possible
- flat, durable, tight
- various connection possibilities

How does a Sensofoil® film potentiometer work?

A Sensofoil® film potentiometer PET consists of a lower film printed with the resistor track and an upper film 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.

Ideally, a DC voltage in the low-voltage range is connected to the resistor track and tapped at the collector track as a voltage divider. There is a linear relationship between the length of the resistance path, 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.

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Sensofoil® PET linear

		Part number					
		67600100	67600101	67600102	67600103	67600104	67600105
Mechanical data (at room temperature) [1]							
Length sensor range	A	68 mm	118 mm	218 mm	318 mm	418 mm	518 mm
Wide sensor range	B	22 mm					
Start of effective adjustment travel of potentiometer edge	C	9 mm					
Electrically effective adjustment travel [2]	D	45 mm	90 mm	180 mm	270 mm	360 mm	450 mm
Total electrical adjustment travel	E	50 mm	100 mm	200 mm	300 mm	400 mm	500 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)		3 Mio Movements					
Mounting type		self-adhesive foil					

Environmental conditions	
Operating temperature	from -25°C to 55°C
Storage temperature unactuated	from -25°C to 55°C
Protection class [3]	IP65

Electrical data (at room temperature)						
Resistance value	1,3 kOhm	2,5 kOhm	5,0 kOhm	7,5 kOhm	10,0 kOhm	12,5 kOhm
Resistance tolerance	+/- 30%					
Independent linearity tolerance [4]	2%					
Max. wiper current in case of fault	0,1A					
Recommended wiper current during operation	0,1µA					
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.

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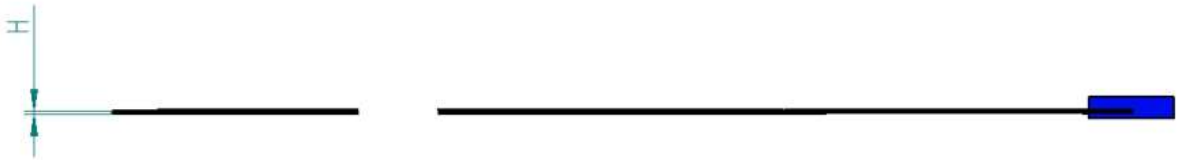
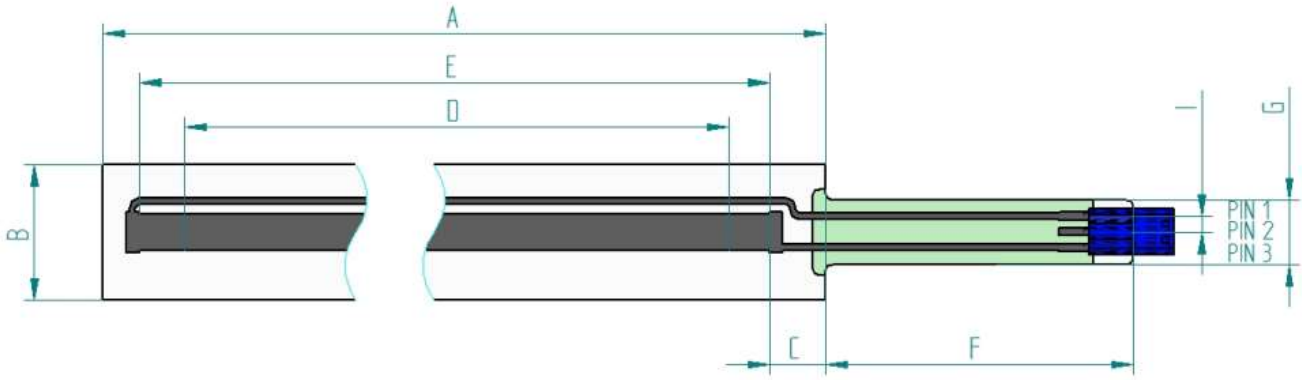
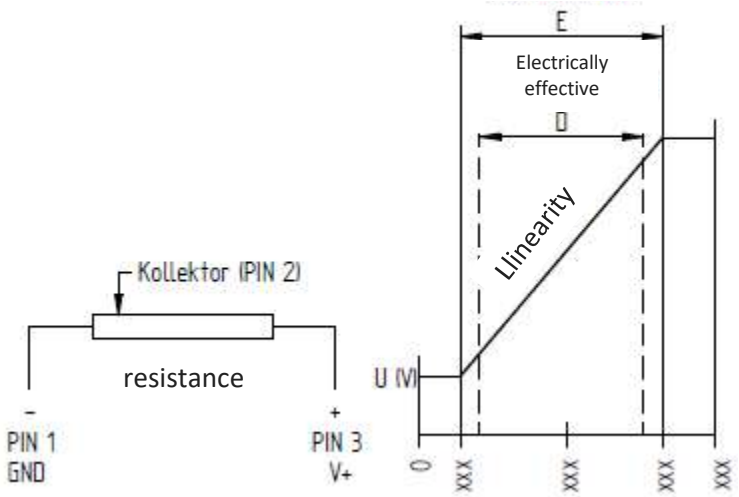




Electrical Function

electrically active



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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

Crimpflex 3-pole,
Solder pins without housing

Crimpflex 3-pole
female

Crimpflex 3-pole
lockable

Further contacts or soldered wires on request.

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