

# Datasheet (preliminary)

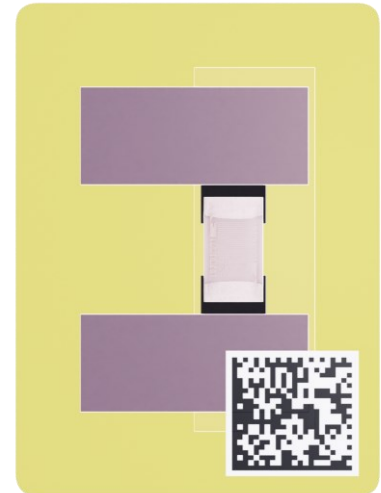
## SMD foil temperature sensor Tp02



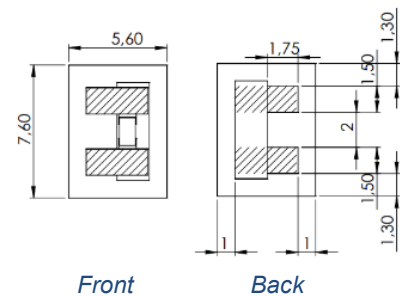
The SMD foil temperature sensor Tp02 is designed for determination of the temperature using a 4-wire-measurement setup.

The readings are taken by applying a constant current of less than 1 mA and measuring the voltage, which changes due to the temperature dependent change of the electrical resistance.

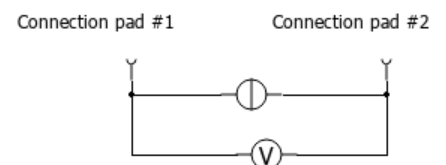
A 2-wire-measurement is also possible but might lead to less accurate results due to resistance of the connection leads (not part of the SMD foil temperature sensor).



Technical Data	
Dimensions	L x W in mm
Whole sensor foil	7.6 x 5.6
Connection pad (per pad)	1.5 x 1.75
Distance between pads	2.0
Change in resistance	t.b.d.
Set-up time (time till stable output)	t.b.d.
Response time ( $t_{90}$ )	t.b.d.
Lifetime (in use)	t.b.d.



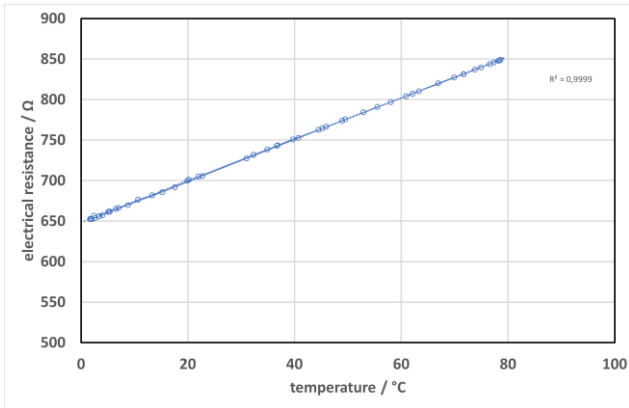
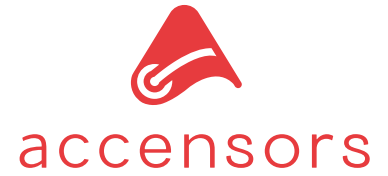
All mechanical dimensions are valid at 25 °C ambient temperature, if not differently indicated. All data except the mechanical dimensions only have information purposes and are not to be understood as assured characteristics. Technical changes without previous announcement as well as mistakes reserved. Load with extreme values during a longer period can affect the reliability. Typing errors and mistakes reserved. Product specifications are subject to change without notice.



Schematic example for a measuring circuit using a 4-wire-setup

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Example output: electrical resistance dependency of the temperature and linear approximation

accensors Technology Readiness Level									
TRL 0	TRL 1	TRL 2	TRL 3	TRL 4	TRL 5	TRL 6	TRL 7	TRL 8	TRL 9
Idea unproven concept no testing has been performed.	Problem Solving Core principles are explored and observed but no experimental proof available.	Concept Generation Concept & application have been explored.		Proof of concept Prototype Testing done on core mechanisms and function	Rough Working-Prototype Tested in intended environment	Prototype Field Trials Tested in intended environment close to expected performance	Pre-Production Prototype Operating in operational environment at precommercial scale.	First Production Runs Manufacturing issues solved.	Full Commercial-Production Technology available for consumers.
	<ul style="list-style-type: none"> <li>Concepts identified</li> <li>Research carried out and refined</li> <li>Technology development</li> <li>Identify material concerns</li> </ul>			<ul style="list-style-type: none"> <li>Early indications of materials identified</li> <li>Manufacturing feasibility determined</li> <li>Manufacturing processes identified</li> </ul>	<ul style="list-style-type: none"> <li>Characteristics identified</li> <li>Early supply chain assessment</li> </ul>	<ul style="list-style-type: none"> <li>Initial trade studies</li> <li>Quality thresholds established</li> </ul>	<ul style="list-style-type: none"> <li>Assessed supply chain</li> <li>BOM in development</li> <li>Materials being tested</li> <li>Demonstrate supply chain BOM Draft</li> </ul>	<ul style="list-style-type: none"> <li>Establish multiple sources</li> <li>Pilot line builds validated</li> <li>Materials proven Quality characteristics validated</li> <li>BOM finalised</li> </ul>	<ul style="list-style-type: none"> <li>Continous process improvements</li> <li>Materials in control</li> <li>Quality validated with LRIP articles</li> <li>Make/buy supports</li> </ul>
<b>LEVEL EXIT CRITERIA</b>									
	Prior Consultancy Knowledge As a consultancy, having worked on successful solutions for many industries, the first 3 manufacturing readiness levels are tackled and kept in mind by our early sage product-development stages.		Small Scale Prototype Crude prototypes to test technology	Refine Manufacturing Strategy Identification of enabling technologies and components.	Prototype Development Manufacturing processes have been defined but requires design for manufacturing	Design for Manufacturing Manufacturing detailing is underway.	Pilot Line Demonstration Manufacturing processes are proved	Manufacturing Production Getting the quality, costs and performance on target.	Manufacturing Management Applied Six Sigma to the production
	MRL 1	MRL 2	MRL 3	MRL 4	MRL 5	MRL 6	MRL 7	MRL 8	MRL 9
<b>Manufacturing Readiness Level</b>									



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