



Our temperature switches fit on all connectors with BSP 1/2" threads. This is a simple on/off mode, according to the switch temperature. The control unit benefit is the soft start curve, extending the life time of the fan motor. On request we offer various other bi-metal temperature switches with different temperature settings, protection classes and connections. Please contact us for the compatibility of the products.

Technical Data

order number	description	connection	protection	switch temperature	difference	weight
				[°C]	[°C]	[kg]
510001	Temperature Switch IP69K 50°C	AMP superseal 1,5	IP 69K	50 ± 5	10 ± 5	0,10
510002	Temperature Switch IP69K 60°C	AMP superseal 1,5	IP 69K	60 ± 5	10 ± 5	0,10
510003	Temperature Switch IP69K 90°C	AMP superseal 1,5	IP 69K	90 ± 5	10 ± 5	0,10



Characteristics

screw part material	brass
mounting	any position
max. tightening torque	40Nm
number of cycles	100.000
counter connector	included

Measurement output

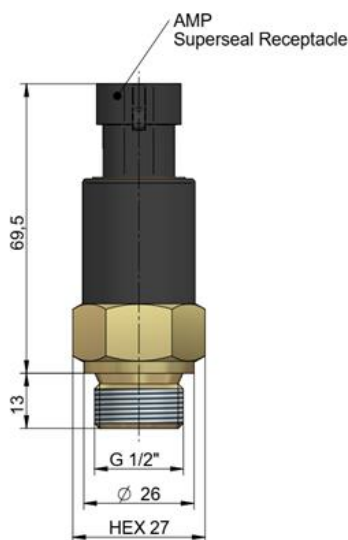
contact	N.O. (normal open)
maximum current	12V AC: 10 (4)A 24V AC: 10 (3)A 125V AC: 12 (2)A 250V AC: 10 (1)A

use power relay for switching!

Ambient Conditions

working temperature range	-20°C to +85°C
storage temperature range	-40°C to +110°C

Dimensions



This data sheet and the corresponding scale drawings are to be used as a general guideline and technical overview of our products. Please contact us if more exact information is needed. As we are constantly improving our products, their characteristics, dimensions and weights may also change, although we do our best to incorporate these changes continually. Sovatec assumes no liability for any information therein, any errors, omissions, misprints, nor any direct or indirect damages, losses or costs resulting therefrom. Any general technical values indicated on this datasheet are measured at a test bench according to Sovatec testing procedures or calculated, based on such tests. They represent a basis for your product selection. Due to different conditions in testing and application environments the performance may also vary by +/- 15%. All sound values are determined in accordance with ISO 9614-2, DIN EN ISO 11203 accuracy class 3 or Machinery Directive 2006/42/EG and are A-rated. At some of the performance data, possible differences to competition data are possible. The reason to that are no existing standardized testing procedures on individual subjects. Therefore, we recommend all products to be checked under the system operating conditions. This is also true of vibrations and mechanical stress as well as for thermal stress and any other relevant factors. General tolerances according to DIN ISO 2768-vL, if it is not specified on the actual scale drawing or data sheet. Any form of liability is excluded for the information included in this datasheet. All details and calculation values are checked to the best of our ability, but these do not ensure any intrinsic product properties: due to the wide-ranging possible applications, it is advised that all technical data herewith included be confirmed through testing carried out by the end-user. Sovatec Produktion GmbH reserves the right to modify the product without any separate notification. This refers to both technical data and the product itself. Furthermore, it is herewith specified that the datasheet does not substitute the corresponding scale drawings, assembly and installation guidelines, nor the operating instructions.
 Datasheet-Temperature Switches IP69K-en-rev0.docx © Sovatec, August 2024



The temperature sensor requires a control unit (ESC) for the control system which is available in 12V and 24V. The fan speed varies according to the actual temperature on the sensor. This reduces the noise level of the system and increases the durability of the fan motor, because it is not running at maximum speed all the time. The start up temperature of this system is 44°C and the maximum rotation of the fan is applied when the oil temperature reaches 55°C.

Technical Data

order number	description	connection	protection	weight
				[kg]
500001	Temperature Sensor IP69K	AMP superseal 1.5	IP 69K	0,10

Characteristics

screw part material	Brass
mounting	any position
max. tightening torque	50Nm

Measurement output

connection	AMP superseal 1.5
resistor	NTC 3,3kΩ
temperature/resistance range	15°C: 5,18 kΩ 25°C: 3,3 kΩ 45°C: 987Ω 85°C: 353Ω

Ambient conditions

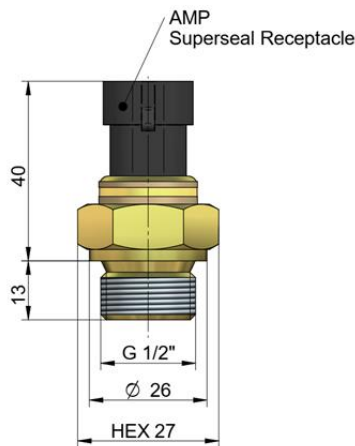
working temperature range	-20°C to +85°C
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Required electronic speed controls

ESC 24V DC, Single and Dual	410000, 41100
ESC 12V DC, Single and Dual	400000, 40100
ESC 24V DC, BLDC	419000
ESC 12V DC, BLDC	409000



Dimensions





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Technical Data

order number	description	connection	protection	switch temperature	difference	weight
				[°C]	[°C]	[kg]
510004	Temperature Switch IP65 50°C	3-pole	IP 65	50 ± 5	10 ± 5	0,09
510005	Temperature Switch IP65 60°C	3-pole	IP 65	60 ± 5	10 ± 5	0,09



Characteristics

screw part material	brass
mounting	any position
max. tightening torque	40Nm
number of cycles	100.000

Measurement output

contact	N.O. (normal open)
maximum current	12V AC: 10 (4)A 24V AC: 10 (3)A 125V AC: 12 (2)A 250V AC: 10 (1)A

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