



## Surface resistance thermometers

- for temperatures from -50 to +260°C
- with protection fittings in different materials
- for round and flat surfaces
- quick and easy installation
- low thermal mass

Surface resistance thermometers are preferably used for temperature measurement on closed pipe systems or other round or flat surfaces. Simple installation by tension bands or hose clips avoids any mechanical preparation of the measurement site. An exception are basic versions 902522/10 and 902522/11, which have a mounting hole for screwing on to any surface, e.g. heating plates.

Indirect temperature measurement avoids disturbing the flow of the medium. On the other hand, pressure and chemical effects have no influence on the life of the resistance thermometer.

The measurement object is hardly affected by the low thermal mass. A heat conduction paste can be supplied to improve the heat transfer. Large temperature differences between the measurement medium and the surroundings directly affect the measurement. In such cases, additional insulation is advisable.

The measuring insert is normally fitted with a Pt100 temperature sensor to EN 60 751, Class B in 2-wire circuit. Versions with Pt500 or Pt1000 can also be provided.



### Technical data

#### Connection

cable ends are available tinned, with ferrules, receptacles or multipole connector

#### Connecting cable

silicone, ambient temperature -50 to +180°C

PTFE, ambient temperature -190 to +260°C

Kapton, ambient temperature -50 to +260°C

#### Protection tube

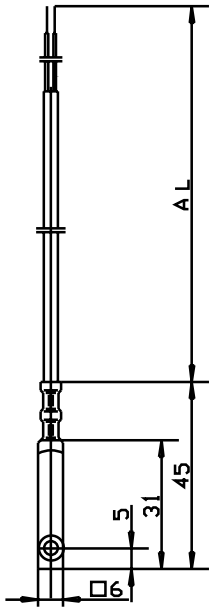
stainless steel 1.4571, aluminium, plastic

#### Measuring insert

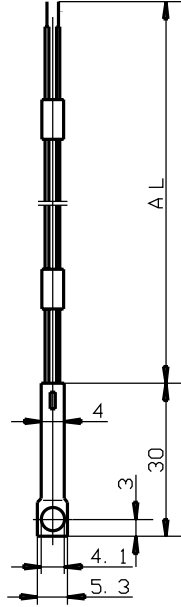
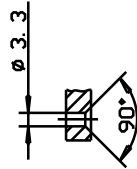
Pt100 temperature sensor, EN 60 751, Cl. B, 2-wire circuit



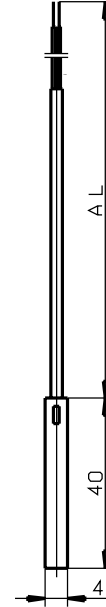
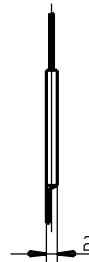
## Dimensions



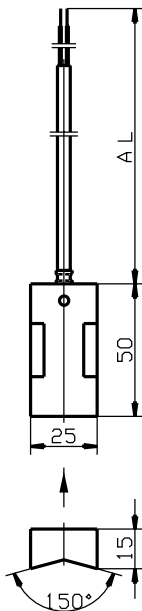
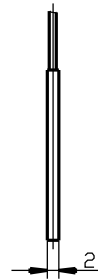
Type 902522/10



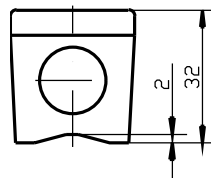
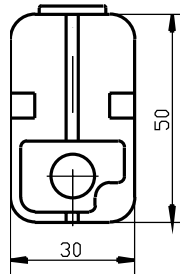
Type 902522/11



Type 902522/20



Type 902522/30



Type 902522/41  
Type 902522/42

Delivery address: Mackenrodtstraße 14,  
36039 Fulda, Germany  
Postal address: 36035 Fulda, Germany  
Phone: +49 661 6003-0  
Fax: +49 661 6003-607  
e-mail: mail@jumo.net  
Internet: www.jumo.net

JUMO House  
Temple Bank, Riverway  
Harlow, Essex CM 20 2TT, UK  
Phone: +44 1279 635533  
Fax: +44 1279 635262  
e-mail: sales@jumo.co.uk  
Internet: www.jumo.co.uk

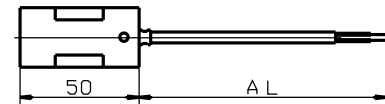
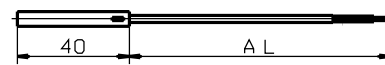
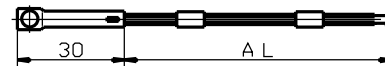
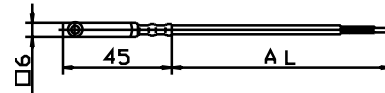
885 Fox Chase, Suite 103  
Coatesville PA 19320, USA  
Phone: 610-380-8002  
1-800-554-JUMO  
Fax: 610-380-8009  
e-mail: info@JumoUSA.com  
Internet: www.JumoUSA.com



**Order details: Surface resistance thermometers**

**(1) Basic version**

	902522/10	Surface resistance thermometer with fixing hole, aluminium protection fitting
	902522/11	Surface resistance thermometer with fixing hole, stainless steel protection fitting
	902522/20	Surface resistance thermometer, stainless steel protection fitting
	902522/30	Surface resistance thermometer, aluminium protection fitting
	<b>(2) Operating temperature in °C / connecting cable</b>	
	378	-50 to +180°C / silicone
x x	386	-50 to +260°C / PTFE
	391	-50 to +260°C / Kapton
	<b>(3) Measuring insert</b>	
x x x x	1003	1 x Pt100 in 2-wire circuit
	<b>(4) Tolerance class to EN 60 751</b>	
x x x x	1	Class B (standard)
x x x x	2	Class A
	<b>(5) Connecting cable end</b>	
x x x x	04	tinned wires
x x x x	11	ferrules to DIN 46 228 Part 4 (standard)
x x x x	13	receptacle 6.3 to DIN 46 247
	<b>(6) Connecting cable length AL in mm (500 ≤ AL ≤ 500000)</b>	
x x x x	2500	2500mm
x x x x	...	please specify in plain text (500mm steps)
	<b>(7) Extra codes</b>	
x x x x	000	no extra code
x x x	315	cable protector: coil
x x x	316	cable protector: tube



**Order code**                    (1) - (2) - (3) - (4) - (5) - (6) / (7) ,...

**Order example**            902522/10 - 386 - 1003 - 1 - 11 - 2500 / 000<sup>1</sup>

1. List extra codes in sequence, separated by commas.

Delivery address: Mackenrodtstraße 14,  
36039 Fulda, Germany  
Postal address: 36035 Fulda, Germany  
Phone: +49 661 6003-0  
Fax: +49 661 6003-607  
e-mail: mail@jumo.net  
Internet: www.jumo.net

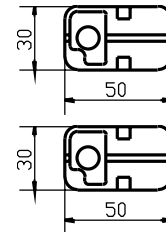
JUMO House  
Temple Bank, Riverway  
Harlow, Essex CM 20 2TT, UK  
Phone: +44 1279 635533  
Fax: +44 1279 635262  
e-mail: sales@jumo.co.uk  
Internet: www.jumo.co.uk

885 Fox Chase, Suite 103  
Coatesville PA 19320, USA  
Phone: 610-380-8002  
1-800-554-JUMO  
Fax: 610-380-8009  
e-mail: info@JumoUSA.com  
Internet: www.JumoUSA.com



Order details: Surface resistance thermometers

		<b>(1) Basic version</b>	
	902522/41	Surface resistance thermometer, pipe-surface probe	
	902522/42	Surface resistance thermometer, flat-surface probe	
x	x	<b>(2) Operating temperature in °C</b>	
	365	-50 to +120°C	
x	x	<b>(3) Measuring insert</b>	
	1003	1 x Pt100 in 2-wire circuit	
	1004	1 x Pt500 in 2-wire circuit	
	1005	1 x Pt1000 in 2-wire circuit	
	1009	1 x Ni 1000 in 2-wire circuit	
	1621	1 x KTY81-122 in 2-wire circuit	
x	x	<b>(4) Tolerance class to EN 60 751</b>	
	0	tolerance with KTY sensor	
	1	Class B (standard)	
	2	Class A	
x	x	<b>(5) Extra codes</b>	
	000	no extra code	
	404	Protection IP65 (M 16x1.5 cable gland)	



<b>Order code</b>	(1)	(2)	(3)	(4)	(5)
<b>Order example</b>	902522/41	- 365	- 1003	- 1	/ 000

Stock versions

(1)	(2)	(3)	(4)	(5)	(6)	(7)	Sales No.
902522/10	386	1003	1	11	2500	000	90/00306774
902522/11	386	1003	1	11	2500	000	90/00065548
902522/20	391	1003	1	11	2500	000	90/00065547
902522/30	378	1003	1	11	2500	315	90/00065531

Stock versions

(1)	(2)	(3)	(4)	(5)	Sales No.
902522/41	365	1003	1	000	90/00378669
902522/41	365	1003	1	404	90/00376703