

Symaro™

Immersion temperature sensor

QAE9120.005, QAE9130.005, QAE9130.210



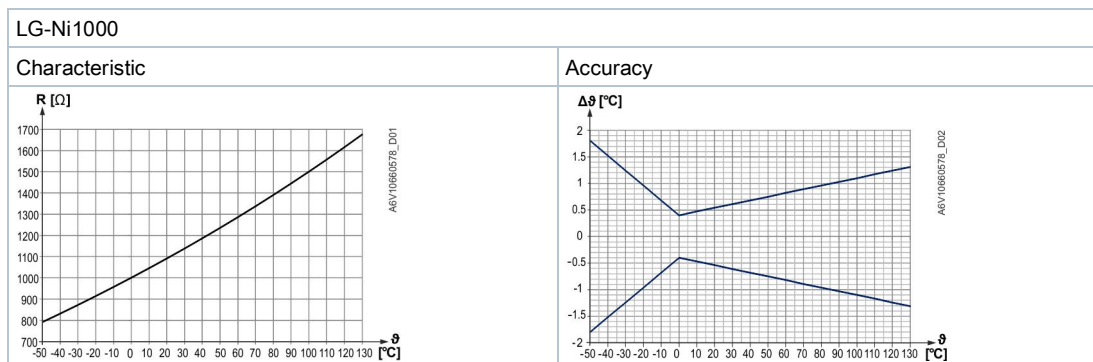
The sensors are used to acquire temperatures in liquid and gaseous media (e.g. hot water) in heating, ventilation, air conditioning plants. They work together automation, display, and recording equipment.

- LG-Ni1000 or NTC10k Ω available as sensing elements
- Straightforward installation
- Compact design
- Direct immersion without protection pocket

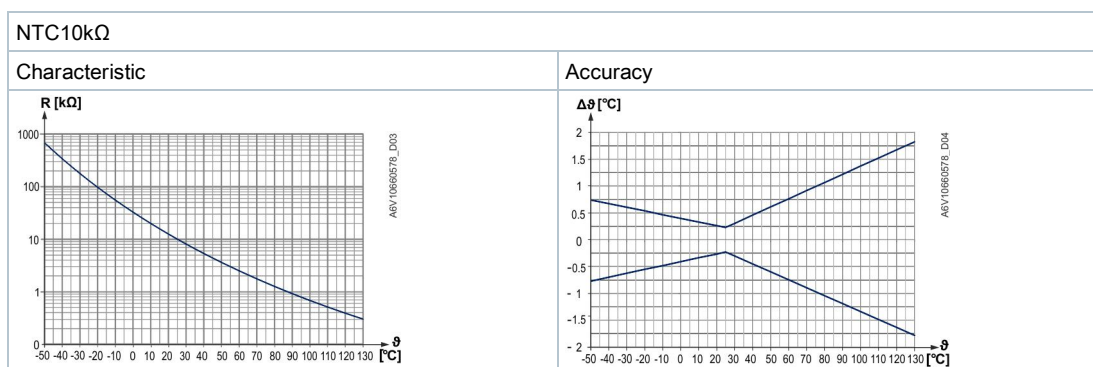
Operating principle

The sensor acquires the medium temperature using a LG-Ni1000 or NTC10kΩ element. The resistance values based on temperature change are represented in the curves showed below. The temperature signal is provided for further processing by a suitable control device.

QAE9120.005



QAE9130.005, QAE9130.210



Design

A terminal block for electrical wiring is located in the connecting head. The sensors have a 55 mm or 197 mm neck tube made of stainless steel and a sensor tube with G $\frac{1}{2}$ " threads. The sensing element is located at the end of the sensor tube. The sensor has a pressure grade of 16 bar.

Type summary


Type	Stock number	Measuring range	Immersion length L	Measurement type	Sensing element
QAE9120.005	S55720-S370	-50...+130 °C	68 mm	Passive	LG-Ni1000
QAE9130.005	S55720-S369	-50...+130 °C	68 mm	Passive	NTC10kΩ
QAE9130.210	S55720-S401	-50...+130 °C	210 mm	Passive	NTC10kΩ

Product documentation

Related documents such as environmental declarations, CE declarations, etc., can be downloaded at the following Internet address:

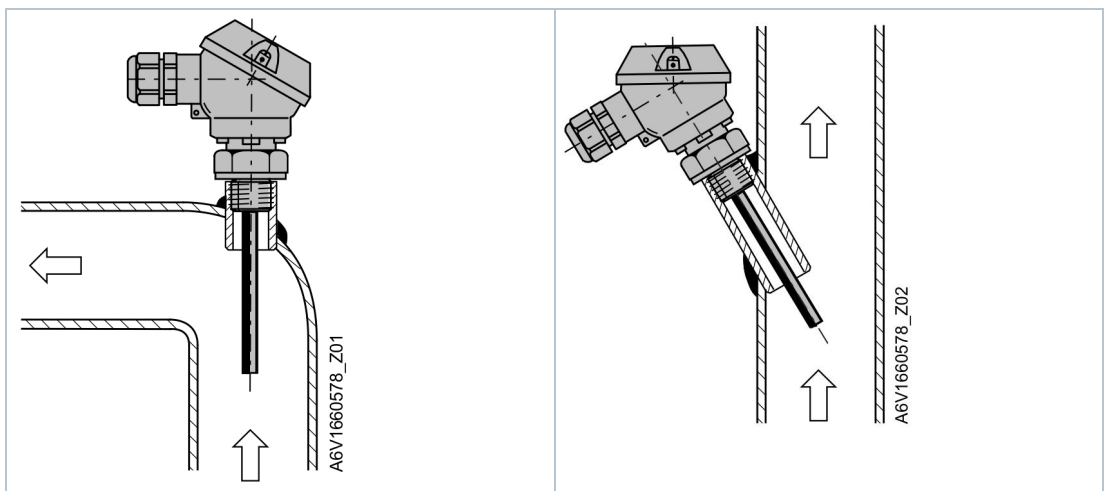
<http://siemens.com/bt/download>

Safety


	⚠ CAUTION
	<p>National safety regulations</p> <p>Failure to comply with national safety regulations may result in personal injury and property damage.</p> <ul style="list-style-type: none"> • Observe national provisions and comply with the appropriate safety regulations.

Mounting

Remove the cable binders used to secure the seals prior to mounting. Install where possible in a bend in the piping and against the flow. Ensure that the medium is well mixed. Selection an location for installation where it is easy to exchange the measuring insert.



Disposal

	<p>The device is considered an electronics device for disposal in terms of European Directive 2012/19/EU and may not be disposed of as domestic garbage.</p> <ul style="list-style-type: none"> • Dispose of the device through channels provided for this purpose. • Comply with all local and currently applicable laws and regulations.
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Warranty

Technical data on the application applies exclusively to use with only Siemens products. Siemens rejects any and all warranties in the event that third-party products are used.

Technical data

General device data			
Sensing element	QAE9120.005	QAE9130.005	QAE9130.210
	LG-Ni1000	NTC10kΩ	NTC10kΩ
Measuring range	-50... 130°C		
Measuring tolerance	See "Mode of operation".		
Time constant $t_{0.5}$	< 3 s (in water 0.2 m/s)		
Measuring medium	Gaseous or liquid		
Dimensions (weight)	QAE9120.005	QAE9130.210	
	QAE9130.005		
	0.184 kg (without packaging) 0.245 kg (with packaging)	0.190 kg (without packaging) 0.288 kg (with packaging)	
Dimensions packaging (in mm)	160 (L) x 90 (W) x 70 (H)	300 (L) x 90 (W) x 70 (H)	

Connections	
mechanical	Threads G½, SW 27
• Nominal pressure	PN 16
electrical	Screw terminal
• Cable gland	M 16 x 1.5
• Cable exterior diameter	4...8 mm

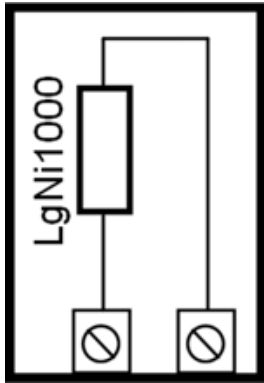
Ambient conditions and protection classification	
Classification as per EN 60730-1	
Protection class	III
Insulation voltage	500 V
Degree of protection of housing to EN 60 529	IP54
Climatic ambient conditions	
• Transport (packaged for transport) as per EN 60721-3-2	• Class 2K3 Temperature -25...60 °C (-13...140 °F) Air humidity 5...95 %
• Operation as per EN 60721-3-3	• Class 3K5 Temperature -40...70 °C (-40...158 °F) Air humidity 5...95 %
Mechanical ambient conditions	
• Transport to EN 60721-3-2	• class 2M2
• Operation as per EN 60721-3-3	• class 3M2

Standards, directives and approvals	
Product standard	EN 60730-1 Automatic electronic controls for household and similar use
EU conformity (CE)	A5W00001435 ^{*)}
EAC Conformity	Eurasian conformity
Environmental compatibility	The product environmental declaration A6V10674152 ^{*)} contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).
^{*)} The documents can be downloaded from http://siemens.com/bt/download .	

Connection diagrams

QAE9120.005

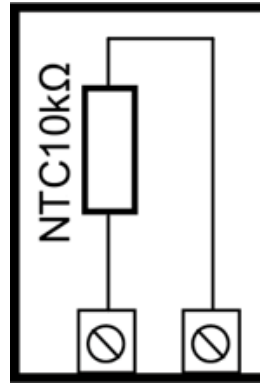
LG-Ni1000



QAE9130.005

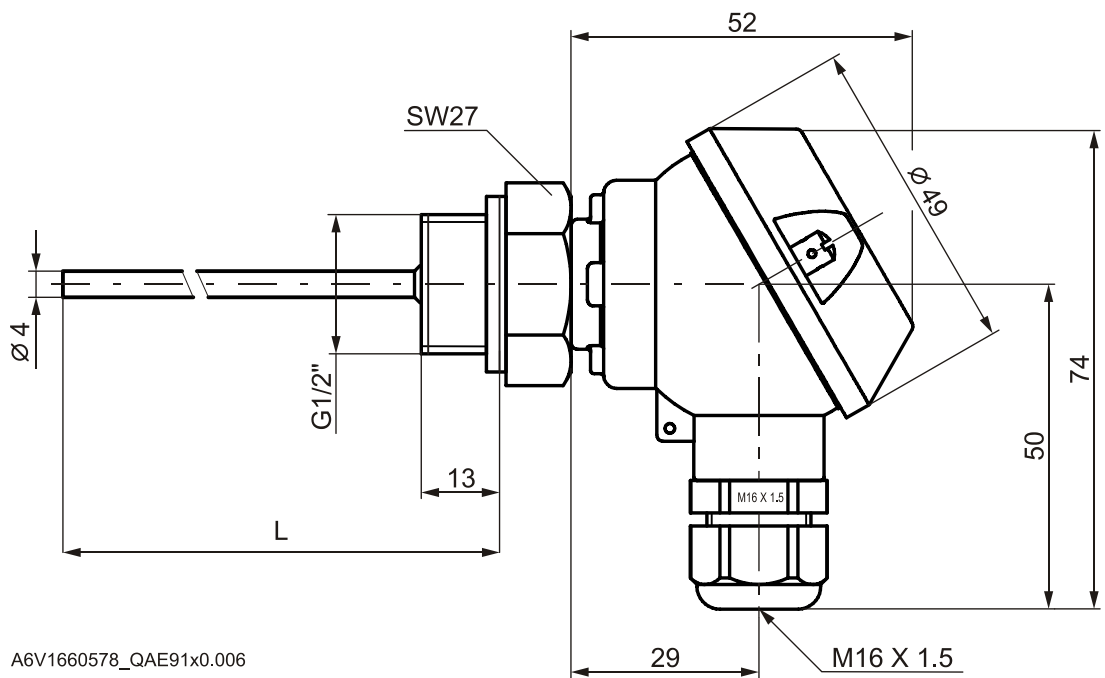
QAE9130.210

NTC10kΩ



Dimensions

(measurements in mm)



A6V1660578_QAE91x0.006

Immersion length L: See Type overview

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