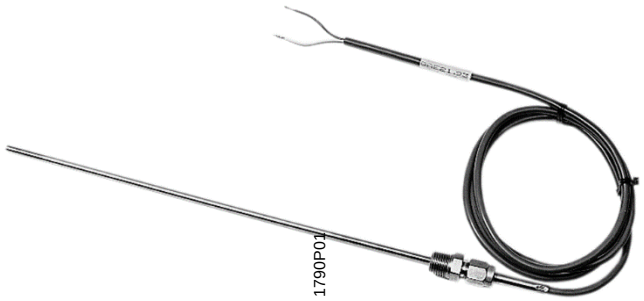


Immersion temperature sensors QAE26.9..

Use

Acquisition of flow or return temperature in heating, ventilating, and air conditioning plants.

Type summary

Type order number	*Measuring range*	*Cable length*	Material connec-ting cable	*Time constant*	*Mounting length*	*Nominal pressure*
QAE26.9 [1]	-40...+180 °C	1.2 m	silicone	<3 s	260 mm	PN 40
QAE26.90 BPZ:QAE26.90	-50...+180 °C	2.0 m	silicone	<2.5 s	65 mm	PN 40
QAE26.91 BPZ:QAE26.91	-50...+180 °C	2.0 m	silicone	<2.5 s	125 mm	PN 40
QAE26.93 BPZ:QAE26.93	-50...+180 °C	2.0 m	silicone	<2.5 s	240 mm	PN 40
QAE26.95 BPZ:QAE26.95	-50...+180 °C	2.0 m	silicone	<2.5 s	465 mm	PN 40
QAE1020.024 BPZ:QAE1020.024	-5...+105 °C	2.0 m	PVC	<2.5 s	240 mm	PN 40
QAE1021.024 S55720-S625	-5...+105 °C	5.0 m	PVC	<2.5 s	240 mm	PN 40

[1] Not supplied anymore

Ordering

When ordering, please indicate give name and type reference, for example:
Immersion temperature sensor **QAE26.90**.

Equipment combinations

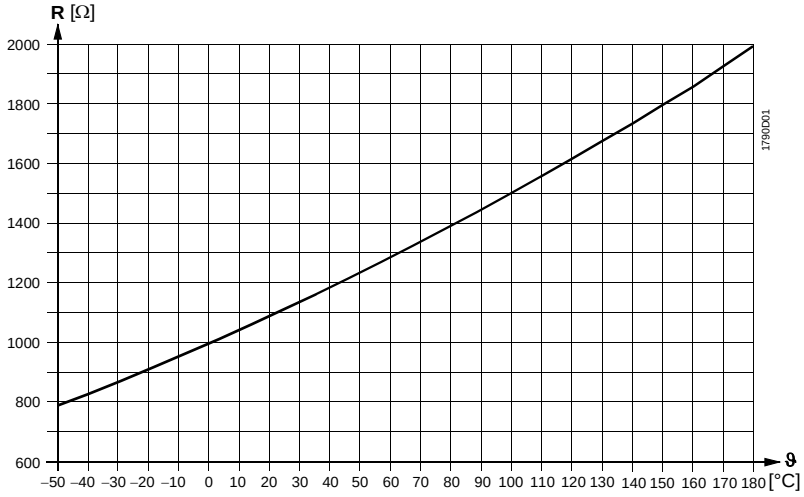
All systems or devices capable of acquiring and handling the sensor's passive LG-Ni 1000 output signal.

Function

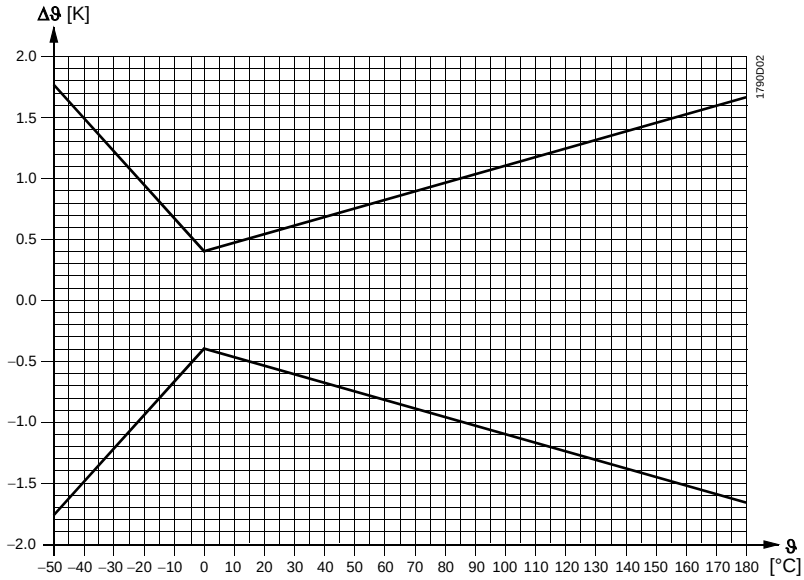
The sensor acquires the medium temperature via its sensing element whose resistance value changes as a function of the temperature.
The signal is delivered for further handling by a suitable controller.

Sensing element

Characteristic:



Accuracy:



Mechanical design

The immersion temperature sensor consists of a stainless steel immersion stem, a threaded bushing, and ready-wired connection cables. The sensing element is mounted and soldered to the end of the immersion stem by means of a heat transfer compound. The threaded bushing with screwed nipple R ¼ (sealing capacity within thread) is used to mount the sensor on the pipe. The interface between the connection cable and the immersion step is capped by a ca. 30 mm long shrink sleeve.

Disposal

This symbol or any other national label indicate that the product, its packaging, and, where applicable, any batteries may not be disposed of as domestic waste. Delete all personal data and dispose of the item(s) at separate collection and recycling facilities in accordance with local and national legislation.

For additional details, refer to www.siemens.com/bt/disposal.

Technical data

Functional data	Measuring range	Refer to "Type summary"
	Sensing element	LG-Ni 1000
	Time constant	See "Type summary"
	Measuring accuracy	Refer to "Function"
	Mounting length	Refer to "Type summary"
	Effective sensor length	
	QAE26.9	25 mm
	QAE26.90, QAE26.91, QAE26.93, QAE26.95, QAE1020.024, QAE1021.024	15 mm
Degree of protection	Protection degree of housing	IP64 according to EN 60529
	Protection class	III according to EN 60730-1
Electrical connection	Connection cables	two-wire
	Core cross section	
	QAE26.9	0.35 mm^2
	QAE26.90, QAE26.91, QAE26.93, QAE26.95, QAE1020.024, QAE1021.024	0.14 mm^2
	Cable length	Refer to "Type summary"
Mechanical connection	Screwed nipple	R ¼ (sealing capacity inside thread)
Ambient conditions	Permissible cable temperature	
	QAE26.9, QAE26.90, QAE26.91, QAE26.93, QAE26.95	−50...+180 °C
	QAE1020.024, QAE1021.024	− 5...+105 °C
	Permissible humidity	<95 % r.h.
	EU conformity (CE)	See EU declaration of conformity *)
Environmental compatibility	The product environmental declaration *) contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).	
Materials	Immersion stem	Stainless steel 1.4571 (V4A)
	Threaded bushing	Ms nickel-plated
	Connection cables	Refer to "Type summary"
Weight	incl. packing	
	QAE26.9	0.104 kg
	QAE26.90	0.074 kg
	QAE26.91	0.074 kg
	QAE26.93	0.079 kg
	QAE26.95	0.093 kg
	QAE1020.024	0.079 kg
	QAE1021.024	0.105 kg

*) The documents can be downloaded from https://siemens.com/bt/download

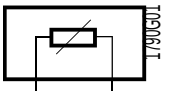
Engineering notes

The permissible electrical line lengths depend on the controller. Refer to the respective controller's data sheet for more information.

Mounting and installation notes

To mount the immersion temperature sensor, weld a T-junction or a threaded fitting with a cylindrical pipe thread for a sealing connection inside the thread (Rp ¼) so that the immersion stem faces the direction of the flow.
In order to ensure temperature acquisition along the entire immersion stem, the immersion length for the QAE26.9 must be at least 25 mm and 15 mm for QAE26.90, QAE26.91, QAE26.93, QAE26.95, QAE1020.024 and QAE1021.024.
If the connection cable needs to be extended, use a branching box.

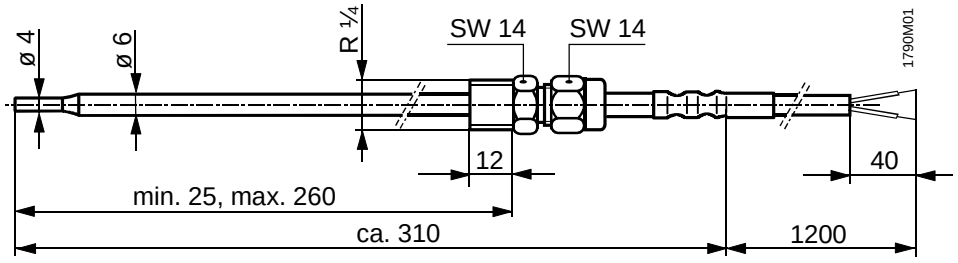
Internal diagram



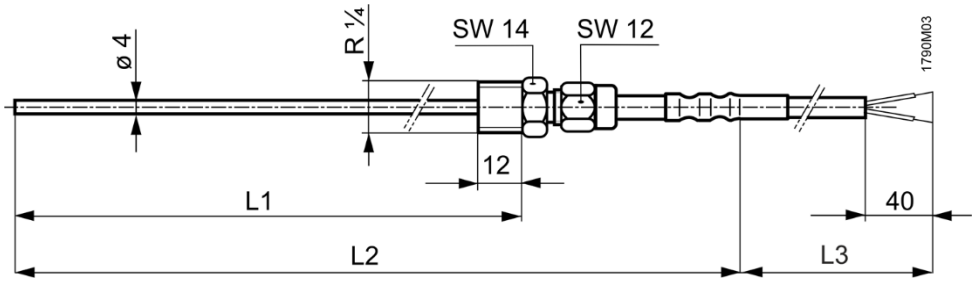
The internal diagram applies to all types.
The connections are interchangeable.

Dimensions (in mm)

QAE26.9



QAE26.90, QAE26.91
QAE26.93, QAE26.95
QAE1020.024
QAE1021.024



Type	L1		L2	L3
	Min.	Max.		
QAE26.90	15	65	Ca. 100	2000
QAE26.91	15	125	Ca. 160	2000
QAE26.93	15	240	Ca. 275	2000
QAE26.95	15	465	Ca. 500	2000
QAE1020.24	15	240	Ca. 275	2000
QAE1021.24	15	240	Ca. 275	5000

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