Immersion Temperature Sensors QAE26.9..

Use

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

Type summary

Type	*Measuring range*	*Cable length*	Material connecting cable	*Time constant*	*Mounting length*	*Nominal pressur e*
QAE26.9	–40...+180 °C	1,2 m	silicone	<3 s	260 mm	PN 40
QAE26.90	–50...+180 °C	2,0 m	silicone	<2,5 s	65 mm	PN 16
QAE26.91	–50...+180 °C	2,0 m	silicone	<2,5 s	125 mm	PN 16
QAE26.93	–50...+180 °C	2,0 m	silicone	<2.5 s	240 mm	PN 16
QAE26.95	–50...+180 °C	2,0 m	silicone	<2.5 s	465 mm	PN 16
QAE1020.024	–5...+105 °C	2,0 m	PVC	<2.5 s	240 mm	PN 16

Ordering

When ordering, please indicate give name and type reference, for exa mple:
Immersion temperature sensor **QAE26.9**.

Equipment combinations

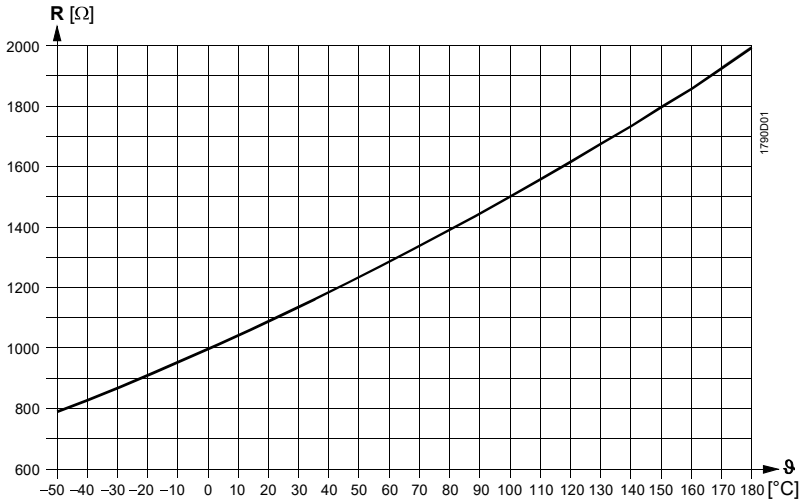
All systems or devices capable of acquiring and handling the sensor’s passive LG-Ni 1000 output signal.

Function

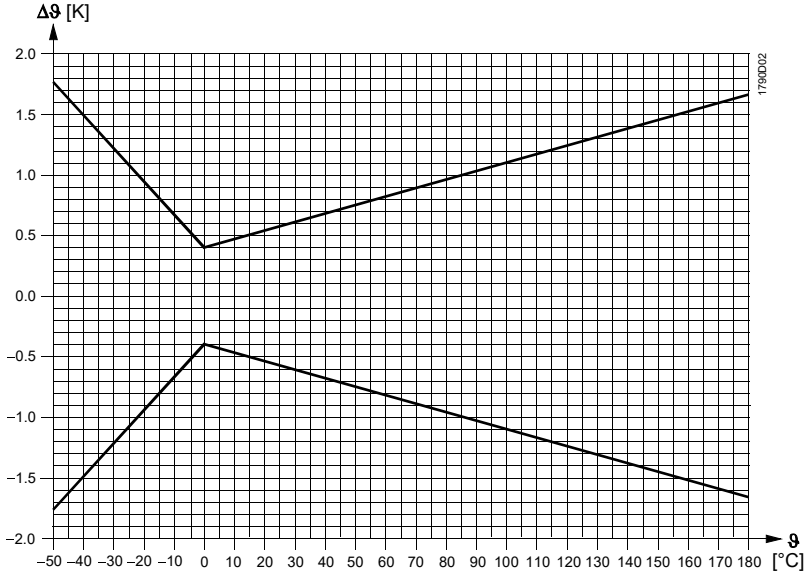
The sensor acquires the medium temperature via its sensing element whose resistance value changes as a function of the temperature.
The signal is delivered for further handling by a suitable controller.

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

The device is considered electrical and electronic equipment for disposal in terms of the applicable European Directive and may not be disposed of as domestic garbage.

- Dispose of the device via the channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

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 QAE26.90, QAE26.91, QAE26.93, QAE26.95, QAE1020.024	 25 mm 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 QAE26.90, QAE26.91, QAE26.93, QAE26.95, QAE1020.024	 0.35 mm^2 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 QAE1020.024	 –50...+180 °C – 5...+105 °C
	Permissible humidity	<95 % r.h.
	EU conformity (CE)	A5W00040799 *)
Environmental compatibility	The product environmental declaration CE1E1701*) 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 QAE26.90 QAE26.91 QAE26.93 QAE26.95 QAE1020.024	 0.104 kg 0.074 kg 0.074 kg 0.079 kg 0.093 kg 0,079 kg

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

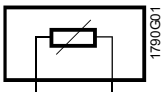
Engineering notes

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 and QAE1020.024.
If the connection cable needs to be extended, use a branching box.

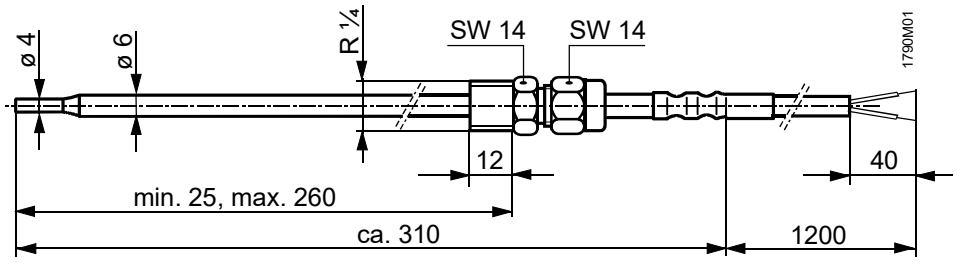
Internal diagram



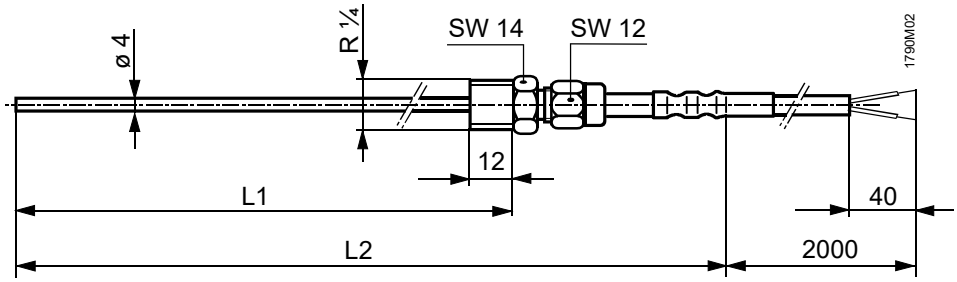
The internal diagram applies to all types.
The connections are interchangeable.

Dimensions (in mm)

QAE26.9



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



Typ	L1 min.	L1 max.	L2
QAE26.90	15	65	ca. 100
QAE26.91	15	125	ca. 160
QAE26.93	15	240	ca. 275
QAE26.95	15	465	ca. 500
QAE1020.024	15	240	ca. 275

T: 1800 225 572 | F: 1800 289 723 | E: sales@systemcontrol.com.au | W: systemcontrol.com.au

T: 09 636 1401 | E: sales@systemcontrol.co.nz | W: systemcontrol.co.nz

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