



## Screwed Immersion Temperature Sensors

## QAK..

with different types of sensing elements

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- Temperature sensors for acquiring the medium temperature in boilers, d.h.w storage tanks and heat exchangers
- The QAK.. and this Data Sheet are intended for use by OEMs which integrate the temperature sensors in their products

## Use

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- QAK21.. standard sensors: With sensing element LG-Ni 1000 for control or limitation of the medium temperature in boilers, d.h.w. storage tanks or heat exchangers. Suitable for use with controllers capable of handling resistance values from such sensors
- QAK36.. for Boiler Management Units (BMUs): With sensing element NTC 10 k $\Omega$  for control of the d.h.w. temperature in gas-fired heating appliances. Suited for use with all BMUs type LMU.. capable of handling resistance values from such sensors

## Type summary

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Type reference	Sensing element	Measurement range	Thread	Material of housing	Time constant *	Tolerance at 0 °C	Type of cable	Packing size/pcs
QAK21.350	LG-Ni 1000	0...105 °C	G1/8"	Brass	6 s	0.4 K	PVC	150
QAK36.350	NTC 10 k $\Omega$	0...105 °C	G1/8"	Brass	6 s	0.5 K	PVC	150
QAK36.670/109	NTC 10 k $\Omega$	0...105 °C	M8	V4A	6 s	0.5 K	PE	50

\*  $\tau_{63}$  in water at 0.4 m/s

## Ordering

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When ordering, please give type reference according to "Type summary", e.g.  
**QAK21.350**

## Mechanical design

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The standard version of the QAK.. temperature sensor consists of threaded housing with a hexagonal head made of nickel-plated brass or stainless steel, sensing element and connecting cable with plug at the end.

Other types of sensing elements, cables and plugs are available on request.

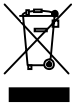
## Mounting and installation

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The sensor is for direct immersion into the medium to be controlled and screws into the threaded hole provided for that purpose. Use a heat-resistant seal ensuring a tight fit.

## Disposal

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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

For general sensor data, also refer to "Type summary"

Perm. ambient temperature

Cable

QAK21.350

Max. 95 °C

QAK36.350

Max. 95 °C

QAK36.670/109

Max. 125 °C

Electrical strength

500 V

Electrical connections

Interchangeable

Electrical connector

QAK21.350

Molex 39-01-2020 (Series 5557)

QAK36.350

Molex 39-01-2021 (Series 5559)

QAK36.670/109

Stocko EH 714-002-003-960

Directives and Standards

Product standard

EN 60730-1

Automatic electrical controls for household and similar use

EU conformity (CE)

8000073890 \*)

Degree of protection

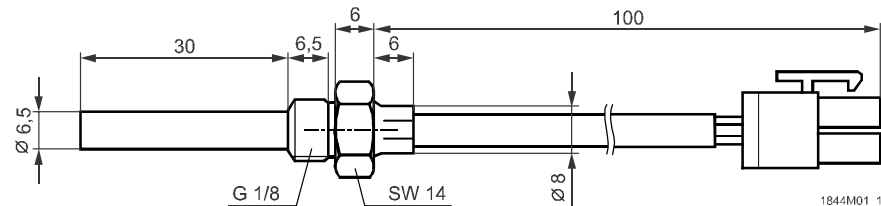
Protection class

II according to EN 60730-1

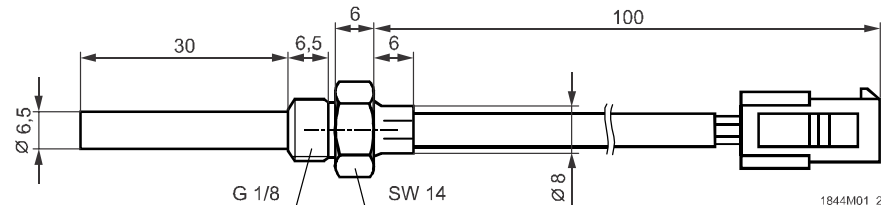
\*) The documents can be downloaded from <http://siemens.com/bt/download>.

## Dimensions

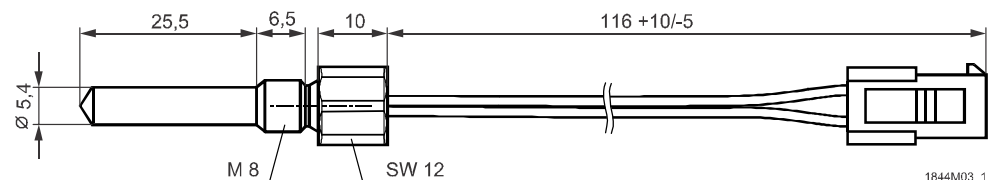
QAK21.350



QAK36.350



QAK36.670/109



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