Immersion Temperature Detectors

QAE22...



QAE22A

QAE22.2

Immersion detector for acquiring the water temperature in pipes and tanks.

Use

Acquisition of water temperature for

- controlling or limiting the flow temperature
- limiting the return temperature
- controlling domestic water temperature

Type summary

Temperature detector with an immersion stem length of 100 mm,

for use without protection pocket QAE22

Temperature detector with an immersion stem length of 100 mm,

for use with a protection pocket

Temperature detector with an immersion stem length of 100 mm,

for use without protection pocket, with a threaded nipple

Temperature detector with an immersion stem length of 150 mm,

for use with a protection pocket **QAE22.5A**

Ordering

When ordering, please give type reference according to "Type summary".

Mechanical design

The detector has a plastic casing with a snap-on cover and an immersion stem. The connection terminals can be accessed after removal of the cover. Cable entry is made via a cable entry gland Pg11. The detectors QAE22, QAE22A and QAE22.5A, for use with a protection pocket, have a clamp for securing the head. The QAE22.2 is provided with a threaded nipple. The immersion length is always a minimum of 60 mm.

Technical data

Measuring range Sensing element	-30+130 °C Ni 1000 Ω at 0 °C	Permissible ambient humidity	595 % r.h.
Time constant With pocket Without pocket	approx. 20 s approx. 8 s	Degree of protection of casing Insulation class	IP42 to EN60529 III to EN60529
Climatic requirements	to IEC 721-3	Electrical connections	terminals (interchangeable)
Mechanical requirements	to IEC 721-3	Cable entry gland Weight	Pg11 (can be fitted)
Permissible ambient temperature		With pocket Without pocket	0.170 kg 0.160 kg
Storage Transportation Operation	-5+50 °C -25+70 °C -5+50 °C		

a_Technologies ### CE1N1791E / 02.11.1998 ### FAX:0755-83376182 E-MAIL: szss200163.com

Notes

Engineering, mounting and installation

In applications with nominal pressures exceeding PN10 or temperatures exceeding 100 °C, a protection pocket with a flat seal is required.

Depending on use, the detector must be located as follows:

- For flow temperature control:
 - In the heating flow
 - Directly after the pump, if the pump is mounted in the flow
 - 1.5 to 2 m after the mixing valve, if the pump is mounted in the return
- For limitation of the return temperature:

In the return pipe where the detector can correctly acquire the temperature to be limited. The water must be well mixed where the detector is located.

The detector should be installed in an elbow such that the pocket points against the direction of flow. With all detector versions, the immersion length must be a minimum of 60 mm.

The detector may not be covered by lagging.

Mounting instructions are printed on the packing.

Permissible cable lengths

The permissible lengths of the measuring line between detector and controller are as follows:

Type of cable		Outside dia.	Line length
Copper cable	0.6 mm dia.	5.5 mm	20 m
Copper cable	1 mm²	6.6 mm	80 m
Copper cable	1.5 mm ²	7.2 mm	120 m

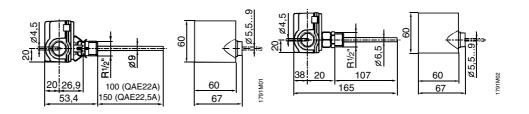
Permissible protection pockets

The following protection pockets with an inside diameter of 7 mm can be used:

Material	Permissible temperature	PN	Seal type	Part no. for immersion stem lengths of	
				100 mm	150 mm
Nickel-plated brass *	130 °C	10	Threaded ½ in.	4 660 1600 0	4 660 1601 0
St 35.29	130 °C	16	Flat ½ in.	4 660 1610 0	4 660 1611 0
St 18/8/2.5 CrNiMo	130 °C	16	Flat ½ in.	4 660 1620 0	4 660 1621 0

^{*} Standard protection pocket for detectors with type suffix...A

Dimensions



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Subject to alteration