



QAZ21... and QAZ36...

Cable Temperature Sensors

QAZ...

with different types of sensing elements

Cable temperature sensors for acquiring the medium temperature in boilers, d.h.w. storage tanks, heat exchangers and solar plants. For use with protection pockets. Special version for acquiring the flue gas temperature in boiler plant.

The QAZ... and this Data Sheet are intended for use by OEMs which integrate the temperature sensors in their products.

Use

- QAZ21... standard sensors: With LG-Ni 1000 sensing element for control or limitation of the temperature in boilers, d.h.w. storage tanks or heat exchangers. Suited for use with controllers capable of handling resistance values from such sensors
- Solar collector sensor QAZ21.681/101: With LG-Ni 1000 sensing element for the control of the medium temperature in solar plants. Suited for use with controllers capable of handling resistance values from this type of sensor
- QAZ36... sensors for Boiler Management Units (BMUs): With sensing element NTC 10 k Ω 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 this type of sensor
- QAZ37.772/109 flue gas temperature sensor: With sensing element NTC 1000 Ω for supervision of flue gas temperatures of up to 300 °C in boiler plant

Type summary

Type reference	Sensing element	Measurement range °C	Tolerance *	Approx. time constant**	Type of cable	Cable length x mm	Weight g	Packing size/pcs
QAZ21.5120	LG-Ni 1000 Ω at 0 °C	0...130	± 0.4 K	30 s	PE	2000	58	200
QAZ21.5220	LG-Ni 1000 Ω at 0 °C	0...95	± 0.4 K	30 s	PVC	2000	66	200
QAZ21.5240	LG-Ni 1000 Ω at 0 °C	0...95	± 0.4 K	30 s	PVC	4000	126	100
QAZ21.5260	LG-Ni 1000 Ω at 0 °C	0...95	± 0.4 K	30 s	PVC	6000	186	50
QAZ21.681/101	LG-Ni 1000 Ω at 0 °C	-30...180	± 0.4 K	30 s	Silicon	1500	51	20
QAZ21/0120	LG-Ni 1000 Ω at 0 °C	0...95	± 0.4 K	30 s	PVC	800	30	500
QAZ21/0220	LG-Ni 1000 Ω at 0 °C	0...95	± 0.4 K	30 s	PVC	1500	51	250
QAZ21/0720	LG-Ni 1000 Ω at 0 °C	0...95	± 0.4 K	30 s	PVC	900	33	500
QAZ21/0820	LG-Ni 1000 Ω at 0 °C	0...95	± 0.4 K	30 s	PVC	1700	57	200
QAZ36.522/109	NTC 10 kΩ at 25 °C	0...95	± 0.5 K	30 s	PVC	2000	66	200
QAZ36.526/109	NTC 10 kΩ at 25 °C	0...95	± 0.5 K	30 s	PVC	6000	186	50
QAZ37.772/109	NTC 1000 Ω at 200 °C	100...300	± 2 K	50 s	Teflon	1750	98	200

* Tolerance band QAZ21... at 0 °C / QAZ35.522/109 and QAZ36... at 25 °C / QAZ37.772/109 at 200 °C

** Time constant QAZ21..., QAZ36..., with protection pocket and QAZ37.772/109 in air at 1 m/s

Ordering

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

Mechanical design

The standard version of the cable temperature sensor consists of stainless steel sleeve (6 mm diameter, 40.5 mm long), sensing element and connecting cable with ferrules at the end. The sensing element is accommodated in the sleeve to which the connecting cable is attached. The sensor is not suited for direct immersion in liquid media (without using a protection pocket).

QAZ37.772/109 for supervision of flue gas temperatures of up to 300 °C has a Teflon cable with Teflon-coated wires. The sleeve used by that sensor has a diameter of 4 mm and is 100 mm long.

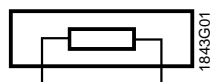
Other types of sensing elements, connecting cables and plugs are available on request.

Technical data

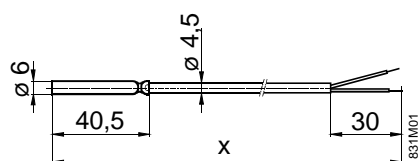
For general sensor data, also refer to "Type summary"	Ambient temperature (PVC cable)	max. 95 °C
	Ambient temperature (PE cable)	max. 125 °C
	Ambient temperature (Silicon cable)	max. 180 °C (short-time 220 °C)
	Ambient temperature (Teflon cable)	max. 250 °C
Norms and standards	Electrical strength	500 V
	Electrical connections	interchangeable
	Climatic and mechanical requirements	to IEC 721-3
	Safety class	III to EN 60 730

Connection diagrams

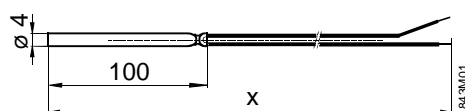
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Dimensions



QAZ21..and QAZ36...



QAZ37.772/109