



LPB-compatible Temperature Sensor / Adapter

QAB30.600

Temperature sensor / adapter for use in connection with the OCI600 communication centre.

- Temperature measurement with the ready connected immersion temperature sensor
- Connection facility for a second temperature sensor
- Measured value transmission via LPB (Local Process Bus)

Use

The QAB30.600 provides supervision of the immersion temperature sensor that is ready connected to the unit and of an optional second temperature sensor. The OCI600 communication centre periodically retrieves the measured temperature values from the QAB30.600 via LPB. On the OCI600, the maximum and minimum limit value can be defined for each temperature measured. If a limit value is crossed, the OCI600 can deliver alarms (to a PC / printer, fax, mobile phone, pager or Minitel).

Type summary

When ordering, please give the relevant type references:

<i>Type of unit</i>	<i>Type reference</i>
Temperature sensor / adapter	QAB30.600
Protection pocket for attached immersion temperature sensor suited for nominal pipe sizes DN20...40	ALT35
Protection pocket for nominal pipe sizes DN50...80	ALT65
Address plug set for bus addressing covering the address range from 97 to 128	PTG1.128

The scope of delivery of the QAB30.600 comprises the unit itself with the ready connected immersion temperature sensor.

The protection pocket and the address plug set with the plugs for addressing the QAB30.600 via bus must be ordered as separate items.

Equipment combinations

Sensors

The attached immersion temperature sensor and the unit form one calibrated entity. The immersion temperature sensor may not be replaced.

It is possible to connect an additional Ni1000 temperature sensor, such as the

- QAC22 outside sensor (refer to data sheet CE1N1811E)

OCI600

A total of two QAB30.600 temperature sensors / adapters can be connected to an OCI600 communication centre. This means that the OCI600 can monitor a maximum of 4 temperatures (refer to data sheet CE1N2529E).

LPB

Maximum four OCI600 communication centres can be connected to the LPB. This means that a maximum of 16 temperatures can be monitored (via eight QAB30.600).

→ Note

If an OZW30 central unit is connected to the LPB as well, only one OCI600 (and thus only two QAB30.600) can be used.

For more detailed information about the OCI600 / LPB, refer to the Basic Documentation CE1P2529en.

Mechanical design

The QAB30.600 temperature sensor / adapter consists of the unit itself and the ready connected immersion temperature sensor.

Unit

The unit consists of base, terminal block and cover.

To facilitate wall mounting, the base has three holes.

DIN rail mounting is made possible by a snap-on facility at the rear.

For wiring the unit, there are

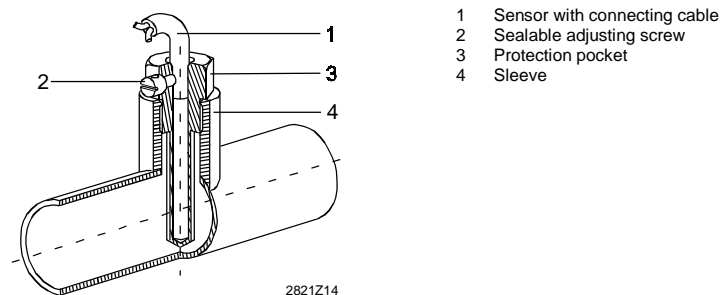
- three knockout holes for cable glands Pg11 or plastic grommets at the bottom
- five knockout holes at the rear when using a recessed conduit box

The ready connected immersion temperature sensor has a cable of 1.5 m. Connection terminals are provided for the other connections (power supply, bus and Ni1000 sensor).

Sensor

The immersion temperature sensor measures the temperature of the medium with a sensing element made of nickel located at the end of an immersion rod. The rod immerses in the protection pocket and is secured with a sealable screw.

To mount the immersion temperature sensor, an ALT... protection pocket and a $\frac{3}{8}$ " sleeve are required. The sleeve is to be welded into the pipe, and the protection pocket is then screwed into the sleeve.



Engineering notes

Operating voltage The operating voltage of AC 24 V is supplied by an isolating transformer which also powers the OCI600 communication centre(s) and the AEW2.1 pulse adapters. When sizing the transformer, the power consumption of all units connected to the AC 24 V power supply must be taken into consideration.

Bus power supply The temperature sensor / adapter has **nothing** to do with the bus power supply. The central bus power supply is ensured either from an OCI600 communication centre **or** an OZW30 central unit. The internal bus power supplies of all controllers and, if present, any central bus power supply (e.g. PNE) must be **switched off** beforehand to ensure there will be no overvoltages on the bus!

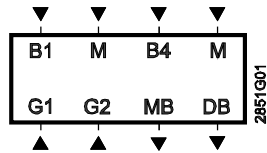
Commissioning notes

When selecting the mounting location, the ambient conditions must be observed. The sleeve for mounting the ALT... protection pocket is to be fitted on site. The required length is dependent on the pipe size (see table under "Dimensions"). Above the QAB30.600, there must be a clearance of at least 50 mm to make certain the address plug can be fitted. The number printed on the address plug is the bus address of the immersion temperature sensor. The bus address of the optional Ni1000 sensor is one number higher and is used when plugging the address plug with an odd number into the QAB30.600. If both the OCI600 and OZW30 are operated on the same bus, it is strongly recommended to only use addresses 125 and 127. The QAB30.600 is supplied complete with mounting instructions.

Technical data

General unit data	Operating voltage (safety extra low voltage to EN 60 730)	AC 24 V
	Frequency	50 Hz
	Power consumption	0.75 VA
	Perm. ambient temperature	
	Transport and storage	-25...+65 °C
Operation	0...50 °C	
	Weight	0.3 kg
Norms and standards	CE conformity to	
	EMC directive	89/336/EEC
	Low voltage directive	73/23/EEC
	Electromagnetic compatibility	
	Immunity	EN 50 082-2
	Emissions	EN 50 081-1
Degrees of protection	Degree of protection (when mounted vertically on a flat wall)	IP 54 to EN 60 529
	Safety class	III to EN 60 730
Connected immersion sensor	Measurement range	5...90 °C
	Measurement accuracy	±0.1 °K
	Length of sensor cable	1.5 m
Ni1000 sensor	Measurement range	-40...+60 °C
	Measurement accuracy	±1 °K

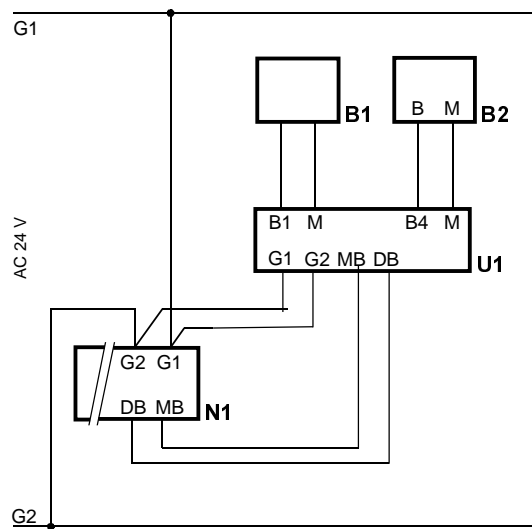
Connection terminals



Connection terminals used:

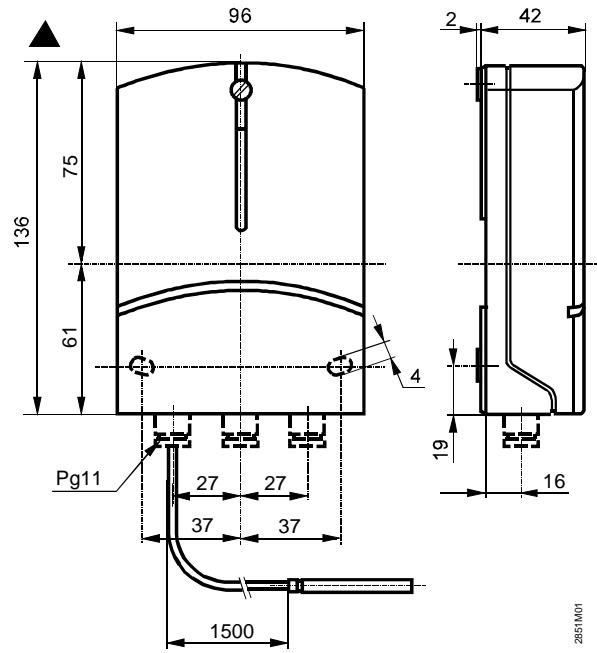
B1	Ready connected immersion temperature sensor
B4	Optional Ni1000 sensor
M	Ground
G1, G2	Operating voltage AC 24 V
MB	Ground bus
DB	Data bus

Connection diagram

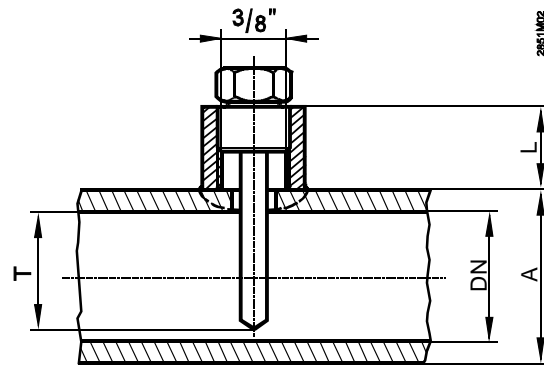


B1	Ready connected immersion temperature sensor
B2	Optional Ni1000 sensor
N1	OCI600 communication centre
U1	QAB30.600 temperature sensor / adapter

Dimensions



Minimum clearance
 ▲ = 50 mm



Pipe		Protection pocket ALT		Sleeve
Nominal size DN	Outside dia. A	Type ref.	Immersion length T	Length L
DN20 (3/4")	26.9 mm	ALT35	22 mm	20 mm
DN25 (1")	33.7 mm	ALT35	26 mm	16 mm
DN32 (1 1/4")	42.4 mm	ALT35	30 mm	12 mm
DN40	48.3 mm	ALT35	30 mm	12 mm
DN50	60.3 mm	ALT65	53 mm	20 mm
DN65	76.1 mm	ALT65	53 mm	20 mm
DN80	88.9 mm	ALT65	53 mm	20 mm

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