

Temperature sensors with digital output are filled with thermal sensor DS18S20 or DS18B20 that communicates with superior evaluation system via three-wire connection (Ucc, GND, Data). To find more details, please use the company documentation DALLAS SEMICONDUCTOR. The sensor head is made of a plastics material, all metallic parts are made of class DIN 1.4301 stainless steel. The operation conditions are met by conventional, chemically non-aggressive environment, where neither attendance nor maintenance is required by the sensors.

Basic technical parameters

Type	P1xD	P1xDB
Sensor type	DS18S20	DS18B20
Measurement range	- 30 to 120 °C	- 30 to 120 °C
Power supply	5 VDC	5 VDC
Accuracy (range 0 to 70°C)	± 0,5 °C	± 0,5 °C
Sensitivity basic	0,5 °C	0,5 °C
Sensitivity minimal	0,1°C (9 bit)	0,1°C (9-12 bit)
Output	Open collector, range 40 m	
Ambient temperature	-30 to 80°C	
Head	material polycarbonat, blue colour (grey on request)	
Relative humidity	< 80%	
Protection type	IP 65	

Standard lengths L1 and L2

L1 (mm)	L2 (mm)
120	100
180	160
240	220
300	280
360	340
420	400

Technical description, construction

P10D, P10DB

- sensor for temperature measuring indoor air

P11D, P10DB

- sensor is designed for temperature measuring outdoor air. It is fitted with a plastics console for fastening on a wall. The actual sensing element is built-in in a stainless steel stem of 25 mm length. The terminal board for the connecting is placed in a plastics head

P12D-L1, P12DB-L1

- sensor execution with a console for mounting into duct. With the exception of the console, the execution is identical with P11D; L1 specifies the stem length given in millimeters, such as P12D-120 is a conventional sensor with stem length of 120 mm

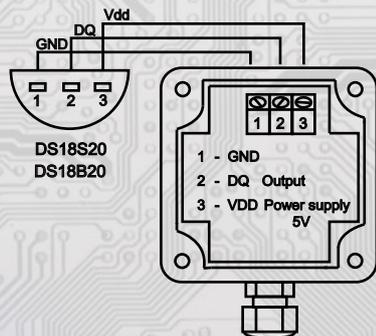
P13D-L2, P13DB-L2

- sensor is designed for measuring applications in pipelines. As an accessory, a part of the sensor is a stainless steel thermowell, provided with a thread G 1/2" of length L2 mm, which was tested for the pressure of 4,0 MPa.

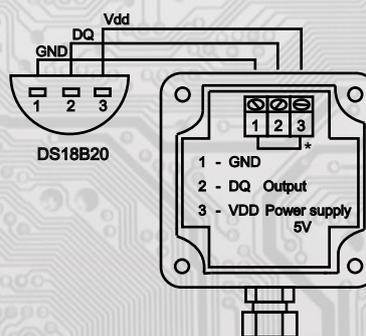
P14D, P14DB, P15D, P15DB

- Strap-Mount sensors; P14D- execution provided with a head; P15D- execution provided with a cable outlet, simple temperature measurements on pipes.

Wiring P1xD



Wiring P1xDB



* The sensors P1xDB (with DS18B20) can be connect by two wire way

Method of ordering

State the quantity of pieces and the sensor type in your order.
An order example: **5 pieces sensor P11D**

Mounting the sensors

Sensors for external application, into the air conditioning ducts and into the pipelines

Screw out the small screws and remove the head cover, then connect the lead-in cable of the recommended cross section from 0,35 to 2 mm² and of outer diameter 4 to 8 mm to the terminal board through the cable gland. Once the cover is replaced onto the head and the small screws screwed in, the mounting is terminated and the sensor is ready for operation.

Wall mount sensors

Hinge the perforated cover open and pass the incoming cable through the hole at the base, connecting the lead-in cable to the terminal board thereafter. Fasten the base onto the wall using two wood screws, which should be inserted into holes in opposite corners of the base. Snap the cover with a click into the base, whereupon the sensors ready for operation.

Strap-Mount sensors

Fasten the sensor onto the pipeline, using a tape, and having removed the cover, connect the lead-in cable of recommended cross section from 0,35 to 2 mm² and of outer diameter 4 to 8 mm to the terminal board through the cable gland. Replace the cover onto the head and screw in the small screws, whereupon the mounting is terminated and the sensor is ready for operation.

Dimensions and accessories

