

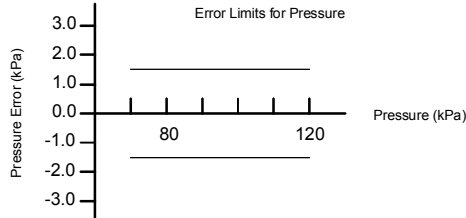
SA-PA04-000

Air pressure sensor

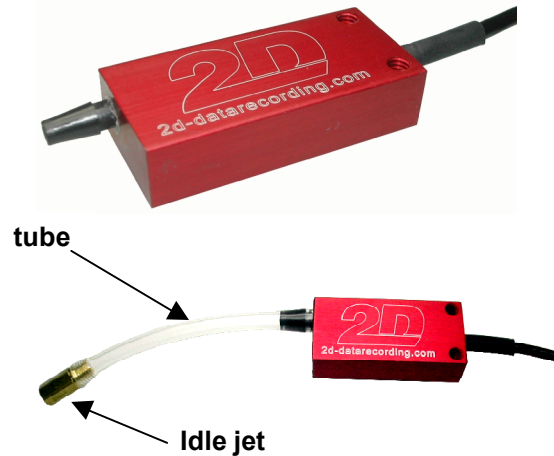
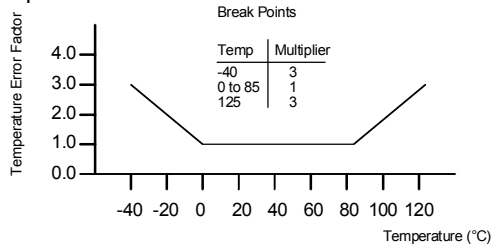
Function

- To measure air pressure e.g. in the air box

pressure error band



temperature error band



- Mount the sensor outside the airbox and lay a tube, connected with the sensor opening, inside the airbox. To achieve the best measuring results, the opening of the tube should be relatively small, which can be achieved either by connecting an idle jet to the tube.

Technical specifications

Electrical characteristics

Supply voltage.....	12 V
Output range (0 - 5V).....	750 - 1140 mbar
Sensitivity.....	73.75 ± 0.75 mbar/V
Response time.....	1 ms

Environmental data

Ambient operating range.....	-40 to 110 °C
Max. total zero shift (20 to 80°C)	1 %
Max. total span shift (20 to 80°C)	1 %

Calibration

- 💡 Use the formulas on 2nd page to calculate the physical values.

Mechanical characteristics

Dimensions.....	42 x 20 x 10 mm ³
Weight.....	40 g

Connector

Type.....	Binder 719 5PM
Options.....	on request

Cable

type.....	Raychem, EPD
wire cross section..	3 x AWG 26
length.....	1000 mm

Vibration resistance

Shock.....	40 G
during a time period of..	10 ms
Vibration tested at.....	12 G
measured with.....	1000 Hz

Ordering information

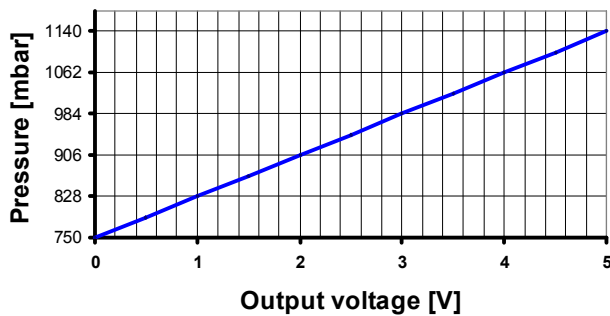
Art.No.:.....	SA-PA04-000
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SA-PA04-000

Air pressure sensor

Formula

	SA-PA04-000	Multiplicator		Offset
12 Bit A/D	Pressure [mbar]	= 390 / 4095	* Digits	+ 750
16 Bit A/D	Pressure [mbar]	= 390 / 65535	* Digits	+ 750
Voltage*)	Pressure [mbar]	= 78	* Volt	+ 750



*) You can use the "voltage formula" only, if the voltage supply of the sensor is +5V
 ▽ In case of other sensor supplying, you must use the following general formula to calculate the physical value:
 $pressure[mbar] = 390/voltage\ supply * Volt + 750$

Connector layout

Analog-line

Pin	Name	Description	Color (standard)
1	AGND	Analog Ground	black
2	n.c.	Not connected	-
3	+12V	Power supply	red
4	n.c.	Not connected	-
5	Signal	Analog signal	white



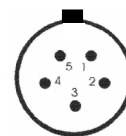
Possible options on customer request !

Please note:

For the first order of special customer options please use the following order code: **SA-PA04-000**
 After the first order you will get from 2D a uniquely order code for your next orders.

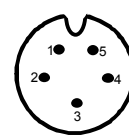
Connector type

Mating plug



Binder 719, 5 PF
(front side)

Connector at sensor



Binder 719, 5 PM
(front side)