

***Temperature and Pressure sensors G1/4”
mounting with BeanDevice® AN-420***

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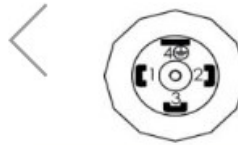


BeanAir *Temperature Sensor specifications and Design*



Elektrischer Anschluss

DIN EN 175301-803-A



Typ 4 ... 20 mA		Typ 0 ... 10 V	
Pin	Belegung	Pin	Belegung
1	+Ub	1	+Ub
2	GND	2	GND
3	Iout	3	Uout
4	-	4	-

The temperature sensor is configured 4-20 mA 3-wires:

PIN1 – Sensor power

PIN2 - Ground

Pin3 – sensor signal output

In this example we are using a temperature sensor with a range of -20 °C to 120 °C

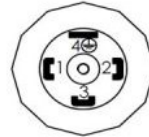


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Pressure Sensor specifications and Design



DIN EN 175301-803-A



Typ 4 ... 20 mA		Typ 0 ... 10 V	
Pin	Belegung	Pin	Belegung
1	+Ub	1	+Ub
2	GND	2	GND
3	-	3	Uout
4	-	4	-

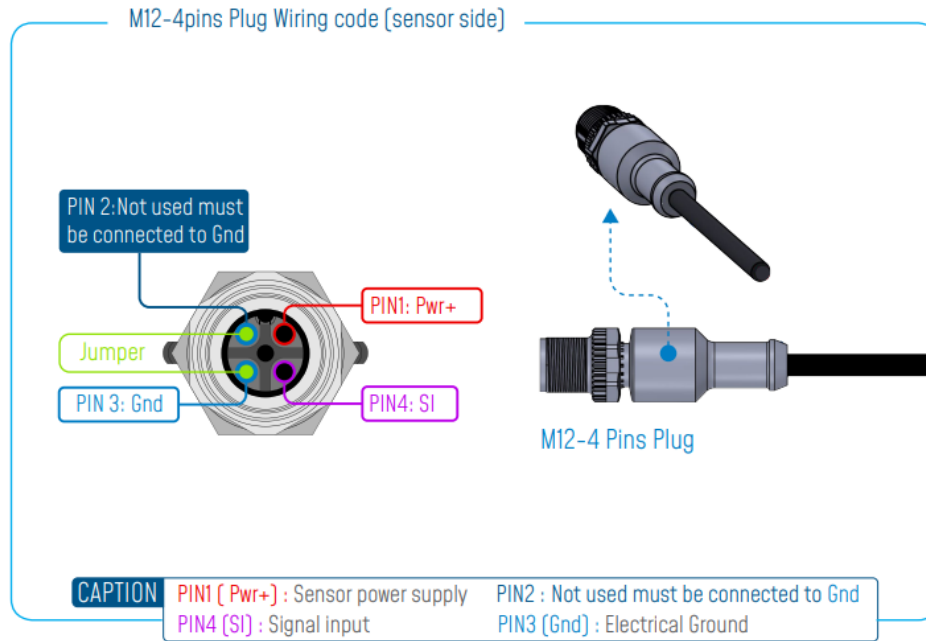
The temperature sensor is configured 4-20 mA - 2-wires:

PIN1 – +Ub is the Sensor power

Pin2 – GND corresponds to the Sensor Loop Return

In this example we are using a temperature sensor with a range of 0 to 25 bar

Sensor Wiring code



4-20 mA /3-wires /Wiring Code

- PIN1 (Pwr+):** Sensor power supply
- PIN4 (Sens+):** Sensor input for sensor
- PIN2 :** Must be connected to the ground
- PIN3 (Gnd):** Electrical Ground

4-20 mA /2-wires /Wiring Code

- PIN1 (Pwr+):** Sensor power supply
- PIN4 (Sens+):** Sensor input for sensor
- PIN2 :** Must be connected to the ground
- PIN3 (Gnd):** Electrical Ground (not connected to sensor)



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Sensor configuration from BeanScape® software

The screenshot displays the BeanScape software interface for configuring a sensor. The main window is titled "BeanDevice system profile" and is divided into several sections:

- Identity:** Mac Id: 00158D00000E1402, Site ID: MAC_ID : 0 x 00158D00000E14, Pan Id: 0285, Net Id: 0009, Platform: AN 4-20 mA.
- Version:** Hard. vers.: V1R8, Soft. vers.: V7R10.
- Network Diagnostic:** Network quality: LQI (graph), PER: 0.00 %.
- Power Supply Diagnostic:** Diag. Date: 5/8/2023 10:47:58 PM, Internal Temp.: 26.000 °C, Power supply: Bat, Power mode: Bat Saver Disabled, Battery Voltage: 3.933 V, Battery level: Good.
- System:** Diagnostic cycle: 00:00:50, Listening cycle: 00:00:01.
- Sensor Info:** Sensor Voltage: 14.000 V, Wake up duration: 40 ms.
- Datalogger:** Status: Ready, Memory option: "Stop at end" recording, Memory used: 0 %.
- BeanDevice Remote Config. Status:** Pending, Sent, Deleted.
- Current data acq. mode:** DAQ Status: Stopped, Data Acq. mode: NA, Data Acq. cycle: NA, Sampling rate: NA Hz, Data Acq. duration: NA.
- External sensor configuration:** Excitation voltage (Volts): 14, Warm up time (ms): [empty].

Sensor Voltage is displayed here

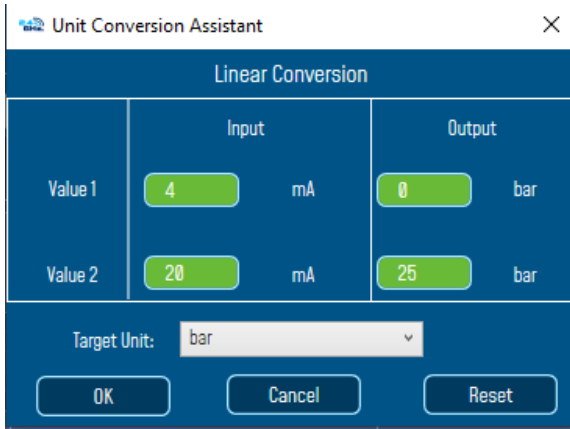
The sensor can be powered between 12-34VDC for Temperature and 12-30VDC for pressure sensor . You can for example configure a Voltage of 14VDC.

Sensor configuration from BeanScape® software

For Pressure sensor

4mA => 0 Bar

20mA => 25 Bar



Unit Conversion Assistant

Linear Conversion

	Input		Output	
Value 1	4	mA	0	bar
Value 2	20	mA	25	bar

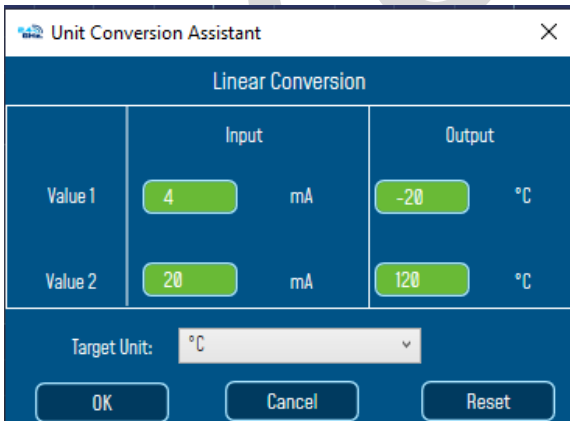
Target Unit: bar

OK Cancel Reset

For Temperature sensor

4mA => -20 degC

20mA => 120 degC



Unit Conversion Assistant

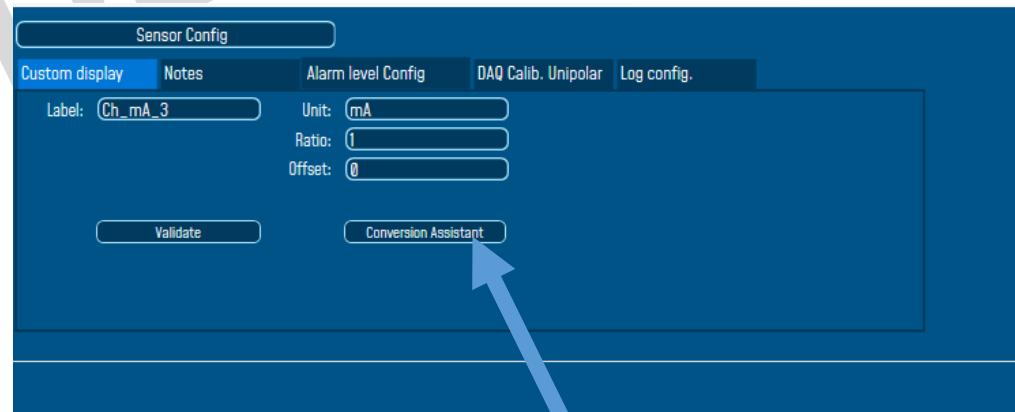
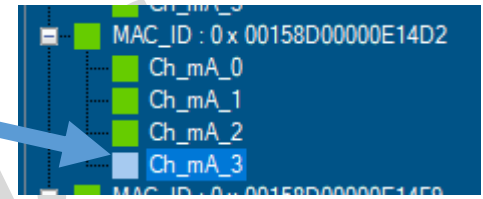
Linear Conversion

	Input		Output	
Value 1	4	mA	-20	°C
Value 2	20	mA	120	°C

Target Unit: °C

OK Cancel Reset

Click on sensor channel



Sensor Config

Custom display Notes Alarm level Config DAQ Calib. Unipolar Log config.

Label: Ch_mA_3 Unit: mA
Ratio: 1
Offset: 0

Validate Conversion Assistant

Click on conversion assistant

Check your settings

