IF-BC

InFrared BiChromatic temperature sensor emissivity insensitive for harsh environments

IF-BC SN: I########
Paired Fiber SN: I########

Texense sensors are designed for data logging. Should the users want to include this sensor in a closed loop system, they must undertake total responsibility from doing so.

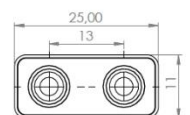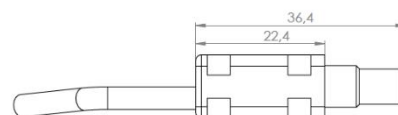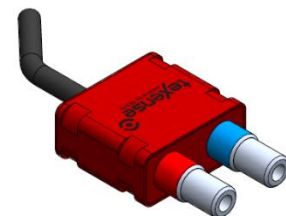| Measurements features		
Sampling Frequency	20	Hz
Accuracy[1]	See accuracy table	%FS
Sensitivity	5.714	mV/°C
Analogic Output (100-800°C)	0.5 to 4.5	V
Response time	50	ms
Temperature range[2]	110 to 800	°C
Emissivity range	0.1 to 0.99	
Field of view	25	°
Measurement distance[3]	5 to 50	mm
Short using radius fiber	50	mm
Wavelength	0.9 to 2.6	µm
Calibrators	Land P550P / Dias 1500 CS	
Electrical features		
Supply Voltage	6 to 30	V
Supply current	16	mA
Output impedance	47	Ω
Mechanical features		
SMA nominal torque	1	Nm
Housing dimension (without connector)	22.4 x 25 x 11	mm
Material	Aluminum	
Weight (without cable nor fiber)	13	g
Environmental features		
Box protection	IP63	
Vibrations	20Gpp5'	
Shocks	500	G
Operating Temperature	-40 to +80	°C
Storage Temperature	-55 to +125	°C

(1) To ensure a correct temperature measurement, the installation of the sensor must prevent ambient light (from the sun or lamps) to penetrate in the field of view of the sensing head.

(2) Correct only for an emissivity of 0.98. Lower emissivity may reduce the temperature range.

(3) Measurement distance should be specified at order in order to be used for calibration and ensure correct temperature measurement. Also, shorter distances reduce the risk of ambient light.
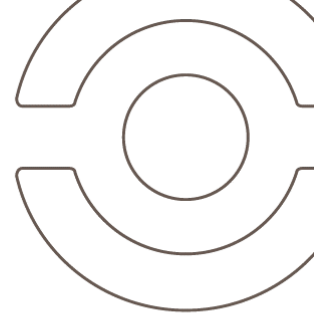
Date		Operator	
Customer			
Order			
Product Ref	IF-BC-800		
SW version			

Sensor Readings	
Target Temperature	Output Voltage Signal
…°C	…V
…°C	…V

Cable		
4x26 AWG FEP tinned copper braided cable 250V 200°C Length: 1000mm±100mm Tubing: 50mm Connector: on request		
Color	Function	pin
Red	Supply input	-
Black	0V	-
White	Signal	-
Green	Do not connect and isolate	-
Braid		

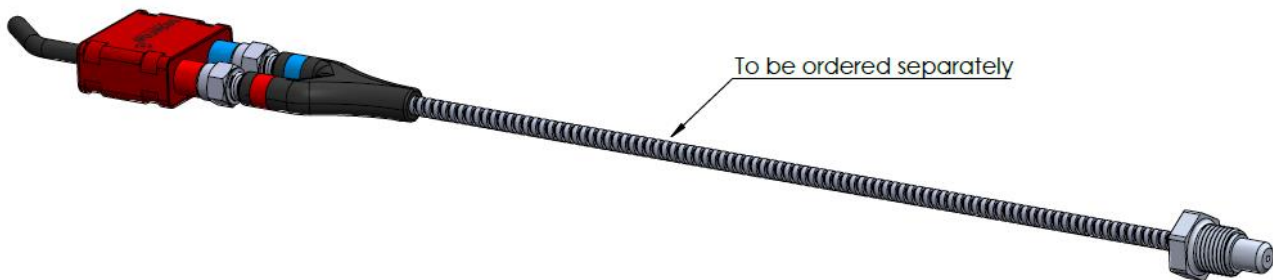| Bichromatic Mode	
Emissivity	Minimum temperature (°C)
1	110
0.75	120
0.5	130
0.25	140

A brand of texys GROUP

Accuracy table

Accuracy table (%FS)					
Emissivity	Target Temperature	Sensor Ambient temperature			
		25 °C	40 °C	60°C	80 °C
1	160	0.5(4)	0.5(4)	0.5(4)	1.5(4)
0.75		0.5(4)	0.5(4)	0.5(4)	1.5(4)
0.5		0.5(4)	0.5(4)	0.5(4)	2(4)
0.25		0.5(4)	0.5(4)	1(4)	3.5(4)
1	300	0.5	1.5	2	2
0.75		0.5	1.5	2	2
0.5		0.5	1.5	2	2
0.25		0.5	1.5	3	3
1	550	0.5	3.5	3.5	3.5
0.75		0.5	3.5	3.5	3.5
0.5		0.5	3.5	3.5	3.5
0.25		0.5	3.5	4	4
1	800	0.5	4	4	4
0.75		0.5	4	4	4
0.5		0.5	4	4	4
0.25		0.5	4	4	4

(4)   Data valid once a temperature measurement above 260°C has been performed on the same object

Fibre connection

To be ordered separately

Ordering information

Ordering ref:

IF-BC-*Range*

800: 110…800°C range

ex: IF-BC-800

A brand of