

<b>IRN4C-F2</b>	
<b>4-CHANNEL INFRARED TEMPERATURE SENSOR FOR CAN BUS - In line housing</b>	
Ref :	
SN:	Software version :

Texys sensors are designed for data recording. If the user wants to include this sensor in a close loop system or active control, he must assume all responsibility.

Range	-20 to +200 -20 to +140	°C
Measurement	4 channels in line	
Accuracy at FS	+/- 1% FS	
Response time	260 at FS	ms
CAN bus2.0A	120Ω : <input type="checkbox"/> yes <input type="checkbox"/> no	
Output Data	Calibrated temperature : 2 bytes per channel (signed int)	
Resolution	0.1	°/bit
Parameters	Identifiers, Baud rate, Frequency, Degrees, Gain factor, Response time	
Baud rate	125k to 1Mbps	
Frequency	1Hz, 10Hz, request mode	
Supply Voltage	6 to 16	V
Supply Current	17	mA
Sensitive Element	Thermopile with Silicon Lens	
Wave Length	8 to 14	μm
Calibrator	ECN 100 N12	
Field of view (90% radiation)	6.5 :1 (30mm at 200mm)	
Mean Angle between channels	9° channel 1 to 3 & 6 to 8 13.5° channel 3 to 6	
Total width	See Table (total angle 41.5°)	
Emissivity / Distance Tuning	Gain Factor by CAN 0.5 to 2	
Lens protection	Replaceable window (PEHD)	
Dimensions	31x11x17	mm
Material	Aluminum	
Weight (without cable)	15	g
Protection	IP64	
Vibration test	20Gpp 5'	
Shock	500	G
Operating Temp	-20 to +100	°C
Storage Temp	-40 to +125	°C

Distance	Øtarget per channel	Total width
50 mm	15 mm	40 mm
100 mm	19 mm	75 mm
150 mm	24 mm	112 mm
200 mm	30 mm	152 mm
300 mm	45 mm	228 mm
400 mm	60 mm	304 mm

Sensor Readings		
channel	..... °C	..... °C
1		
3		
6		
8		
Calibration Distance		mm

Identifiers (hexa)	
Rx	
Tx1	
Parameters	

Dynamic compensation : .....

Cable :

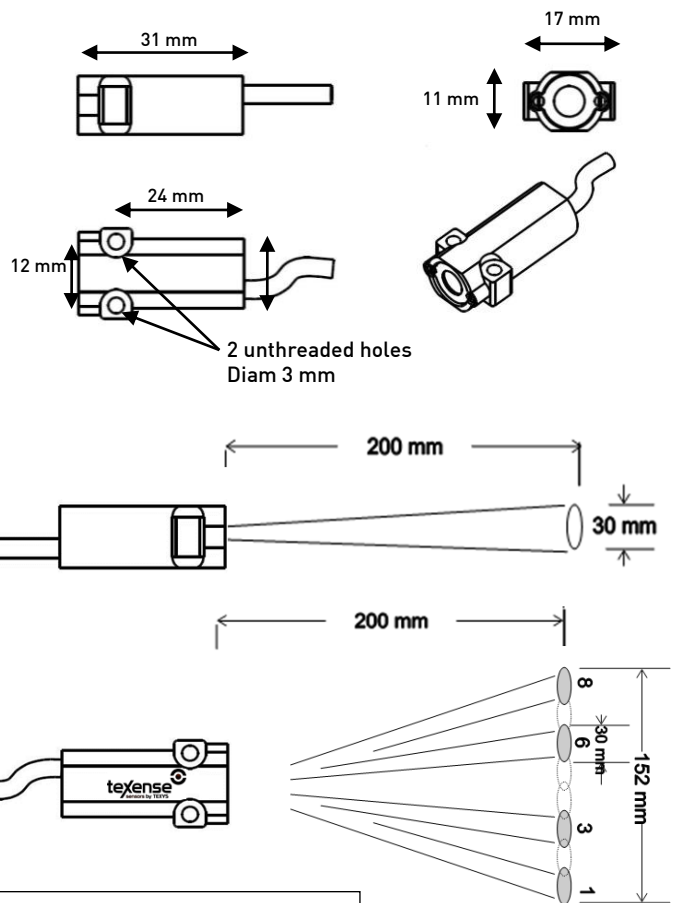
4x26AWG FEP tinned copper braided cable 250V 200°C

EPD116760A

Length: ..... mm Tubing: .....

Connector: .....

Colour	Function	Pin
Red	Supply	
Black	0V	
Green or Blue	CAN High	
White	CAN Low	
Braid		



Ordering ref ex : IRN4C-F2-200  
 IRN4C- F2 - Range  
 .....  
 200 (200°C)  
 140 (140°C)

## Data output

Frame #1 (default Tx1 Frame ID: 0x03F0)

ID	Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
0x03F0	Channel1 MSB	Channel1 LSB	Channel3 MSB	Channel3 LSB	Channel6 MSB	Channel6 LSB	Channel8 MSB	Channel8 LSB
	Resolution: 0.1°/bit		Resolution: 0.1°/bit		Resolution: 0.1°/bit		Resolution: 0.1°/bit	

## Changing parameters

The device parameters can be modified using the CAN protocol Texsys.

CAN parameters:

N°	Parameter	Raw values	values	Comments
0x00	Baudrate	0x00	1000 Kbps	default
		0x01	500 Kbps	
		0x02	250 Kbps	
		0x03	125 Kbps	
0x01	Emission frequency	0x02	10 Hz	default
		0x03	1 Hz	
		0x04	Rx frame trig	On request - 10Hz max.
0x02	Rx frame ID	0 to 0x07	0x0000 to 0x07F0	MSB of triggering frame ID
0x03		0 to 0xFF		LSB of triggering frame ID
0x04	Tx1 frame ID	0 to 0x07	0x0000 to 0x07F0	MSB of data frame 1 ID
0x05		0 to 0xFF		LSB of data frame 1 ID

Sensor parameters:

0x08	Degree	0	Fahrenheit	1/10 Fahrenheit degree
		1	Celsius	1/10 Celsius degree (default)
0x09	Gain factor	500 to 2000	1/1000 (0.5 to 2)	MSB
0x0A				LSB
0x0B	Response time	100 to 10000 0: disable	ms (0.1 to 10s)	MSB
0x0C				LSB
0x0D	Dynamic compensation	0	Off	Compensation for quick changes in ambient (sensor) Temperature
		1	ON	

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