

# MB-Flex-M

MASTER FOR MULTI-BEAM FLEXIBLE SYSTEM

Ref: MB-Flex-M

SN: I#####

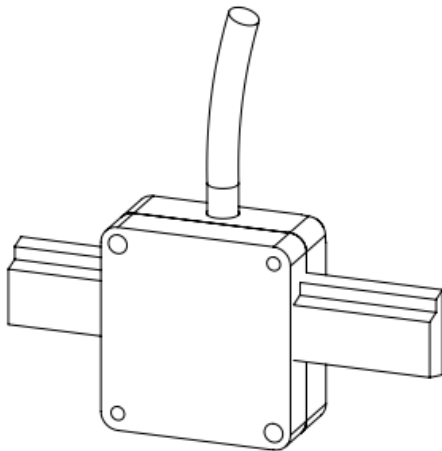
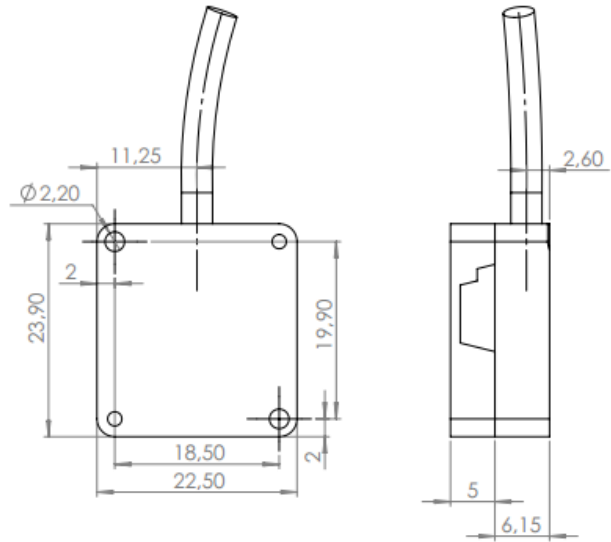
Software version: v#. ##

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

Software setup		
CAN type	2.0A	2.0B
Baudrate	1 M	-
Frequency	10	bps
Tx1 ID	0x3F0	Hz
Tx2 ID	0x3F4	Hex
Tx3 ID	0x3F8	Hex
Tx4 ID	0x3FC	Hex
Tx2 enable	<input checked="" type="checkbox"/> enable	<input type="checkbox"/> disable
Tx3 enable	<input checked="" type="checkbox"/> enable	<input type="checkbox"/> disable
Tx4 enable	<input checked="" type="checkbox"/> enable	<input type="checkbox"/> disable
CAN 120 Ω termination resistor	<input type="checkbox"/> on	<input checked="" type="checkbox"/> off

Colour	Function
Red	Supply
Black	0V
White	CAN Low
Green	CAN High
Yellow	Do not connect and isolate
Braid	

Common features		
Supply voltage	6 to 16	V
Supply current	14 + 2 per connected slave	mA
Dimension	11.15 x 22.5 x 23.9 mm	
Material	Aluminum	
Weight	40g	
Protection	IP64	
Vibration test	20Gpp5'	
Shock	500	G
Operating Temp	-20 to +85	°C
Storage Temp	-40 to +125	°C
CAN bus features		
CAN type	2.0A or B	
Output Data	Target temperature and ambient temperature	
Resolution	0.1	°/bit
Parameters	CAN type / Baud rate / Frequency / Identifiers/termination resistor	
Baud rate	125k to 1Mbps	
Frequency	1Hz to 10Hz or request mode	



## CAN data output

TX Frame #01 (1 to 10Hz output rate)

ID	Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
0x03F0 (default)	MSB	LSB	MSB	LSB	MSB	LSB	MSB	LSB
	Signed integer 16bits		Signed integer 16bits		Signed integer 16bits		Signed integer 16bits	
	Channel 1 target temperature		Channel 2 target temperature		Channel 3 target temperature		Channel 4 target temperature	
	0.1°C/bit		0.1°C/bit		0.1°C/bit		0.1°C/bit	

TX Frame #02 (1 to 10Hz output rate)

ID	Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
0x03F4 (default)	MSB	LSB	MSB	LSB	MSB	LSB	MSB	LSB
	Signed integer 16bits		Signed integer 16bits		Signed integer 16bits		Signed integer 16bits	
	Channel 5 target temperature		Channel 6 target temperature		Channel 7 target temperature		Channel 8 target temperature	
	0.1°C/bit		0.1°C/bit		0.1°C/bit		0.1°C/bit	

TX Frame #03 (1 to 10Hz output rate)

ID	Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
0x03F8 (default)	MSB	LSB	MSB	LSB	MSB	LSB	MSB	LSB
	Signed integer 16bits		Signed integer 16bits		Signed integer 16bits		Signed integer 16bits	
	Channel 1 ambient temperature		Channel 2 ambient temperature		Channel 3 ambient temperature		Channel 4 ambient temperature	
	0.1°C/bit		0.1°C/bit		0.1°C/bit		0.1°C/bit	

TX Frame #04 (1 to 10Hz output rate)

ID	Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
0x03FC (default)	MSB	LSB	MSB	LSB	MSB	LSB	MSB	LSB
	Signed integer 16bits		Signed integer 16bits		Signed integer 16bits		Signed integer 16bits	
	Channel 5 ambient temperature		Channel 6 ambient temperature		Channel 7 ambient temperature		Channel 8 ambient temperature	
	0.1°C/bit		0.1°C/bit		0.1°C/bit		0.1°C/bit	

## CAN Data input

Trig frame on CAN request mode

Rx Frame (default Rx Frame ID: 0x07F0)								Max frequency: 10Hz	
ID	Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7	
0x07F0	-	-	-	-	-	-	-	-	

## Changing parameters

Must be setup according to Texense's CAN protocol, or by using the Texense Android Smart Tool (tAST®) with your android device. Contact us at [info@texense.com](mailto:info@texense.com)

### CAN parameters:

#### Master parameters:

Address	Parameter	Raw values	values	Comments	
0x00	CAN type A or B (11 or 29bits ID)	0x00	CAN2.0A (standard)	default	
		0x10	CAN2.0B (extended)		
0x01	CAN baudrate	0x00	1Mbps	default	
		0x01	500 Kbps		
		0x02	250 Kbps		
		0x03	125 Kbps		
0x02	CAN Emission frequency	0x00	Rx frame trigger mode	default	
		0x01	1 Hz		
		0x02	5 Hz		
		0x03	10 Hz		
0x03	Rx frame ID	if CAN2.0A: 0 to 0x7F0		MSB	Default 0x07F0
0x04		if CAN2.0B: 0 to 0xFFFF (except 0x7F1 and 0x7F3)		LSB	
0x05	Tx01 frame ID	if CAN2.0A: 0 to 0x7F0		MSB	Default 0x03F0
0x06		if CAN2.0B: 0 to 0xFFFF (except 0x7F1 and 0x7F3)		LSB	
0x07	Tx02 frame ID	if CAN2.0A: 0 to 0x7F0		MSB	Default 0x03F4
0x08		if CAN2.0B: 0 to 0xFFFF (except 0x7F1 and 0x7F3)		LSB	
0x09	Tx03 frame ID	if CAN2.0A: 0 to 0x7F0		MSB	Default 0x03F8
0x0A		if CAN2.0B: 0 to 0xFFFF (except 0x7F1 and 0x7F3)		LSB	
0x0B	Tx04 frame ID	if CAN2.0A: 0 to 0x7F0		MSB	Default 0x03FC
0x0C		if CAN2.0B: 0 to 0xFFFF (except 0x7F1 and 0x7F3)		LSB	
0x0D	CAN termination 120Ω resistor	0	Not connected	default	
		1	Connected		
0x0E	Frame selection	Bit 0: 1 Tx02 frame enabled, 0 Tx02 frame disabled Bit 1: 1 Tx03 frame enabled, 0 Tx03 frame disabled Bit 2: 1 Tx04 frame enabled, 0 Tx04 frame disabled		Default 0x07 (all frames activated)	

#### Slave parameters:

To modify the slave parameters, the master must be connected to only the desired slave. In this case, the master acts like a bridge, the parameter value is stored in the slave memory.

Address	Parameter	Raw values	values	Comments
0x80	Slave ID ( <i>remote parameter</i> )	0x01 to 0x08		Only one slave must be connected to the bus.

For further information, contact us at [info@texense.com](mailto:info@texense.com)



# MB-Flex-S

INFRARED TEMPERATURE SENSOR FOR MULTI-BEAM FLEXIBLE SYSTEM

Ref: MB-Flex-S-##

SN: I#####

Software version: v#.##

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.

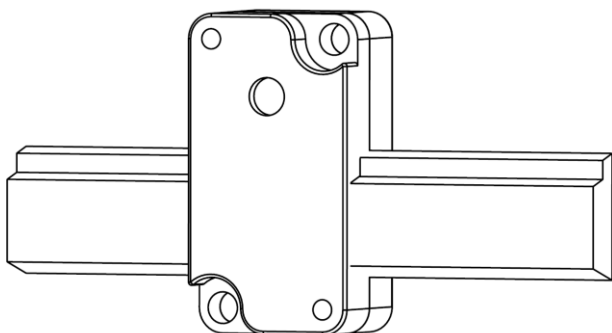
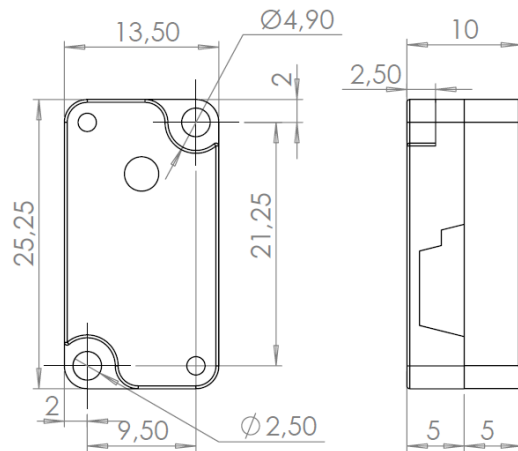
Temperature measurement		
Range	-20 to +200	°C
Accuracy at FS	± 1% FS	
Response time of cells	20	ms
Sampling frequency	50	Hz
Output frequency	10	Hz
Sensitive Element	Thermopile	
Wave Length	8 to 14	µm
Calibrator	Fluke 4181	
FOV (Field Of View) for receiving 90% radiation	30° or 90°	
Common		
Material	Aluminum	
Protection	IP64	
Operating Temp	-20 to +85	°C
Storage Temp	-40 to +125	°C

Sensor Readings		
Reference	At 25°C	At 200°C
Reading		
Calibration distance***		mm

\*\*\* User defined, between 25,4mm (1") and 127 mm (5") for 30° FOV

\*\*\* User defined, between 25,4mm (1") and 50,8 mm (2") for 90° FOV

Software setup	
Slave ID	



### Ordering ref

MB-Flex-S-FOV

30: 30°

90: 90°

ex : MB-Flex-S-30