



iTrapSensor®

MONITORING SENSOR

MODEL iT5-FF-SUN

SURFACE TEMPERATURE AND ULTRASONIC MEASUREMENT BASED ON FOUNDATION™ FIELDBUS

Benefits

Sensor for reliable, high frequency monitoring of crucial steam-using equipment such as heat exchangers, presses and turbines, equipment in difficult to reach locations, or steam traps*.

1. High frequency monitoring: measurement cycles configurable between 1 and 15 seconds.
2. Wired network connection enables reliable data communication.
3. Surface temperature measurement up to 752 °F.
4. Intrinsically safe construction for use in hazardous and non-hazardous locations.

* Steam trap diagnostic software required separately. Contact TLV for details.



Patented

Specifications

Model			iT5-FF-SUN		
Type			Low Temperature		High Temperature
Maximum Measurement Temperature (°F)			482		752
Measurable Temperature Range (°F)			-40 to +482		-40 to +752
Minimum Ambient Temperature (°F)			-40		
Maximum Ambient Temperature (°F)	Maximum Measurement Temperature	-40 to < 275	176		176
		275 to < 392	167		167
		392 to < 482	152		—
		392 to < 572	—		152
		572 to < 752	—		143
Communication Standard			FOUNDATION™ Fieldbus		
Power Source			Supplied by FOUNDATION™ Fieldbus		
Maximum No. of Connections			32 devices ¹⁾		
Segment Extension			Up to 4 repeaters can be arranged in series per segment		
Measurement Cycle ²⁾			1 second to 15 seconds		
Electrical Rating	FISCO	Power circuit Allowable voltage: 17.5 V Allowable current: 380 mA Allowable power: 5.32 W Internal inductance: 10 µH Internal capacitance: 5 nF			
	ENTITY	Power circuit Allowable voltage: 24 V Allowable current: 250 mA Internal inductance: 10 µH Internal capacitance: 0 (negligible)			
Intrinsic Safety Specifications	FISCO	ATEX:  UL/cUL: Class I, Division 1, Groups ABCD Class I, Zone 0, AEx ia IIC T4, Ex ia IIC T4 IECEx: Ex ia IIC T4 Ga, Ex ib IIC T4 Gb Class I, Zone 0, AEx ib IIC T4, Ex ib IIC T4 UKEX: Ex ia IIC T4 Ga, Ex ib IIC T4 Gb			
	ENTITY	ATEX:  UL/cUL: Class I, Division 1, Groups ABCD Class I, Zone 0, AEx ia IIC T4, Ex ia IIC T4 IECEx: Ex ia IIC T4 Ga, Ex ib IIC T4 Gb UKEX: Ex ia IIC T4 Ga, Ex ib IIC T4 Gb			
Connecting Pipe			Straight pipe		
Protection Class			IP66 and IP67 (evaluation for intrinsic safety is performed at IP20)		
Material	Body, Cover		Aluminium Alloy Die Castings (ADC3, SG100A)		
	Sensor Tip		Stainless Steel (SUS304)		
	Heat Shield Plate		Polyetheretherketone (PEEK)		
Option			Sensor mounting method: Clamp or band type		

¹⁾ When using TLV-recommended linking device (Softing: FG-200 HSE/FF Modbus)

²⁾ Measurement cycle can be configured per sensor.

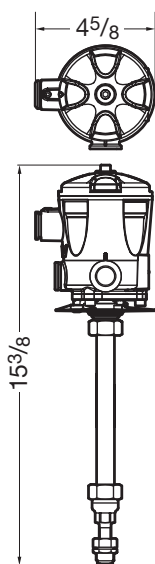


CAUTION

To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

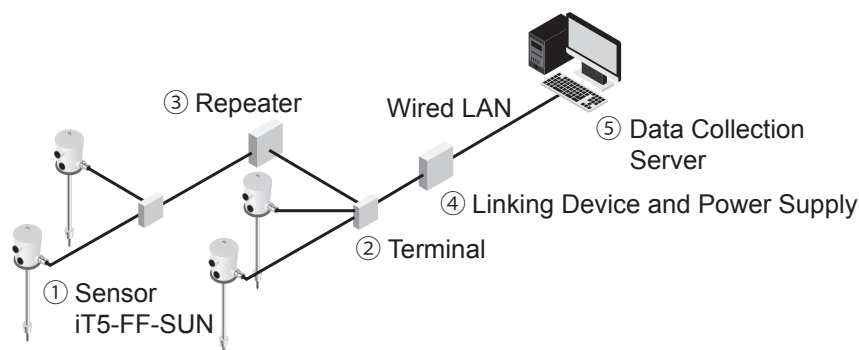
Dimensions

• iT5-FF-SUN Straight Pipe



Units: in
Weight: approx. 2.7 lb

System Configuration Example



No.	Model	Function
①	Sensor: iT5-FF-SUN	Measurement of ultrasound and surface temperature, transmission of information
②	Terminal	Fieldbus device connection, relay and branching
③	Repeater	Relay of Fieldbus information between linking device and terminal or between terminals over long distances and power supply
④	Linking Device and Power Supply	Relay of Fieldbus information and power supply
⑤	Data Collection Server	Importing collected data

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CAUTION

DO NOT DISASSEMBLE OR REMOVE THIS PRODUCT WHILE IT IS UNDER PRESSURE.
Allow internal pressure of this product to equal atmospheric pressure and its surface to cool to room temperature before disassembling or removing. Failure to do so could cause burns or other injury. READ INSTRUCTION MANUAL CAREFULLY.

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Manufacturer
TLV CO., LTD.
Kakogawa, Japan
is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001
ISO 14001

