



# iTrapSensor<sup>®</sup>

## MONITORING SENSOR

### MODEL iT5-FF-SUN

**SURFACE TEMPERATURE AND ULTRASONIC MEASUREMENT BASED ON FOUNDATION™ FIELDBUS**

### Features

**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 400 °C.
4. Intrinsically safe construction for use in hazardous and non-hazardous locations.

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



### Specifications

Model			iT5-FF-SUN		
Type			Low Temperature		High Temperature
Maximum Measurement Temperature (°C)			250		400
Measurable Temperature Range (°C)			-40 to +250		-40 to +400
Minimum Ambient Temperature (°C)			-40		
Maximum Ambient Temperature (°C)	Maximum Measurement Temperature	-40 to < 135	80		80
		135 to < 200	75		75
		200 to < 250	67		—
		200 to < 300	—		67
		300 to < 400	—		62
Communication Standard			FOUNDATION™ Fieldbus		
Power Source			Supplied by FOUNDATION™ Fieldbus		
Maximum No. of Connections			32 devices <sup>1)</sup>		
Segment Extension			Up to 4 repeaters can be arranged in series per segment		
Measurement Cycle <sup>2)</sup>			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:    ⚠ II 1G Ex ia IIC T4 Ga,      UL/cUL:    Class I, Division 1, Groups ABCD ⚠ II 2G Ex ib IIC T4 Gb			

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

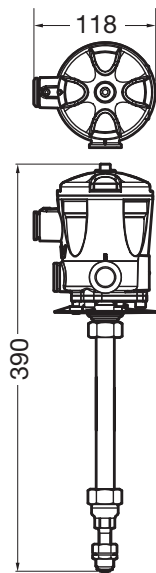
<sup>2)</sup> Measurement cycle can be configured per sensor.



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.

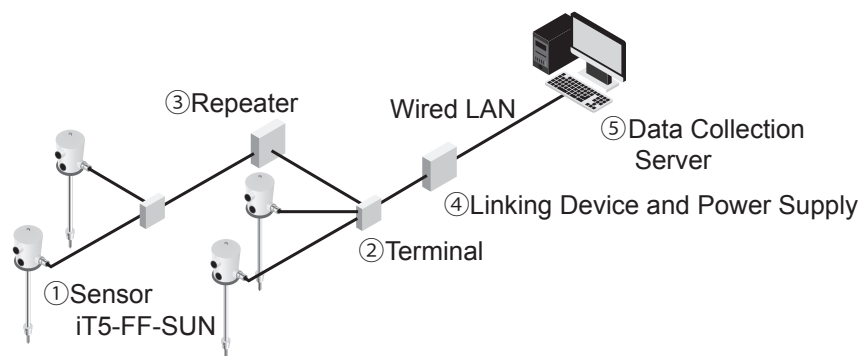
Dimensions

● iT5-FF-SUN Straight Pipe



Units: mm  
Weight: approx. 900 g

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

ISO 9001  
ISO 14001

