

Thermal Watch

Failsafe Wireless Temperature Monitoring



Models Available :
TWS1 / TWS2

Threshold Available :
60 / 70 / 80 / 90 / 100°C

Why Wireless Temperature Monitoring?



10 years Lifespan

Industrial battery and infrared communication ensure low power consumption and long lifespan



Secure & Fail Safe

Independent temperature monitor and operating till 115°C



Simple Operation for User

With 24/7 temperature monitoring

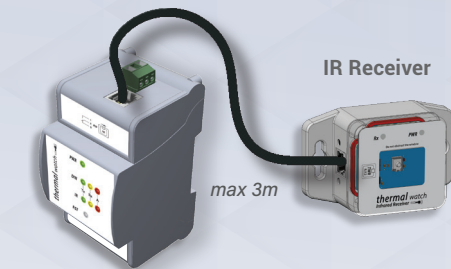


Easy Installation & Maintenance

Operative indoor and outdoor

Overview System

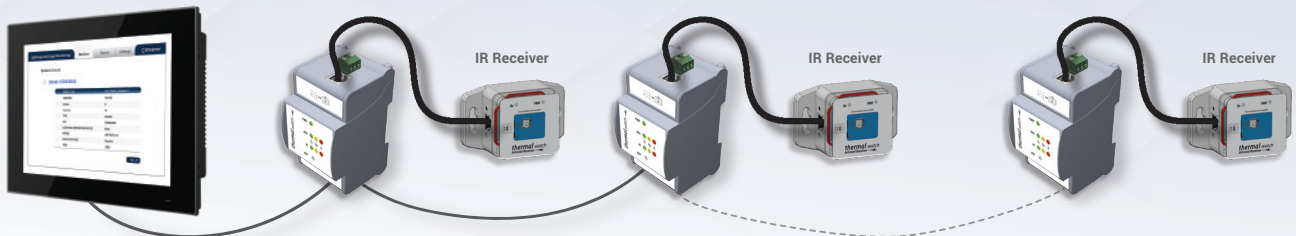
DIN Frame 1 modules receiving devices - TWR1



..... up to 6m



Communication with upper level

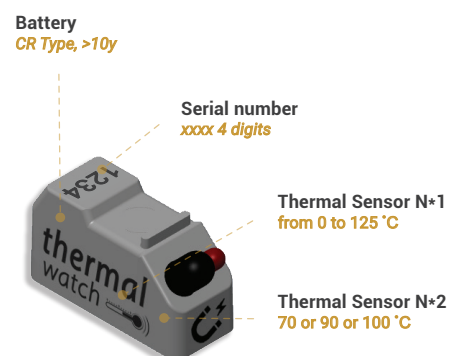
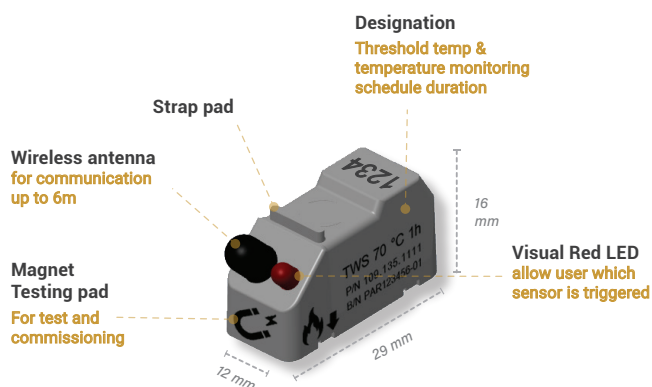


Data Concentrator
with / without HMI

CAT6 cable : RS485 + 12VDC

LAN or WIFI connection
IEC61850 / DNP3 /
MODBUS or REST API

TWS - Thermal Watch Sensor



TWS sends 4 information :

- Device identification number, as stated on the body of the device,
- Temperature,
- Mode in which the device is,
- Battery level.

example of data transmitted

ID of device	0001
Temperature °C	82 °C
Mode	Test
Battery left	OK

4 Operation Modes

TEST

using a magnet applied to the TWS, the user forces the TWS to send data.

ALARM

upon temperature sensor reaching threshold, factory set, the TWS will send alarm signal.

COMMISSIONING

applying the magnet for more than 5s will result in the TWS to delay the signal sending by 15min. The time for the operator to put the switchgear/board in operation.

TEMPERATURE REPORTING

based on a preset timer, the TWS will send periodically the temperature value.

The lifespan of the device will depend on the periodicity of the signal as per table.



** Periods can be changed as below with following life expectancies at 25°C*

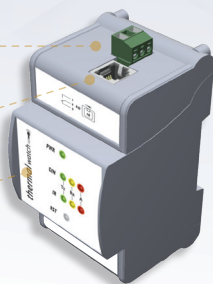
Period	Life expectancy	
	TWS1	TWS2
1 min	>1m	>6m
5 mins	>6m	>2yrs
15 mins	>2yrs	>7yrs
30 mins	>4yrs	>10yrs
1 hour	>8yrs	>10yrs
2 hours	>10yrs	>10yrs

THERMAL WATCH RECEIVER

Dry contact output
For LED or control
other devices

Connection for
IR receiver
RJ12, up to 3m

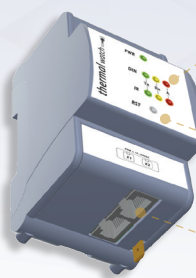
ON & Communication
Green/Yellow
LED indicator



ALARM
Red LED indicator

Reset button

Communication
& Power
RJ45 IN and OUT



TWR1-DIN = DIN Receiver

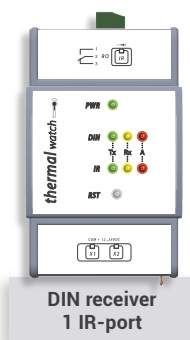
Mounting holes for easy installation
Hole slots



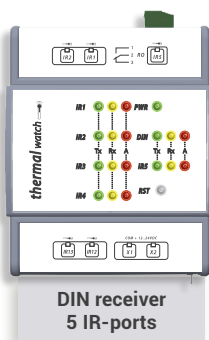
Connection for
IR DIN
RJ12, up to 3m

Cleanable
receiver

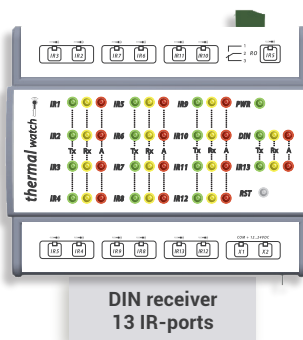
TWR1-IR = IR Receiver



DIN receiver
1 IR-port

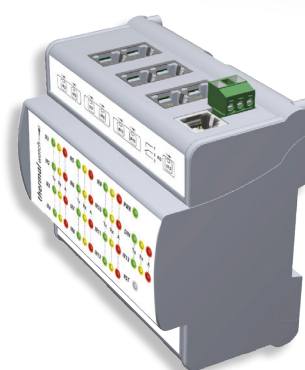


DIN receiver
5 IR-ports



DIN receiver
13 IR-ports

TWR-DIN storage features: 280 000 temperature records & 72 000 alarms.

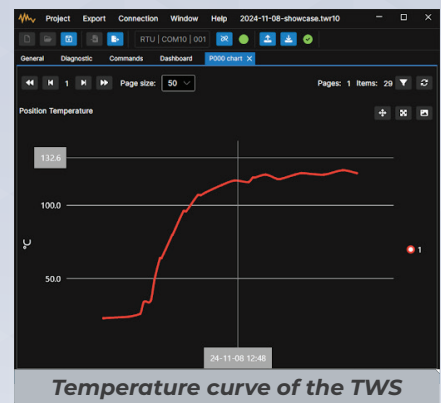
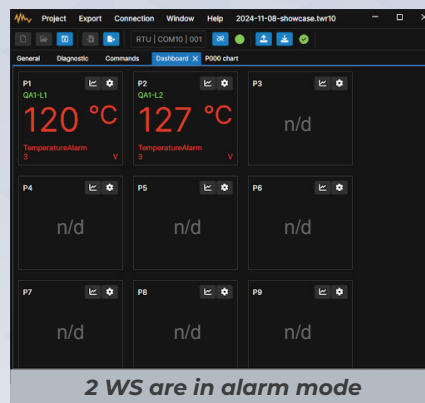


PLUG AND PLAY

The system is designed to be "plug and play".

TWS are factory programmed and tested: TWS will send signal periodically and upon alarm, including their ID. The **TWR-IR** are interchangeable and not assigned to any address: **TWR-IR** will communicate data to **TWR-DIN** regardless of where the information comes from. **TWR-DIN** will store the information based on the ID of the **TWS**, up to 280 000 records. The ID of the **TWS** is engraved on the body of the **TWS** and upon alarm the red LED of the **TWS** will blink. The user can optionally assign a name to the ID of the **TWS**.

SOFTWARE



The **software can be setup** in a standalone computer or delivered along with our standard monitoring unit.

HOW TO ORDER

109-TWS Thermal Watch Sensor

Digit 4		Digit 5		Digit 6		Digit 7		Digit 8		Digit 9,10	
Type		Temperature		Health check period		Commissioning delay		Mounting		Spare	
1	TWS1 85 °C	1	60 °C	1	1 min	1	15 mins	1	Strap	11	Default
2	TWS2 115 °C	2	70 °C	2	5 mins	2	30 mins	2	Metal plate		
		3	80 °C*	3	15 mins	3	5 mins	3	Embedded hole		
		4	90 °C*	4	30 mins						
		5	100 °C*	5	1 hour						
				6	2 hours						

* only for TW2

110-TWS Thermal Watch Receiver

Digit 5		Digit 6		Digit 7		Digit 8		Digit 9,10	
temperature		Number of corded sensors		Cable length		Modbus connector		Spare	
1	DIN- Receiver	1	1 x IR receiver	1	None	1	RJ45	11	Default
2	IR-Receiver	2	5 x IR receivers	2	1m	2	DB9		
3	RJ12 cables	3	13 x IR receivers	3	2m	3	Terminal		
4	LAN CAT6 RJ45 cables			4	3m				
5	Adapters								



PARALEC ENERGY

Europe
Le Mathis, 204 avenue de Colmar, 67100 Strasbourg
FRANCE
TEL : +33 7 85 71 90 63

www.paralec.com
www.surge-lightning-arrester-monitoring.com

Asia
1000/5-6 Liberty Plaza, 20th Floor, Soi.Thonglor,
Sukhumvit 55 Rd., Kongtun Nua, Wattana, Bangkok
THAILAND
TEL : +66 (0)2 381 5886

Email : info@paralec.com
LINE : @paralec