

IceSpy Notion Pro

notion pro

Affordable wireless monitoring
without compromise

Temperature transmitters

The IceSpy Notion Pro series of temperature transmitter units are flexible, reliable and waterproof to IP65. Each unit has been designed to offer a comprehensive range of temperature measurement options for multiple applications across Food, Healthcare and Pharmaceuticals industries. There is a backwardly compatible version available for legacy systems.

The accompanying temperature probes range from -30°C to +50°C as standard to -200°C to +350°C using external probes. See below for further options.



Data is easily transferred wirelessly to the local Network Receiver for immediate and real-time data collection within the systems software. Each of the Notion Pro transmitter units have a radio range that can reach up to 300mtrs* using dependable wireless technology you can fully rely on. For added data security each transmitter has on-board logging capability for 5 days, data is downloaded via RFID.

The units are powered by a single 1.5V AA Lithium battery, which can be replaced by the user as and when required, battery life will be up to 2 years (depending on use), with notification when a change is required.

*Over open ground.

Product Features

- Superior performance hardware with high accuracy sensors
- Vast range of units and sensors provide users with multiple temperature related applications
- Waterproof to IP65
- Easily accessible battery for user replacement, when required
- Calibration available up to UKAS standard
- All transmitters incorporate a wall bracket
- Low power radio for long distance transmission
- Battery life up to 2 years (depending on use)
- Complies with BS EN 12830
- Complies with RoHS, EU directives and WEEE
- Carries CE Marking

Benefits

- Assists with HACCP, MHRA and other national regulatory requirements
- Reduces errors resulting from manual checks
- Eliminate time spent taking manual readings
- Improve product quality with small non-intrusive transmitters
- Reduces the risk of damage to stock caused by temperature fluctuations

Sectors

- Food Manufacturing
- Food Processing
- Pharmaceutical Manufacturing
- Blood Banks
- Cold Rooms
- Pharmaceutical Storage
- Food Storage and Distribution
- Laboratory Equipment

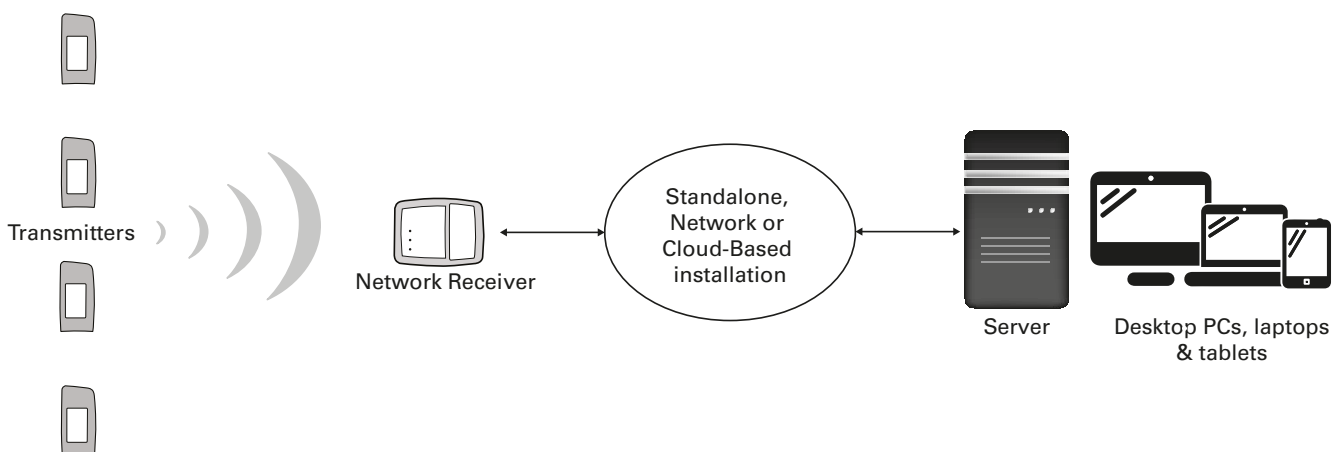
Always ask for a
long-range signal
strength test when
buying any radio
system.
We can prove ours
to be unrivalled.

TECHNICAL SPECIFICATIONS

Radio Transmitter Functions (applicable to all Notion Pro Temperature transmitters)

Frequency:	433-434MHz band
Radio Protocol:	Frequency hopping for greater security
Radio Power:	Max 10mW, duty cycle >0.1%
Radio Range:	300mtrs over open ground
Software Required:	IceSpy Notion Pro
Case Material:	ABS
Operating Temp:	-30°C to +50°C
Storage Temp:	-40°C to +85°C
Battery Life:	Up to 2 years (depending on use)
Battery:	1.5V AA Lithium*1 1.5V AA Alkaline (Not recommended for use below -10°C) *2 *1 – IMC only recommend the approved and tested Energizer Ultimate LithiumL91 (IMC stock No. G301) *2 – Battery life will be reduced at low temperatures Duracell ID1500-10 (IMC stock No. 88705)
Hardware Required:	- Network Receiver - Repeater (only required in special circumstances)* * Whether you need repeaters or not would be discussed with you in your signal strength test
Optional Hardware:	- ARB module (Alarm, RFID and Bluetooth) - SMS module

Schematic:



Disclaimer

The information contained herein is believed to be reliable. The IMC Group Ltd is not responsible for any incorrect or incomplete information on this datasheet and the information or product may be changed without notice. Customers should obtain and verify the latest relevant information before placing orders for IMC products.



NP3000

INTERNAL TEMPERATURE TRANSMITTER

PART NO. IN-TH001F1 - TRANSMITTER UNIT



INSTRUMENT SPECIFICATIONS

Dimensions:	130 x 65 x 32mm (40 including mounting bracket)
Weight:	130g including battery
Internal Sensor Type:	Semiconductor
Range:	-30°C to +50°C
Resolution:	0.1°C
Accuracy:	±0.5°C
IP Rating:	IP65
Typical Applications:	<ul style="list-style-type: none"> - Inside Small Fridges - Serve Over Counters - Sandwich Counters - Vaccine Fridges

NP3000

INTERNAL TEMPERATURE TRANSMITTER AND DOOR SWITCH

PART NO. IN-THD01F1 - TRANSMITTER UNIT

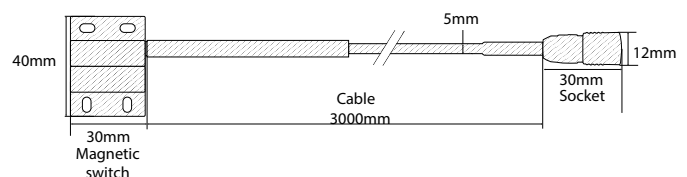
PROBES PART NO. IN-DC001 - DOOR SWITCH



INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
Internal Sensor Type:	Semiconductor with door switch
Range:	-30°C to +50°C
Resolution:	0.1°C
Accuracy:	±0.5°C
IP Rating:	IP65
Door Switch:	Magnetic reed switch (purchased separately)
Door Switch Cable:	3mtrs
Typical Applications:	<ul style="list-style-type: none"> - Inside Small Fridges - Vaccine Fridges - Door Status

Door Switch:



NP3000

EXTERNAL THERMISTOR TRANSMITTER

PART NO. IN-TH002F1 - TRANSMITTER UNIT

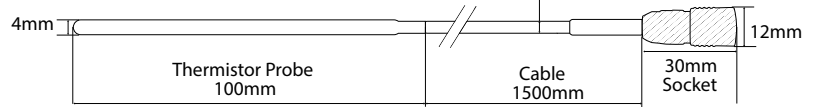
- PROBES PART NO. • IN-TH150 (1.5M CABLE) - EXTERNAL THERMISTOR PROBE
 • IN-TH300 (3M CABLE) - EXTERNAL THERMISTOR PROBE



INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
External Probe Type:	Thermistor (purchased separately)
External Temp. Probe Range:	-40°C to +100°C
Resolution:	0.1°C
Accuracy:	±0.5°C
IP Rating:	IP65
Typical Applications:	- Walk in Fridges - Freezers - Walk in Freezers - Food Core Temperature

External Thermistor Probe:



NP3000

EXTERNAL THERMISTOR TRANSMITTER AND DOOR SWITCH

PART NO. IN-THD02F1 - TRANSMITTER UNIT

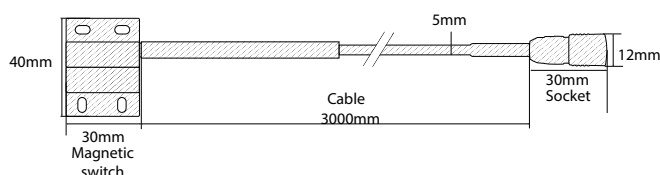
- PROBES PART NO. • IN-DC001 - DOOR SWITCH
 • IN-TH150 (1.5M CABLE) - EXTERNAL THERMISTOR PROBE
 • IN-TH300 (3M CABLE) - EXTERNAL THERMISTOR PROBE



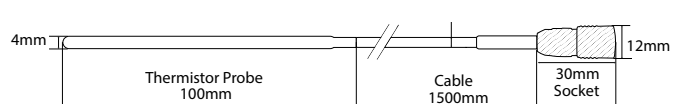
INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
External Probe Type:	Thermistor (purchased separately)
External Probe Temp Range:	-40°C to +100°C
Resolution:	0.1°C
Accuracy:	±0.5°C
IP Rating:	IP65
Door Switch:	Magnetic reed switch (purchased separately)
Door Switch Cable:	3mtrs
Typical Applications:	- Walk in Fridges - Freezers - Walk in Freezers - Food Core Temperature - Door Status

Door Switch:



External Thermistor Probe:



NP3000

INTERNAL AND EXTERNAL TEMPERATURE TRANSMITTER

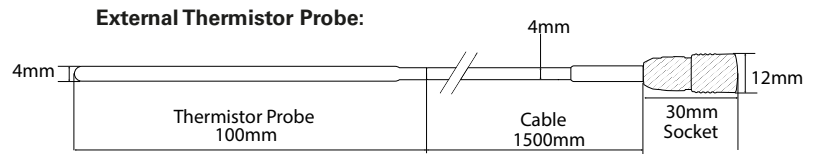
PART NO. IN-TH003F1

- PROBES PART NO. • IN-TH150 (1.5M CABLE) - EXTERNAL THERMISTOR PROBE
 • IN-TH300 (3M CABLE) - EXTERNAL THERMISTOR PROBE



INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
Internal Sensor Type:	Semiconductor
Range:	-30°C to +50°C
Resolution:	0.1°C
Accuracy:	±0.5°C
External Probe Type:	Thermistor (purchased separately)
External Probe Temp. Range:	-40°C to +100°C
Resolution:	0.1°C
Accuracy:	±0.5°C
IP Rating:	IP65
Typical Applications:	- Walk in Fridges - Freezers - Walk in Freezers - Internal and Ambient temperatures can be monitored



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DUAL EXTERNAL THERMISTOR TRANSMITTER

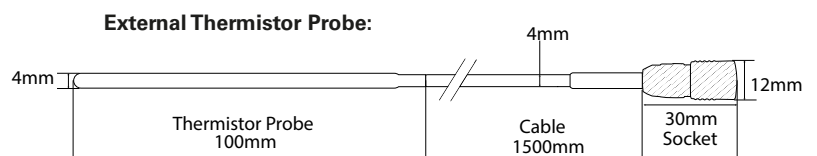
- PROBES PART NO. • IN-TH150 (1.5M CABLE) - EXTERNAL THERMISTOR PROBE
 • IN-TH300 (3M CABLE) - EXTERNAL THERMISTOR PROBE



INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
External Probe Type:	Thermistor (purchased separately)
External Probe Temp. Range:	-40°C to +100°C
Resolution:	0.1°C
Accuracy:	±0.5°C
IP Rating:	IP65
Typical Applications:	- Walk in Fridges - Freezers - Walk in Freezers - Food Core Temperature - Two processes can be monitored with one unit

There is a second probe option for the thermistor probe with a 3mtr or 3000mm cable



NP3000

DUAL EXTERNAL AIR CORE TRANSMITTER

- KIT PARTS:
- 1 X IN-TH004F1 - TRANSMITTER
Plus
 - 1 X IN-TH150 - CORE TEMPERATURE PROBE
Plus
 - 1 X IN-TH – AIR TEMPERATURE PROBE
Plus
 - 1 X BLK100 - SIMULANT BLOCK 100ML
Or
 - 1 X BLK200 – SIMULANT BLOCK 200ML

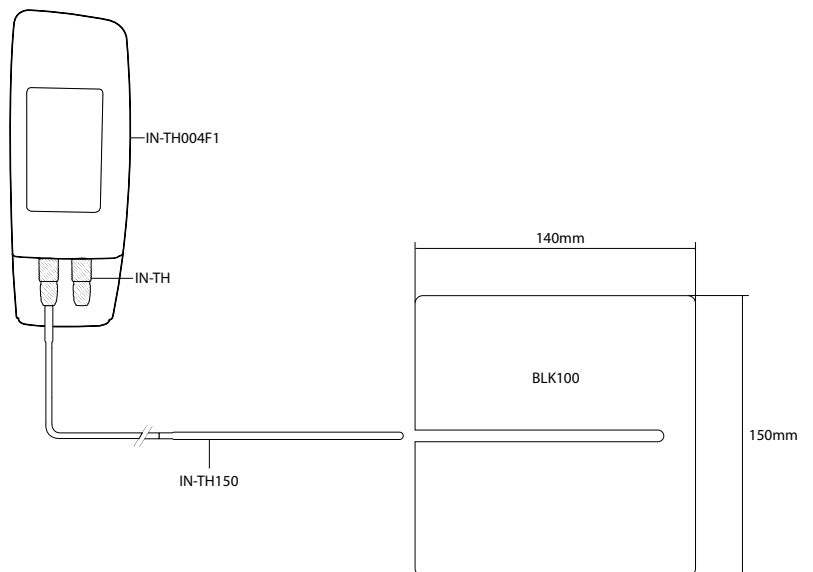


INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
External Probe Type:	Thermistor (purchased separately)
External Probe Temp. Range:	-40°C to + 100°C
Resolution:	0.1°C
IP Rating:	IP65
Accuracy:	±0.5°C
Typical Application:	- Walk in Fridges - Freezers - Walk in Freezers - Food Core Temperature - Healthcare core temperature - Two processes can be monitored with one unit

There is a second probe option for the thermistor probe with a 3mtr or 3000mm cable

Notion Pro Air Core kit:



(probe technical drawing available on page 4)

NP3000

INTERNAL TEMPERATURE, EXTERNAL AIR CORE TRANSMITTER & DOOR SWITCH

- KIT PARTS:**
- 1 X IN-THD010-F1 - TRANSMITTER
Plus
 - 1 X IN-TH300 - CORE TEMPERATURE PROBE
Plus
 - 1 X IN-DC001 DOOR SWITCH
Plus
 - 1 X BLK100 - SIMULANT BLOCK 100ML
Or
 - 1 X BLK200 – SIMULANT BLOCK 200ML

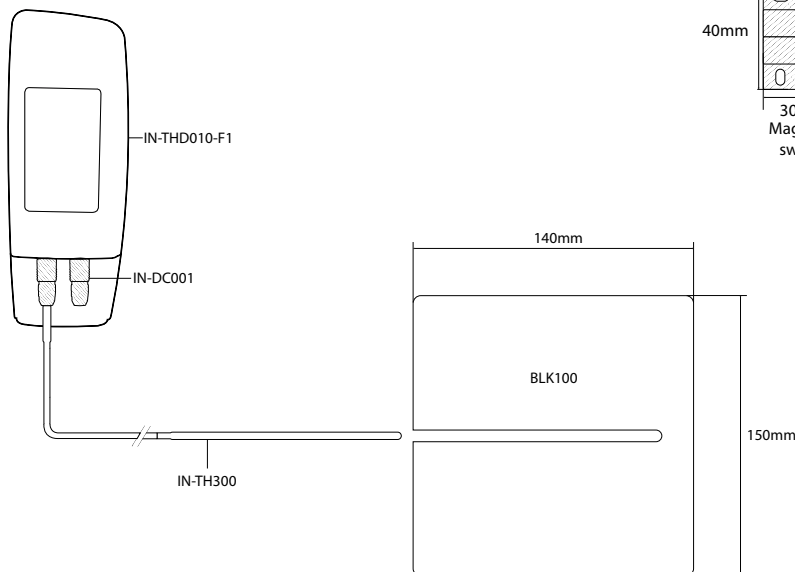


INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
Internal Sensor type:	Semiconductor
Range:	-30°C to +50°C
Resolution:	0.1°C
Accuracy:	±0.5°C
External Probe Type:	Thermistor (purchased separately)
External Probe Temp. Range:	-40°C to + 100°C
Resolution:	0.1°C
IP Rating:	IP65
Accuracy:	±0.5°C
Door Switch:	Magnetic reed switch (purchase separately)
Door Switch cable:	3mtrs

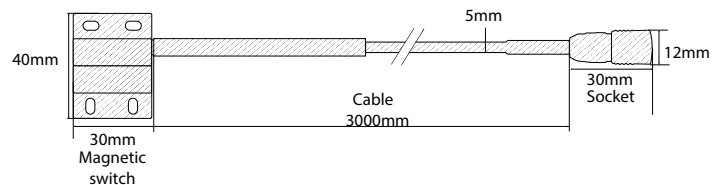
There is a second probe option for the thermistor probe with a 3mtr or 3000mm cable

Notion Pro Air Core kit:



(probe technical drawing available on page 4)

Door Switch:



NP3100

EXTERNAL PT100 TRANSMITTER

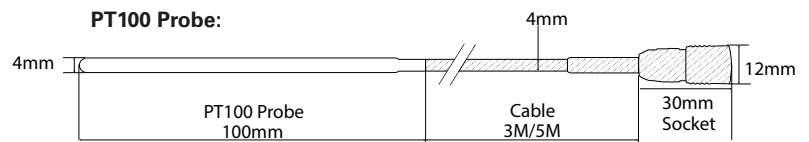
PART NO. IN-PT001F1

- PROBES PART NO. • IN-PT143 (3M CABLE) - PT100 PROBE
 • IN-PT145 (5M CABLE) - PT100 PROBE



INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
External Probe Type:	4 Wire Class A PT100 (purchased separately)
External Probe Temp. Range:	-100°C to +200°C
Resolution:	0.1°C
IP Rating:	IP65
Instrument Accuracy:	±0.1°C
Probe Accuracy:	Class A = ± (0.15+0.0020* t)°C
Loop Calibration for unproved accuracy	
Typical Applications:	- Ultra Cold Freezers (-80°C) - Measurements requiring wider range and greater accuracy



NP3100

EXTERNAL PT100 TRANSMITTER AND DOOR SWITCH

PART NO. IN-PTD01F1

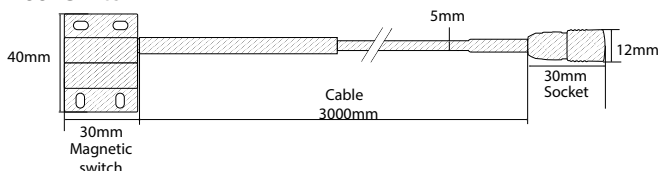
- PROBES PART NO. • IN-DC001 - DOOR SWITCH
 • IN-PT143 (3M CABLE) - PT100 PROBE
 • IN-PT145 (5M CABLE) - PT100 PROBE



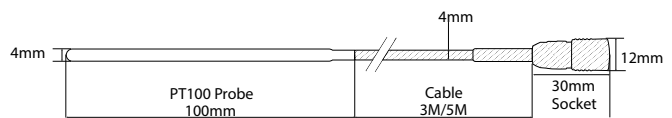
INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
External Probe Type:	4 Wire Class A PT100
External Probe Temp. Range:	-100°C to +200°C
Resolution:	0.1°C
IP Rating:	IP65
Instrument Accuracy:	±0.1°C
Probe Accuracy:	Class A = ± (0.15+0.0020* t) °C
Loop calibration for unproved accuracy	
Door Switch:	Magnetic reed switch (purchased separately)
Door Switch Cable:	3mtrs
Typical Applications:	- Ultra Cold Freezers (-80°C) - Door Status

Door Switch:



PT100 Probe:



NP3100

DUAL EXTERNAL PT100 TRANSMITTER

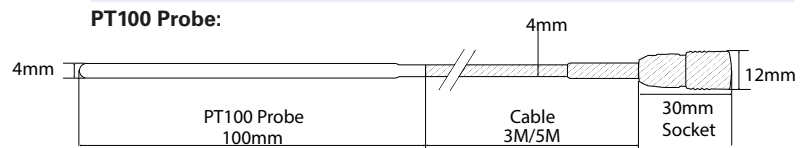
PART NO. IN-PT002F1

- PROBES PART NO. • IN-PT143 (3M CABLE) - PT100 PROBE
 • IN-PT145 (5M CABLE) - PT100 PROBE



INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
External Probe Type:	4 Wire Class A PT100 (purchased separately)
External Probe Temp. Range:	-100°C to +200°C
Resolution:	0.1°C
IP Rating:	IP65
Instrument Accuracy:	±0.1°C
Probe Accuracy:	Class A ± (0.15+0.0020* t) °C
Loop calibration for unproved accuracy	
Typical Applications:	- Ultra Cold Freezers (-80°C) - Two Freezers can be monitored with one transmitter
The PT100 probe cable length is 3 mtrs or 3000mm also there is a second option with a 5 mtr cable or 5000mm.	



NP3200

EXTERNAL TYPE T THERMOCOUPLE TRANSMITTER

PART NO. IN-TT001F1

PROBES PART NO. IN-THC03 - THERMOCOUPLE TYPE T PROBE

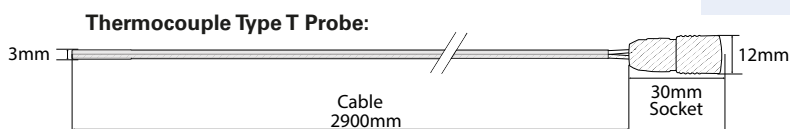


INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
External Probe Type:	Ultra Premium Grade Teflon TypeT 22 AWG Thermocouple 3 mtrs* (purchased separately) probe cable length is 2.9 mtrs**
External Probe Temp. Range:	-200°C to +350°C
Resolution:	0.3°C
IP Rating:	IP53
Accuracy:	0°C to 120C ±0.5C, -100°C to 0°C ±1°C, -200°C to -100°C ±1.5°C unadjusted specification
Typical Applications:	- Cryogenic Temperature Monitoring - Ovens and cooking processes - Water Baths

*Specified sensor is recommended for use in cryogenic applications. Other sensor types are available.

Note: Can be used with thermocouple extension cable up to 20mtrs; when using thermocouples with longer wiring, users need to be aware of potential risks of electrical noise. These units are designed to provide low cost, accurate Thermocouple temperature measurement. The Thermocouple sensing element provides fast temperature response; however, the radio transmitter case is designed to operate in relatively stable temperature environments such as in an office, warehouse, or factory; these units are not suitable for use where the transmitter case is subject to rapid temperature swings, such as in a blast freezer.



NP3200

DUAL EXTERNAL TYPE T THERMOCOUPLE

PART NO. IN-TT002F1

PROBES PART NO. IN-THC03 - THERMOCOUPLE TYPE T PROBE



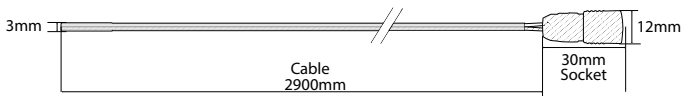
INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
External Probe Type:	External Ultra Premium Grade Teflon Type T 22 AWG Thermocouple 3mtrs* (purchased separately) probe cable length is 2.9 mtrs**
External Probe Temp. Range:	-200°C to +350°C
Resolution:	0.3°C
IP Rating:	IP53
Accuracy:	0°C to 120C ±0.5C, -100°C to 0°C ±1°C, -200°C to -100°C ±1.5°C unadjusted specification
Typical Application:	- Cryogenic Temperature Monitoring - Liquid Nitrogen Level Monitoring - Ovens and cooking processes - Water Baths

*Specified sensor is recommended for use in cryogenic applications. Other sensor types are available.

Note: Can be used with thermocouple extension cable up to 20mtrs; when using thermocouples with longer wiring, users need to be aware of potential risks of electrical noise. These units are designed to provide low cost, accurate Thermocouple temperature measurement. The Thermocouple sensing element provides fast temperature response; however, the radio transmitter case is designed to operate in relatively stable temperature environments such as in an office, warehouse, or factory; these units are not suitable for use where the transmitter case is subject to rapid temperature swings, such as in a blast freezer.

Thermocouple Type T Probe:



NP3200

EXTERNAL TYPE T THERMOCOUPLE TRANSMITTER AND DOOR SWITCH

PART NO. IN-TTD01F1

PROBES PART NO. • IN-DC001 - DOOR SWITCH
• IN-THC03 - THERMOCOUPLE TYPE T PROBE



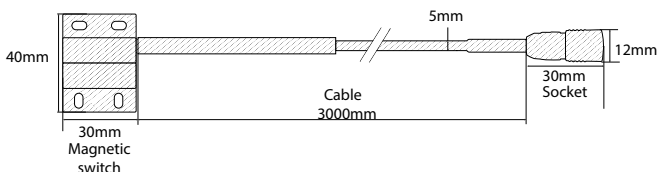
INSTRUMENT SPECIFICATIONS

Dimensions:	165 x 65 x 35mm (40 including mounting bracket)
Weight:	150g including battery
External Probe Type:	External Ultra Premium Grade Teflon Type T 22 AWG Thermometer 3mtrs* (purchased separately) probe cable length is 2.9 mtrs
External Probe Temp. Range:	-200°C to +350°C
Resolution:	0.3°C
IP Rating:	IP53
Accuracy:	0°C to 120C ±0.5C, -100°C to 0°C ±1°C, -200°C to -100°C ±1.5°C unadjusted specification
Door Switch:	Magnetic reed switch (purchased separately)
Door Switch Cable:	3mtrs
Typical Applications:	- Cryogenic Temperature Monitoring - Ovens and cooking processes - Door Status

*Specified sensor is recommended for use in cryogenic applications. Other sensor types are available.

Note: Can be used with thermocouple extension cable up to 20mtrs; when using thermocouples with longer wiring, users need to be aware of potential risks of electrical noise. These units are designed to provide low cost, accurate Thermocouple temperature measurement. The Thermocouple sensing element provides fast temperature response; however, the radio transmitter case is designed to operate in relatively stable temperature environments such as in an office, warehouse, or factory; these units are not suitable for use where the transmitter case is subject to rapid temperature swings, such as in a blast freezer.

Door Switch:



Thermocouple Type T Probe:

