

Boomerang - WIN node series

Description

The Boomerang WIN node series is a wireless communication concept for monitoring and logging of environmental parameters in laboratories; temperature, humidity, CO2 etc.

All nodes are wireless, have a memory buffer and are battery powered. The nodes communicate wireless via a base station (Gateway) to the Boomerang service.

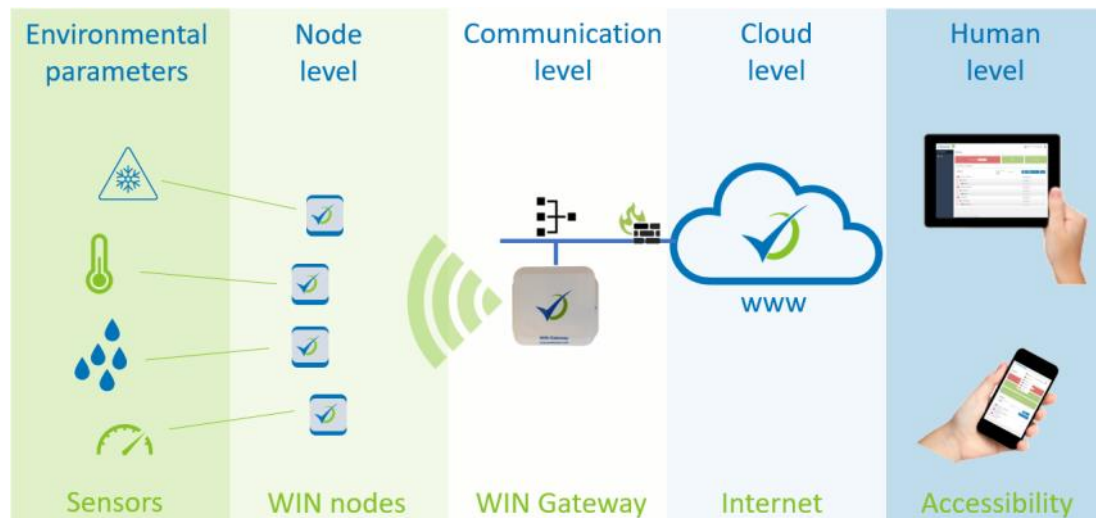
Applications

- Hospital laboratories
- Blood banks
- IVF / Infertility clinics
- Biotech laboratories

- Clinical laboratories
- Chemistry laboratories
- University laboratories
- Pharmaceutical producers

- Food producers
- Restaurants
- Dairies
- Catering facilities

- Pharmacies
- Cold logistics
- Cold storage
- Veterinary labs
- ...and much more



NWINGW - Boomerang WIN Gateway

Description

The WIN Gateway is the communication hub between the wireless WIN nodes and the Boomerang monitoring and logging services.

A Boomerang WIN Gateway is a protocol converter with a built-in IEEE 802.15.4 radio and an Ethernet interface. A Boomerang WIN Gateway also provides buffering and a seamless interface to the Boomerang Cloud server or to a Boomerang On Premise system.

Each WIN Gateway can host up to 10 WIN nodes and relays data with standard IP/HTTP protocols to a Boomerang On Premise or Boomerang Cloud server to provide easy installation and high flexibility in use.

Features

- Communication Hub, WIN node wireless system
Upstream: 10Base-T/100Base-TX
Port 80: Hypertext transfer protocol (HTTP)
Port 123: Network time protocol (NTP)
Downstream: 2.4GHz IEEE 802.15.4 radio (WIN)
- Robust Communication protocol
- Support up to 10 WIN nodes
- Complies with CE, FCC and Industry Canada CE Marking requirements



Technical data

Size (L×H×W)	100(120)×35×100 mm
Mounting bracket	Part of boxing
Battery	N/A
Battery life	N/A
Power supply	Included
Buffer	Up to 1300 transactions at any given time.



NWIN001 - Boomerang WIN node RH/T Wall-mount
combined Temperature/Humidity

Description

The NWIN001 is a wireless Humidity / Temperature Sensor. A wall-mounted RH/T sensor, fully battery operated.

A WIN node connects to a WIN Gateway via a standard wireless (IEEE 802.15.4). The WIN Gateway relays data between the WIN node and a Boomerang On Premise or Boomerang Cloud server to provide easy installation and high flexibility in usage.

The Boomerang WIN-node, NWIN001, can run up to 8 years on standard Alkaline AA batteries.

A WIN node continues to log temperatures during grid outages regardless of how it is powered.

WIN nodes are CE and FCC certified


Technical data

Size (L×H×W)	80×21×80 mm
Mounting bracket	Part of boxing
Battery	Std AA 2×1,5V
Battery life	Up to 8 year
Power supply	N/A
Buffer	2048 data records
Range Humidity	0 to 100% RH
Accuracy Humidity	±3%RH
Range Temperature	-10°C to +85°C
Acc. Temperature	±0.4°C

NWIN002 - Boomerang WIN node Pt100 Temperature

Description

The NWIN002 is a wireless WIN node for continuous monitoring and logging of Pt100 Temperature sensors.

The NWIN002 can be ordered with a variety of Pt100 sensors, probes and cable lengths. One or two temperature sensors can be connected to the WIN node.

The NWIN002 can also be ordered with accessories for wireless monitoring of Liquid Nitrogen tanks (LN2-tanks or Cryotanks)

A WIN node connects to a WIN Gateway via a standard wireless (IEEE 802.15.4). The WIN Gateway relays data between the WIN node and a Boomerang On Premise or Boomerang Cloud server to provide easy installation and high flexibility in usage.

The Boomerang WIN-node can run up to 2 years on standard Alkaline AA batteries or as a mains connected datalogger with battery backup.

A WIN node continues to log temperatures during grid outages regardless of how it is powered.

WIN nodes are CE and FCC certified


Technical data

Size (L×H×W)	100×40×80 mm
Mounting bracket	Wall or Top mounted
Battery	Std AA 2×1,5V
Battery life	Up to 2 year
Power supply	Optional
Buffer	2048 data records

**Available sensors
-200°C to +200°C**

Part no.	Probe	Temperature range
FT012	60 mm	-90°C to +200°C
FT004	600 mm	-200°C to +200°C
FT052	15 mm (flex)	-20°C to +200°C

NWIN003 - Boomerang WIN node Digital Temperature
Description

The NWIN003 is a wireless WIN node for continuous monitoring and logging of digital temperature sensors.

The NWIN003 can connect up to three digital temperature sensors for cost efficient monitoring of refrigerators or heated cabinets.

A WIN node connects to a WIN Gateway via a standard wireless (IEEE 802.15.4). The WIN Gateway relays data between the WIN node and a Boomerang On Premise or Boomerang Cloud server to provide easy installation and high flexibility in usage.

The Boomerang WIN-node can run up to 2 years on standard Alkaline AA batteries or as a mains connected datalogger with battery backup.

A WIN node continues to log temperatures during grid outages regardless of how it is powered.

A WIN node can be ordered with a variety of 1-wire sensors, probes and cable lengths. Up to three temperature sensors can be connected to the WIN node.

WIN nodes are CE and FCC certified


Technical data

Size (L×H×W)	100×40×80 mm
Mounting bracket	Wall or Top mounted
Battery	Std AA 2×1,5V
Battery life	Up to 2 year
Power supply	Optional
Buffer	2048 data records

**Available sensors
-20°C to +85°C**

Part no.	Probe	Temperature range
FT040	60 mm	-20°C to +85°C
FT041	15 mm(flex)	-20°C to +85°C

Mounting brackets - NWIN002 and NWIN003
Description

There are two versions of mounting brackets to the WIN nodes NWIN002 and NIWIN003.

Mounting brackets - Wall mount

DBU060 is fitted to the back of the node with four polyamid screws
DBU061 is the other part, that is fitted to the wall.

Mounting brackets - Top mount

DBU060 is fitted to the back of the node with four polyamid screws
DBU062 is the other part, that is fitted to top of the equipment e.g. the refrigerator.



NWIN004 - Boomerang WIN node 4-20 mA inputs

Description

The NWIN004 is a wireless WIN node for continuous monitoring and logging of analog signals, current-loops 4-20 mA.

The NWIN004 has four channels and can log up to four analog signals from industry standard sensors and instruments.

A WIN node connects to a WIN Gateway via a standard wireless (IEEE 802.15.4). The WIN Gateway relays data between the WIN node and a Boomerang On Premise or Boomerang Cloud server to provide easy installation and high flexibility in usage.

The Boomerang NWIN004 node runs with mains connected datalogger with battery backup. However, the batteries cannot supply 24V to the analog inputs. Hence logging will not be available when

A WIN node continues to log an during grid outages regardless of how it is powered.

WIN nodes are CE and FCC certified


Technical data

Size (L×H×W)	191×40×125 mm
Mounting bracket	Part of boxing
Battery	Std AA 2×1,5V
Battery life	Up to 2 year
Power supply	Included
Buffer	2048 data records

NWIN005 - Boomerang WIN node 0-10 V inputs

Description

The NWIN005 is a wireless WIN node for continuous monitoring and logging of analog signals, voltage inputs 0-10 V.

The NWIN005 has four channels and can log up to four analog signals from industry standard sensors and instruments.

A WIN node connects to a WIN Gateway via a standard wireless (IEEE 802.15.4). The WIN Gateway relays data between the WIN node and a Boomerang On Premise or Boomerang Cloud server to provide easy installation and high flexibility in usage.

The Boomerang WIN-node can run up to 2 years on standard Alkaline AA batteries or as a mains connected datalogger with battery backup.

A WIN node continues to log an during grid outages regardless of how it is powered.

WIN nodes are CE and FCC certified


Technical data

Size (L×H×W)	191×40×125 mm
Mounting bracket	Part of boxing
Battery	Std AA 2×1,5V
Battery life	Up to 2 year
Power supply	Optional
Buffer	2048 data records

