

Temperature Monitor

DATA SHEET





01 Temperature Monitoring

Nexxiot Temperature Monitoring Solution consists of an easy-to-setup, zero-maintenance hardware and software combination that offers the capability to have full, remote, real-time visibility and transparency on the temperature developments of transported liquid cargo. Access real-time insights such as location and temperature data across your fleet from a single, integrated Dashboard.

02 Use Cases & Return on Investment

Real-Time Temperature monitoring – sensor data can be recorded up to every 2 minutes and sent to the platform up to every 5 minutes (subject to configuration). This offers an unprecedented, near real-time, remote visibility into temperature performance of your assets.

Edge-Processing – on-board algorithms help to identify abnormal conditions or temperature events, and in such cases, the sensor will send data to the server immediately, without waiting for the next data sending interval.






Workflow Automation – In combination with Triggers, it is possible to get instant notifications or alerts whenever temperature drops or exceeds pre-defined limits. Ensure the cargo safety and quality remains consistent through-out the entire journey.

Zero Maintenance – Nexxiot Temperature Sensors are 'install & forget' - there is no regular servicing or battery changes required. Using an innovative power-saving and power-management processes Nexxiot sensors have a 6-year guaranteed lifespan.







Rugged & IP67 Certified – a polycarbonate plastic ensures that devices can withstand a great amount of damage without sacrificing their integrity. Devices are also entirely weather sealed for operation in the harshest of weather conditions – be it Scandinavian Winters or Middle Eastern summers.

ATEX, IECEx and HazLoc Certified – an intrinsically safe hardware design is a must-have to guarantee a safe operation of Hardware in Hazardous and Explosive environments, such as for example in Petrochemical Environments, Grain, Flour or Sugar plants. Nexxiot Temperature Sensors have been designed ground-up with most restrictive industrial requirements in-mind and has passed rigorous testing to achieve ATEX, IECEx and HazLoc Certification in the process.



 Product		Temperature Monitor
 ID		DCT150M-W
 Physical	Size	Ø 150 mm (5.9 in) x 40 mm (1.57 in). Cut-out 102 mm (4.01 in)
	Weight	500 g (1.10lb)
	Mounting hole spacing	6, Ø 5 mm (Ø 0.20 in), on 135 mm (Ø 5.31 in) equidistant every 60°
 Display	Temperature	4 Digits, 7 Segment (°C or °F user selectable)
	Resolution	1 °C (33.8 °F) 0.1°C (32°F) in the UI
	Pairing	"SERVICE"-Symbol: device is in hibernation mode
	Operational	" "-Symbol: Device is operational "mm"-Symbol: ON, device disconnected from GH "mm"-Symbol: OFF, device connected with GH "AVG"-Symbol: Average of 4 measurements per minute "PSI"-Symbol: NFC Chip present and valid
 Temp. Measurement	Sensor	PT1000
	Sensor Dimensions	Length 75 mm (2.95 in); Ø 6 mm (0.24 in) (including anti kink element)
	Lead Length	1 meter (3' 3 in), not removable (Customised lengths up to 15 m (49 in) available upon request)
	Range	-50 °C to +150 °C (58 °F to 302 °F)
	Sampling Time	Variable – 60 seconds by default
	Accuracy	0 °C to +100 °C typically 0.9 °C +/- one digit 150 °C typically 2.0 °C +/- one digit -50 °C typically 1.0 °C +/- one digit



 Environmental	Operating temperature (EN 50155, Class TX)	
	ATEX ambient temperature (EN 60079-0)	-35 °C to +60 °C (-31 °F to 140 °F)
	Sensor	-50 °C to +150 °C (58 °F to 302 °F)
	Altitude	2000 m (6562 feet)
	Ingress Protection	IP67
 Energy	Battery type	Lithium Thionyl Chloride
	Nominal battery voltage	3.6 V
	Battery capacity	4.8 Ah
	Energy harvesting source	UN38.3
 IEEE 802.15.4	Frequency range	2400 MHz ... 2480 MHz
 NFC	Frequency	13.56 MHz (passive)
 Lifetime	Maintenance free	6 years, based on a 60 second sampling interval
 Enclosure	Main Enclosure with Display	Glass fibre reinforced nylon with fully integrated sealed polycarbonate front face
	Sensor	Enclosed in ø 5 mm x 75 mm stainless steel sheath



Environment:

RoHS
WEEE
MP3538PZ/SCH
DIN EN 60529:2014 (IP67)

Product Safety:

IEC 62368-1:2014

EMC:

ETSI 301 489
EN 61326-1:2013

Battery:

UN38.3

ATEX and IECEx:

ATEX Certificate Number CML
21ATEX2784X
IECEx Certificate Number ECEX CML
21.0090X
UKEX Certificate Number CML
21UKEX2747X
UKSI 2016 No. 1107
Directive 2014/34/EU
EN 60079-0 and IEC 60079-0
EN 60079-11 and IEC 60079-11
II 2 GD
Ex ib IIC T4...T3 Gb
Ex ib IIIC T135°C...T184°C Db

FCC ID: 2A2HPDCT150M-W
IC: 27472-DCT150MW

HazLoc:

MET Laboratories, Inc. Certification Number:
E115327
IEC/EN/UL/CSA C22.2 no. 60079-0
IEC/EN/UL/CSA C22.2 no. 60079-11
CSA C22.2 no. 213 / UL 121201
UL/CSA C22.2 no. 61010-1
Class I, II, III, Div 2, Gps A-D, FG –
Nonincendive / Non incendiaire
Class I, Zone 1, AEx ib IIC T4/T3 Gb,
Zone 21, AEx ib IIIC T135°C/T184°C Db
Ex ib IIC T4/T3 Gb,
Ex ib IIIC T135°C/T184°C Db

