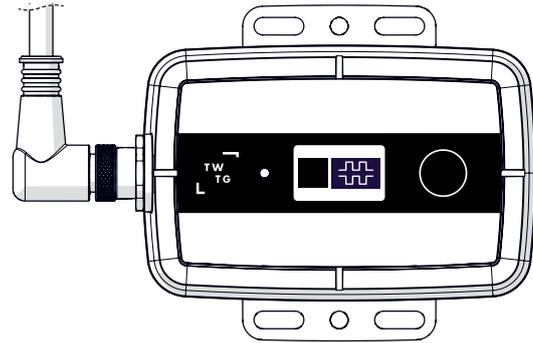## NEON Data Sheet

Vibration Sensor
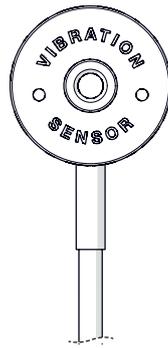
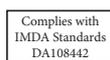| Product	
Product name	TWTG NEON Vibration Sensor
Type identification	Transmitter: DS-LD-01-XX (See product manual for regional identification) Sensor: DS-VB-01-XX (See product manual for regional identification)

Functionality	
User interaction	Button
Status notification	RGB LED
Three independent event-based message triggers	1. Timer 2. Button press 3. 4x Above (acceleration & velocity)
Four independent FFT triggers	1. On timer 2. On button press 3. On event 4. 5x Amplitude (with configurable frequency band)
Adjustable measurement interval	30 - 28800 seconds
Adjustable message interval	1 - 28800 measurements

Mechanical	
Enclosure	Molded plastic
Color	NEON green
Dimensions	Transmitter: 106 x 64 x 39 mm Sensor: 40 x 21 mm
Weight (including mounting bracket)	Transmitter: 260 g Sensor: 136 g
Cable lenght	3m
Connector Sensor	M12 Connector 4 Pins, A coded, male
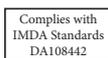
Installation	
Required installation qualification	IEC 60079-14
Method	Transmitter: Bandclamp or bolts Sensor: Direct mount (M6 bolt) Magnetic and chemically bonded adapters are available

Measurements	
Measuring range	5 - 6.66 kHz 3dB points
RMS velocity	0.0 - 200.0 mm/s Resolution: 1 LSB: 0.01 mm/s Accuracy: ±1 dB
Acceleration	0 - 150 m/s^2 Resolution: 1 LSB: 0.01 m/s^2 Accuracy: ±1 dB
FFT (dependent on application config.)	Binsize, Resolution, Frequency Span, and Window. (minimal bin width = 0,81Hz, max freqeuncy span = 5 Hz to 6.66 kHz)
Temperature (Transmitter and Sensor)	-40 °C - 80 °C

Battery	
Battery life	>10 Years, at 25°C Depending on average ambient temperature and network quality
Conditions (at 25°C)	Message interval: 1 message / 4 hours
	Measurement interval: 1 measurement / 15 min
Battery type (replaceable)	2x Type A
Voltage	3.6 V
Capacity	2x 3600 mAh

Environmental conditions	
Operating temperature range	-40°C - 80°C
Storage temperature range	10°C - 30°C
Water & dust resistance	IP65

Certification		
ATEX/IECEx rating	Ex II 2G Ex ib IIC T4 Gb	
ATEX/IECEx	EN IEC 60079-0 EN 60079-11	IEC 60079-0 IEC 60079-11
ATEX/IECEx certificate	20ATEX0098X (ATEX) DEK 20.0056X (IECEx)	
CE	EN 300 220-1 V3.1.1 EN 300 220-2 V3.2.1 EN 300 330 V2.1.1 EN 301 489-1 V2.2.3 EN 301 489-3 V1.2.1	EN 62311 EN 62368-1 EN 62368-1/A11 EN 60529:1991 + A1:2000 + A2:2013
UKCA	Radio Equipment Regulation 2017	
RoHS	2011/65/EU	
WEEE	2003/108/EC	

Complies with
IMDA Standards
DA108442

Regional approvals	EU: CE Singapore: IMDA Other countries regional approvals can be certified upon request
Connectivity	
Protocol	LoRaWAN Private LoRa-WAN, public LoRa-WAN upon request
Frequency band	868 MHz / 923 MHz compatible Region specific frequencies and certifications upon request
Maximum RF output power	+13 dBm
Accessories ans Spare Parts	
Type	Battery replacement kit Chemically bonded adapter Magnetic mounting adapter (flat or curved)