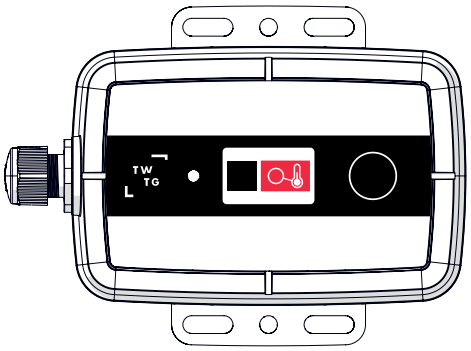
NEON Data Sheet

Temperature Transmitter



Product			
Product name	TWTG NEON Temperature Transmitter		
Type identification	Transmitter: DS-TT-02-XX (See product manual for regional identification)		
Functionality			
Four independent event-based message triggers	1. Above 2. Below 3. Increasing 4. Decreasing		
Adjustable measurement interval	1 min - 240 min		
Adjustable message interval	0 - 1008 measurements		
Thermocouples			
Thermocouple types:	Configurable over LoRa, Default Type K		
Sensor Type (<T/Cs>)	**Input range °F (°C)**	**Accuracy (value whichever is greater)**	**Temp effects/10 °C (value whichever is greater)**
B	752 to 3300 (400 to 1820)	± 0.1 % of span	± 0.05 % of span
E	-148 to 1830 (-100 to 1000)	± 0.1 % of span	± 0.05 % of span
J	-148 to 2190 (-100 to 1200)	± 0.1 % of span	± 0.05 % of span
K	-290 to 2500 (-180 to 1372)	± 0.1 % of span	± 0.05 % of span
N	-290 to 2370 (-180 to 1300)	± 0.1 % of span	± 0.05 % of span
R	-58 to 3200 (-50 to 1760)	± 0.1 % of span	± 0.05 % of span
S	-58 to 3200 (-50 to 1760)	± 0.1 % of span	± 0.05 % of span
T	-328 to 752 (-200 to 400)	± 0.1 % of span	± 0.05 % of span
Units	°F °C can be supported on request		
Open-circuit monitoring	Yes		
Calibration	Factory calibrated		
Cold junction compensation	Integrated digital measurement		

Resistance Temperature Detector (RTD)			
Sensor Type (<T/Cs>)	**Input range °F (°C)**	**Accuracy (value whichever is greater)**	**Temp effects/10 °C (value whichever is greater)**
Pt100	-320 to 1560 (-200 to +850)	± 0.1 % of span	± 0.05 % of span
Units	°F °C can be supported on request		
Interface	Three-wire system		
	Reference current ≤1.0 mA		
Open-circuit monitoring	Yes		
Short-circuit monitoring	Yes		

Battery	
Battery life	7 Years, at 77°F (25 °C) Depending on average ambient temperature and network quality
Conditions (at 25 °C)	Message interval: 1 message / 1 hour
	Measurement interval: 1 measurement / 5 min
Battery type (replaceable)	1x Type D
Voltage	3.6 V
Capacity	17,000 mAh
Environmental conditions	
Operating temperature range	-40°F - 158°F (-40°C - 70°C)
Storage temperature range	50°F - 86°F (10°C - 30°C)
Water & dust resistance	IP65
Allowable vibrations	IEC 60068-2-6:2007 Vibration test for sensor 100 to 2000 Hz 200m/s^2; 10 sweeps per axis; 90 min per axis.
Mechanical	
Enclosure material	Molded plastic
Weight Transmitter (including mounting bracket)	11.64 oz (330 g)
Dimensions	4.17 x 3.39 x 2.24 inch (106 x 86 x 57 mm)
Connector Sensor	M12 Connector 4 Pins, A coded, female
Installation	
Transmitter	Band clamp or bolts

Certification		
ATEX/IECEx rating	Ex II 1G Ex ia IIC T4 Ga	
ATEX/IECEx standards	EN IEC 60079-0 EN 60079-11	IEC 60079-0 IEC 60079-11
ATEX/IECEx certificate	22ATEX0004X DEK22.0004X	
cFMus rating	IS Class I, Division 1, Group ABCD T4 Class I, Zone 0 AEX/Ex ia IIC T4 Ga	
cFMus standards	FM Class 3600 FM Class 3610 FM Class 3810 ANSI/UL 60079-0	ANSI/UL 60079-11 CAN/CSA-C22.2 No. 61010-1 CAN/CSA-C22.2 No. 60079-0 CAN/CSA-C22.2 No. 60079-11
cFMus certificates	FM22US0061X FM22CA0043X	
CE	EN 300 220-1 V3.1.1 EN 300 220-2 V3.2.1 EN 301 489-1 V2.2.3 EN 301 489-3 V2.1.1	EN 61010-1:2010 + A1:2019 + A1:2019/ AC:2019 EN 62311:2020 EN 60529:1991 + A1:2000 + A2:2013
UKCA	Radio Equipment Regulation 2017	
RoHS	2011/65/EU	
WEEE	2003/108/EC	
Connectivity		
Protocol	LoRaWAN Private LoRa-WAN	
Frequency band	868 MHz / 915 MHz / 923 MHz compatible Region specific frequencies and certifications upon request	
Maximum RF output power	13 dBm	