i **TrapSensor**®
DATA STATION
MODEL **iT5-ZB-DSN**

DATA STATION FOR ITRAPSENSOR MONITORING SYSTEM VIA TLV'S IEEE 802.15.4-BASED PROTOCOL

Features

Data station for iTrapSensor monitoring system via TLV's IEEE 802.15.4-based protocol.

1. Utilizes the TLV original, IEEE 802.15.4-based communication network.
2. Suitable for monitoring of many devices: up to 8000 sensors can be connected to one data station.
3. Enables administration and control of the wireless network and configuration of network settings.
4. Uploads measurement data to the data collection server.
5. Specifications for hazardous and non-hazardous locations available.

Patented

Specifications

Model	iT5-ZB-DSN		
Type	Explosion-proof		Non explosion-proof
Wireless Frequency Band	2.4 GHz		
Maximum No. of Connections	100 repeaters and 8000 sensors[1] per data station		
Maximum No. of Hops	20 (from sensor to data station)		
Communication Cycle[2]	5 minutes to 24 hours		
Power Source	External power source: 100 - 240 V AC, 5 W, 50/60 Hz		
Intrinsic Safety Specifications	ATEX: ⟨Ex⟩ II 2G Ex db IIC T4 Gb IECEx: Ex db IIC T4 Gb UKEX: Ex db IIC T4 Gb UL/cUL: Class I, Zone 1, AEx db IIC T4 Gb Ex db IIC T4 Gb		–
Locations for Use	Hazardous locations, non-hazardous locations		Non-hazardous locations
Installation Location	Outdoor, indoor		Indoor
Ambient Temperature (°C)	-20 to +60		
Communication Method	TLV original wireless network, wired/wireless LAN		TLV original wireless network, wired LAN
Wireless Module	TLV Original Wireless Network	Communication distance[3]: Data station and repeater: Approx. 600 m (with a clear line of sight) Data station and sensor: Approx. 200 m (with a clear line of sight)	
		Built-in antenna	External antenna
	Wireless LAN	Compliance: IEEE 802.11b/g/n Security: 802.11i compliant AES, WPA/WPA2-PSK, WEP (64/128 bit, TKIP)	–
	Regulatory Compliance	FCC, IC, CE compliant	
Protection Class	IP54		IP40
Communication Port	LAN (Ethernet) RJ45 × 1 (100BASE-TX/10BASE-T)		
Material	Body	Cast Aluminium Alloy (AC4C-T6)	Hot rolled steel sheet (pickled)
	Antenna Cover	Polycarbonate	

[1] When measurement and communication cycles are set to 1 hour. Up to 250 sensors can be connected to 1 repeater.
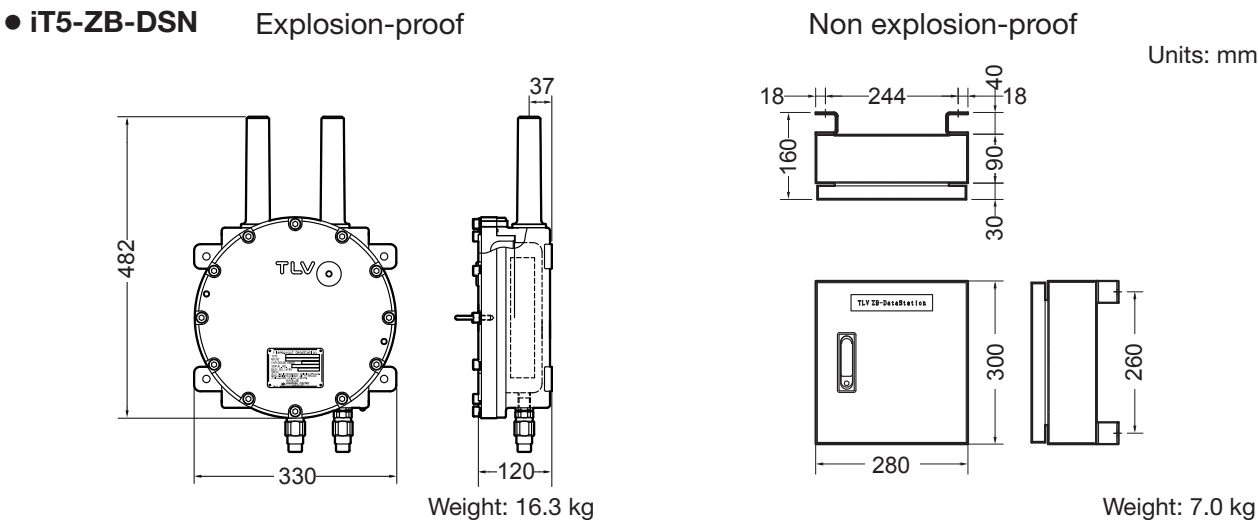[2] Automatically set according to the sensor communication cycle configuration.
[3] Wireless module power output is set to conform to the applicable regulations per country. As a result, the communication distance depends on environmental conditions and installation location, and may be shorter than expected. Contact TLV for further information.
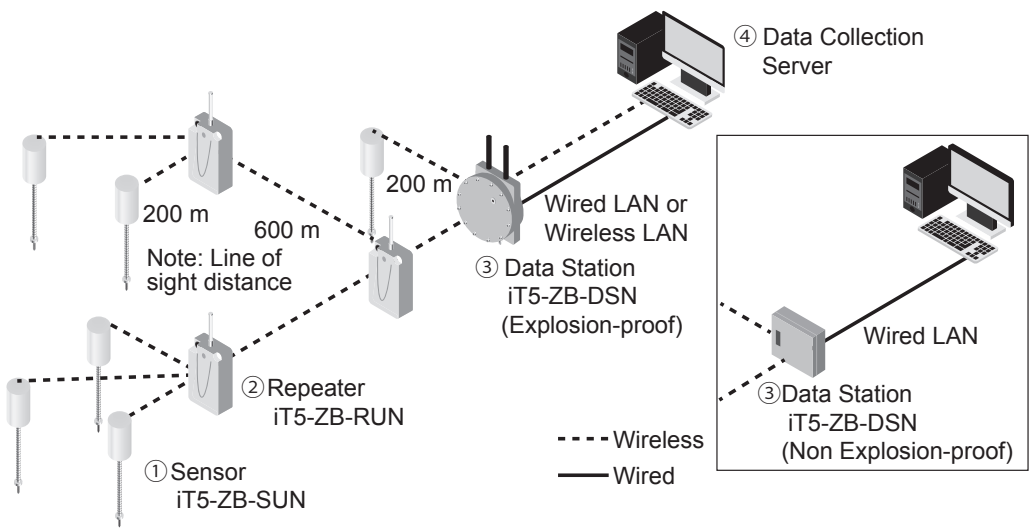
⚠ **CAUTION** To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

Dimensions

● **iT5-ZB-DSN**   Explosion-proof   Non explosion-proof

Units: mm

37

482

330 ←120→

Weight: 16.3 kg

18 ← 244 → 18 40

160 90 30

TLV ZB-DataStation

300

260

280

Weight: 7.0 kg

System Configuration Example

④ Data Collection Server

200 m

200 m

600 m

Note: Line of sight distance

Wired LAN or Wireless LAN

③ Data Station iT5-ZB-DSN (Explosion-proof)

② Repeater iT5-ZB-RUN

① Sensor iT5-ZB-SUN

- - - - Wireless
—— Wired

Wired LAN

③ Data Station iT5-ZB-DSN (Non Explosion-proof)

No.	Model	Function
①	Sensor: iT5-ZB-SUN	Measurement of ultrasound and surface temperature, wireless transmission of information
②	Repeater: iT5-ZB-RUN	Wireless relay of information
③	Data Station: iT5-ZB-DSN	Relay of information via intranet
④	Data Collection Server	Importing collected data

Refer to individual specification data sheets (SDS) for full details.