

DTH100

V1.0



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1. Revision History

Revision	Date	Author	Description of Change
1.00	2021-09-25	Tomliu	Initial

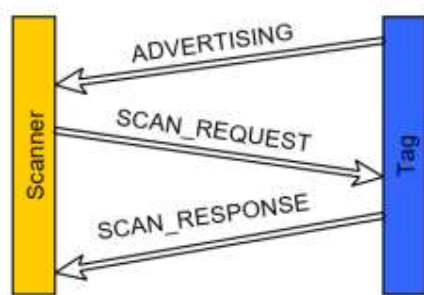
2. Product introduction

DTH100 is a super easy installed, waterproof high-precision door sensor with embedded temperature and humidity sensor. It sends the door open/close status, temperature, humidity data to the host devices by built-in BLE5.1. Temperature and humidity sensor sampling rate is 10 seconds. The Bluetooth broadcast frequency is 1.2 seconds.

3. Product features

- Easy installation
- IP66
- BLE 5.1
- 3+ years battery life
- Real-time door open close status
- Humidity sensor
- Temperature sensor
- Micro size
- 4G/2G optional
- LED status indication

4. Data Stream Format



4.1 “Temperature, Humidity and Door Sensor” Format

Bytes	Frame Type	Value
1	Length	0x02
2	Type	0x01

3	Data	0x06
4	Length	0x08
5	Type	0x16
6	DS100 Serve LSB	0x01
7	DS100 Serve MSB	0x2A
8	Temperature LSB	
9	Temperature MSB	
10	RH Data LSB	
11	RH Data MSB	
12	Door Open State	0/1
13	Length	<=15
14	Type	0x09
15	NAME[0]	
16	NAME[1]	
17	NAME[2]	
18	NAME[3]	
19	NAME[4]	
20	NAME[5]	
21	NAME[6]	
22	NAME[7]	
23	NAME[8]	
24	NAME[9]	
25	NAME[10]	
26	NAME[11]	
27	NAME[12]	
28	NAME[13]	
29	NAME[14]	
30	Reserved	
31	Reserved	

4.2 “Battery information” in the Scan Response

Bytes	Frame Type	Value
1	Length	0x06
2	Type	0x16
3	Battery Serve LSB	0x19
4	Battery ServeMSB	0x2A
5	Batt. data LSB	
6	Batt. data MSB	
7	Batt. data (%)	

5. Physical characteristics of products

PN	DTH100
Industrial grade	IP66
Shell material	ABS plastic
Shell color	black
Dimensions	75mm*38mm*19mm/Magnet 70mm*14mm*12mm
Product weight	
Battery type	Lithium iron battery (1200mAh)
Supply Voltage	3V
Average power consumption	
Transmission distance	Open limit transmission distance 150 meters
Installation	3M Sticker

6. Technical parameters

feature			Error Range
Temperature Detection	Measuring range	-40°C~70°C	Limited by the battery operating environment
	Accuracy	5°C~60°C	±0.2°C
		≤5°C or ≥60°C	±1.4°C
	Resolution Ratio	0.01°C	
Humidity detection	Measuring range	0%RH~100%RH	
	Accuracy	20%RH~80%RH	±2 %RH
		≤20 RH or ≥80%RH	±3.5%RH
	Resolution Ratio	0.01%RH	
Door Detection	Detection Distance	≤3cm	
Temperature & Humidity sample rate		10 seconds	
Door Status		Interrupt Trigger	

7. Electrical characteristics

Static current	4.5uA
Peak current	10mA
Average current	33uA
Battery capacity	1200mAH
Service life	>= 3 years

8. Environmental characteristics

Working temperature	-40°C~+70°C
Storage temperature	-40°C~+70°C, ≤65%RH

9. operating instructions

Press the button for 2 seconds. If the green light blinks for 5 times, the device is turned on. If the green light is steady on, the device is powered off