Occupancy Detecting Sensor ODS

SKU: ODS

Doc No: ODS-DS-EN-10

Introduction

ODS is the 60 GHz mmWave sensor to solve the existing disadvantages of current technologies like PIR sensor, Camera…ODS is the smart sensor to detect the human in specified area. It works perfectly for restroom occupancy and management for maintenance. Leveraging our sensor technology, the Internet of Things, cloud platforms, and big data applications, this sensor provides people with better, more efficient, convenient and comfortable services. The built-in connectivity can support various type of communication like Sub-GHz, LoRaWAN, Sigfox, Wifi, Ethernet, Cellular (3G, NB-IoT)

- Robust design for outdoor application;
- Temperature & Humidity control;
- Automatic cleaning;
- Automatic zeroing;
- Automatic alert when unit need maintenance;
- Cellular connectivity to server;
- Remote management, data storage and data forwarding via cloud portal;

Typical Applications

ODS is used for Occupancy detection, People tracking, People counting, Space Utilization, Maintenance alerts, Equipment management, Energy consumption management... in:

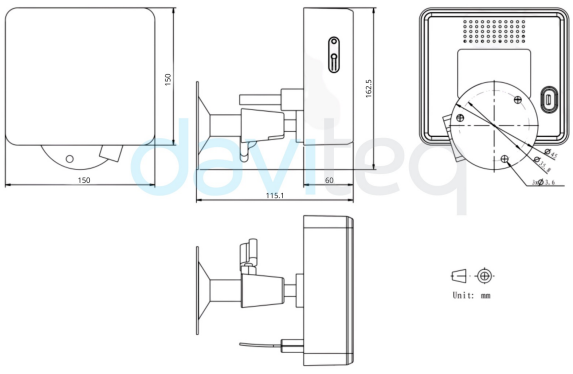
- Restrooms
- Office Buildings
- Hospitals
- Shopping Malls
- Mass Transit
- Airports
- Tourist Attractions
- Hotels
- Schools

OCCUPANCY DETECTING SENSOR
ODS

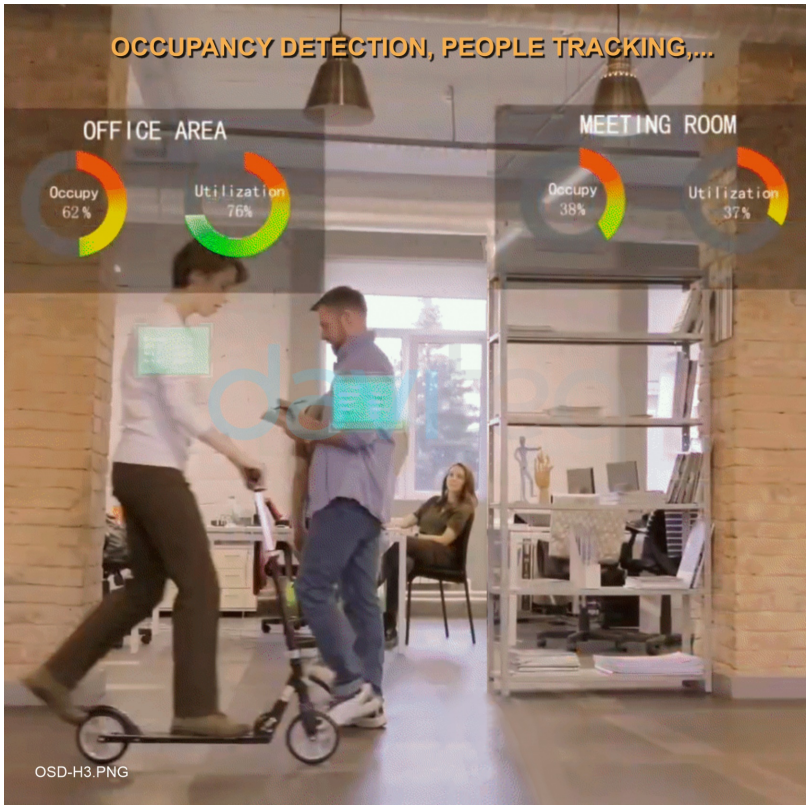


ODS-H1.PNG

DIMENSION DRAWING OF ODS SENSOR
(Unit: mm)



ODS-H2.PNG



Specification

OCCUPANCY SENSOR SPECIFICATION	
Operating frequency	60GHz
Azimuth angle	120 degree
Elevation angle	120 degree
Detection range	6m
CO2 SENSOR SPECIFICATION	
CO2 Sensor technology	NDIR sensor
CO2 range/resolution/accuracy	400-10.000 ppm / 1ppm / (+/- 30ppm + 3% reading)
Repeatability	+/- 10ppm
Temperature Stability	+/- 2.5ppm / oC in range 0-50 oC
Temperature range/resolution/accuracy	-40..+70oC / 0.1oC / ± 0.5 °C in range 0-50 oC
Humidity range/resolution/accuracy	0-100%RH / 0.1%RH /+/- 3.0%RH in range 25-100% RH
SOUND LEVEL SENSOR	
Range	30 - 130 dB
Frequency Response	31.5 Hz - 8 KHz
Accuracy	+/- 3 dB
PM SENSOR SPECIFICATION	

Mass concentration	PM1.0, PM2.5, PM4 and PM10
Number concentration	PM0.5, PM1.0, PM2.5, PM4 and PM10
Mass concentration range	1 to 1000 µg/m3
Mass concentration resolution	1 µg/m3
Mass concentration accuracy	±10 µg/m3 @ 0 to 100 µg/m3, ±10 % @ 100 to 1000 µg/m3
Lower limit of detection	0.3 µm
Number concentration range	0 to 3’000 #/cm3
Number concentration precision 1,2 for PM0.5, PM1 and PM2.53	0 to 1000 #/cm3 ==> ±100 #/cm3 1000 to 3000 #/cm3 ==> ±10 % m.v.
CONNECTIVITY SPECIFICATION	
Connectivity	Select one of WiFi, Ethernet, Sub-GHz, LoRaWAN, Sigfox
Host communication supports	TCP/IP, UDP/IP, FTP, HTTPS, SNMP...
Antenna	Internal antenna
Power supply	7..48VDC, avg. 200mA, peak 1.5A
On-board memory & sensors	2MB Flash, PCB temperature sensor
Electrical connectors	PG13.5 cable gland of M20x1.5 female thread conduit
SIM slot (cellular versions)	01 x micro-SIM (cellular versions only)
Working temperature	-20 .. + 60 oC
Working humidity	0 .. 95% RH
Dimension	150x150x60 (without mounting bracket)
Net weight	< 1 kg

Ordering Code

Item code	**Descriptions**
ODS-WF-01	OCCUPANCY DETECTING SENSOR WITH WIFI CONNECTION, 7-48VDC SUPPLY, WITH MOUNTING BRACKET
ODS-ETH-01	OCCUPANCY DETECTING SENSOR WITH ETHERNET CONNECTION, 7-48VDC SUPPLY, WITH MOUNTING BRACKET
ODS-3G-01	OCCUPANCY DETECTING SENSOR WITH 3G CONNECTION, 7-48VDC SUPPLY, WITH MOUNTING BRACKET
ODS-LRW-01	OCCUPANCY DETECTING SENSOR WITH WIRELESS LORAWAN CONNECTIVITY, INTERNAL ANTENNA, 860-930 MHZ FOR ALL REGIONS, 7-48VDC SUPPLY, WITH MOUNTING BRACKET
ODS-SFC-01	OCCUPANCY DETECTING SENSOR WITH WIRELESS SIGFOX CONNECTIVITY, INTERNAL ANTENNA, 860-930 MHZ FOR ALL REGIONS, 7-48VDC SUPPLY, WITH MOUNTING BRACKET

OPTIONAL SENSORS	
-CO2	CO2 SENSOR FOR RANGE UP TO 40.000 PPM, INCLUDED HUMIDITY AND TEMPERATURE MEASUREMENT
-SND	SOUND LEVEL SENSOR
-PM	PARTICLE SENSOR PM1.0, PM2.5, PM10 FOR RANGE UP TO 1000 UG/M3
other sensors	Please consult factory

⚠ Link for full datasheet: https://filerun.daviteq.com/wl/?id=TEgG7hsjYvBQ4HIPu9jxFIYldgOuTlAw

⚠ Link for manual:

Daviteq Technologies Inc

www.daviteq.com | info@daviteq.com

Revision #6
★ Created Thu, Apr 22, 2021 6:48 PM by Lộc Vĩnh Nguyễn
Updated Thu, Apr 22, 2021 9:24 PM by Kiệt Anh Nguyễn