Open the **Propeller app**
to set up your sensor

# British English

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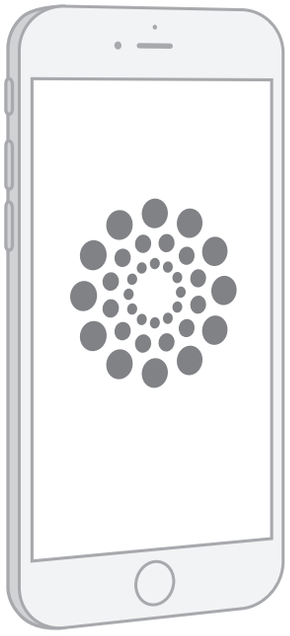
## Let’s get started



## Set up your sensor

Grab your smartphone and follow the steps in the **Propeller smartphone app** to set up your sensor.

**Need help?**

Email us at help@propellerhealth.com.

# Welcome to Propeller

## Here's how it works:

- Sensor logs when you use your inhaler
- Sensor sends inhaler data to your smartphone using **Bluetooth®** wireless technology
- Use the Propeller app to see your inhaler use trends

## Not feeling well?

Call your doctor. Sensor data can be delayed, and you know your health best – never wait to call.

## Open the Propeller app for a step-by-step guide to setting up your sensor.

We'll walk you through everything you need to get started! The sensor and app work together to log your data.

⚠ *Your Propeller sensor will not work without the Propeller mobile app. To set up your sensor, you must first download the Propeller app on to your smartphone and follow the in-app instructions.*

# Warnings

## The sensor is not meant to communicate emergencies

Call your doctor right away if you need care.

## Sensor information can be delayed, and your care team may not be aware of your condition

Propeller can help people to understand patterns over time, but it is not a real-time patient monitoring system; data can be delayed. If you are sharing your Propeller data with your healthcare provider, they may not be aware of your current condition.

## If your sensor interferes in any way with use of your inhaler, remove your sensor

Send an email to help@propellerhealth.com.

## Do not put the sensor under water

Do not place the sensor under water or put it in a dishwasher or steriliser. It could damage the sensor and cause it to not function properly.

## Never delay using your inhaler in order to attach your sensor

## Do not try to remove the battery from the sensor or service the sensor

This could damage the sensor and cause it to not work properly. If you are having a problem with your sensor, please send an email to help@propellerhealth.com. Changes or modifications not expressly approved by Propeller for compliance could void the user's authority to operate the equipment.

## The sensor is not a dose counter

The sensor can't tell you when your inhaler is empty. Please use the dose counter on your inhaler if it has one.

## Choking hazard

Keep away from small children.

## Additional warnings for Sensor Model 2014-D (Sensor for Diskus®)

Sliding the sensor across a table while holding the white part of the sensor can cause the sensor to mistakenly record a dose. If you notice that the sensor is incorrectly recording doses, please send an email to help@propellerhealth.com.

The sensor is a radio frequency (RF) device. Interference from other nearby RF transmitters could affect its performance. For best results, keep away from powerful RF transmitters and low frequency (<150 kHz) RFID transmitters. See the Appendix for recommended separation distances. The sensor has not been tested for use in a magnetic resonance environment (such as an MRI room).

Sensor Model 2014-D passed material safety testing for use with up to 250,000 Diskus® doses (resulting in 694 hours of contact with the skin). Do not use a sensor for more than 250,000 Diskus® doses or over 694 hours of skin contact.

# Indications for use

### Sensor Model 2016-M

## Sensor for MDI

The Propeller System is intended to assist patients, carers and providers in monitoring a treatment regime to manage respiratory disease by automatically capturing, storing, calculating and displaying medication use information, reminders, trends and patterns in the day-to-day life of a patient with respiratory disease. The Propeller System includes inhaler sensors, mobile/web applications and the Propeller Web Platform.

The Propeller Sensor Model 2016-M (Propeller Sensor for MDI):

- Is a device intended for single-patient use to assist patients and their doctors in recording and monitoring the actuations of prescribed MDI usage.
- Provides on-sensor audio and/or visual reminders to aid the user in staying compliant with prescribed MDI medication schedules.

The Propeller Sensor Model 2016-M connects via Bluetooth technology (such as through the Propeller Mobile Application) to the Propeller Platform.

The Propeller Mobile application is a mobile application intended to:

- Be used as a display to provide calculated outputs from the Propeller Platform.
- Connect with the Propeller Sensors, including the Propeller Sensor Model 2016-M, and other Bluetooth devices.
- Provide an interface for users to configure their accounts to add their doctor or carer as an information recipient, as well as including information such as prescribed medications and associated dose schedules.
- Capture user inputs such as surveys, symptoms, triggers and other information about a user's day-to-day disease monitoring.

The Propeller Web Application is similar to the Propeller Mobile Application in functionality except that it does not provide a direct connection to the Propeller Sensors. The Propeller Web Application adds additional functionality for a doctor to log in to view patient accounts.

The Propeller Platform System is a cloud-based device which is intended to:

- Act as a remote storage system to store information captured from Propeller Sensors as well as user inputs
- Provide analysis capability to calculate trends and patterns associated with individual user behaviour such as adherence, control levels, trends, patterns, triggers and symptoms.
- Provide summary reports and detailed information on patients that health care professionals can use for clinical decision support and professional diagnosis.
- Allow for further connections to third-party systems such as Electronic Medical Records (EMR) integrations via an application programming interface (API).

The Propeller Sensor 2016-M devices are indicated for patient populations aged two and above or as indicated by the prescribed MDI medication.

The Propeller Sensor Model 2016-M and Propeller Mobile Application can be used both indoors and outdoors where it is safe to use portable wireless devices.

The output of the Propeller System is not intended to diagnose or replace a diagnosis provided by a medical doctor. The Propeller System is not intended for use as an MDI dose counter, nor is it intended to indicate the quantity of medication remaining in an MDI.

### Sensor Model 2014-R

## Sensor for Respimat®

- The Propeller System includes the Propeller Sensor Model 2014-R. The sensor is an accessory device intended for single-patient use to assist doctors and patients in recording and monitoring the actuations of prescribed SMI usage.
- The Propeller Mobile Application records, stores and transmits usage events from Propeller Sensors, or via manual user entry, to a remote storage system. With the Propeller Mobile Application the user can review information collected from the SMI sensor, and report and review symptoms and other information about their disease management and its impact. The user may also share their information with their carers, doctor, and healthcare providers.
- The Propeller Web Application is software that, like the Propeller Mobile Application, is intended to allow users to review the collected information and characteristics of their SMI and its use, to capture other patient-reported information and outcomes, and to allow that information to be shared with their caregivers, doctors and health care providers.
- When used with a prescribed SMI, the system can report on information captured during the normal course of use, such as the time between actuations, which can be helpful in assessing SMI technique.
- The Propeller System is intended to be used in populations from Child (>2 years) to Adult. The Propeller System can be used both indoors and outdoors; home, work and clinical settings, as well as on aircraft.
- The Propeller System may also be used in clinical trials where researchers need to know information about the use of SMI medication(s) by a participant.
- The output of the Propeller System is not intended to diagnose or replace a diagnosis provided by a medical doctor. The Propeller System is not intended for use as an SMI dose counter, nor is it intended to indicate the quantity of medication remaining in an SMI.

### Sensor Model 2014-D

## Sensor for Diskus®

- The Propeller System includes the Propeller Sensor Model 2014-D. The sensor is an accessory device intended for single-patient use to assist doctors and patients in recording and monitoring the actuations of prescribed DPI usage for the Diskus® devices.
- The Propeller Mobile Application records, stores and transmits usage events from Propeller Sensors, or via manual user entry, to a remote storage system. With the Propeller Mobile Application the user can review information collected from the DPI sensor, and report and review symptoms and other information about their disease management and its impact. The user may also share their information with their carers, doctor, and healthcare providers.
- The Propeller Web Application is software that, like the Propeller Mobile Application, is intended to allow users to review the collected information and characteristics of their DPI and its use, to capture other patient-reported information and outcomes, and to allow that information to be shared with their carers, doctors and health care providers.

- When used with a prescribed DPI, the system can report on information captured during the normal course of use, such as the time between actuations that can be helpful in assessing DPI technique.
- The Propeller System is intended to be used in populations from Child (>2 years) to Adult.
- The Propeller System can be used both indoors and outdoors; home, work and clinical settings, as well as on aircraft.
- The Propeller System may also be used in clinical trials where researchers need to know information about the use of DPI medication(s) by a participant.
- The output of the Propeller System is not intended to diagnose or replace a diagnosis provided by a medical doctor. The Propeller System is not intended for use as an DPI dose counter, nor is it intended to indicate the quantity of medication remaining in an DPI.

### Sensor Model 2015-E and 2018-F

## Sensor for Ellipta®

- The Propeller System includes the Propeller Sensor Model 2015-E and 2018-F. The sensor is an accessory device intended for single-patient use to assist doctors and patients in recording and monitoring the actuations of prescribed DPI usage for the Ellipta® devices.
- The Propeller Mobile Application records, stores and transmits usage events from Propeller Sensors, or via manual user entry, to a remote storage system. With the Propeller Mobile Application the user can review information collected from the DPI sensor, and report and review symptoms and other information about their disease management and its impact. The user may also share their information with their carers, doctor, and healthcare providers.
- The Propeller Web Application is software that, like the Propeller Mobile Application, is intended to allow users to review the collected information and characteristics of their DPI and its use, to capture other patient-reported information and outcomes, and to allow that information to be shared with their carers, doctors and health care providers.
- When used with a prescribed DPI, the system can report on information captured during the normal course of use, such as the time between actuations that can be helpful in assessing DPI technique.
- The Propeller System is intended to be used in populations from Child (>2 years) to Adult.
- The Propeller System can be used both indoors and outdoors; home, work and clinical settings, as well as on aircraft.
- The Propeller System may also be used in clinical trials where researchers need to know information about the use of DPI medication(s) by a participant.
- The output of the Propeller System is not intended to diagnose or replace a diagnosis provided by a medical doctor. The Propeller System is not intended for use as an DPI dose counter, nor is it intended to indicate the quantity of medication remaining in an DPI.

## Sensor Model 2017-B

# Sensor for Breezhaler®

The Propeller System is intended to assist patients, carers and providers in monitoring a treatment regime to manage respiratory disease by automatically capturing, storing, calculating and displaying medication use information, reminders, trends and patterns in the day-to-day life of a patient with respiratory disease. The Propeller System includes inhaler sensors, mobile/web applications and the Propeller Web Platform.

The Propeller Sensor Model 2017-B (Propeller Sensor for Breezhaler):

- Is a device intended for single-patient use to assist patients and their doctors in confirming the inhalation and use of prescribed DPI by recording and monitoring the actuations of the Breezhaler device and the whirring noise of the spinning capsule during inhalation.
- Provides on-sensor audio and/or visual reminders to aid the user in staying compliant with prescribed DPI medication schedules.

The Propeller Sensor Model 2017-B connects via Bluetooth technology (such as through the Propeller Mobile Application) to the Propeller Platform.

The Propeller Mobile application is a mobile application intended to:

- Be used as a display to provide calculated outputs from the Propeller Platform.
- Connect with the Propeller Sensors, including the Propeller Sensor Model 2017-B, and other Bluetooth devices.
- Provide an interface for users to configure their accounts to add their doctor or carer as information recipients, as well as including information such as prescribed medications and associated dose schedules.
- Capture user inputs such as surveys, symptoms, triggers and other information about a user's day-to-day disease monitoring.

The Propeller Web Application is similar to the Propeller Mobile Application in functionality except that it does not provide a direct connection to the Propeller Sensors. The Propeller Web Application adds additional functionality for a doctor to log in to view patient accounts.

The Propeller Platform System is a cloud-based device which is intended to:

- Act as a remote storage system to store information captured from Propeller Sensors as well as user inputs
- Provide analysis capability to calculate trends and patterns associated with individual user behaviour such as adherence, control levels, trends, patterns, triggers and symptoms.
- Provide summary reports and detailed information on patients that health care professionals can use for clinical decision support and professional diagnosis.
- Allow for further connections to third-party systems such as Electronic Medical Records (EMR) integrations via an application programming interface (API).

As the Breezhaler devices are indicated for patient populations aged six and above, when the Propeller Sensor Model 2017-B is used the same age indications apply.

The Propeller Sensor Model 2017-B and Propeller Mobile Application can be used both indoors and outdoors where it is safe to use portable wireless devices.

The output of the Propeller System is not intended to diagnose or replace a diagnosis provided by a medical doctor. The Propeller System is not intended for use as a DPI dose counter, nor is it intended to indicate the quantity of medication remaining in a DPI.

## Sensor Model 2018-E

# Sensor for Easyhaler®

The Propeller System is intended to assist patients, carers and providers in monitoring a treatment regime to manage respiratory disease by automatically capturing, storing, calculating and displaying medication use information, reminders, trends and patterns in the day-to-day life of a patient with respiratory disease. The Propeller System includes inhaler sensors, mobile/web applications and the Propeller Web Platform.

The Propeller Sensor Model 2018-E (Propeller Sensor for Easyhaler):

- Is a device intended for single-patient use to assist patients and their doctors in recording and monitoring the actuations of prescribed DPI usage for the Easyhaler devices.
- Provides on-sensor audio and/or visual reminders to aid the user in staying compliant with prescribed DPI medication schedules.

The Propeller Sensor Model 2018-E connects via Bluetooth technology (such as through the Propeller Mobile Application) to the Propeller Platform.
The Propeller Mobile application is a mobile application intended to:

- Be used as a display to provide calculated outputs from the Propeller Platform.
- Connect with the Propeller Sensors, including the Propeller Sensor Model 2018-E, and other Bluetooth devices.
- Provide an interface for users to configure their accounts to add their doctor or carer as information recipients, as well as including information such as prescribed medications and associated dose schedules.
- Capture user inputs such as surveys, symptoms, triggers and other information about a user's day-to-day disease monitoring.

The Propeller Web Application is similar to the Propeller Mobile Application in functionality except that it does not provide a direct connection to the Propeller Sensors. The Propeller Web Application adds additional functionality for a doctor to log in to view patient accounts.

The Propeller Platform System is a cloud-based device which is intended to:

- Act as a remote storage system to store information captured from Propeller Sensors as well as user inputs
- Provide analysis capability to calculate trends and patterns associated with individual user behaviour such as adherence, control levels, trends, patterns, triggers and symptoms.
- Provide summary reports and detailed information on patients that health care professionals can use for clinical decision support and professional diagnosis.
- Allow for further connections to third-party systems such as Electronic Medical Records (EMR) integrations via an application programming interface (API).

As the Easyhaler DPI devices are indicated for patient populations aged four and above, when the Propeller Sensor Model 2018-E is used the same age indications apply.

The Propeller Sensor Model 2018-E and Propeller Mobile Application can be used both indoors and outdoors where it is safe to use portable wireless devices.

The output of the Propeller System is not intended to diagnose or replace a diagnosis provided by a medical doctor. The Propeller System is not intended for use as a DPI dose counter, nor is it intended to indicate the quantity of medication remaining in a DPI.

# Appendix

## Cleaning and care

The sensor is intended to be used as a single-patient device. Each sensor should only be used for one medication. You can re-attach the sensor to refills of the same prescription for the lifetime of the sensor's battery. The sensor will remain synced to your smartphone even when moved to a refill of the same medication. The sensor is not provided sterile, nor does it require sterilisation. Remove the sensor from your inhaler before cleaning. Clean the outside of the sensor with a clean, dry cloth. Do not put the sensor under water or in a dishwasher or steriliser – this could damage the sensor.

### Sensor Models 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E and 2018-F

## Operating and storage conditions

- Operating temperature: 0° to 40° C (32° to 104° F)
- Storage temperature: -10° to 60° C (15° to 140° F)
- Relative humidity: 5% to 95% noncondensing
- Altitude: 700 to 1060 hPa

## Compliance information

This device conforms to:

- IEC 60601-1:2005/(R)2012
- IEC 60601-1-2:Edition 4:2014
- IEC 60601-1-6:Edition 3:2010-01
- IEC 60601-1-11:2011

Your sensor may contain >.1% of 1,2-Dimethoxyethane (EGDME). This chemical is used in the production of the lithium battery that provides power to your sensor. Under normal use conditions, you should not come into contact with the battery. You should not attempt to replace the battery.

This device complies with RoHS 2011/65/EU.

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference; and
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

MD The Propeller Health Sensors are medical devices intended for direct distribution to and for use by the public. Report any serious incidents to the competent authority and to:

Propeller

Reciprocal Labs Corp.
1 South Pinckney Street, Suite 610
Madison, WI 53703
USA
Assembled in the USA

CE EC REP

ResMed SAS
Parc Technologique de Lyon
292 Allée Jacques Monod
69791 Saint-Priest Cedex FRA

Additional instructions for use are available in electronic format at support.propellerhealth.com. You may request these additional instructions in paper format by emailing help@propellerhealth.com.

# Symbols used

## ISO 7000 Fifth edition 2014-01-15: Graphical symbols for use on equipment


**Serial number.** Indicates the manufacturer's serial number so that a specific medical device can be identified. ISO 7000-2498.

**Date of manufacture.** Indicates the date when the medical device was manufactured (YYYY-MM-DD). ISO 7000-2497.

**Manufacturer.** Indicates the medical device manufacturer, as defined in EU Directives 90/385/EEC, 93/42/EEC and 98/79/EC. ISO 7000-3082.

**Consult instructions for use.** Indicates the need for the user to consult the instructions for use. ISO 7000-1641.

**Caution.** Indicates the need for the user to consult the instructions for use for important cautionary information such as warnings and precautions that cannot, for a variety of reasons, be presented on the medical device itself. ISO 7000-0434A.

**Temperature limit.** Indicates the temperature limits to which the medical device can safely be exposed. ISO 7000-0632.

**Atmospheric pressure limitation.** Indicates the range of atmospheric pressure to which the medical device can safely be exposed. ISO 7000-2621.

**Humidity limitation.** Indicates the range of humidity to which the medical device can safely be exposed. ISO 7000-2620.

## ASTM F2503-13: Standard practice for marking medical devices and other items for safety in the magnetic resonance environment


**MR unsafe.** ASTM F2503-13.

## IEC 60417:2002 DB: Graphical symbols for use on equipment

**Type BF applied part.** To identify a type BF applied part complying with IEC 60601-1. IEC 60417-5333.

**Non-ionising electromagnetic radiation.** To indicate equipment or systems e.g. in the medical electrical area that include RF transmitters. IEC 60417-5140.

## Miscellaneous

**Dispose of device in accordance with local regulations.**

**Federal Communications Commission.**

**Device meets requirements of European Medical Device Directive 93/42/EEC.**


**Indicates the Authorised representative in the European Community.**


**Single patient multiple use.**


**Medical device.**

## Sensor Models 2014-R, 2014-D, 2015-E and 2018-F

IP 22 **Protected from safety risks due to dripping water when device is tilted up to 15 degrees.**

## Quality of service

Bluetooth technology uses several low level data handling techniques to ensure the integrity of data transmission to and from the sensor. Additionally, the sensor uses its own, higher-level data handling measures to ensure that events are received accurately. If the sensor is not able to establish a reliable wireless connection for any reason, the sensor has been designed to internally record data for automatic retransmission when a reliable connection can be established.

This is a wireless device. Wireless devices can cause interference with other medical electrical equipment.

This device uses Bluetooth Smart wireless technology to communicate securely and reliably in areas with high levels of radio interference. This technology uses advanced frequency hopping techniques to maintain high levels of accuracy in the most saturated radio environments and was selected specifically for these features.

## Electromagnetic compatibility

Medical electrical equipment needs special precautions regarding electromagnetic compatibility (EMC) and needs to be installed and put into service according to the information provided in this user manual.

The sensor is designed to automatically resume normal operation in the unlikely event of interference from common electromagnetic systems (for example, anti-theft systems, metal detectors and radio frequency identification readers). Move away from the system and the sensor will resume normal operation.

Portable and mobile radio frequency (RF) communications equipment can affect medical electrical equipment. The following table provides recommended separation distances between portable and mobile RF communications equipment and the Propeller sensor.

### Sensor Models 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E, and 2018-F

**Guidance and manufacturer's declaration – Electromagnetic emissions**

The Propeller Sensor Models 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E and 2018-F are intended for use in the electromagnetic environment specified below. The customer or the user of Propeller Sensor Models 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E or 2018-F should ensure that it is used in such an environment.

| Emissions test | Compliance | Electromagnetic environment – Guidance |
|---|---|---|
| **RF emissions CISPR 11** | Group 1 | The Propeller Sensor Models 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E and 2018-F only use RF energy for their internal function. Therefore, their RF emissions are very low and are not likely to cause any interference in nearby electronic equipment. |
| **RF emissions CISPR 11** | Class B | The Propeller Sensor Models 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E and 2018-F are suitable for use in all establishments, including domestic establishments. |

**ERP:** Effective radiated power is the power required at the input of a lossless reference antenna to produce, in a given direction at any specified distance, the same power flux density as that radiated by a given device. The effective radiated power for the antenna is 0 dBm.

## Sensor Models 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E, and 2018-F

### Recommended separation distances between portable and mobile RF communications equipment and the Propeller Sensor Models 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E and 2018-F

The Propeller Sensor Models 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E and 2018-F are intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Propeller Sensor Model 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E and 2018-F can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Propeller Sensor Model 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E and 2018-F as recommended below, according to the maximum output power of the communications equipment.

| Rated maximum output power of transmitter (W) | Separation distance according to frequency of transmitter (m) | | |
|---|---|---|---|
| | 150 kHz to 80 MHz<br>$d = 0.35\sqrt{P}$ | 80 MHz to 800 MHz<br>$d = 0.35\sqrt{P}$ | 800 MHz to 2.5 GHz<br>$d = 0.70\sqrt{P}$ |
| **0.01** | 0.035 | 0.035 | 0.070 |
| **0.1** | 0.11 | 0.11 | 0.22 |
| **1** | 0.35 | 0.35 | 0.70 |
| **10** | 1.1 | 1.1 | 2.2 |
| **100** | 3.5 | 3.5 | 7.0 |

For transmitters rated at a maximum output power not listed above, the recommended separation distance (d) in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

**NOTE 1:** At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

**NOTE 2:** These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

## Sensor Models 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E and 2018-F

### Guidance and manufacturer's declaration – Electromagnetic immunity

The Propeller Sensor Models 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E and 2018-F are intended for use in the electromagnetic environment specified below. The customer or the user of Propeller Sensor Model 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E or 2018-F should ensure it is used in such an environment.

| Immunity test | IEC 60601 Test level | Compliance level | Electromagnetic environment – Guidance |
|---|---|---|---|
| **Electrostatic discharge (ESD) IEC 61000-4-2** | ± 8 kV contact<br>± 15 kV air | ± 8 kV contact<br>± 15 kV air | Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%. |
| **Power frequency (50/60 Hz) magnetic field IEC 61000-4-8** | 30 A/m | 30 A/m | Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment. |
| **Radiated RF IEC 61000-4-3** | 10 V/m<br>80 MHz to 2.7 GHz | 10 V/m<br>80 MHz to 2.7 GHz | Portable and mobile RF communications equipment should be used no closer to any part of the Propeller Sensor Model 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E or 2018-F than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.<br>For these equations and the resulting recommended separation distances, see the table, 'Recommended separation distances between portable and mobile RF communications equipment and the Propeller Sensor Models 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E and 2018-F'.<br>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,[a] should be less than the compliance level in each frequency range.[b]<br>Interference may occur in the vicinity of equipment marked with the following symbol:  |

[a] Field strengths from fixed transmitters, such as base stations for radio (mobile/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment caused by fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Propeller Sensor Model 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E or 2018-F is used exceeds the applicable RF compliance level above, the Propeller Sensor Model 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E or 2018-F should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the Propeller Sensor Model 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E or 2018-F.

[b] Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 10 V/m.

| Technical specification | Value |
|---|---|
| **Radio frequency** | 2.4GHz |
| **Modulation** | GFSK |
| **Channels** | 40 channels, 2MHz/channel, FHSS |
| **Transmit power** | **Sensor Models 2014-R, 2014-D, 2015-E, 2016-M, 2017-B, 2018-E and 2018-F:** 0dBm. |
| **Protocol** | Bluetooth Smart |
| **Power source** | **Sensor Models 2014-R and 2014-D:** Two lithium manganese CR2032 batteries. Under normal use conditions, the sensor battery is expected to last for one year after first use. Battery life is based on the sensor being synchronised prior to the 'Sync by' date that appears on the packaging.<br>**Sensor Models 2015-E, 2016-M, 2017-B, 2018-E and 2018-F:** One non-replaceable lithium manganese CR2032 battery. Under normal use conditions, the sensor battery is expected to last for one year after first use. Battery life is based on the sensor being synchronised prior to the 'Sync by' date that appears on the packaging. |
| **RF transmission** | **Sensor Models 2014-R, 2014-D and 2015-E:**<br>FC Contains FCC ID: QOQ-BLE113.<br>Contains Industry Canada: 5123A-BGTBLE113.<br>**Sensor Models 2016-M, 2017-B, 2018-E and 2018-F:**<br>FC Contains FCC ID: QOQBGM12LMA (HVIN: BGM123A).<br>Contains Industry Canada: 5123A-BGM12LMA (HVIN: BGM123A). |

## Legal

Propeller

## We’re here to help!

propellerhealth.com/support
help@propellerhealth.com

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