OCF "Essen" – New Healthcare Device Types – Core Technology WG CR 2781

Legal Disclaimer

***** Annex A *****

Table 1 Per Category list of Device Types

Device Category Name	UDC Device Name	Device Name	Device Type (Normative)	Reference
Fitness		Cycling Power Meter	oic.d.cyclingpowermeter	C.4
Fitness		Cycling Speed Sensor	oic.d.cyclingspeedsensor	C.4
Fitness		Cycling Cadence Sensor	oic.d.cyclingcadencesensor	C.4

***** Annex C *****

C.4 Standardized Device Types

Table 20: Alphabetical list of healthcare device types

Section	Device Name	Device Type (rt)
C.4.x	Cycling Power Meter	oic.d.cyclingpowermeter
C.4.x	Cycling Speed Sensor	oic.d.cyclingspeedsensor
C.4.x	Cycling Cadence Sensor	oic.d.cyclingcadencesensor

C.4.x Cycling Power Meter

A cycling power meter is a sensor that is mounted on a bicycle and that allows the cyclist to measure his or her power output, which is used to move the bike forward and is measured in Watts. The meter transmits the information to OCF Clients. A cycling power meter uses different measurements to determine power:-
measure power directly
- measure torque and rotational velocity at the crank
- measure torque and rotational velocity at the wheel

Possible methods used by a cycling power meter for information updates include the following:

- Event-Synchronous Update e.g. the power information is updated each time the power sensor detects a new crank rotation.
- Time-Synchronous Update e.g. the power information is updated at 1Hz.

Table xx: Healthcare device type of cycling power meter

Device Type (rt)	Resource Type Name	Resource Type Value	Requirement level
oic.d.cyclingpowermeter	Cycling power	oic.r.cyclingpower	M
	Torque	oic.r.torque	O
	Cadence	oic.r.cadence	O

C.4.x.1 Required Resource Types

A cycling power meter shall expose oic.r.cyclingpower to report the measured power output (which is the power used to move the bike forward).

C.4.x.2 OCF-defined Optional Resource Types

A cycling power meter measures the torque at the crank or the wheel using the oic.r.torque Resource Type.

A cycling power meter measures the cadence, which is the number of revolutions of crank per minute when cyclists pedal the pedals, at the crank or the wheel using the oic.r.cadence Resource Type.

See Table C.2 for additional commonly used Resource Types that could be used here.

C.4.x Cycling Speed Sensor

Cycling speed sensors are devices mounted on a bicycle that measure the speed the bicycle is travelling. This is typically done using a magnet mounted on the wheel spokes and a sensor on the bicycle frame that senses the magnet passing.

Note 1 to entry: The notion ‘Sensor’ of the Device Name (Cycling Speed Sensor) is not associated with ‘sensor’, which is an OCF standard OCF Interfaces defined in ISO/IEC 30118-1:2018.

Table xx: Healthcare device type of cycling speed sensor

Device Type (rt)	Resource Type Name	Resource Type Value	Requirement level
oic.d. cyclingspeedsensor	Speed	oic.r.speed	M

C.4.x.1 Required Resource Types

A cycling speed sensor shall expose oic.r.speed to report the speed the bicycle is travelling .

C.4.x.2 OCF-defined Optional Resource Types

See Table C.2 for additional commonly used Resource Types that could be used here

C.4.x Cycling Cadence Sensor

Cycling cadence sensors measure the speed at which the user is pedaling, typically using a magnet attached to the pedal shaft and a sensor mounted on the frame.

Note 1 to entry: The notion 'Sensor' of the Device Name (Cycling Cadence Sensor) is not associated with 'sensor', which is an OCF standard OCF Interfaces defined in ISO/IEC 30118-1:2018.

Table xx: Healthcare device type of cycling cadence sensor

Device Type (rt)	Resource Type Name	Resource Type Value	Requirement level
oic.d.cyclingcadencesensor	Cadence	oic.r.cadence	M

C.4.x.1 Required Resource Types

A cycling cadence sensor shall expose oic.r.cadence to report the cadence, which is the number of revolutions of crank per minute when cyclists pedal the pedals.

C.4.x.2 OCF-defined Optional Resource Types

See Table C.2 for additional commonly used Resource Types that could be used here