

**OCF “Ipanema” – OCF Resource Type Specification – Data Model WG CR 3400**

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## 1.1 Generic Measurement Sensor

### 1.1.1 Introduction

This Resource describes a continuous measurement of some value or property or entity .  
The Property "measurement" is a number.

The Property unit is a string and will contain an SI unit of measurement in senML format  
<https://www.iana.org/assignments/senml/senml.xhtml>

### 1.1.2 Example URI

/GenericMeasurementResURI

### 1.1.3 Resource type

The Resource Type is defined as: "oic.r.sensor.measurement".

### 1.1.4 OpenAPI 2.0 definition

```
{
  "swagger": "2.0",
  "info": {
    "title": "Generic Measurement Sensor",
    "version": "2020-08-17",
    "license": {
      "name": "OCF Data Model License",
      "url":
"https://github.com/openconnectivityfoundation/core/blob/e28a9e0a92e17042ba3e83661e4c0fbce8bdc4ba/LICENSE.md",
      "x-copyright": "copyright 2020 Open Connectivity Foundation, Inc. All rights reserved."
    },
    "termsOfService": "https://openconnectivityfoundation.github.io/core/DISCLAIMER.md"
  },
  "schemes": ["http"],
  "consumes": ["application/json"],
  "produces": ["application/json"],
  "paths": {
    "/GenericMeasurementResURI" : {
      "get": {
        "description": "This Resource describes a continuous measurement of some value or property
or entity .\n\nThe Property \"measurement\" is a number.\n\nThe Property unit is a string and will
contain an SI unit of measurement in senML format
https://www.iana.org/assignments/senml/senml.xhtml",
        "parameters": [
          { "$ref": "#/parameters/interface" }
        ],
        "responses": {
          "200": {
            "description": "",
            "x-example": {
              "rt": ["oic.r.sensor.measurement"],
              "id": "unique_example_id",
              "measurement": 300.5,
              "unit": "dB",
              "n": "environmental sound measurement"
            },
            "schema": { "$ref": "#/definitions/Measurement" }
          }
        }
      }
    }
  },
  "parameters": {
    "interface": {
      "in": "query",
      "name": "if",
      "type": "string",
      "enum": ["oic.if.s", "oic.if.baseline"]
    }
  }
}
```

```

"definitions": {
  "Measurement": {
    "properties": {
      "rt": {
        "description": "The Resource Type",
        "items": {
          "maxLength": 64,
          "type": "string",
          "enum": ["oic.r.sensor.measurement"]
        },
        "minItems": 1,
        "uniqueItems": true,
        "readOnly": true,
        "type": "array"
      },
      "unit": {
        "description": "SI unit in SenML of the measurement",
        "readOnly": true,
        "type": "string"
      },
      "measurement": {
        "type": "number",
        "description": "Measured value for this sensor, units depend on the specific type of
sensor",
        "readOnly": true
      },
      "precision": {
        "$ref":
"https://openconnectivityfoundation.github.io/IoTDataModels/schemas/oic.baseresource.properties-
schema.json#/definitions/precision"
      },
      "n": {
        "$ref":
"https://openconnectivityfoundation.github.io/core/schemas/oic.common.properties.core-
schema.json#/definitions/n"
      },
      "range": {
        "$ref":
"https://openconnectivityfoundation.github.io/IoTDataModels/schemas/oic.baseresource.properties-
schema.json#/definitions/range\_number"
      },
      "step": {
        "$ref":
"https://openconnectivityfoundation.github.io/IoTDataModels/schemas/oic.baseresource.properties-
schema.json#/definitions/step\_number"
      },
      "id": {
        "$ref":
"https://openconnectivityfoundation.github.io/core/schemas/oic.common.properties.core-
schema.json#/definitions/id"
      },
      "if" : {
        "description": "The OCF Interface set supported by this Resource",
        "items": {
          "enum": [
            "oic.if.baseline",
            "oic.if.s"
          ],
          "maxLength": 64,
          "type": "string"
        },
        "minItems": 2,
        "uniqueItems": true,
        "readOnly": true,
        "type": "array"
      }
    },
    "type" : "object",
    "required": ["measurement", "unit"]
  }
}

```

```
}  
}
```

### 1.1.5 Property definition

<Table Reference Here> defines the Properties that are part of the "oic.r.sensor.measurement" Resource Type.

**Table 1 – The Property definitions of the Resource with type "rt" = "oic.r.sensor.measurement".**

Property name	Value type	Mandatory	Access mode	Description
rt	array: see schema	No	Read Only	The Resource Type
unit	string	Yes	Read Only	SI unit in SenML of the measurement
measurement	number	Yes	Read Only	Measured value for this sensor, units depend on the specific type of sensor
precision	multiple types: see schema	No	Read Write	
n	multiple types: see schema	No	Read Write	
range	multiple types: see schema	No	Read Write	
step	multiple types: see schema	No	Read Write	
id	multiple types: see schema	No	Read Write	
if	array: see schema	No	Read Only	The OCF Interface set supported by this Resource

### 1.1.6 CRUDN behaviour

<Table Reference Here> defines the CRUDN operations that are supported on the "oic.r.sensor.measurement" Resource Type.

**Table 2 – The CRUDN operations of the Resource with type "rt" = "oic.r.sensor.measurement".**

Create	Read	Update	Delete	Notify
	get			observe