

IPSO Smart Objects

Smart Objects v.13

Internet Protocol for Smart Objects (IPSO) Alliance

Technical Guideline

IPSO Smart Object Committee

April 28th, 2014 (DRAFT)

This document defines a set of OMA Lightweight M2M Objects for use with common sensors, actuators, and data sources which conform to the IPSO Smart Object Framework. Please see IPSO Technical Guideline “Smart Object Framework” for a generic description of the framework and objects.

Table 1 Summarizes the Objects defined by this specification

Table 1 Smart Objects defined by this specification (* Temporary values, to be assigned by OMNA)

Object	Object ID *	Multiple Instances?
IPSO Digital Input	3200	Yes
IPSO Digital Output	3201	Yes
IPSO Analogue Input	3202	Yes
IPSO Analogue Output	3203	Yes
IPSO Generic Sensor	3300	Yes
IPSO Luminosity Sensor	3301	Yes
IPSO Presence Sensor	3302	Yes
IPSO Temperature Sensor	3303	Yes
IPSO Humidity Sensor	3304	Yes
IPSO Power Measurement	3305	Yes
IPSO Actuator	3306	Yes
IPSO Set Point	3308	Yes
IPSO French TIC Info	3309	Yes
IPSO Load Control	3310	Yes
IPSO Light Control	3311	Yes
IPSO Power Control	3312	Yes
IPSO Accelerometer	3313	Yes

1. IPSO Object: Digital Input

Description: This IPSO object is a generic object that can be used with any kind of digital input interface. Specific objects for a given range of sensors are described later in the document, enabling to identify the type of sensors directly from its Object ID. This object may be used as a generic object if a dedicated one does not exist.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Digital Input	3200	urn:oma:lwm2m:ext:3200	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
Digital Input State	5500	R	No	Mandatory	Boolean			The current state of a digital input.
Digital Input Counter	5501	R	No	Optional	Integer			The cumulative value of active state detected.
Digital Input Polarity	5502	R,W	No	Optional	Boolean			The polarity of the digital input as a Boolean (0 = Normal, 1= Reversed)
Digital Input Debounce Period	5503	R,W	No	Optional	Integer		ms	The debounce period in ms.
Digital Input Edge Selection	5504	R,W	No	Optional	Integer	1-3		The edge selection as an integer (1 = Falling edge, 2 = Rising edge, 3 = Both Rising and Falling edge)
Digital Input Counter Reset	5505	E	No	Optional	Opaque			Reset the Counter value
Application Type	5750	R,W	No	Optional	String			The Application type of the input, for example “Motion Closure”.
Sensor Type	5751	R	No	Optional	String			The type of the sensor (for instance PIR type)

2. IPSO Object: Digital Output

Description: This IPSO object is a generic object that can be used with any kind of digital output interface. Specific object for a given range of sensors is described later in the document, enabling to identify the type of sensors directly from its Object ID. This object may be used as a generic object if a dedicated one does not exist.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Digital Output	3201	urn:oma:lwm2m:ext:3201	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
Digital Output State	5550	R,W	No	Mandatory	Boolean			The current state of a digital output.
Digital Output Polarity	5551	R,W	No	Optional	Boolean			The polarity of a digital output as a Boolean (0 = Normal, 1= Reversed)
Application Type	5750	R,W	No	Optional	String			The application type of the output as a string, for instance, "LED"

3. IPSO Object: Analog Input

Description: This IPSO object is a generic object that can be used with any kind of analog input interface. Specific object for a given range of sensors is described later in the document, enabling to identify the type of sensors directly from its Object ID. This object may be used as a generic object if a dedicated one does not exist.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Analog Input	3202	urn:oma:lwm2m:ext:3202	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
Analog Input Current Value	5600	R	No	Mandatory	Float	0-5	V	The current state of the analogue input.

Min Measured Value	5601	R	No	Optional	Float	0-5	V	The minimum value measured by the sensor since it is ON
Max Measured Value	5602	R	No	Optional	Float	0-5	V	The maximum value measured by the sensor since it is ON
Min Range Value	5603	R	No	Optional	Float	0-5	V	The minimum value that can be measured by the sensor
Max Range Value	5604	R	No	Optional	Float	0-5	V	The maximum value that can be measured by the sensor
Application Type	5750	R	No	Optional	String			If present, the application type of the sensor as a string, for instance, "CO2"
Sensor Type	5751	R	No	Optional	String			The type of the sensor (for instance PIR type)

4. IPSO Object: Analog Output

Description: This IPSO object is a generic object that can be used with any kind of analog output interface. Specific object for a given range of sensors is described later in the document, enabling to identify the type of sensors directly from its Object ID. This object may be used as a generic object if a dedicated one does not exist.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Analog Output	3203	urn:oma:lwm2m:ext:3203	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
Analog Output Current Value	5650	R,W	No	Mandatory	Float	0-5	V	The current state of the analogue output.
Application Type	5750	R	No	Optional	String			If present, the application type of the

								actuator as a string, for instance, “Thermostat”
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5. IPSO Object: Generic Sensor

Description: This IPSO object allow the description of a generic sensor. It is based on the description of a value and a unit according to the UCUM specification. Thus, any type of value defined within this specification can be reporting using this object.

Specific object for a given range of sensors is described later in the document, enabling to identify the type of sensors directly from its Object ID. This object may be used as a generic object if a dedicated one does not exist.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Generic Sensor	3300	urn:oma:lwm2m:ext:3300	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
Sensor Value	5700	R	No	Mandatory	Float		Defined by “Units” resource.	If present, the value of the sensor.
Units	5701	R	No	Optional	String			If present, the type of sensor defined as the UCUM Unit Definition e.g. “Cel” for Temperature in Celcius.
Min Measured Value	5601	R	No	Optional	Float		Defined by “Units” resource.	The minimum value measured by the sensor since it is ON
Max Measured Value	5602	R	No	Optional	Float		Defined by “Units” resource.	The maximum value measured by the sensor since it is ON
Min	5603	R	No	Optional	Float		Defined	The minimum

Range Value							by “Units” resource.	value that can be measured by the sensor
Max Range Value	5604	R	No	Optional	Float		Defined by “Units” resource.	The maximum value that can be measured by the sensor
Application Type	5750	R,W	No	Optional	String			If present, the application type of the sensor as a string, for instance, “CO2”
Sensor Type	5751	R	No	Optional	String			The type of the sensor (for instance PIR type)

6. IPSO Object: Luminosity

Description: This IPSO object should be used over a luminosity sensor to report a remote luminosity measurement. It also provides resources for minimum/maximum measured values and the minimum/maximum range that can be measured by the luminosity sensor. The unit used here is Lux.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Luminosity	3301	urn:oma:lwm2m:ext:3301	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
Sensor Value	5700	R	No	Mandatory	Float		Lux	The current value of the luminosity sensor.
Min Measured Value	5601	R	No	Optional	Float		Lux	The minimum value measured by the sensor since it is ON
Max Measured Value	5602	R	No	Optional	Float		Lux	The maximum value measured by the sensor since it is ON
Min Range	5603	R	No	Optional	Float		Lux	The minimum value that can be measured by

Value								the sensor
Max Range Value	5604	R	No	Optional	Float		Lux	The maximum value that can be measured by the sensor

7. IPSO Object: Presence

Description: This IPSO object should be used over a presence sensor to report a remote presence detection. It also provides resources to manage a counter, the type of sensor used (e.g the technology of the probe), and configuration for the delay between busy and clear detection state.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Presence	3302	urn:oma:lwm2m:ext:3302	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
Digital Input State	5500	R	No	Mandatory	Boolean			The current state of the presence sensor
Digital Input Counter	5501	R	No	Optional	Integer			The cumulative value of active state detected.
Digital Input Counter Reset	5505	E	No	Optional				Reset the Counter value
Sensor Type	5751	R	No	Optional	String			The type of the sensor (for instance PIR type)
Busy to Clear delay	5903	R,W	No	Optional	Integer		ms	Delay from the detection state to the clear state in ms
Clear to Busy delay	5904	R,W	No	Optional	Integer		ms	Delay from the clear state to the busy state in ms

8. IPSO Object: Temperature

Description: This IPSO object should be used over a temperature sensor to report a remote temperature measurement. It also provides resources for minimum/maximum measured values and the minimum/maximum range that can be measured by the temperature sensor. The unit used here is Celsius degree.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Temperature	3303	urn:oma:lwm2m:ext:3303	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
Sensor Value	5700	R	No	Mandatory	Float		Cel	This resource type returns the Temperature Value in °C
Min Measured Value	5601	R	No	Optional	Float		Cel	The minimum value measured by the sensor since it is ON
Max Measured Value	5602	R	No	Optional	Float		Cel	The maximum value measured by the sensor since it is ON
Min Range Value	5603	R	No	Optional	Float		Cel	The minimum value that can be measured by the sensor
Max Range Value	5604	R	No	Optional	Float		Cel	The maximum value that can be measured by the sensor

9. IPSO Object: Humidity

Description: This IPSO object should be used over a humidity sensor to report a remote humidity measurement. It also provides resources for minimum/maximum measured values and the minimum/maximum range that can be measured by the humidity sensor. The unit used here is relative humidity as a percentage.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Humidity	3304	urn:oma:lwm2m:ext:3304	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
Sensor Value	5700	R	No	Mandatory	Float		%	This resource type returns the humidity Value in %
Min Measured Value	5601	R	No	Optional	Float		%	The minimum value measured by the sensor since it is ON
Max Measured Value	5602	R	No	Optional	Float		%	The maximum value measured by the sensor since it is ON
Min Range Value	5603	R	No	Optional	Float		%	The minimum value that can be measured by the sensor
Max Range Value	5604	R	No	Optional	Float		%	The maximum value that can be measured by the sensor

10. IPSO Object: Power Measurement

Description: This IPSO object should be used over a power measurement sensor to report a remote power measurement. It also provides resources for minimum/maximum measured values and the minimum/maximum range for both active and reactive power. It also provides resources for cumulative energy, calibration, and the power factor.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Power Measurement	3305	urn:oma:lwm2m:ext:3305	Yes

Resource Info:

Resource Name	Resource	Access	Multiple	Mandatory	Type	Range or	Units	Descriptions
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	ID	Type	Instances?			Enumeration		
Instantaneous active power	5800	R	No	Mandatory	Float		W	The current active power
Min Measured active power	5801	R	No	Optional	Float		W	The minimum active power measured by the sensor since it is ON
Max Measured active power	5802	R	No	Optional	Float		W	The maximum active power measured by the sensor since it is ON
Min Range active power	5803	R	No	Optional	Float		W	The minimum active power that can be measured by the sensor
Max Range active power	5804	R	No	Optional	Float		W	The maximum active power that can be measured by the sensor
Cumulative active power	5805	R	No	Optional	Float		Wh	The cumulative active power since the last cumulative energy reset or device start
Active Power Calibration	5806	W	No	Optional	Float		W	Request an active power calibration by writing the value of a calibrated load.
Instantaneous reactive power	5810	R	No	Optional	Float		VAR	The current reactive power
Min Measured reactive power	5811	R	No	Optional	Float		VAR	The minimum reactive power measured by the sensor since it is ON
Max Measured reactive power	5812	R	No	Optional	Float		VAR	The maximum reactive power measured by the sensor since it is ON
Min Range reactive power	5813	R	No	Optional	Float		VAR	The minimum active power that can be measured by the sensor
Max Range	5814	R	No	Optional	Float		VAR	The maximum

reactive power								reactive power that can be measured by the sensor
Cumulative reactive power	5815	R	No	Optional	Float		VARh	The cumulative reactive power since the last cumulative energy reset or device start
Reactive Power Calibration	5816	W	No	Optional	Float		VAR	Request a reactive power calibration by writing the value of a calibrated load.
Power factor	5820	R	No	Optional	Float			If applicable, the power factor of the current consumption.
Current Calibration	5821	R,W	No	Optional	Float			Read or Write the current calibration coefficient
Reset Cumulative energy	5822	E	No	Optional	Opaque			Reset both cumulative active/reactive power

11. IPSO Object: Actuation

Description: This IPSO object is dedicated to remote actuation such as ON/OFF action or dimming. A multi-state output can also be described as a string. This is useful to send pilot wire orders for instance. It also provides a resource to reflect the time that the device has been switched on.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Actuation	3306	urn:oma:lwm2m:ext:3306	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
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On/Off	5850	R, W	No	Mandatory	Boolean			On/Off
Dimmer	5851	R, W	No	Optional	Integer	0-100	%	This resource represents a light dimmer setting, which has an Integer value between 0 and 100 as a percentage.
On Time	5852	R, W	No	Optional	Integer		sec	The time in seconds that the device has been on. Writing a value of 0 resets the counter.
Muti-state Output	5853	R,W	No	Optional	String			A string describing a state for multiple level output such as Pilot Wire

12. IPSO Object: Set Point

Description: This IPSO object should be use over device that manage set point such as room controllers. This object enable to set a setpoint over various units defined in the UCUM specification. A special set point is added to set the colour of an object.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Setpoint	3308	urn:oma:lwm2m:ext:3308	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
Set Point Value	5900	R,W	No	Mandatory	Float		Defined by “Units” resource.	The setpoint value.
Units	5701	R	No	Optional	String			If present, the type of sensor defined as the UCUM Unit Definition e.g. “Cel” for Temperature in Celcius.

Colour	0	R, W, E	No	Optional	String			Colour of the object. A light for instance.
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13. IPSO Object: French TIC Info

Description: This IPSO object is dedicated to the specific “TIC – Trame Teleinformation Client” output embedded on French electrical meters. This output provides various power usage information through a serial frame that can be decoded by some commercial modules, to make these information remotely available. This Object enables to query such a module, and ask for the type of meter in use.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO French TIC Info	3309	urn:oma:lwm2m:ext:3309	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
Last TIC Sample	0	R	No	Mandatory	String			Last TIC information sample form the meter
TIC Meter Type	1	R	No	Mandatory	String			The type of remote meter as defined by: 0: Unknown 1: “Concentrateur teleport” 2:”Compt. Bleu Electr. Monophasé” 3: ”Compt. Bleu Electr. Monophasé ICC” 4: ”Compt. Bleu Electr. Triphasé” 5: ”Compt. Jaune Electronique” 6: ”Compt. Interface Clientelle Emeraude”

14. IPSO Object: Load Control

Description: This Object is used for demand-response load control and other load control in automation application (not limited to power).

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Load Control	3310	urn:oma:lwm2m:ext:3310	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
Event Identifier	0	R, W	No	Mandatory	String			The event identifier as a string.
Start Time	1	R, W	No	Mandatory	Time			Time when the load control event will start started.
Duration In Min	2	R, W	No	Mandatory	Integer		Min	The duration of the load control event.
Criticality Level	3	R, W	No	Optional	Integer	Todo		The criticality of the event. The device receiving the event will react in an appropriate fashion for the device.
Avg Load Adj Pct	4	R, W	No	Optional	Integer		%	Defines the maximum energy usage of the receiving device, as a percentage of the device's normal maximum energy usage.
Duty Cycle	5	R, W	No	Optional	Integer		%	Defines the duty cycle for the load control event, i.e, what percentage of time the receiving device is allowed to be on.

15. IPSO Object: Light Control

Description: This Object is used to control a light source, such as a LED or other light. It allows a light to be turned on or off and its dimmer setting to be control as a % between 0 and 100.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Light Control	3311	urn:oma:lwm2m:ext:3311	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
On/Off	5850	R, W	No	Mandatory	Boolean			This resource represents a light, which can be controlled, the setting of which is a Boolean value (1,0) where 1 is on and 0 is off.
Dimmer	5851	R, W	No	Optional	Integer	0-100	%	This resource represents a light dimmer setting, which has an Integer value between 0 and 100 as a percentage.
On Time	5852	R, W	No	Optional	Integer		sec	The time in seconds that the light has been on. Writing a value of 0 resets the counter.
Cumulative active power	5805	R	No	Optional	Float		Wh	The total power in Wh that the light has used.
Power factor	5820	R	No	Optional	Float			The power factor of the light.

16. IPSO Object: Power Control

Description: This Object is used to control a power source, such as a Smart Plug. It allows a power relay to be turned on or off and its dimmer setting to be control as a % between 0 and 100.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Power Control	3312	urn:oma:lwm2m:ext:3312	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
On/Off	5850	R, W	No	Mandatory	Boolean			This resource represents a power relay, which can be controlled, the setting of which is a Boolean value (1,0) where 1 is on and 0 is off.
Dimmer	5851	R, W	No	Optional	Integer	0-100	%	This resource represents a power dimmer setting, which has an Integer value between 0 and 100 as a percentage.
On Time	5852	R, W	No	Optional	Integer		sec	The time in seconds that the power relay has been on. Writing a value of 0 resets the counter.
Cumulative active power	5805	R	No	Optional	Float		Wh	The total power in Wh that has been used by the load.
Power factor	5820	R	No	Optional	Float			The power factor of the load.

17. IPSO Object: Accelerometer

Description: This IPSO object can be used to represent a 1-3 axis accelerometer.

Object info:

Object	Object ID	Object URN	Multiple Instances?
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IPSO Accelerometer	3313	urn:oma:lwm2m:ext:3313	Yes
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Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
X Value	0	R	No	Mandatory	Float		g	The acceleration value of the X axis.
Y Value	1	R	No	Optional	Float		g	The acceleration value of the Y axis.
Z Value	2	R	No	Optional	Float		g	The acceleration value of the Z axis.
Measurement Range	3	R, W	No	Optional	Float		g	The +- range configured for the accelerometer

18. IPSO Object: Magnetometer

Description: This IPSO object can be used to represent a 1-3 axis magnetometer with optional compass direction.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Magnetometer	3314	urn:oma:lwm2m:ext:3314	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
X Value	0	R	No	Mandatory	Float		Gauss	The magnetic value of the X axis
Y Value	1	R	No	Optional	Float		Gauss	The magnetic value of the Y axis
Z Value	2	R	No	Optional	Float		Gauss	The magnetic

								value of the Z axis
Compass Direction	3	R	No	Optional	Float		Deg	The compass direction

19. IPSO Object: Barometer

Description: This IPSO object should be used with an air pressure sensor to report a remote barometer measurement. It also provides resources for minimum/maximum measured values and the minimum/maximum range that can be measured by the barometer sensor.

Object info:

Object	Object ID	Object URN	Multiple Instances?
IPSO Barometer	3315	urn:oma:lwm2m:ext:3315	Yes

Resource Info:

Resource Name	Resource ID	Access Type	Multiple Instances?	Mandatory	Type	Range or Enumeration	Units	Descriptions
Sensor Value	5700	R	No	Mandatory	Float		kPa	This resource type returns the air pressure Value in kPa
Min Measured Value	5601	R	No	Optional	Float		kPa	The minimum value measured by the sensor since it is ON
Max Measured Value	5602	R	No	Optional	Float		kPa	The maximum value measured by the sensor since it is ON
Min Range Value	5603	R	No	Optional	Float		kPa	The minimum value that can be measured by the sensor
Max Range Value	5604	R	No	Optional	Float		kPa	The maximum value that can be measured by the sensor

20. Reusable Resource ID Definitions

This section defines new resources defined for the Reusable Resource Registry maintained by OMNA. These resources are used to compose the objects.

Table 2 Reusable Resource definitions (* Temporary values, to be assigned by OMNA)

Resource Name	Resource ID *	Access Type	Type	Range or Enumeration	Units	Descriptions
Digital Input State	5500	R	Boolean			The current state of a digital input.
Digital Input Counter	5501	R	Integer			The cumulative value of active state detected.
Digital Input Polarity	5502	R,W	Boolean			The polarity of a digital input as a Boolean (0 = Normal, 1= Reversed)
Digital Input Debounce Period	5503	R,W	Integer		ms	The debounce period in ms.
Digital Input Edge Selection	5504	R,W	Integer			The edge selection as an integer (1 = Falling edge, 2 = Rising edge, 3 = Both Rising and Falling edge)
Digital Input Counter Reset	5505	E				Reset the Counter value
Digital Output State	5550	R,W	Boolean			The current state of a digital output.
Digital Output Polarity	5551	R,W	Boolean			The polarity of a digital input as a Boolean (0 = Normal, 1= Reversed)
Analog Input Current Value	5600	R	Float	0-5	V	The current state of the analogue input.
Min Measured Value	5601	R	Float		Defined by “Units” resource.	The minimum value measured by the sensor since it is ON
Max Measured Value	5602	R	Float		Defined by “Units” resource.	The maximum value measured by the sensor since it is ON
Min Range Value	5603	R	Float		Defined by “Units” resource.	The minimum value that can be measured by the sensor
Max Range Value	5604	R	Float		Defined by “Units” resource.	The maximum value that can be measured by the sensor
Analog Output	5650	R,W	Float	0-5	V	The current state of the

Current Value						analogue output.
Sensor Value	5700	R	Float		Defined by “Units” resource.	If present, the value of the sensor.
Sensor Units	5701	R	String			If present, the type of sensor defined as the UCUM Unit Definition e.g. “Cel” for Temperature in Celcius.
Application Type	5750	R,W	String			The Application type of the device, for example “Motion Closure”.
Sensor Type	5751	R	String			The type of the sensor (for instance PIR type)
Instantaneous active power	5800	R	Float		W	The current active power
Min Measured active power	5801	R	Float		W	The minimum active power measured by the sensor since it is ON
Max Measured active power	5802	R	Float		W	The maximum active power measured by the sensor since it is ON
Min Range active power	5803	R	Float		W	The minimum active power that can be measured by the sensor
Max Range active power	5804	R	Float		W	The maximum active power that can be measured by the sensor
Cumulative active power	5805	R	Float		Wh	The cumulative active power since the last cumulative energy reset or device start
Active Power Calibration	5806	W	Float		W	Request an active power calibration by writing the value of a calibrated load.
Instantaneous reactive power	5810	R	Float		VAR	The current reactive power
Min Measured reactive power	5811	R	Float		VAR	The minimum reactive power measured by the sensor since it is ON
Max Measured reactive power	5812	R	Float		VAR	The maximum reactive power measured by the sensor since it is ON
Min Range reactive power	5813	R	Float		VAR	The minimum active power that can be measured by the sensor
Max Range reactive power	5814	R	Float		VAR	The maximum reactive power that can be measured by the sensor
Cumulative reactive power	5815	R	Float		VARh	The cumulative reactive power since the last cumulative energy reset or device start
Reactive Power Calibration	5816	W	Float		VAR	Request a reactive power calibration by writing the value of a calibrated load.

Power factor	5820	R	Float			If applicable, the power factor of the current consumption.
Current Calibration	5821	R,W	Float			Read or Write the current calibration coefficient
Reset Cumulative energy	5822	E	Opaque			Reset both cumulative active/reactive power
On/Off	5850	R, W	Boolean			This resource represents an on/off actuator, which can be controlled, the setting of which is a Boolean value (1,0) where 1 is on and 0 is off.
Dimmer	5851	R, W	Integer	0-100	%	This resource represents a dimmer setting, which has an Integer value between 0 and 100 as a percentage.
On time	5852	R, W	Integer		sec	The time in seconds that the device has been turned on. Writing a value of 0 resets the counter.
Muti-state Output	5853	R,W	String			A string describing a state for multiple level output such as Pilot Wire
Set Point Value	5900	R,W	Float		Defined by “Units” resource.	The setpoint value.
Busy to Clear delay	5903	R,W	Integer		ms	Delay from the detection state to the clear state in ms
Clear to Busy delay	5904	R,W	Integer		ms	Delay from the clear state to the busy state in ms