Outlets and Switches Specification

Object Styles Used

Data Devices — For all data, communication and AV outlets including data cabinets

Clearance Zones — Clearance zones for the cabinets

Electrical Equipment — For all electrical boards

Clearance Zones — Clearance zones for the cabinets

Electrical Fixtures — For all powerpoints and powerpoint switches

Lighting Devices — For all light switches

Generic Annotations
- **Data Symbols**
- **Electrical Symbols**
- **Symbol Leaders**

Allows for amendments of the lineweights and colours of all the linework within the symbols and leaders.

Detail Items
- **Data Boards**
- **Electrical Boards**

Allows for amendments of the lineweights and colours of all the linework within the real-size electrical and data boards symbols.

Symbolic Plan Representation

The symbolic representations can be edited to suit other standards.

United Kingdom

Switch	Switch (Dimmer)	Powerpoint (Unswitched)	Powerpoint (Switched)	Powerpoint (Floorbox)	Powerpoint (Waterproof)	Powerpoint (Fused)	Comms outlet	AV outlet

Meter Board	Distribution Board	Main Switch Board	Data Cabinets	Demarcation Frame
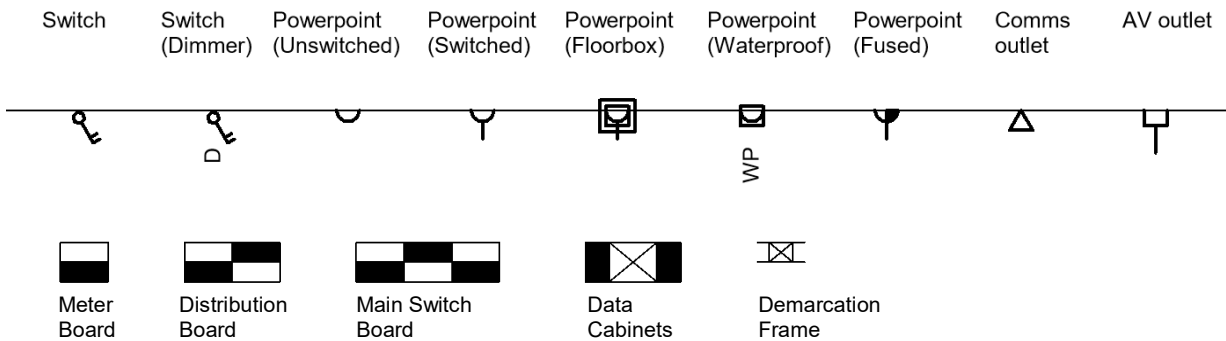
Detail Levels - All Outlets and Switches

Coarse   **Medium**   **Fine**
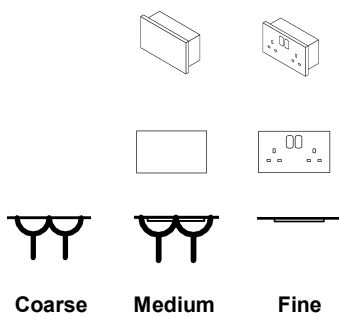
The socket and switch details are created with model lines.
They will show on 3ds and elevations when the views visual style is set to wireframe, hidden, shaded, consistent colours or realistic and the detail level is set to "Fine"

Detail Levels - Boards
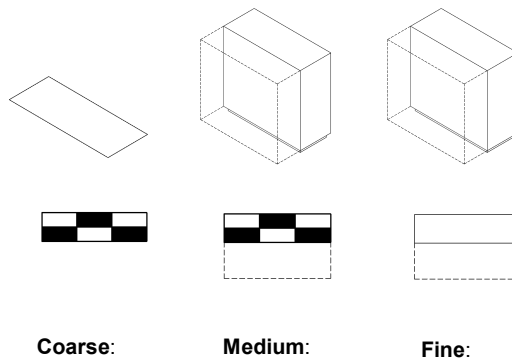
Coarse: **Medium:**   **Fine:**

Model and clearance zones show in Medium and Fine modes
Symbol shows in Medium and Coarse modes
Outline shows in 3d Coarse mode

Outlets and Switches Specification

Common Instance Parameters

Refer to the Light Switches section for comprehensive additional parameter explanations

Plan Symbol Offsets and Leaders allow you to correctly document switches and outlets that are aligned vertically.
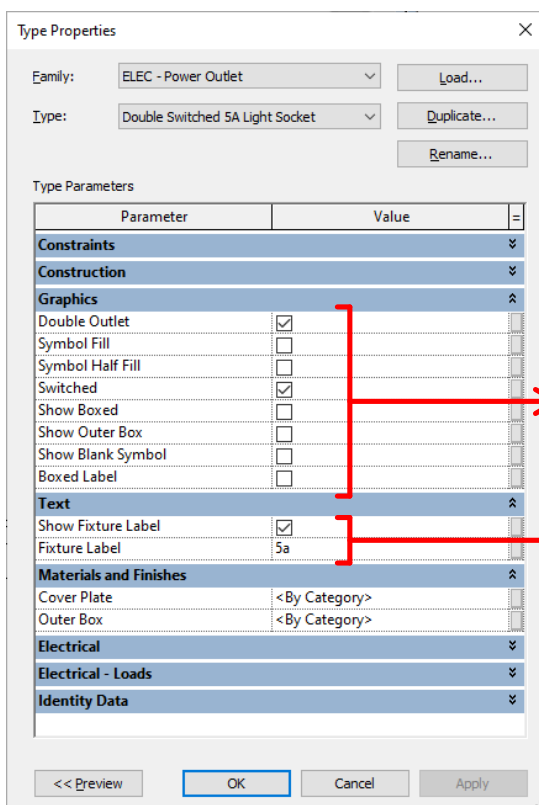
The Revit standard "Elevation" parameter cannot currently be used in labels, tags or schedules. To overcome this limitation use the "Reported Elevation" parameter.
The RevitWorks Elevation Reporter add-in (for Premium users only) ensures that the "Elevation" and the "Reported Elevation" parameters are always syncronised. If this add-in is not loaded you will need to manually update it.
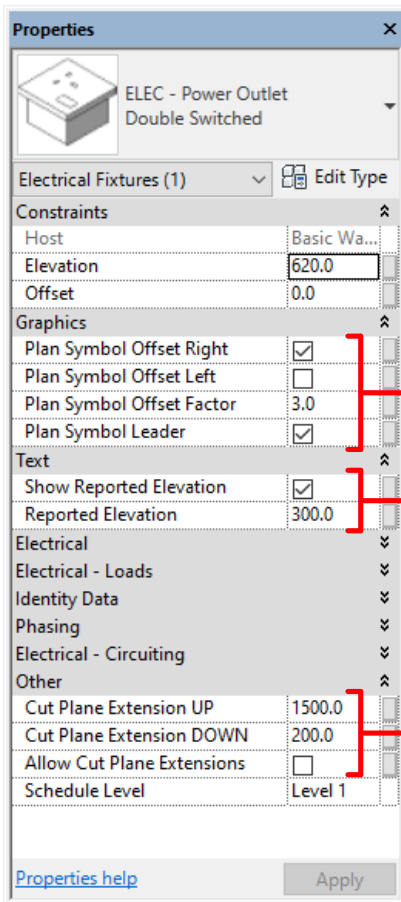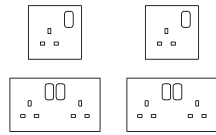
Cut Plane Extensions allow you to show low level components on your Reflected Ceiling Plans and high level components on your Floor Plans.
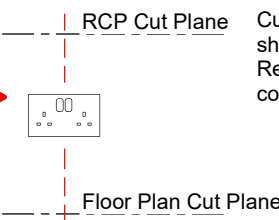
Common Type Parameters for Outlets and Switches

All outlets and switches come with symbol fill options allowing for more graphical differentiation where required.
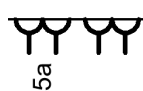
"Show Fixture Label" shows the"Fixture Label" text parameter as an annotation label within the family.
These labels are in a set position relative to the symbol and rotate with the family while staying readable.
Alternatively, you could turn this off and tag your family which gives greater flexibility in the positioning and orientation of the label.

Outlets and Switches Specification

Data Outlets

DATA - Comms Outlet x1	□	Elevation (Fine Mode)
Single Port	△	Plan (Coarse Mode)
DATA - Comms Outlet x2	□ □	
Double Port	△ 2	

DATA - Comms Outlet x3	□ □ □ □ □ □
Triple Port	△ 3 △ 3
Triple Port Wide	
DATA - Comms Outlet x4	□ □ □ □
Quad Port	△ 4

AV Outlets

Outlet ports shown symbolically (round or rectangular).
Duplicate and create new types as required.
(i.e. USB ports could be shown with the symbolic rectangular port etc.)

DATA - AV Outlet x1		
HDMI		HDMI
VGA		VGA

DATA - AV Outlet x2		
1VGA 1HDMI		VGA/HDMI
2HDMI		2HDMI
2VGA		2VGA

DATA - AV Outlet x3		
1VGA 2HDMI		1VGA/2HDMI
2VGA 1HDMI		2VGA/1HDMI
3HDMI		3HDMI
3VGA		3VGA

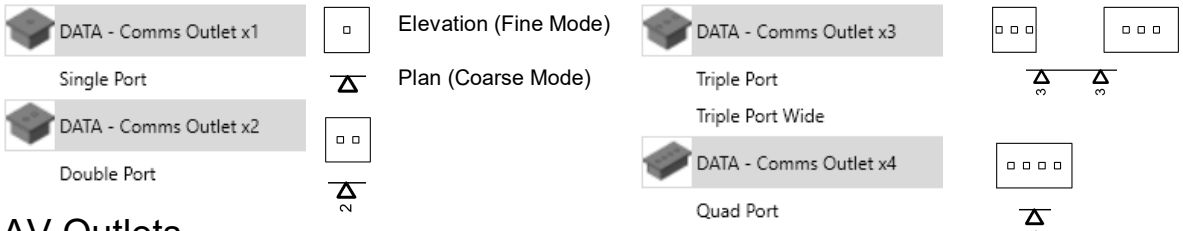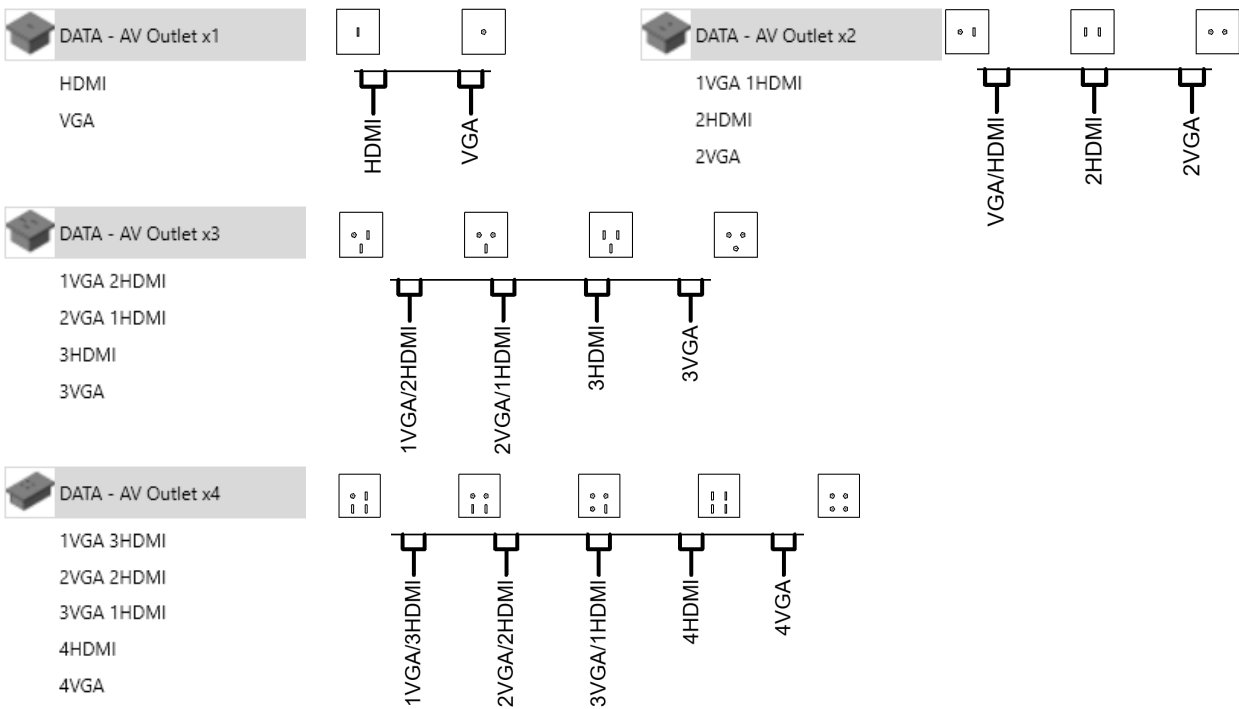|		
DATA - AV Outlet x4		
1VGA 3HDMI		1VGA/3HDMI
2VGA 2HDMI		2VGA/2HDMI
3VGA 1HDMI		3VGA/1HDMI
4HDMI		4HDMI
4VGA		4VGA

Meter Board

ELEC - Board (wall mounted)	Plan (Fine Mode)
Meter Board 300wx200hx75d	

Electrical Boards and Data Cabinets (Premium only)

Refer page 1 for explanation of how
symbols work at different detail levels.

ELEC - Board (freestanding)	Plan (Fine Mode)
Distribution 600wx900hx150d	
Main Switch 2000wx1800hx450d	
ELEC - Board (wall mounted)	
Distribution Board 600wx900hx150d	
Main Switch 2000wx1800hx450d	
Meter Board 300wx200hx75d	

DATA - Cabinet (freestanding)	
1200w x750d x 2000h	
DATA - Cabinet (wall mounted)	
600w x650d x900h	

Plan (Fine Mode)
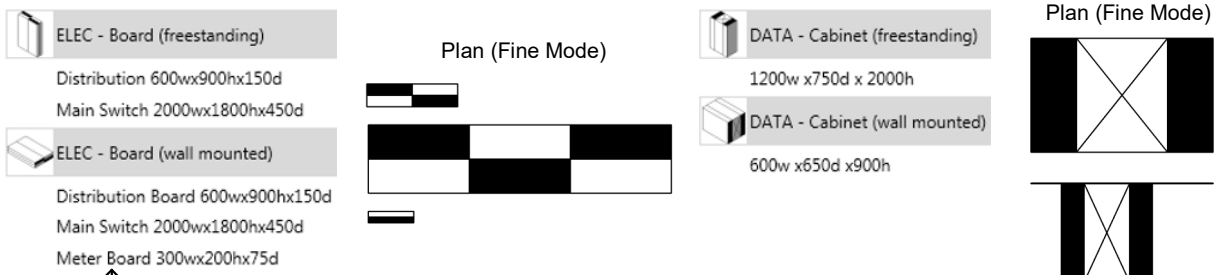
The "wall mounted" families are facebased allowing them to
host to walls so they attach and move with them.
If placed on floors they will be tipped over; hence the
inclusion of the "freestanding" components.

Outlets and Switches Specification

revitworks
powered by caduceus

Power Outlets

ELEC - Power Outlet

Double Blank
Double Switch & USB Outboard
Double Switched
Double Switched & USB
Double Switched Floor Mounted
Double Switched Light Socket
Double Switched Light Socket Outboard
Double Switched Outboard
Double Switched RCD
Double Switched Surface Mounted
Double Unswitched
Double Unswitched EU
Double Unswitched Light Socket
Double Unswitched US
Dual Shaver & Toothbrush
Dual Shaver & Toothbrush Fused
Single Blank
Single Key Switched
Single Key With Switch
Single RCD
Single Shaver Fused
Single Shaver Unfused
Single Switched
Single Switched & Fused
Single Switched Floor Mounted
Single Switched Light Socket
Single Switched Surface Mounted
Single Unswitched
Single Unswitched & Fused
Single Unswitched EU
Single Unswitched Light Socket
Single Unswitched US

Elevation (Fine Mode)

Plan (Coarse Mode)

Plan symbols for blank outlets are
suggested symbol as shown.
If not required, un-tick type property
"Show Blank Symbol" as per image and
the normal symbol will show instead.

Graphics	
Symbol Fill	☐
Switched	☐
Show Blank Symbol	☑
Boxed Label	☐

Outlets and Switches Specification

revitworks
powered by **caduceus**

Power Isolator Switches

Refer to the next page for additional switching parameters

Power outlet switches are on the "Electrical Fixtures" category and the load classification parameters are preset to "Power"
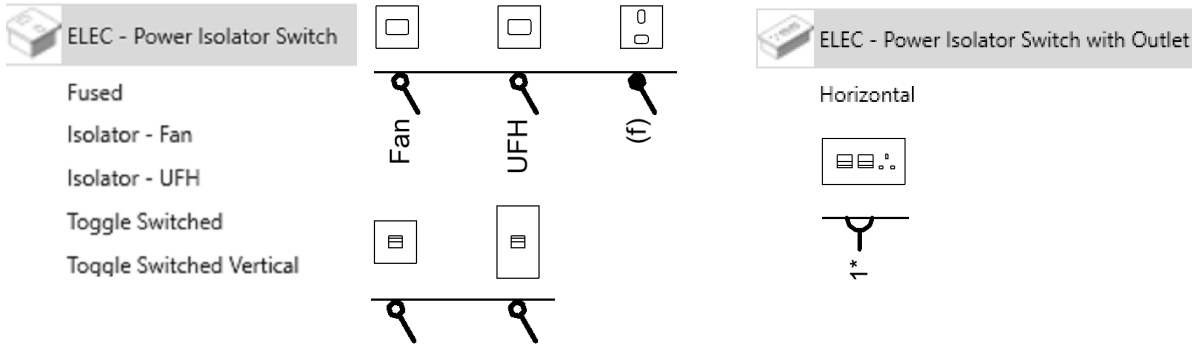
Electrical - Loads	
Apparent Load	0.00 VA
1_Load Classification	Power

ELEC - Power Isolator Switch

- Fused
- Isolator - Fan
- Isolator - UFH
- Toggle Switched
- Toggle Switched Vertical

Fan   UFH   (f)

ELEC - Power Isolator Switch with Outlet

Horizontal

1*
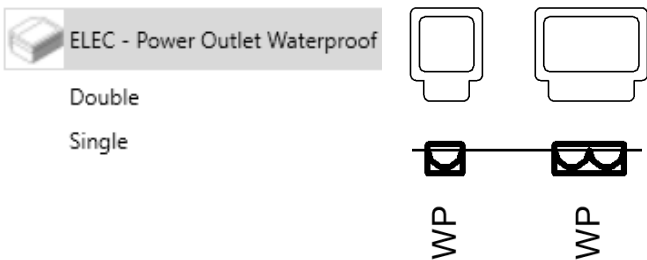
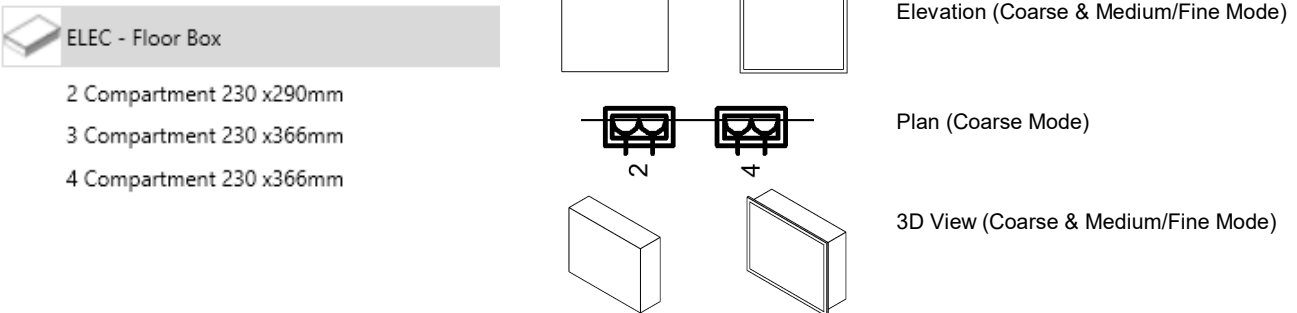## Waterproof Outlets

ELEC - Power Outlet Waterproof

- Double
- Single

WP   WP

Floorboxes (Premium only)

ELEC - Floor Box

- 2 Compartment 230 x290mm
- 3 Compartment 230 x366mm
- 4 Compartment 230 x366mm

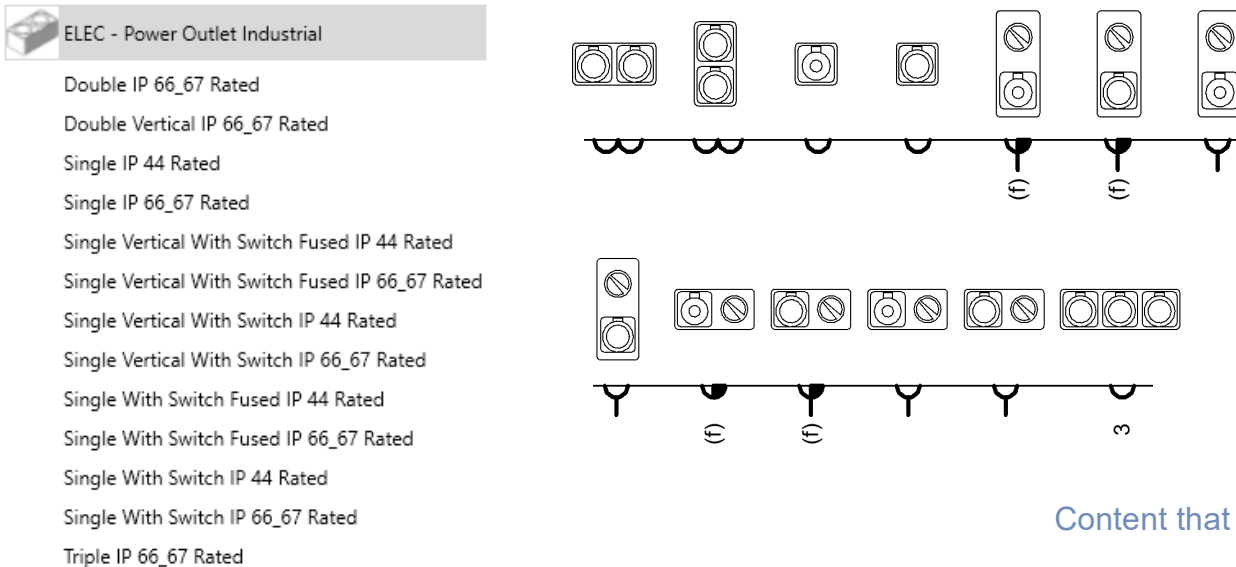Elevation (Coarse & Medium/Fine Mode)

2   4

Plan (Coarse Mode)

3D View (Coarse & Medium/Fine Mode)
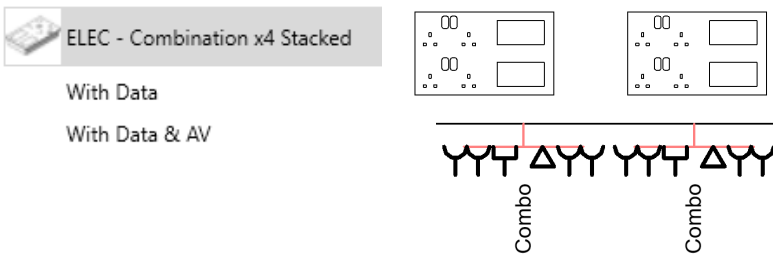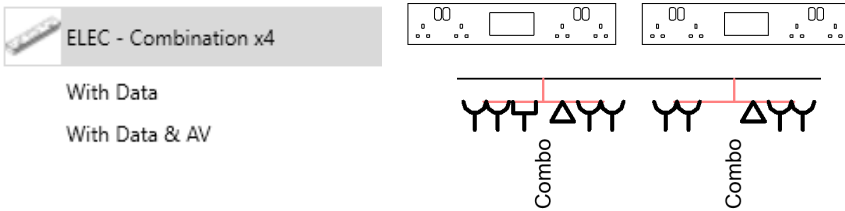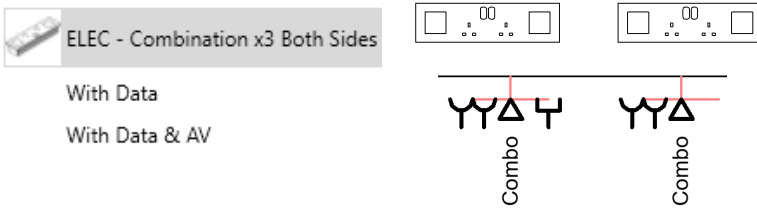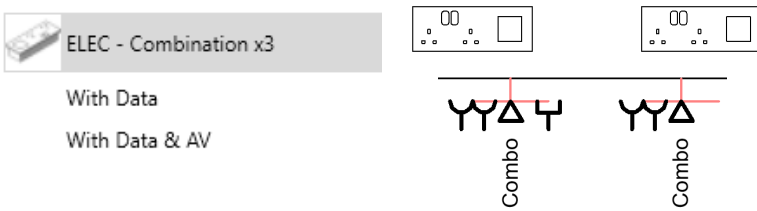
Industrial Outlets (Premium only)

ELEC - Power Outlet Industrial

- Double IP 66_67 Rated
- Double Vertical IP 66_67 Rated
- Single IP 44 Rated
- Single IP 66_67 Rated
- Single Vertical With Switch Fused IP 44 Rated
- Single Vertical With Switch Fused IP 66_67 Rated
- Single Vertical With Switch IP 44 Rated
- Single Vertical With Switch IP 66_67 Rated
- Single With Switch Fused IP 44 Rated
- Single With Switch Fused IP 66_67 Rated
- Single With Switch IP 44 Rated
- Single With Switch IP 66_67 Rated
- Triple IP 66_67 Rated

(f)   (f)

(f)   (f)   3

Outlets and Switches Specification

Combination Outlets

ELEC - Combination x3 3-Slots

With Data

With Data & AV

ELEC - Combination x3

With Data

With Data & AV

ELEC - Combination x3 Both Sides

With Data

With Data & AV

ELEC - Combination x4

With Data

With Data & AV

ELEC - Combination x4 Stacked

With Data

With Data & AV

Outlets and Switches Specification

![revitworks powered by caduceus]

Light Switches

Refer to the next page for additional switching parameters
Light switches are on the "Lighting Devices" category and
the load classification parameters are preset to "Lighting"

Electrical - Loads	
Apparent Load	0.00 VA
1_Load Classification	Lighting

ELEC - Light Switch x1

Dimmer Switch
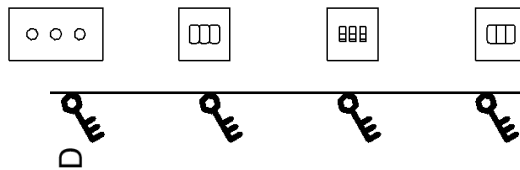Square Switch
Standard Switch
Toggle Switch
Wide Switch
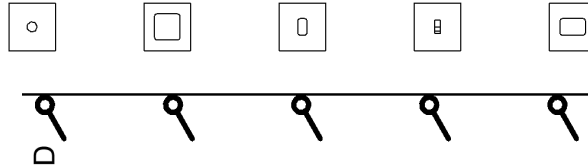
ELEC - Light Switch x2

Dimmer Switch
Square Switch
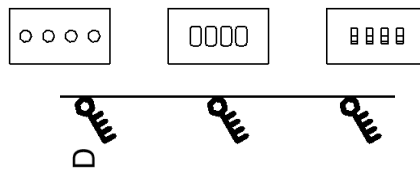Square Wide Switch
Standard Switch
Toggle Switch
Wide Switch
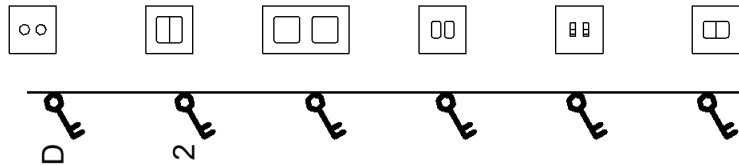
ELEC - Light Switch x3

Dimmer Switch
Standard Switch
Toggle Switch
Wide Switch

ELEC - Light Switch x4

Dimmer Switch
Standard Switch
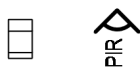Toggle Switch

PIR Light Switches (Premium only)

ELEC - Light Switch Ceiling PIR Sensor

100mm

PIR

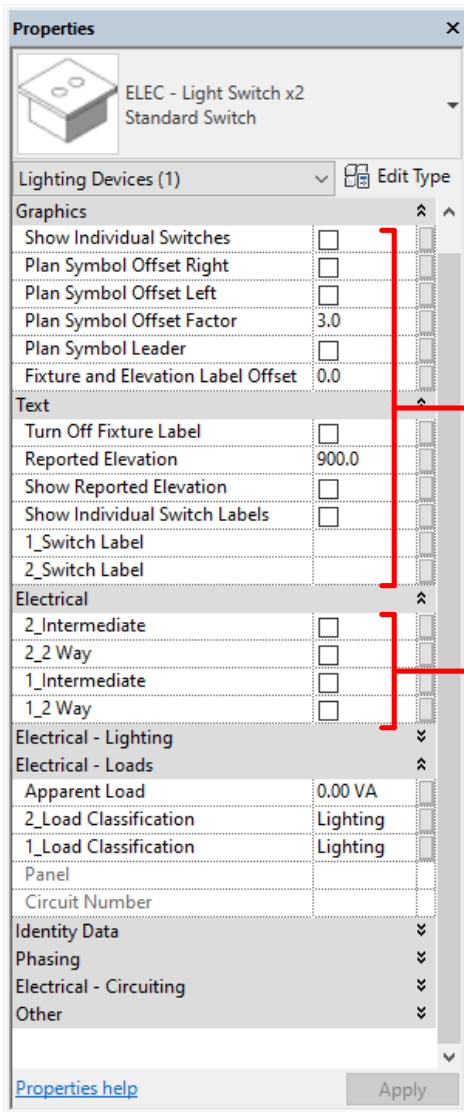### ELEC - Light Switch PIR Sensor Directional

60w x100d

PIR

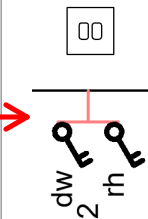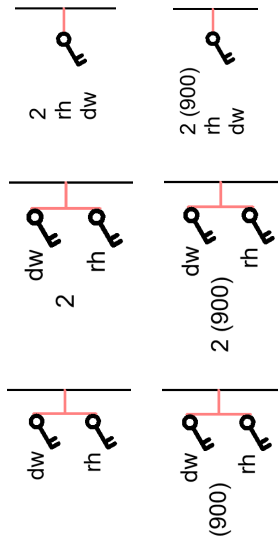# Outlets and Switches Specification

Additional Switching Instance Parameters

All switches have additional switching instance parameters to suit different documentation methodologies.
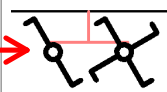Refer Page 2 for common instance parameter explanations

This example is based on a 2 gang switch. The parameter concept carries through for all the other switches
(i.e. 4 gang switches have "3_Switch Label" and "4_Switch Label" parameters etc)

Individual switches can be shown, allowing them to be labeled separately....

.... also allowing the type of circuit to be graphically shown (and/or combinations of both) if required

Common switching /fixture labeling variants:

Additional Switching Type Parameters:

Distance between the individual switch symbols (project wide setting for this family) - setup correctly for your standard view scale