














Outlets and Switches Specification

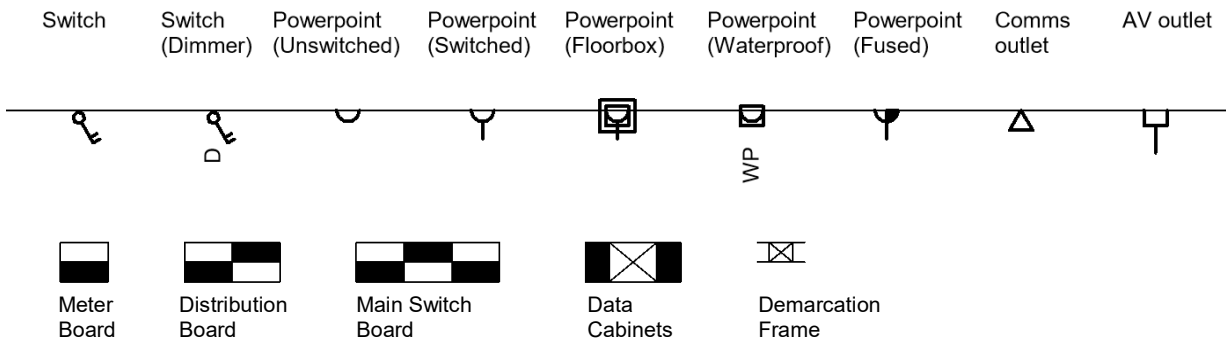
Object Styles Used

 Data Devices	For all data, communication and AV outlets including data cabinets	 Generic Annotations	Allows for amendments of the lineweights and colours of all the linework within the symbols and leaders.
 Clearance Zones	Clearance zones for the cabinets	 Data Symbols	
 Electrical Equipment	For all electrical boards	 Electrical Symbols	
 Clearance Zones	Clearance zones for the cabinets	 Symbol Leaders	
 Electrical Fixtures	For all powerpoints and powerpoint switches	 Detail Items	Allows for amendments of the lineweights and colours of all the linework within the real-size electrical and data boards symbols.
 Lighting Devices	For all light switches	 Data Boards	
		 Electrical Boards	

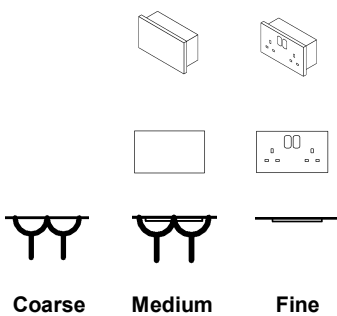
Symbolic Plan Representation

The symbolic representations can be edited to suit other standards.

United Kingdom

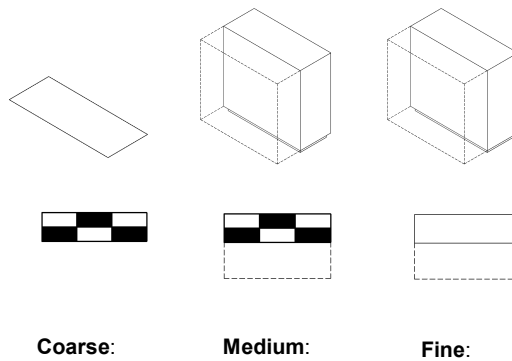


Detail Levels - All Outlets and Switches



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

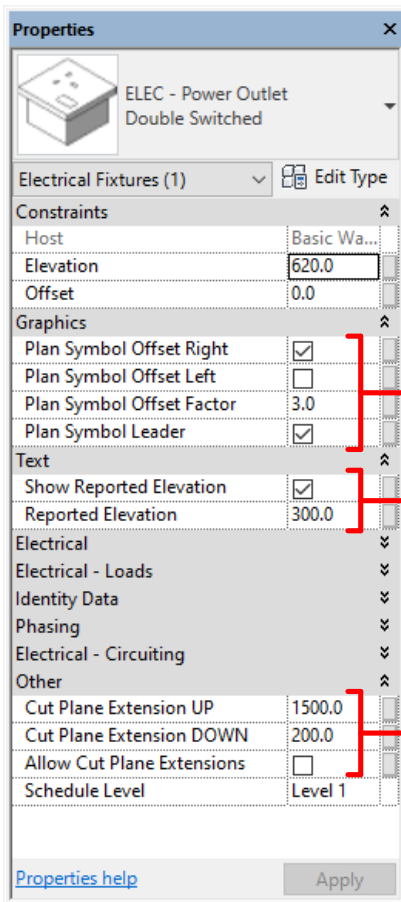


Model and clearance zones show in Medium and Fine modes
 Symbol shows in Medium and Coarse modes
 Outline shows in 3d Coarse mode

Outlets and Switches Specification

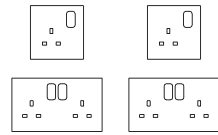
Common Instance Parameters

Refer to the Light Switches section for comprehensive additional parameter explanations



The Properties window shows the following parameters:

- Electrical Fixtures (1) Edit Type
- Constraints: Host (Basic Wa...)
- Elevation: 620.0
- Offset: 0.0
- Graphics:
 - Plan Symbol Offset Right:
 - Plan Symbol Offset Left:
 - Plan Symbol Offset Factor: 3.0
 - Plan Symbol Leader:
- Text:
 - Show Reported Elevation:
 - Reported Elevation: 300.0
- Electrical - Loads
- Identity Data
- Phasing
- Electrical - Circuiting
- Other:
 - Cut Plane Extension UP: 1500.0
 - Cut Plane Extension DOWN: 200.0
 - Allow Cut Plane Extensions:
 - Schedule Level: Level 1



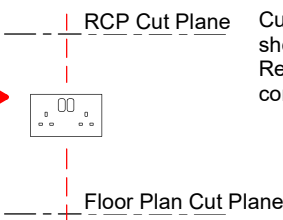
Plan Symbol Offsets and Leaders allow you to correctly document switches and outlets that are aligned vertically.



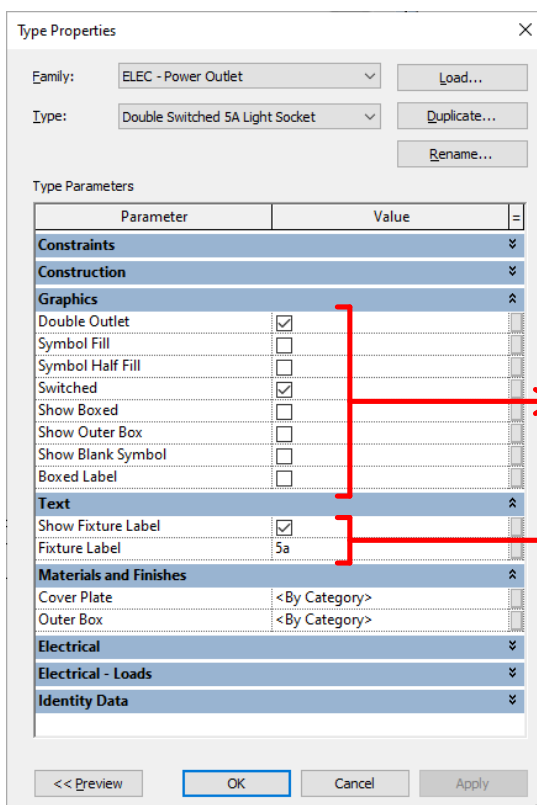
The Revit standard "Elevation" parameter cannot currently be used in labels, tags or schedules. To overcome this limitation use the "Reported Elevation" parameter. The RevitWorks Elevation Reporter add-in (for Premium users only) ensures that the "Elevation" and the "Reported Elevation" parameters are always synchronised. 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



The Type Properties window shows the following parameters:

- Family: ELEC - Power Outlet
- Type: Double Switched 5A Light Socket
- Type Parameters:

Parameter	Value
Constraints	
Construction	
Graphics	
Double Outlet	<input checked="" type="checkbox"/>
Symbol Fill	<input type="checkbox"/>
Symbol Half Fill	<input type="checkbox"/>
Switched	<input checked="" type="checkbox"/>
Show Boxed	<input type="checkbox"/>
Show Outer Box	<input type="checkbox"/>
Show Blank Symbol	<input type="checkbox"/>
Boxed Label	<input type="checkbox"/>
Text	
Show Fixture Label	<input checked="" type="checkbox"/>
Fixture Label	5a
Materials and Finishes	
Cover Plate	<By Category>
Outer Box	<By Category>
Electrical	
Electrical - Loads	
Identity Data	



All outlets and switches come with symbol fill options allowing for more graphical differentiation where required.



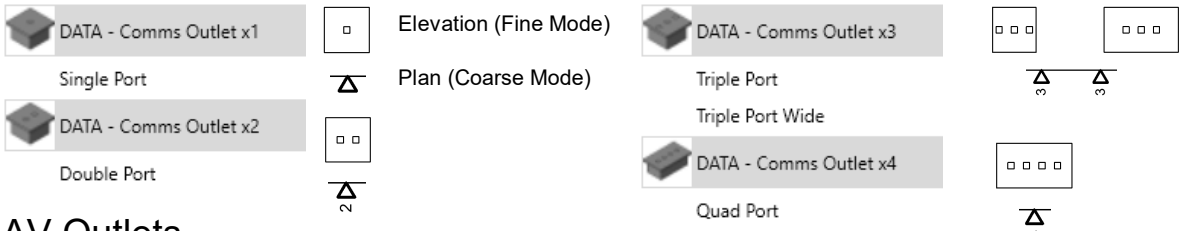
"Show Fixture Label" shows the "Fixture Label" text parameter as an annotation label within the family.

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.

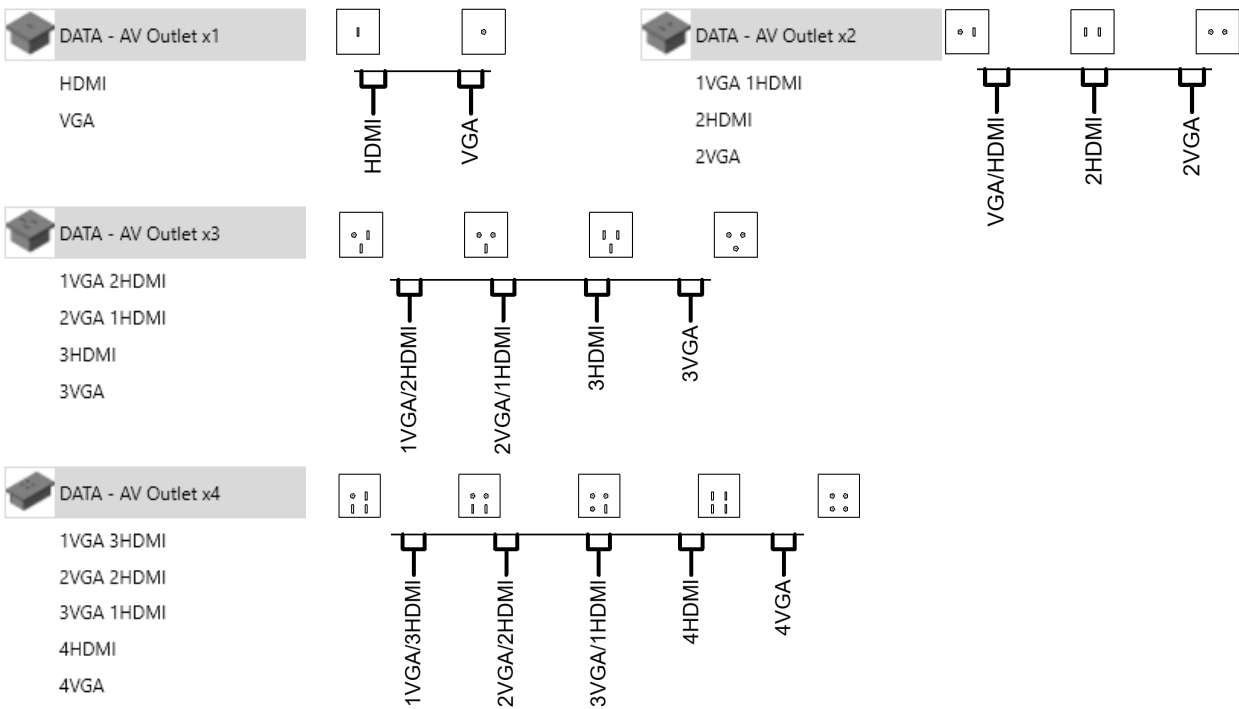
Outlets and Switches Specification

Data Outlets



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.)

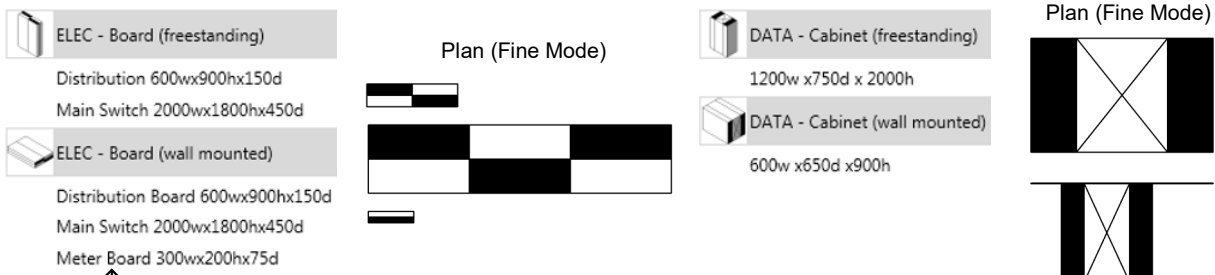


Meter Board



Electrical Boards and Data Cabinets (Premium only)

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



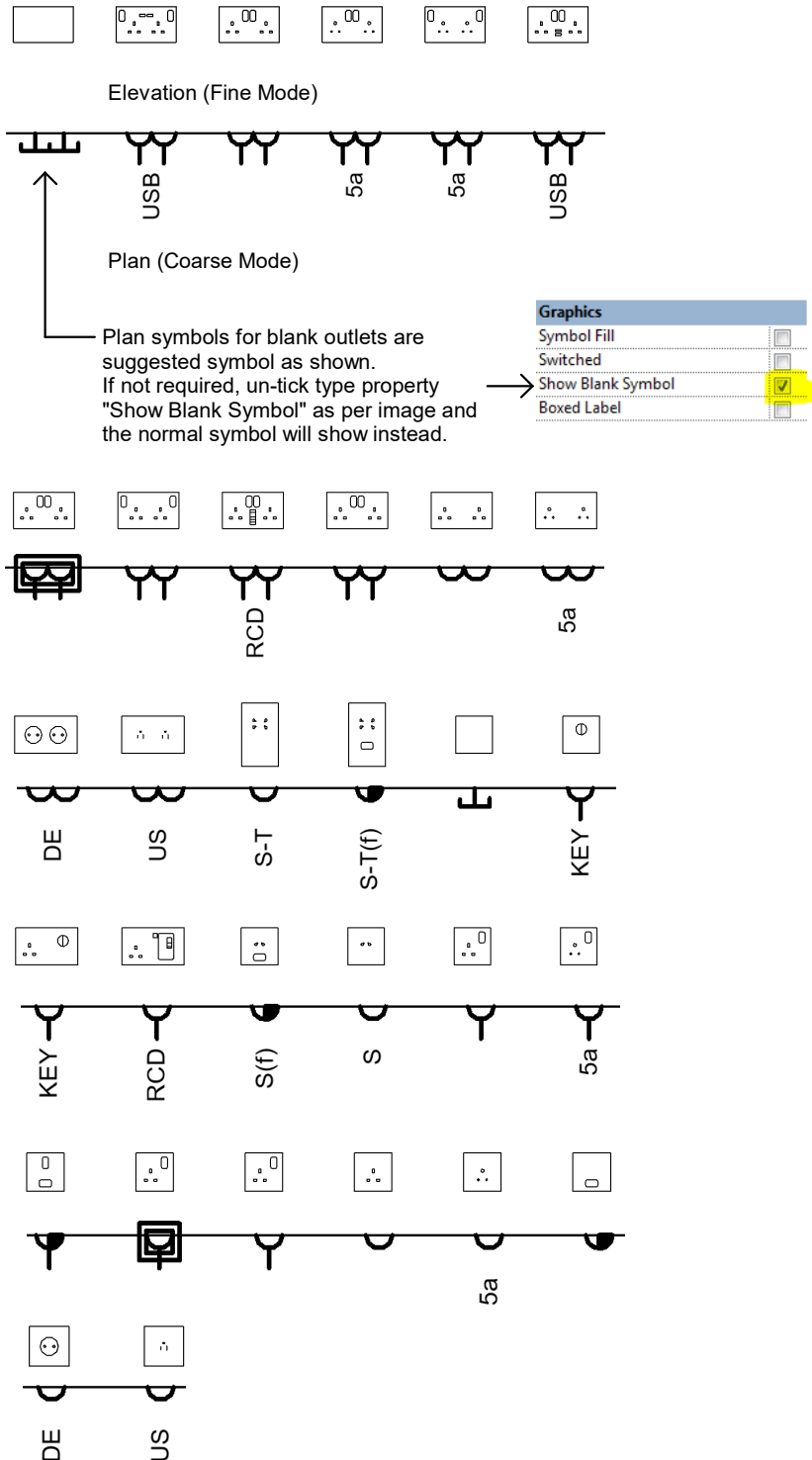
The "wall mounted" families are facebased allowing them to host to walls so they attach and move with them. If placed on floors they will be tipped over; hence the inclusion of the "freestanding" components.

Outlets and Switches Specification

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



Outlets and Switches Specification

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"

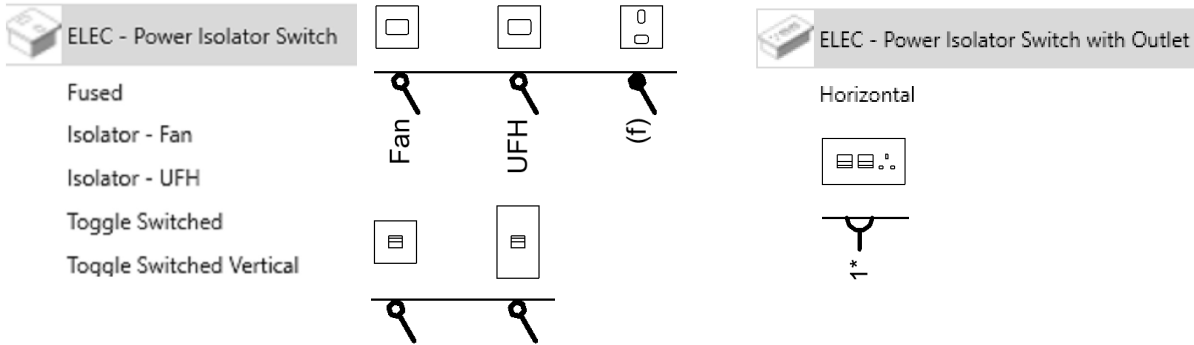
Electrical - Loads	
Apparent Load	0.00 VA
1_Load Classification	Power

ELEC - Power Isolator Switch

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

ELEC - Power Isolator Switch with Outlet

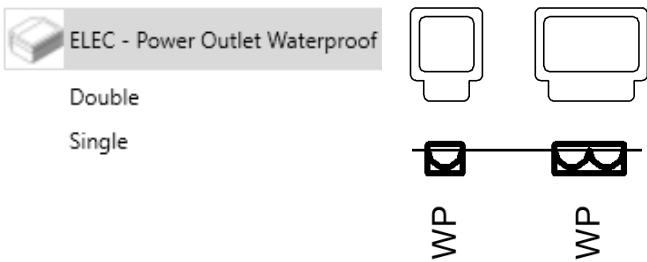
Horizontal



Waterproof Outlets

ELEC - Power Outlet Waterproof

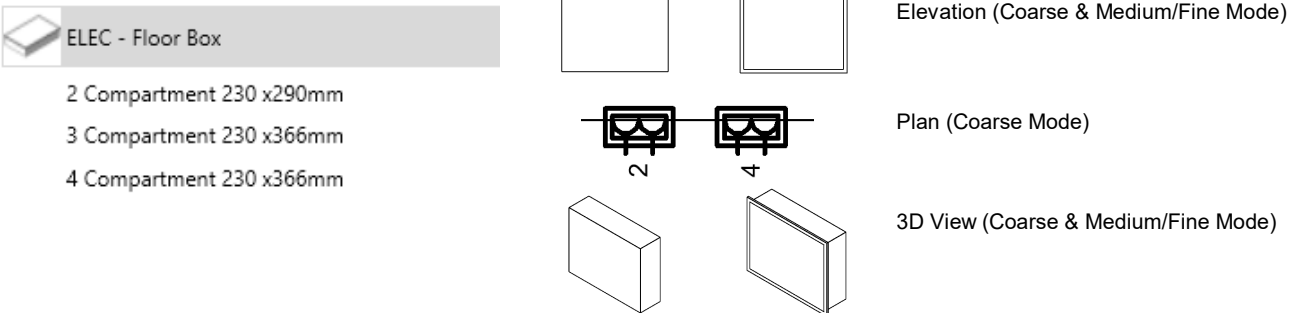
- Double
- Single



Floorboxes (Premium only)

ELEC - Floor Box

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



Elevation (Coarse & Medium/Fine Mode)

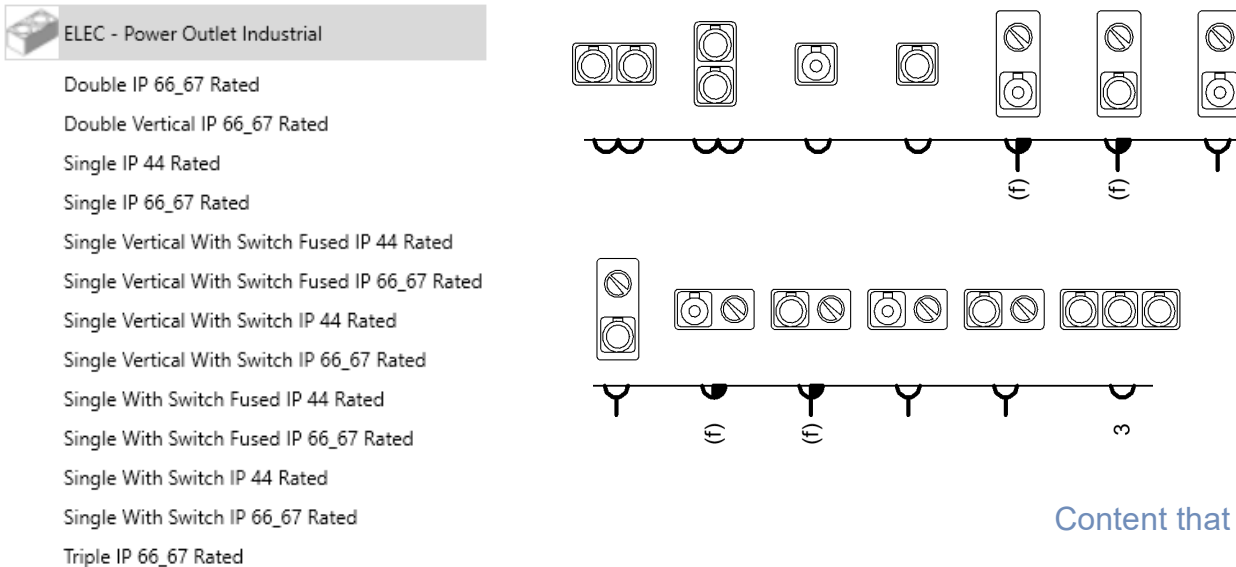
Plan (Coarse Mode)

3D View (Coarse & Medium/Fine Mode)

Industrial Outlets (Premium only)

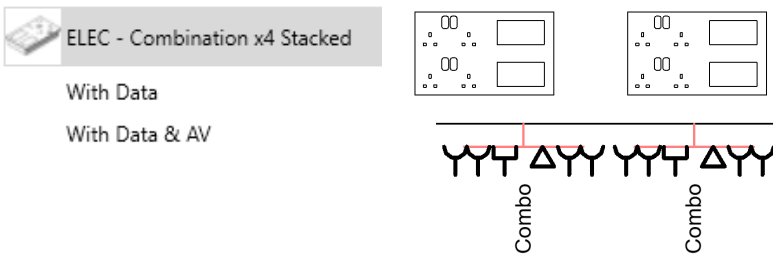
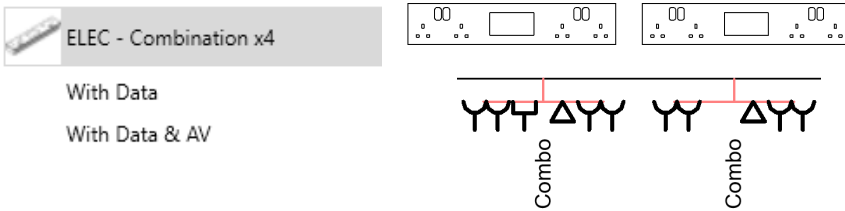
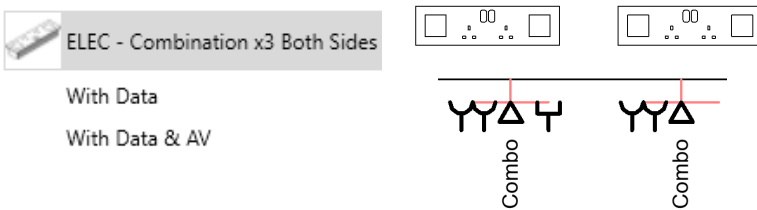
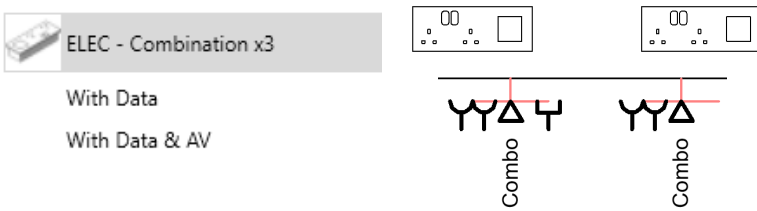
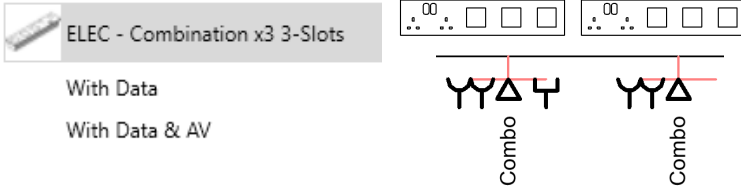
ELEC - Power Outlet Industrial

- 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



Outlets and Switches Specification

Combination Outlets



Outlets and Switches Specification

Light Switches

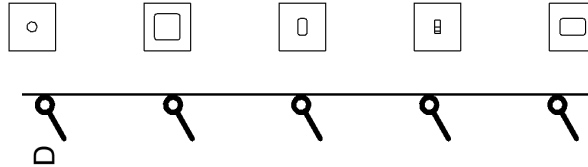
Refer to the next page for additional switching parameters

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

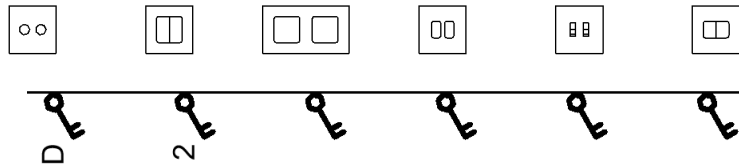
ELEC - Light Switch x1

- Dimmer Switch
- Square Switch
- Standard Switch
- Toggle Switch
- Wide Switch



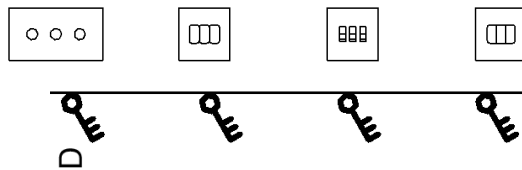
ELEC - Light Switch x2

- Dimmer Switch
- Square Switch
- Square Wide Switch
- Standard Switch
- Toggle Switch
- Wide Switch



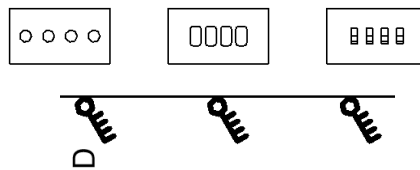
ELEC - Light Switch x3

- Dimmer Switch
- Standard Switch
- Toggle Switch
- Wide Switch



ELEC - Light Switch x4

- Dimmer Switch
- Standard Switch
- Toggle Switch



PIR Light Switches (Premium only)

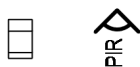
ELEC - Light Switch Ceiling PIR Sensor

100mm



ELEC - Light Switch PIR Sensor Directional

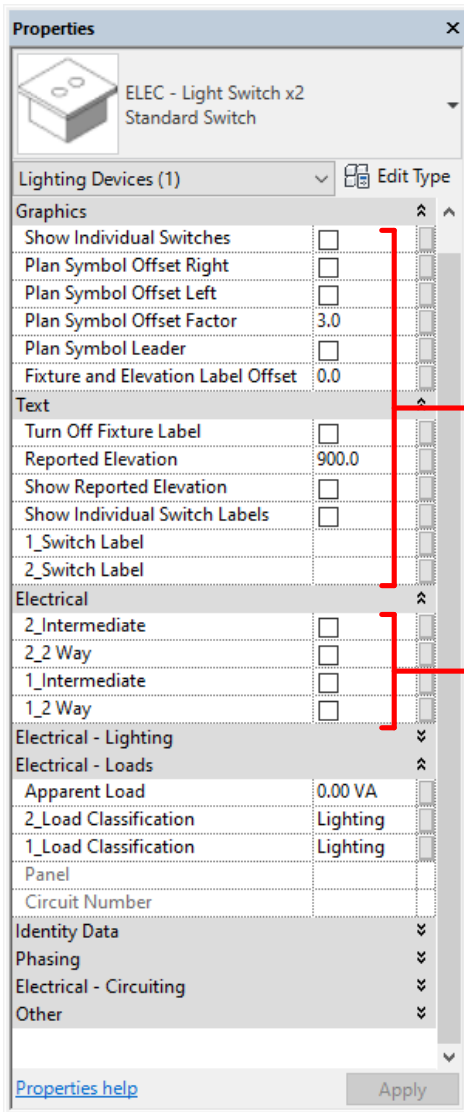
60w x100d



Outlets and Switches Specification

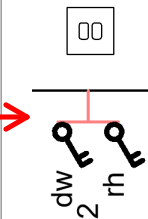
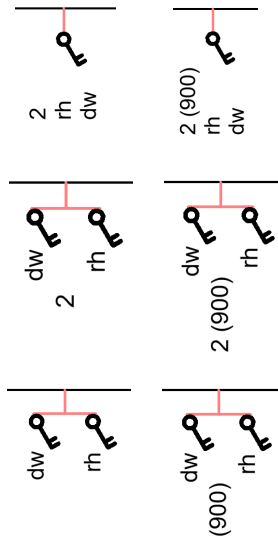
Additional Switching Instance Parameters

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

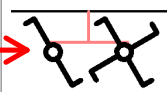


This example is based on a 2 gang switch. The parameter concept carries through for all the other switches (i.e. 4 gang switches have "3_Switch Label" and "4_Switch Label" parameters etc)

Common switching /fixture labeling variants:



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

Additional Switching Type Parameters:

Graphics

Symbol Fill

Switch Symbol Spacing 3.0

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