Optional Symbol Attributes

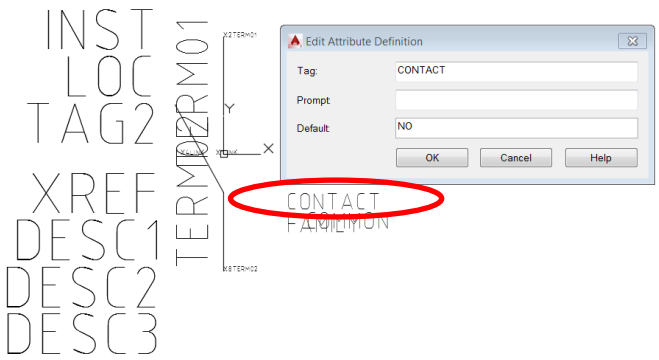
AutoCAD Electrical

The attributes defined within a symbol define the intelligence of the symbol and how AutoCAD® Electrical interprets the information. This is in addition to the naming of the symbol which should be in accordance with the symbol naming convention defined within the help.

There are a few attributes that are optional and/or only applicable to certain types of symbols. This white paper explains some of the more common optional attributes.

CONTACT

The contact attribute may have a value of NO, NC or NCNO. This tells AutoCAD® Electrical whether the contact is a normally open (NO), normally closed (NC) or a changeover contact (Form-C). Please refer to the picture below:

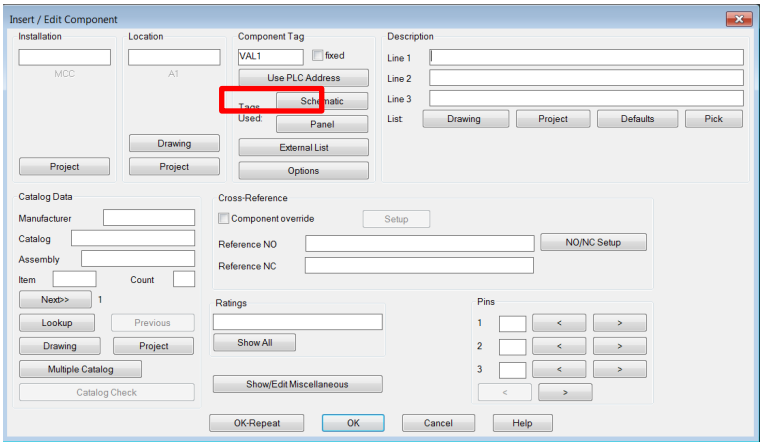


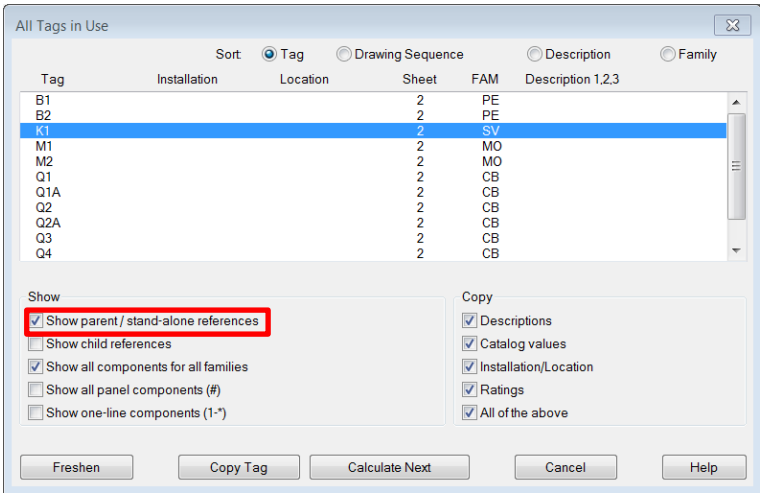
N.B. A parent contact should NOT have a CONTACT attribute or should have a blank value.

WDTAGALT

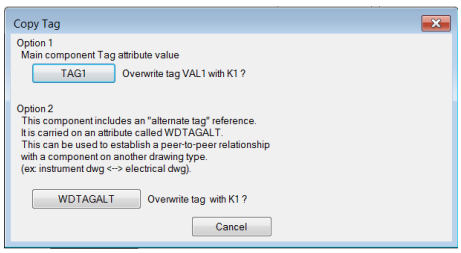
The wdtagalt attribute is used to connect symbols that appear on two different schematic types. For example, you may have a solenoid that is numbered in accordance with IEC61346 and a valve that is numbered in accordance with ISO1219. The valve and the solenoid are basically the same item and when ordering, you only want to order one part, but the different standards dictate two numbering systems for the same item.

To link the two representation together, select Tags used > Schematic.



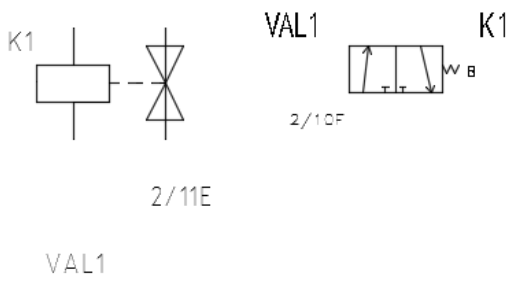


Show all components for all families and *Copy Tag.*



Select WDTAGALT.

In the example shown below, the solenoid symbol has a TAG of K1 and WDTAGALT of VAL1 whereas the valve has a TAG of VAL1 and a WDTAGALT of K1.



PINLIST

The pin list information as a default is extracted from the Default_cat.mdb parts database.

However, you can enter default pin values in the symbol itself by adding the optional PINLIST attribute. You can also click the NO/NC Setup button while editing the parent or coil of a relay or contactor and enter the pin list (Edit Component).

By defining a value in the PINLIST attribute, you are pre-defining the contact arrangement for the symbol. This can be useful if the symbol is only used for a specific part or part range.

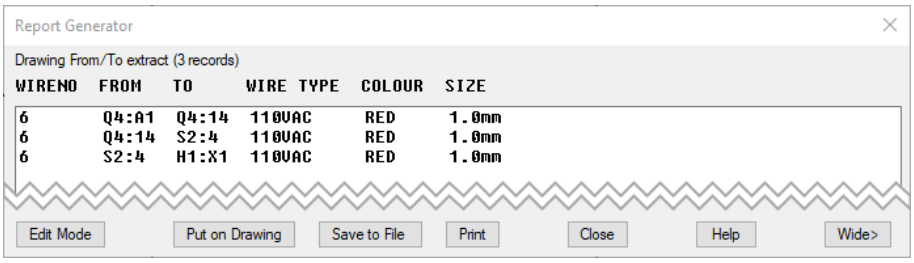
The pinlist value should be defined in accordance with the contact definition of:
Contact type (i.e. 0 for convertible, 1 for NO, 2 for NC, or 3 for Form-C), followed by a comma, followed by the first contact terminal or pin assignment (i.e. 13), followed by the second contact terminal or pin assignment (i.e. 14), followed by a semicolon as a delimiter to start the next group. So, a syntax of 1,13,14;2,21,22 indicates the relay has two contacts with one designated as NO=13,14 and the other as NC=21,22.

POSITION

The position(X) attributes allow you to define the switch position text value that you can assign to the various positions of a selector switch. As an example, the position 1 (POS) might be designated as *Hand*, position 2 (POS2) as *Off* and position 3 (POS3) as *Auto*. When you insert a selector switch these additional attributes will be shown in the Edit Component dialogue to the lower right. They can be changed on a per insertion basis.

STATE

The state attribute allows you to enter the text string that indicates the state of the switch in various positions. The letter "O" indicates open while the "X" indicates closed or connected.



WD_WEBLINK

The wd_weblink attribute allows you to display the weblink (hyperlink) value defined within the manufacturers parts database for the specific parent part assigned to a symbol. Typically, this attribute wouldn't be included but if you wish to have hyperlinked documents to your symbols within a PDF, it should be included. The properties of the attribute should ideally be invisible.

How To Create Weblink Hyperlinks Within A Published PDF (Cadline Localiser)

WDTYPE

The wdtype attribute identifies the category of circuit that the component is associated to. For a pneumatic component, the symbol should have a wdtype=PN; hydraulic=HY; P&ID=PI; single line=1-.
New component categories can be created by the user with a consistent WDTYPE attribute value e.g. BD could be used for block diagrams.

Creating your own component category
Block Diagram Creation