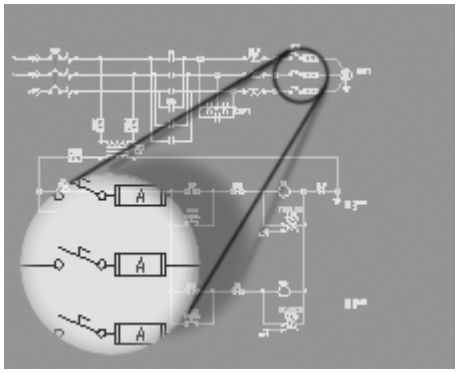
AutoCAD Electrical Symbol Libraries



AutoCAD Electrical 2005

- Library Symbol Naming Conventions
- Using Multiple Symbol Libraries
- Substituting Symbols in the Library
- Schematic Library Symbols

Symbol file names should conform to the AutoCAD Electrical naming convention. Though not mandatory, you are encouraged to follow the convention in order to take full advantage of the AutoCAD Electrical features.

The following pages describe the naming conventions that should be followed when you create or modify library symbols.

Library Symbol Naming Conventions

The default symbol subdirectory, jic1, and a companion 0.125 uniform text height library, jic125, each contain many hundreds of component symbols in standard AutoCAD ".dwg" file format. These are referenced by AutoCAD Electrical and its icon menuing system and are inserted as standard AutoCAD blocks with attributes.

Cable Marker Symbols

AutoCAD Electrical cable conductor marker symbols follow this convention:

- The first character is “H” or “V” for horizontal or vertical wire insertion.
- The next two characters are “W0.”

  A zero (0) means that the symbol does not trigger a wire number change through it.
- The fourth character is 1 or 2.

  1 = parent marker; 2 = child marker
- The remaining characters are not specified.

Examples

HW01.dwg	parent cable conductor marker, horizontal wire insertion
HW02.dwg	child cable marker, horizontal wire insertion
VW01.dwg	parent cable conductor marker, vertical wire insertion
VW02.dwg	child cable marker, vertical wire insertion

Component Location Mark Symbols

AutoCAD Electrical expects the location symbol names to begin with the characters “WDXX.”

Configuration and Ladder Master Line Reference Symbols

AutoCAD Electrical expects to find these block inserts:

WD_M.dwg	block insert consisting of about 50 invisible attributes. These carry the drawing's settings.
WD_PNLM.dwg	optional block insert consisting of several invisible attributes. These carry the drawing's settings for panel layout functions.
WD_MLRH.dwg	block insert that carries a ladder's first line reference number and additional information such as rung spacing and ladder length.
WD_MLRV.dwg	same as above but for a ladder that lies on its side.
WD_MLRHX.dwg	optional, user-defined alternative to WD_MLRH.dwg. This symbol name is used by AutoCAD Electrical when you select 'User Block' from the Referencing tab on the Drawing Configuration dialog box.
WD_MLRVX.dwg	same as above but for a ladder that lies on its side.

NOTE The ladder line reference block used by AutoCAD Electrical is determined by the ladder reference configuration selected in the Referencing tab on the Drawing Configuration dialog box.

Dumb In-Line Wire Marker Symbols

Dumb in-line wire marker symbols must be constructed with a tiny piece of "pigtail" line entity at each connection point. This can be very small but it needs to be present for AutoCAD Electrical to correctly see the in-line inserted block as it traces the wire network. In-line wire marker symbols follow this naming convention:

- The first character is "H" or "V" for horizontal wire or vertical wire insertion.
- The next three characters are "T0_".
- The remaining characters are undefined.

Example	
HT0_RED.dwg	red in-line marker, horizontal wire insert

General Components

Schematic components such as relays, switches, pilot lights, and discrete motor control devices (but not PLC I/O symbols) follow this naming convention:

- 32 character block name maximum; the first character is either “H” or “V” for horizontal or vertical wire insertion.
- The next two characters are reserved for family type (such as PB for push buttons, CR for control relays, or LS for limit switches).

  A zero (0) as the second character of the family type means that the symbol does not trigger a wire number change through it (for example, T0 for terminals, W0 for cable markers, and so on).
- The fourth character is generally a 1 or 2.

  1 = parent or stand-alone components; 2 = child contacts
- If the symbol is a contact, the fifth character is a 1 or 2.

  1 = normally open; 2 = normally closed.
- The remaining characters are not specified. They are used to keep names unique.

Examples

HCR1.dwg	control relay coil, horizontal rung insertion
VCR1.dwg	control relay coil, vertical rung insertion
HCR21.dwg	horizontal relay contact, N.O.
HCR22.dwg	horizontal relay contact, N.C.
HCR22T.dwg	horizontal relay contact, N.C. with in-line terminal numbers
VPB11.dwg	vertical push button, parent contact, N.O.
VPB21.dwg	vertical push button, child contact, N.O.
HLS11.dwg	horizontal limit switch, parent, N.O.
HLS11H.dwg	horizontal limit switch, parent, N.O. Held closed
VLT1RP.dwg	vertical pilot light, red, press-to-test
HW01.dwg	horizontal cable marker, no wire number change through it

Panel Layout Footprint Symbols

There isn't a required naming convention to follow, but the name must adhere to the AutoCAD 32-character block name limit.

PLC I/O Parametric Build Symbols

These symbols begin with "HP" or "VP" (horizontal rung versus vertical) followed by a digit 1 through 9. The digit corresponds to the selected PLC module style or "look" (1 through 5 are provided in the AutoCAD Electrical library, 6 through 9 can be user-defined).

Plug/Jack Connector Pin Symbols

AutoCAD Electrical connector symbols follow this convention:

- The first character is "H" or "V" for horizontal or vertical wire insertion.
- The next two characters are "C0" if the connector doesn't trigger a wire number change through it, or "CN" if the connector triggers a wire number change.
- The fourth character is 1 or 2.

  1 = parent marker; 2 = child marker
- The remaining characters are not specified.

Source/Destination Wire Signal Arrow Symbols

AutoCAD Electrical wire signal arrow symbols follow this convention:

- The first four characters of these symbol names are either "HA?S" for source signal arrows or "HA?D" for destination symbol arrows. The "?" character is the arrow style digit (1 through 4 are provided in the AutoCAD Electrical library; 5 through 9 can be user-defined).
- Characters 5 through 11 can be user defined.

You can create your own arrow styles using these unused digits (ex: HA5S… and HA5D…). For example, copy **Autodesk\Acade {version number}\Libs\jic1\ha1s*.dwg to ha5s*.dwg** and **Autodesk\Acade {version number}\Libs\jic1\ha1d*.dwg to ha1d*.dwg**. Call up each of the copied arrow symbols in AutoCAD and edit to suit. Then, to access your new arrow style, set the default arrow style to "5" in the Drawing Configuration dialog box.

Stand-Alone Cross-Reference Symbols

Same naming convention as the Source/Destination Signal symbols (i.e. HA?S* and HA?D*) but without a WIRENO attribute present on the symbol.

Stand-Alone PLC I/O Point Symbols

These symbols begin with "PLCIO" and can be up to 32 characters long. There is no naming convention referenced by AutoCAD Electrical other than the "PLCIO" prefix.

Examples

PLC1050E1761-L16AWA.dwg	AB 1761 model L16-AWA with 0.5 unit rung spacing
PLCIOI1T.dwg	Stand-alone input point, single wire connection

Stand-Alone Terminal Symbols

Stand-alone terminals follow this naming convention:

- The first two characters are “HT.”
- The third character is a “0” if the wire number does not change through the terminal or “1” if the terminal symbol should trigger a wire number change.
- The fourth character is an underscore (_)if the terminal carries no attributes for AutoCAD Electrical to process (such as a dumb, unannotated terminal symbol).

  Otherwise the 4^{th}-8^{th} character positions of the symbol file name are user-defined.

Examples

HT0001.dwg	square terminal with annotation, wire number does not change
HT1001.dwg	square terminal with annotation, wire number changes through the terminal
HT0_01.dwg	dumb, square terminal with no annotation, no wire number change

Wire Dot Symbols

AutoCAD Electrical expects this symbol name to be “WDDOT.dwg.”

Wire Number Symbols

An AutoCAD Electrical wire number is a block insert consisting of a single wire number attribute. The origin of the block insert lies on its wire with the wire number attribute floating above, below, or off to the side of the block’s insertion point.

Examples

WD_WNH.dwg	wire number for horizontal wire insertion
WD_WNV.dwg	wire number for vertical wire insertion
WD_WCH.dwg	extra wire number copy for horizontal wire
WD_WCV.dwg	extra wire number copy for vertical wire

AutoCAD Electrical also supports in-line wire numbers that follow the value of the main wire number. An in-line wire marker has a block name that follows that of a terminal symbol that does not trigger a wire number change.

Examples

HT0_W1.dwg	in-line wire number marker, horizontal wire insertion, short wire number length
HT0_W3.dwg	in-line wire number marker, horizontal wire insertion, longer wire number length
VT0_W1.dwg	in-line wire number marker, vertical wire insertion, short wire number length
VT0_W2.dwg	in-line wire number, vertical wire insertion, medium wire number length

Using Multiple Symbol Libraries

You can select the library you want to use for each project. One project might require a JIC-style library and another an IEC-style library. Each symbol library set must be in its own subdirectory but adhere to the AutoCAD Electrical file naming convention.

To set a symbol library to use for a particular project, enter the library's path into the **Projects** > **Projects** > **Project New/Existing** > **Symbol Library** subdialog box. Enter the library's path into the upper input box.

NOTE You can include electrical, pneumatic, or other schematic libraries in the path.

You can also include a series of library paths for AutoCAD Electrical to use. To do this, enter the names of the libraries (in order) with a semicolon between them. For example, **C:/Program Files/Autodesk/Acade {*version number*}/Libs/;C:/*user path/userlibrary.***

NOTE You cannot have duplicate symbols in the various symbol libraries.

Substituting Symbols in the Library

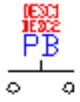
You can temporarily substitute an altered symbol for a symbol that is found in the standard library. Put the altered symbol's ".dwg" file in your USER subdirectory (select the **Projects** > **Project** > **Project New/Existing** > **Settings** button to find the full path). The AutoCAD Electrical component insertion command always looks at this directory for the requested symbol prior to going to the selected symbol library.

NOTE AutoCAD Electrical deals with regular AutoCAD blocks. If you insert a block from one library and then try to insert the same block name, but from a different library, you'll just get a copy of the original version of the block. Use the AutoCAD Electrical SWAP BLOCK command to make the change.

Schematic Library Symbols

Below is an illustrated listing of the schematic symbols (along with the appropriate block name) supplied with AutoCAD Electrical. The schematic symbols are illustrated here along with the appropriate block name.

Push Buttons



HPB11.DWG
Push button, N.O.

HPB12.DWG
Push button, N.C.

HPB11M.DWG
Mushroom PB,
N.O.

HPB12M.DWG
Mushroom PB,
N.C.

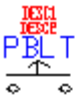
HPB21.DWG
Contact, N.O.
2nd+

HPB22.DWG
Contact, N.C.
2nd+

Illuminated Push Buttons

HPB11L.DWG
Illum PB, N.O.

HPB12L.DWG
Illum PB, N.C.



HPB11ML.DWG
Illum PB, N.O.
Mushroom Head

HPB12ML.DWG
Illum PB, N.C.
Mushroom Head

HPB2R.DWG
Illum PB,
Red Light

HPB2G.DWG
Illum PB,
Green Light

HPB2A.DWG
Illum PB,
Amber Light

HPB2Y.DWG
Illum PB,
Yellow Light

HPB2B.DWG
Illum PB,
Blue Light

HPB2W.DWG
Illum PB,
White Light

HPB2C.DWG
Illum PB,
Clear Light

Selector Switches

HSS112.DWG
Selector Switch,
2 pos Maintained
Shown N.O.

HSS122.DWG
Selector Switch,
2 pos Maintained
Shown N.C.

HSS112L.DWG
Selector Switch,
2 pos Spr Rtn from
Left, Shown N.O.

HSS122L.DWG
Selector Switch,
2 pos Spr Rtn from
Left, Shown N.C.

HSS112R.DWG
Selector Switch,
2 pos Spr Rtn from
Right, Shown N.O.

HSS122R.DWG
Selector Switch,
2 pos Spr Rtn from
Right, Shown N.C.

HSS21.DWG
Selector Switch,
2nd+ N.O.

HSS22.DWG
Selector Switch,
2nd+ N.C.

HSS113.DWG
Selector Switch,
3 pos Maintained
Shown N.O.

HSS123.DWG
Selector Switch,
3 pos Maintained
Shown N.C.

HSS113L.DWG
Selector Switch,
3 pos Spr Rtn from
Left, Shown N.O.

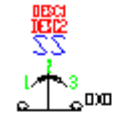
HSS123L.DWG
Selector Switch,
3 pos Spr Rtn from
Left, Shown N.C.

HSS113R.DWG
Selector Switch,
3 pos Spr Rtn from
Right, Shown N.O.

HSS123R.DWG
Selector Switch,
3 pos Spr Rtn from
Right, Shown N.C.

HSS113B.DWG
Selector Switch,
3 pos Spr Rtn to
Center, Shown N.O.

Selector Switches (continued)



HSS123B.DWG
Selector Switch,
3 pos Spr Rtn to
Center, Shown N.C.

HSS114.DWG
Selector Switch,
4 pos Maintained,
Shown N.O.

HSS124.DWG
Selector Switch,
4 pos Maintained,
Shown N.C.

HSS116.DWG
Selector Switch,
6 pos Maintained,
Shown N.O.

HSS126.DWG
Selector Switch,
6 pos Maintained,
Shown N.C.

HSS118.DWG
Selector Switch,
8 pos Maintained,
Shown N.O.

HSS128.DWG
Selector Switch,
8 pos Maintained,
Shown N.C.

Illuminated Selector Switches

HSS112I.DWG
Illum Sel Switch,
2 pos Maintained
Shown N.O.

HSS122I.DWG
Illum Sel Switch,
2 pos Maintained
Shown N.C.

HSS1f2LI.DWG
Illum Sel Switch,
2 pos Spr Rtn from
Left, Shown N.O.

HSS122LI.DWG
Illum Sel Switch,
2 pos Spr Rtn from
Left, Shown N.C.

HSS1f2RI.DWG
Illum Sel Switch,
2 pos Spr Rtn from
Right, Shown N.O.

HSS122RI.DWG
Illum Sel Switch,
2 pos Spr Rtn from
Right, Shown N.C.

HSS1f3I.DWG
Illum Sel Switch,
3 pos Maintained
Shown N.O.

HSS123I.DWG
Illum Sel Switch,
3 pos Maintained
Shown N.C.

HSS1f3LI.DWG
Illum Sel Switch,
3 pos Spr Rtn from
Left, Shown N.O.

HSS123LI.DWG
Illum Sel Switch,
3 pos Spr Rtn from
Left, Shown N.C.

HSS1f3RI.DWG
Illum Sel Switch,
3 pos Spr Rtn from
Right, Shown N.O.

HSS123RI.DWG
Illum Sel Switch,
3 pos Spr Rtn from
Right, Shown N.C.

HSS1f3BI.DWG
Illum Sel Switch,
3 pos Spr Rtn to
Center, Shown N.O.

HSS123BI.DWG
Illum Sel Switch,
3 pos Spr Rtn to
Center, Shown N.C.

HSS2R.DWG
Red Light for
Illum Sel Switch

HSS2G.DWG
Green Light for
Illum Sel Switch

HSS2A.DWG
Amber Light for
Illum Sel Switch

HSS2Y.DWG
Yellow Light for
Illum Sel Switch

HSS2B.DWG
Blue Light for
Illum Sel Switch

HSS2W.DWG
White Light for
Illum Sel Switch

HSS2C.DWG
Clear Light for
Illum Sel Switch

Limit Switches

HLS11.DWG
Limit Switch,
N.O.

HLS12.DWG
Limit Switch,
N.C.

HLS21.DWG
Limit Switch,
2nd+ N.O.

HLS22.DWG
Limit Switch,
2nd+ N.C.

HLS11H.DWG
Limit Switch,
N.O.-Held closed

HLS12H.DWG
Limit Switch,
N.C.-Held open

HLS21H.DWG
Limit Switch,
2nd+ N.O.-
Held closed

HLS22H.DWG
Limit Switch,
2nd+ N.C.-
Held Open

Pressure Switches

HPS11.DWG
Pressure Switch,
N.O.

HPS12.DWG
Pressure Switch,
N.C.

HPS21.DWG
Pressure Switch,
2nd+ N.O.

HPS22.DWG
Pressure Switch,
2nd+ N.C.

Temperature Switches

HTS11.DWG
Temp Switch,
N.O.

HTS12.DWG
Temp Switch,
N.C.

HTS21.DWG
Temp Switch,
2nd+ N.O.

HTS22.DWG
Temp Switch,
2nd+ N.C.

Flow Switches

HFS11.DWG
Flow Switch,
N.O.

HFS12.DWG
Flow Switch,
N.C.

HFS21.DWG
Flow Switch,
2nd+ N.O.

HFS22.DWG
Flow Switch,
2nd+ N.C.

Level Switches

HFL11.DWG
Level Switch,
N.O.

HFL12.DWG
Level Switch,
N.C.

HFL21.DWG
Level Switch,
2nd+ N.O.

HFL22.DWG
Level Switch,
2nd+ N.C.

Proximity Switches

HPX11.DWG
Prox Switch,
N.O.

HPX12.DWG
Prox Switch,
N.C.

HPX21.DWG
Prox Switch,
2nd+ N.O.

HPX22.DWG
Prox Switch,
2nd+ N.C.

Foot Switches

HFT11.DWG
Foot Switch,
N.O.

HFT12.DWG
Foot Switch,
N.C.

HFT21.DWG
Foot Switch,
2nd+ N.O.

HFT22.DWG
Foot Switch,
2nd+ N.C.

Pull Cord Switches

HPC11.DWG
Pull Cord Switch,
N.O.

HPC12.DWG
Pull Cord Switch,
N.C.

HPC21.DWG
Pull Cord Switch,
2nd+ N.O.

HPC22.DWG
Pull Cord Switch,
2nd+ N.C.

Anti-Plugging Switches

HPG11.DWG
Anti-Plugging
Switch, N.O.

HPG12.DWG
Anti-Plugging
Switch, N.C.

HPG21.DWG
Anti-Plugging
Switch, 2nd+ N.O.

HPG22.DWG
Anti-Plugging
Switch, 2nd+ N.C.

Toggle Switches

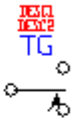
HTG11.DWG
Toggle Switch,
N.O.

HTG12.DWG
Toggle Switch,
N.C.

HTG21.DWG
Toggle Switch,
2nd+ N.O.

HTG22.DWG
Toggle Switch,
2nd+ N.C.

HTG112.DWG
Toggle Switch,
SPDT Maintained



HTG112D.DWG
Toggle Switch,
SPDT Rtrn from
Down

HTG112U.DWG
Toggle Switch,
SPDT Rtrn from
Up

HTG112B.DWG
Toggle Switch,
SPDT Rtrn from
Both

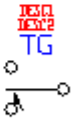
HTG212.DWG
Toggle Switch,
2nd+ Maint

HTG212D.DWG
Toggle Switch,
2nd+ Rtrn from
Down

HTG212U.DWG
Toggle Switch,
2nd+ Rtrn from
Up

HTG212B.DWG
Toggle Switch,
2nd+ Rtrn from
Both

HTG112R.DWG
Toggle Switch,
SPDT Maintained



HTG112DR.DWG
Toggle Switch,
SPDT Rtrn from
Down

HTG112UR.DWG
Toggle Switch,
SPDT Rtrn from
Up

HTG112BR.DWG
Toggle Switch,
SPDT Rtrn from
Both

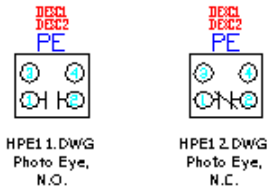
HTG212R.DWG
Toggle Switch,
2nd+ Maint

HTG212DR.DWG
Toggle Switch,
2nd+ Rtrn from
Down

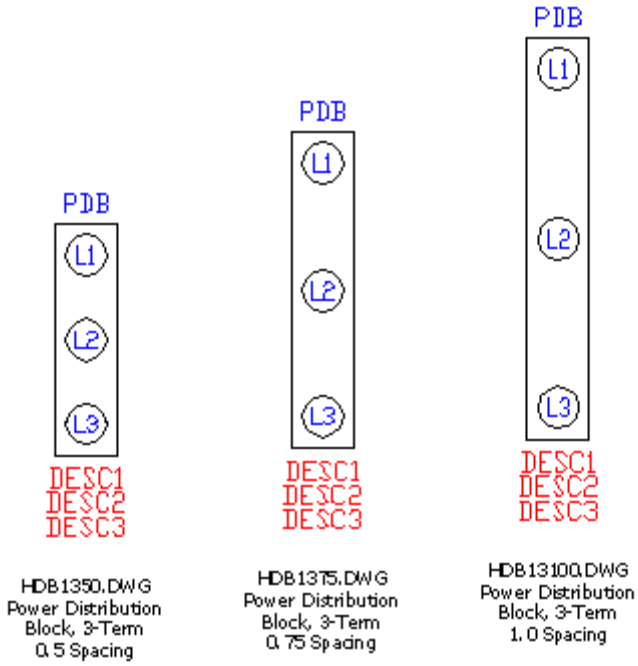
HTG212UR.DWG
Toggle Switch,
2nd+ Rtrn from
Up

HTG212BR.DWG
Toggle Switch,
2nd+ Rtrn from
Both

Photo Eyes

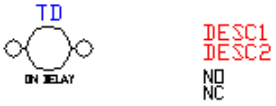


Power Distribution Blocks



Timers

HTD1N.DWG
Time Delay Relay, On Delay Coil



HTD1NT.DWG
Time Delay Relay, On Delay Coil
with Terminals

HTD21N.DWG
Time Delay Contact,
On Delay N.O.-T.C.

HTD22N.DWG
Time Delay Contact,
On Delay N.C.-T.O.

HTD21NT.DWG
Time Delay Contact,
On Delay N.O.-T.C.
w Trms

HTD22NT.DWG
Time Delay Contact
On Delay N.C.-T.O
w Trms

HTD21I.DWG
Time Delay Contact,
Inst N.O.

HTD22I.DWG
Time Delay Contact,
Inst N.C.

HTD21IT.DWG
Time Delay Contact,
Inst N.O.
w Trms

HTD22IT.DWG
Time Delay Contact
Inst N.C.
w Trms

HTD1F.DWG
Time Delay Relay, Off Delay Coil

HTD1FT.DWG
Time Delay Relay, Off Delay Coil
with Terminals

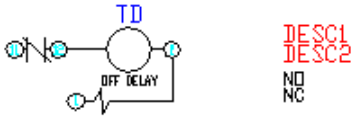
HTD21F.DWG
Time Delay Contact,
Off Delay N.O.-T.O.

HTD22F.DWG
Time Delay Contact,
Off Delay N.C.-T.C.

HTD21FT.DWG
Time Delay Contact,
Off Delay N.O.-T.O.
w Trms

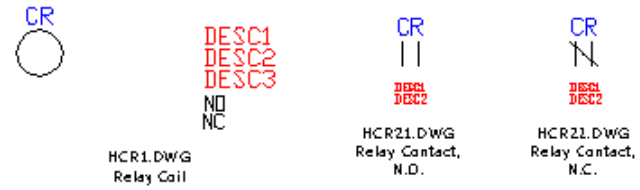
HTD22FT.DWG
Time Delay Contact
Off Delay N.C.-T.C.
w Trms

HTD1NM.DWG
Time Delay Relay,
On Delay Mlt Coil



HTD1FM.DWG
Time Delay Relay,
Off Delay Mlt Coil

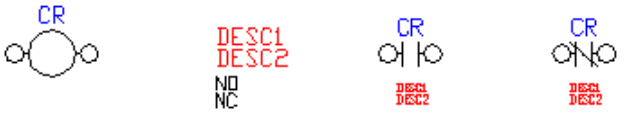
Relays



HCR1.DWG
Relay Coil

HCR21.DWG
Relay Contact,
N.O.

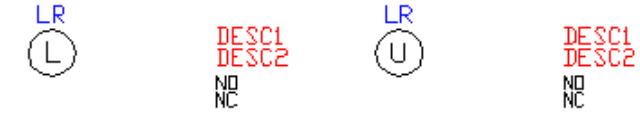
HCR22.DWG
Relay Contact,
N.C.



HCR1T.DWG
Relay Coil
with Terminals

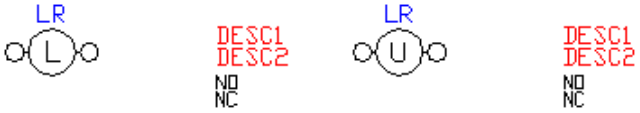
HCR21T.DWG
Relay Contact,
N.O. w Trms

HCR22T.DWG
Relay Contact,
N.C. w Trms



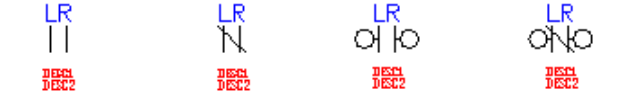
HLR1.DWG
Latch Coil

HLR1U.DWG
Unlatch Coil



HLR1T.DWG
Latch Coil
with Terminals

HLR1UT.DWG
Unlatch Coil
with Terminals



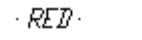
HLR21.DWG
Latch Contact,
N.O.

HLR22.DWG
Latch Contact,
N.C.

HLR21T.DWG
Latch Contact,
N.O. w Trms

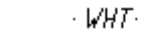
HLR22T.DWG
Latch Contact,
N.C. w Trms

Wire Markers



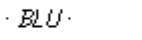
HT0_RED.DWG
Dumb Wire Label, Red

HT0_BLK.DWG
Dumb Wire Label, Black

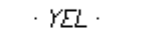


HT0_WHT.DWG
Dumb Wire Label, White

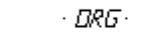
HT0_GRN.DWG
Dumb Wire Label, Green



HT0_BLU.DWG
Dumb Wire Label, Blue



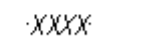
HT0_YEL.DWG
Dumb Wire Label, Yellow



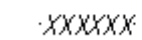
HT0_ORG.DWG
Dumb Wire Label, Orange

HT0_GRY.DWG
Dumb Wire Label, Grey

HT0_X1.DWG
Dumb Wire Label, You Type



HT0_X2.DWG
Dumb Wire Label, You Type



HT0_X3.DWG
Dumb Wire Label, You Type

Terminals

HTD_01.DWG
Terminal (dumb),
Square

HTDW01.DWG
Terminal,
Square w Wire#

HTD001.DWG
Terminal,
Square w Term#

HT1001.DWG
Terminal,
Square (wire num
changes)

HTD_02.DWG
Terminal (dumb),
Round

HTDW02.DWG
Terminal,
Round w Wire#

HTD002.DWG
Terminal,
Round w Term#

HT1002.DWG
Terminal,
Round (wire num
changes)

HTD_03.DWG
Terminal (dumb),
Hexagon

HTDW03.DWG
Terminal,
Hex w Wire#

HTD003.DWG
Terminal,
Hex w Term#

HT1003.DWG
Terminal,
Hex (wire num
changes)

HTD_04.DWG
Terminal (dumb),
Diamond

HTDW04.DWG
Terminal,
Diamond w Wire#

HTD004.DWG
Terminal,
Diamond w Term#

HT1004.DWG
Terminal,
Diamond (wire
num changes)

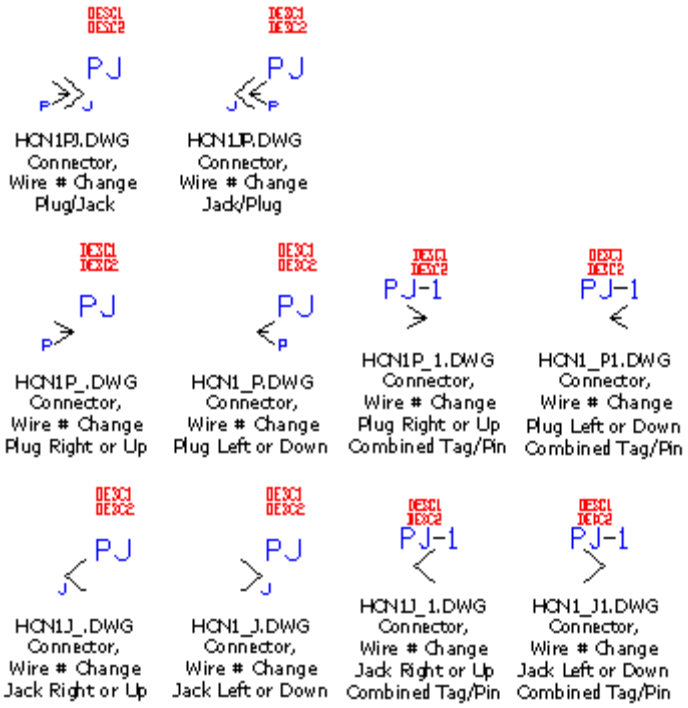
HTD_05.DWG
Terminal (dumb),
Triangle

HTDW05.DWG
Terminal,
Triangle w Wire#

HTD005.DWG
Terminal,
Triangle w Term#

HT1005.DWG
Terminal,
Triangle (wire
num changes)

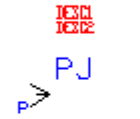
Connectors - Wire Number Change



Connectors - Wire Number Change (continued)

HCN2PJ.DWG
Connector,
Wire # Change
2nd+ Plug/Jack

HCN2JP.DWG
Connector,
Wire # Change
2nd+ Jack/Plug

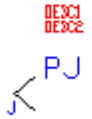


HCN2P_.DWG
Connector,
Wire # Change
2nd+ Plug Rt or Up

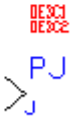
HCN2_P.DWG
Connector, Wire
Change, 2nd+
Plug Lft or Dn

HCN2P_1.DWG
Connector,
Wire # Change
2nd+ Plug Rt or Up
Combined Tag/Pin

HCN2_P1.DWG
Connector, Wire
Change, 2nd+
Plug Lft or Dn
Combined Tag/Pin



HCN2J_.DWG
Connector,
Wire # Change
2nd+ Jack
Rt or Up

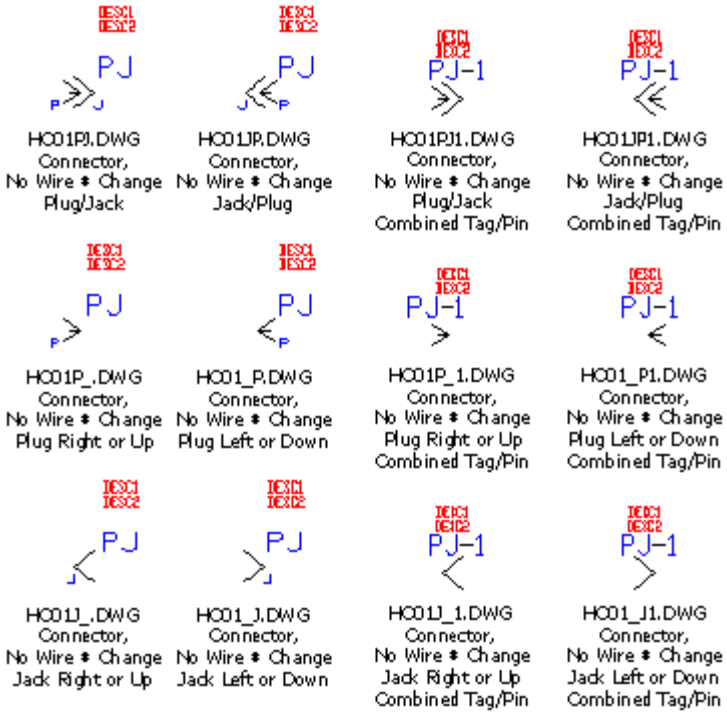


HCN2_J.DWG
Connector,
Wire # Change
2nd+ Jack
Lft or Dn

HCN2J_1.DWG
Connector, Wire
Change, 2nd+
Jack Rt or Up
Combined Tag/Pin

HCN2_J1.DWG
Connector, Wire
Change, 2nd+
Jack Lft or Dn
Combined Tag/Pin

Connectors - No Wire Number Change



Connectors - No Wire Number Change (continued)

HC02PJ.DWG
Connector,
No Wire # Change
2nd+ Plug/Jack

HC02JP.DWG
Connector,
No Wire # Change
2nd+ Jack/Plug

HC02PJ1.DWG
Connector,
No Wire # Change
2nd+ Plug/Jack
Combined Tag/Pin

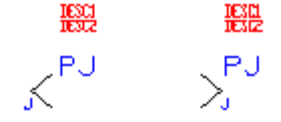
HC02JP1.DWG
Connector,
No Wire # Change
2nd+ Jack/Plug
Combined Tag/Pin

HC02P_.DWG
Connector,
No Wire # Change
2nd+ Plug Rt or Up

HC02_P.DWG
Connector, No
Wire # Chg, 2nd+
Plug Lft or Dn

HC02P_1.DWG
Connector, No
Wire # Chg, 2nd+
Plug Rt or Up
Combined Tag/Pin

HC02_P1.DWG
Connector, No
Wire # Chg, 2nd+
Plug Lft or Dn
Combined Tag/Pin



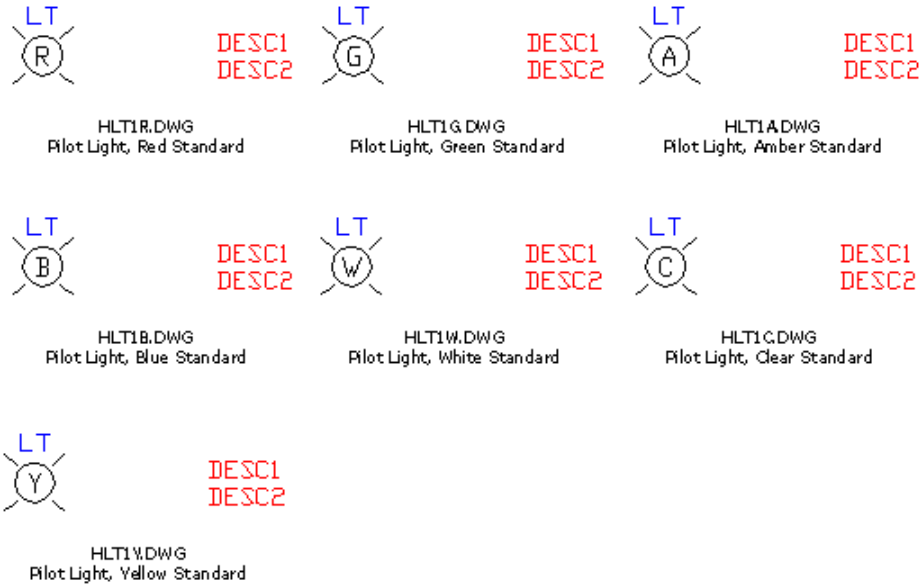
HC02J_.DWG
Connector,
No Wire # Chg
2nd+ Jack
Rt or Up

HC02_J.DWG
Connector,
No Wire # Chg
2nd+ Jack
Lft or Dn

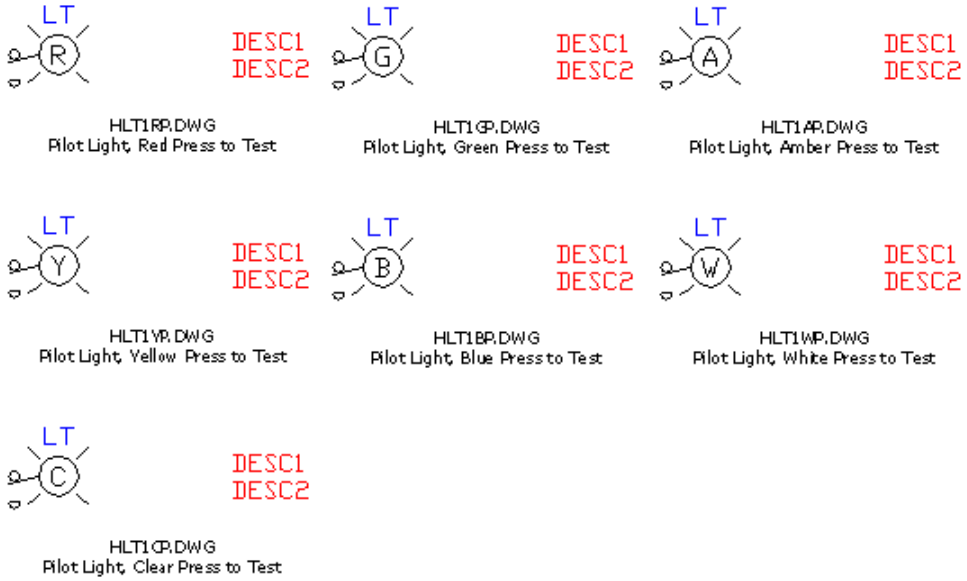
HC02J_1.DWG
Connector, No
Wire # Chg, 2nd+
Jack Rt or Up
Combined Tag/Pin

HC02_J1.DWG
Connector, No
Wire # Chg, 2nd+
Jack Lft or Dn
Combined Tag/Pin

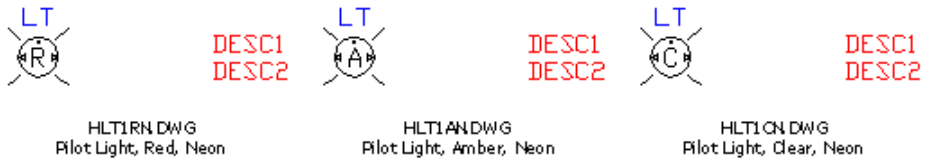
Standard Pilot Lights



Press to Test Pilot Lights



Neon Pilot Lights



Master Test Pilot Lights

HLT1RM.DWG
Pilot Light, Red, Master Test

HLT1GM.DWG
Pilot Light, Green, Master Test

HLT1AM.DWG
Pilot Light, Amber, Master Test

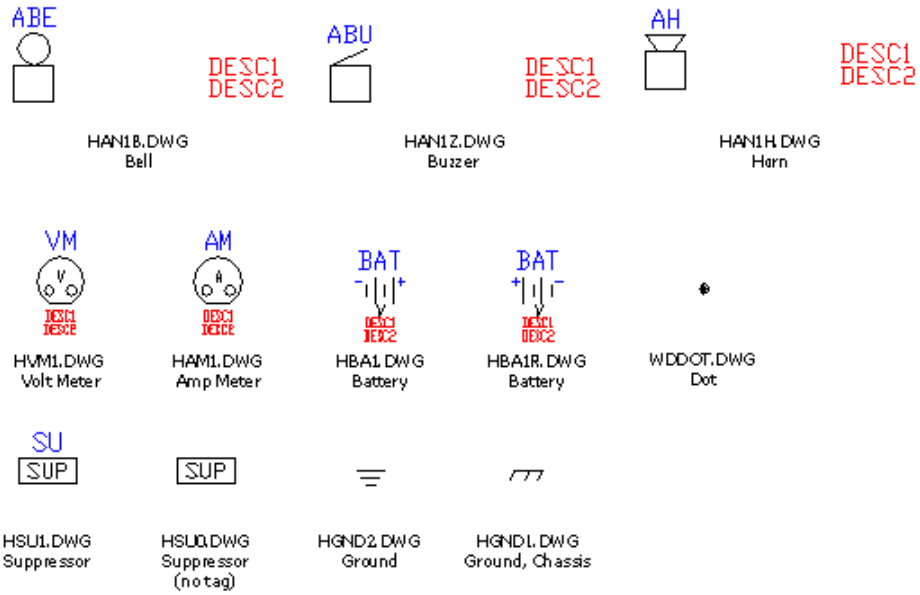
HLT1BM.DWG
Pilot Light, Blue, Master Test

HLT1WM.DWG
Pilot Light, White, Master Test

HLT1CM.DWG
Pilot Light, Clear, Master Test

HLT1YM.DWG
Pilot Light, Yellow, Master Test

Miscellaneous



Electronics

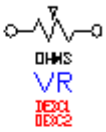
HRE1.DWG
Fixed Resistor

HRE1B.DWG
Fixed Resistor,
Box

HRE1T.DWG
Fixed Resistor,
w Terminal Pins

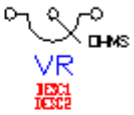
HRE1TB.DWG
Fixed Resistor,
Box w Trm Pins

HVR1TZ.DWG
Variable Resistor

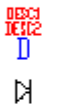


HVR1TZR.DWG
Variable Resistor

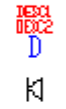
HVR1.DWG
Variable Resistor



HVR1R.DWG
Variable Resistor

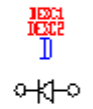


HDI1.DWG
Diode

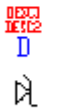


HDI1R.DWG
Diode

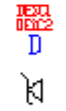
HDI1T.DWG
Diode,
w Terminal Pins



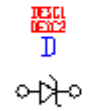
HDI1TR.DWG
Diode,
w Terminal Pins



HDI1Z.DWG
Zener Diode



HDI1ZR.DWG
Zener Diode



HDI1TZ.DWG
Zener Diode,
w Terminal Pins

HDI1TZR.DWG
Zener Diode,
w Terminal Pins

HCA1.DWG
Capacitor

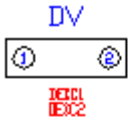
HCA1T.DWG
Capacitor,
w Terminal Pins

Receptacles

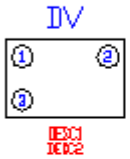
HCN1RDUP.DWG
Duplex Receptacle

HCN1RSGL.DWG
Single Receptacle

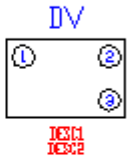
Generic Boxes



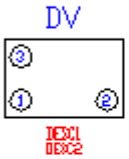
HDV1T6.DWG
Generic Device Box
2-Terminals



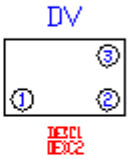
HDV1TE.DWG
Generic Device Box
3-Terminals



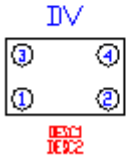
HDV1T7.DWG
Generic Device Box
3-Terminals



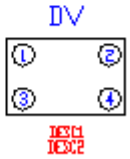
HDV1TC.DWG
Generic Device Box
3-Terminals



HDV1T8.DWG
Generic Device Box
3-Terminals



HDV1TFL.DWG
Generic Device Box
4-Terminals



HDV1TF.DWG
Generic Device Box
4-Terminals

Stand-Alone Cross Reference

HA2S1_REF.DWG
Source,
Rectangle

HA3S1_REF.DWG
Source, Hexagon

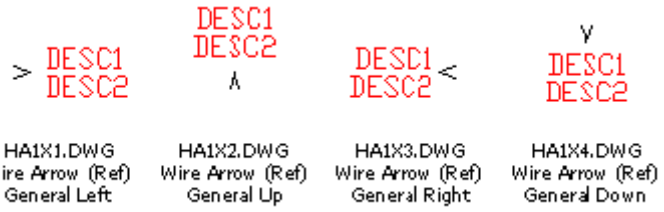
HA5S1_REF.DWG
Source,
Ellipse

HA2D1_REF.DWG
Destination,
Rectangle

HA3D1_REF.DWG
Destination,
Hexagon

HA5D1_REF.DWG
Destination,
Ellipse

Wire Arrows - Reference Only

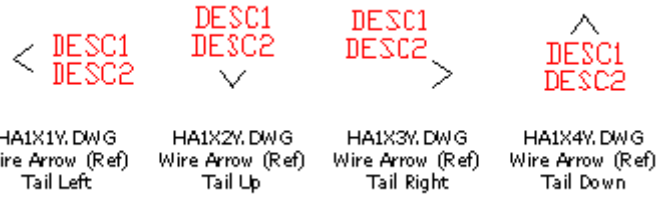


HA1X1.DWG
Wire Arrow (Ref)
General Left

HA1X2.DWG
Wire Arrow (Ref)
General Up

HA1X3.DWG
Wire Arrow (Ref)
General Right

HA1X4.DWG
Wire Arrow (Ref)
General Down



HA1X1Y.DWG
Wire Arrow (Ref)
Tail Left

HA1X2Y.DWG
Wire Arrow (Ref)
Tail Up

HA1X3Y.DWG
Wire Arrow (Ref)
Tail Right

HA1X4Y.DWG
Wire Arrow (Ref)
Tail Down

Fuses

HFU1.DWG
Fuse

HFU0.DWG
Fuse (no tag)

HFU2.DWG
Fuse 2nd+

HDS11FR.DWG
Fuse,
Switch Right

HDS21FR.DWG
Fuse, 2nd+
Switch right

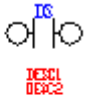
HDS11FL.DWG
Fuse,
Switch Left

HDS21FL.DWG
Fuse, 2nd+
Switch Left

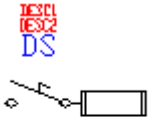
Disconnect Switches

HDS11.DWG
Disc Switch

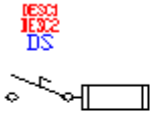
HDS21.DWG
Disc Switch,
2nd+



HDS21T.DWG
Disc Switch,
Aux Contact N.O.

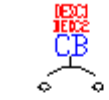


HDS11F.DWG
Fused Disc Switch



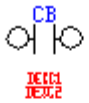
HDS21F.DWG
2nd+ Fused Disc
Switch

Circuit Breakers

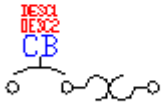


HCB1.DWG
Circuit Breaker,
1-Pole

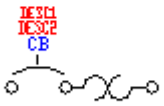
HCB2.DWG
Circuit Breaker,
2nd+ 1-Pole



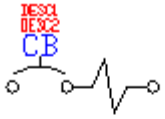
HCB21T.DWG
Circuit Breaker,
Aux Contact N.O.



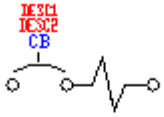
HCB11TH.DWG
Circuit Breaker,
Thermal



HCB21TH.DWG
Circuit Breaker,
2nd+ Thermal



HCB11M.DWG
Circuit Breaker,
MCP

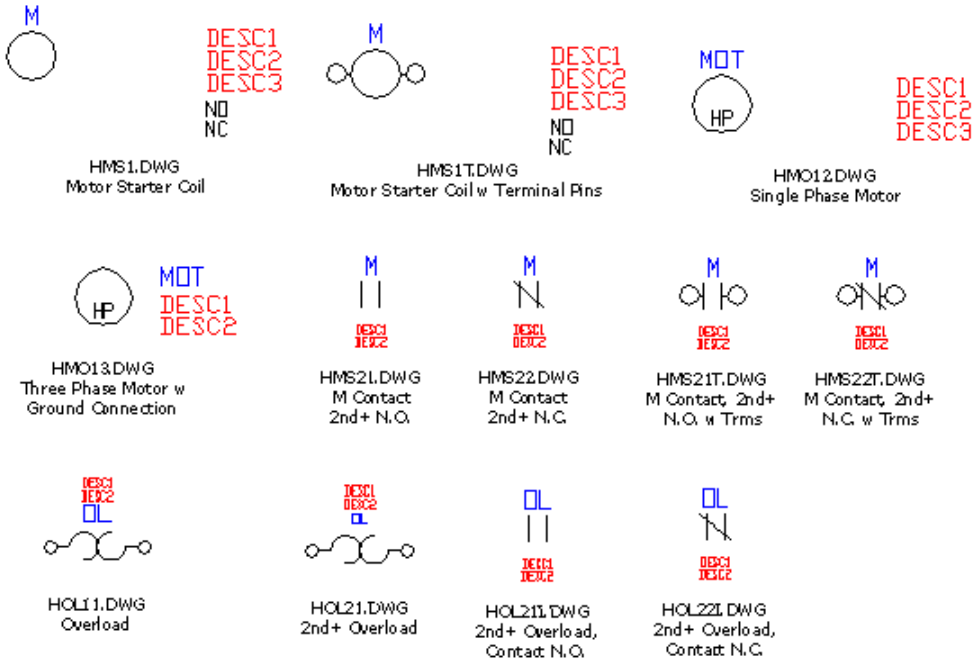


HCB21M.DWG
Circuit Breaker,
2nd+ MCP

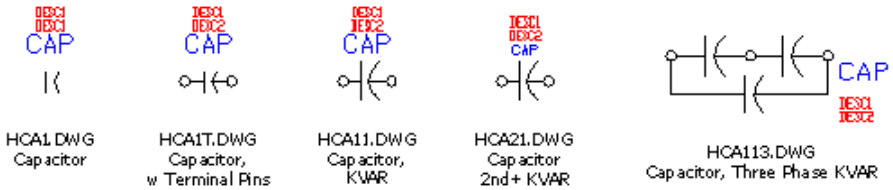
HCB11ML.DWG
Circuit Breaker,
MCP w CL

HCB21ML.DWG
Circuit Breaker,
2nd+ MCP w CL

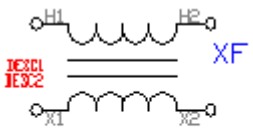
Motor Control



Capacitors

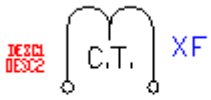


Transformers



HXF1.DWG
Transformer

HXF1D.DWG
Transformer, Dual



HXF1CT.DWG
Transformer, CT

HXF1PT.DWG
Transformer, PT

Solenoids

HSV1.DWG
Solenoid, SV std

HSV11.DWG
Solenoid, SV N.O.

HSV12.DWG
Solenoid, SV N.C.

HSV1M.DWG
Solenoid, Manual Reset SV

HSV2J.DWG
Solenoid,
2nd+ N.O.

HSV22.DWG
Solenoid,
2nd+ N.C.

Instruments