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elecworks[™] Tips & Tricks

Wire Colour / Size Marking

elecworks[™] has multiple ways of having wire size and colour displayed by the wire number or on the wire. The wire size and colour can be included as either intelligent fields within the wire numbering methodology or as fixed text information within the wire numbering methodology. In addition, wire labels can also be placed instead of the normal wire numbers if you have the elecworks Harness (Onboard) module which extends the functionality of elecworks. The functionality is applicable to numbering wires on a per physical wire or a per equipotential basis.

The following Tips & Tricks explains each method.

Wire Colour And Size Information As Text Within The Wire Numbering Formula

Right click over the current activated project > Configurations > Wire styles...



Highlight a wire style in the left of the dialogue and select

| | Wire style | | |
|---|--|--|--|
| | Name: | = 48V | |
| | Numbering group: | 0 | |
| Ξ | General | | |
| | Conductor: | Control | |
| | Line color: | 213 | |
| | Line type: | Continuous line CONTINUOUS | |
| | Line width: | 0 | |
| | Equipotential formula | EQUIPOTENTIAL_ORDERNO + " 185MM ² BK" | |
| | Wire formula | WIRE_ORDERNO | |
| | Propagate data: | | |
| 3 | Cabling | | |
| | Diameter (mm): | 2.95 | |
| | Section or gauge: | 1.0 | |
| | Wire size standard: | Section (mm ²) | |
| | Wire color: | Violet | |
| | Bend radius (x Diameter): | 6 | |
| | | | |
| | Cable reference | | |
| | E Cable reference Technical data | | |
| - | Cable reference Technical data Voltage: | 48V | |
| - | Cable reference Technical data Voltage: Frequency: | 48V | |
| | Cable reference Technical data Voltage: Frequency: Description | 487 | |
| 3 | Cable reference Technical data Voltage: Frequency: Description Gal Description Gal Description | 48V 48V DC | |
| | Cable reference Technical data Voltage: Frequency: Description En Description (English) User data | 48V 48V DC | |
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| | Cable reference Technical data Voltage: Description Description User data User data 1: User data 1: | 48V 48V DC | |
| | Cable reference Technical data Voltage: Frequency: Description Bil Description (English) User data User data 1: User data 2: Translatable data | 48V 48V DC | |
| | Cable reference Technical data Voltage: Frequency: Description User data 1: User data 1: User data 1: User data 1: User data 1: Diser data 2: [PT ranslatable data [PT ranslatable data] | 48V 48V DC | |

Ensure that the diameter, section, wire size standard and wire colour values are defined.







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Example:

Diameter:2.95Section:1.0Wire size standard:Section (mm²)Wire Color:Violet

If numbering wires on a per equipotential basis rather than a per physical wire basis, select $\int_{\mathcal{T}}$ Equipotential formula $f_{\mathcal{X}}$

In the Formulas Equipotential Mark section, enter:

EQUIPOTENTIAL_ORDERNO + " ##mm² @@"

Where ## = the wire size e.g. 1 and @@ = the wire colour e.g. VT

Select or apply the changes. This must be repeated on all wire types.

Wire Colour And Size Information As Intelligent Fields Within The Wire Numbering Formula

Right click over the current activated project > Configurations > Wire styles...



| | Wire style | | |
|---|--|--|--|
| | Name: | = 48V | |
| | Numbering group: | 0 | |
| • | General | | |
| | Conductor: | Control | |
| | Line color: | 213 | |
| | Line type: | Continuous line CONTINUOUS | |
| | Line width: | 0 | |
| | La Equipotential formula | EQUIPOTENTIAL_ORDERNO + " 185MM ² BK" | |
| | Wire formula | WIRE_ORDERNO | |
| | Propagate data: | | |
| Ξ | Cabling | | |
| | Diameter (mm): | 2.95 | |
| | Section or gauge: | 1.0 | |
| | Wire size standard: | Section (mm ²) | |
| | Wire color: | Violet | |
| | Bend radius (x Diameter): | 6 | |
| | 📡 Cable reference | | |
| Ξ | Technical data | | |
| | Voltage: | 48V | |
| | Frequency: | | |
| Ξ | Description | | |
| | 😹 Description (English) | 48V DC | |
| Ξ | User data | | |
| | User data 1: | | |
| | User data 2: | | |
| | The second state of the second s | | |
| | i ransiatable data | | |
| • | Franslatable data 1 (English) | | |

Properties..











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Ensure that the *diameter*, section, wire size standard and wire colour values are defined.

| Example: | | | | |
|---------------------|----------------------------|--|--|--|
| Diameter: | 2.95 | | | |
| Section: | 1.0 | | | |
| Wire size standard: | Section (mm ²) | | | |
| Wire Color: | Violet | | | |

If numbering wires on a per equipotential basis rather than a per physical wire basis, select \int_{Ω} Equipotential formula fx

In the Formulas Equipotential Mark section, enter:

EQUIPOTENTIAL_ORDERNO + " " + EQUIPOTENTIAL_SECTION + "mm² " + EQUIPOTENTIAL_COLOR

Select OK to apply the changes. This must be repeated on all wire types.

Separators such as "/" or " " can be used between fields if you wish.

Wire Labels

This function is only available if you have the Harness (Onboard) module. For more information on the capabilities of this module please refer to the link at the top of the document.

The wire and equipotential labels used within the project are defined within the projects configuration

Right click over the current activated project > Configurations > 💈 Project...

Select the Symbol tab

| 3 | Wire label | | | 6 | Equipotential label | |
|----------------------------|---|---------------------------|---------|-----------------------|--|---------------------------|
| #WIRE_H #WIRE #WI | HAR_TAG_#WIRE #WIRE_TAG SIGNAL_#WIRE RE_TX_1_#WIRE | SEC COLOR_ TX_0 | TZ_0_L1 | #EQUIP_SIC #EQUIP_ | #EQUIP_SI EQUIP_TAG SNAL_#EQUIP_C TX_1_#EQUIP_T | EC OLOR_TZ_0_L1 X_0 |
| W WORE 14051 | | | 8 8 B | EW_EQUIP_LABEL | | |
| Wre label | | | × • • | Equipotential label | | × * v |
| Wre label | Cable label | | | Equipotential label | Location label | |
| Winite_LABEL Wire label | Cable label | | | Equipotential label | Location label | |
| Wre label | Cable label #FUN_TAG #TAG | | - | Equipotential label | Location label | |
| Wre label | Coble tabel #FUN_TAG #TAG #REF_DES_ | 2 | + | Equpetertial label | Location label | |
| We label | Cable label #FUN_TAG #TAG #REF_DES_ LOC_TAG_ORIG | 2 _TAG_DEST | | Esupotential fabel | Location label 원양가겠다 | |
| We label | Coble tabel #FUN_TAG #REF_DES_ COC_TAG_ORIGINLOC, #CAB_TX_0 #CC | 2 _TAG_DEST AB_TX_1 | | | Location label | |
| K. K. | Cele level #FUN_TAG #REF_DES_ LOC_TAG_ORIGINOC #CAB_TX_0 #C #CAB_LEN | 2 _TAG_DEST AB_TX_1 | - | I couporental abel | Location label | |

If numbering wires on a per equipotential basis rather than a per physical wire basis, the Equipotential Label is used.











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Right click over the current activated project > Configurations > Wire styles...

Properties..

Highlight a wire style in the left of the dialogue and select

ಶ Wire style [= 48V] - 8 % Wire style = 48V Name: Numbering group: General Conductor: Line color: Line tope: Line width: A Equipotential formula Propagate data: Cabling Diameter (mm): ٠ • Control 213 Continuous lin CONTINUOUS EQUIPOTENTIAL_ORDERNO + " 185MM² BK WIRE_ORDERNO 九九 Diameter (mm): Section or gauge: 2.95 1.0 Vire size standard: Vire color: Section (mm²) -Vic Bend radius (x Diameter): Cable reference Technical data Voltage: Frequency: 48V Description Description (English) User data 48V DC User data 1: User data 2: Translatable data 🚮 Translatable data 1 (English) 🚮 Translatable data 2 (English) Customize. ок Cancel

Ensure that the *diameter*, *section*, *wire size standard* and *wire colour* values are defined. **Example:**

| Diameter: | 2.95 |
|---------------------|----------------------------|
| Section: | 1.0 |
| Wire size standard: | Section (mm ²) |
| Wire Color: | Violet |

If numbering wires on a per equipotential basis rather than a per physical wire basis, select \int_{Λ} Equipotential formula fx

In the Formulas Equipotential Mark section, enter:

EQUIPOTENTIAL_ORDERNO

Select or apply the changes. This must be repeated on all wire types.

If you wish the labels to be shown within the schematic, select multiple wires within a scheme and *right click* > Show / hide wire marks which will toggle the current wire numbers to be off / on Right click to repeat > Show / hide equipotential labels which will toggle the equipotential labels to be on / off







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If you wish to include the text of "mm²" then the symbol block EW_EQUIP_LABEL can be edited to include the static text.







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