TechTip: Cables with different cross-section units

Cable connections in the parts management

The parts management assumes that all cable connections of a cable have the same cross-section unit. The cross-section units can therefore not be specified individually per cable connection in the parts management. Only the cross-section value can be defined individually.

Cable definition in the parts management

For a cable `cablehybrid 2x22AWG+2x1.5mm²` with different cross-section units, the function templates are defined in the parts management.

The important thing here is to not to specify the cross-section unit.

Row	Function definition	…	Connection color / number	Connection: Cross-section / diameter
1	Cable definition			
2	Conductor / wire		WH	22
3	Conductor / wire		BU	22
4	Conductor / wire		1	1.5
5	Conductor / wire		2	1.5

The features of the cable are stored in the cable data on the **Properties** tab.

In the **Cable / Conduit: Designation in graphic** (ID: 22064) property, the cable drawing `cablehybrid 2x22AWG+2x1,5mm²` is stored for later display.

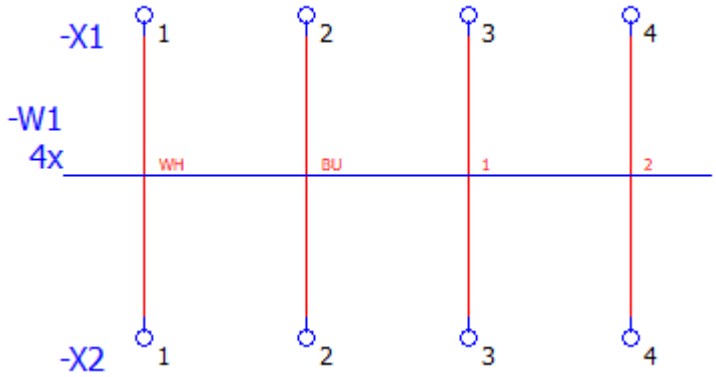
Use of a part macro

To place the cross-section unit of the connections a part macro has to be specified for the placement of the device. To this purpose the name of the part macro is stored in the **Macro** field on the **Technical data** tab: `cablehybyrid2x22AWG+2x1.5.ema`

This macro is used with preference during the placement of the device in the schematic.

Creation of a part macro

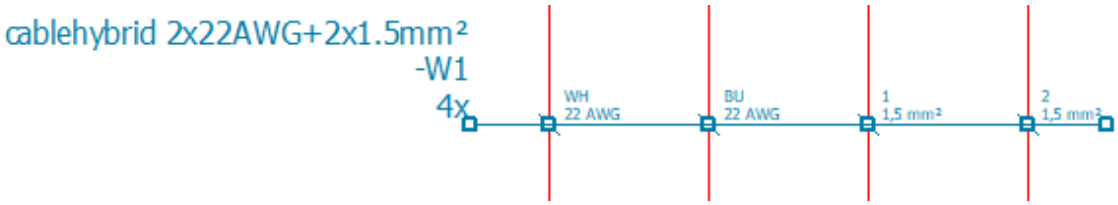
To create a part macro you must first insert the cable into the schematic via the commands **Insert center** > Breadcrumb trail **Home** > **Devices**.



We recommend to subsequently carry out the following steps:

1. At the connection definition points specify the cross-section unit "AWG" or "mm²" for the respective cable connection.
2. Use a visible symbol for all connection definition points.
3. At the connection definition points additionally select the property **Connection: Cross-section / diameter with unit** (ID: 31007) for the display.
4. At the cable definition line additionally select the property **Cable / Conduit: Designation in graphic** (ID: 20067) for display.

After marking the cable definition line and the connection definition points you create the macro `cablehybyrid2x22AWG+2x1,5.ema` via the following commands: Tab **Master data** > Command group **Macros** > **Create**.



Note:

When creating the macro, take the distance of the connection definition points into account. It is recommended to adhere to the grid used. If the connection definition points are not located on the connections after the placement, they can still be moved to the right position afterwards.