

Operating Guide

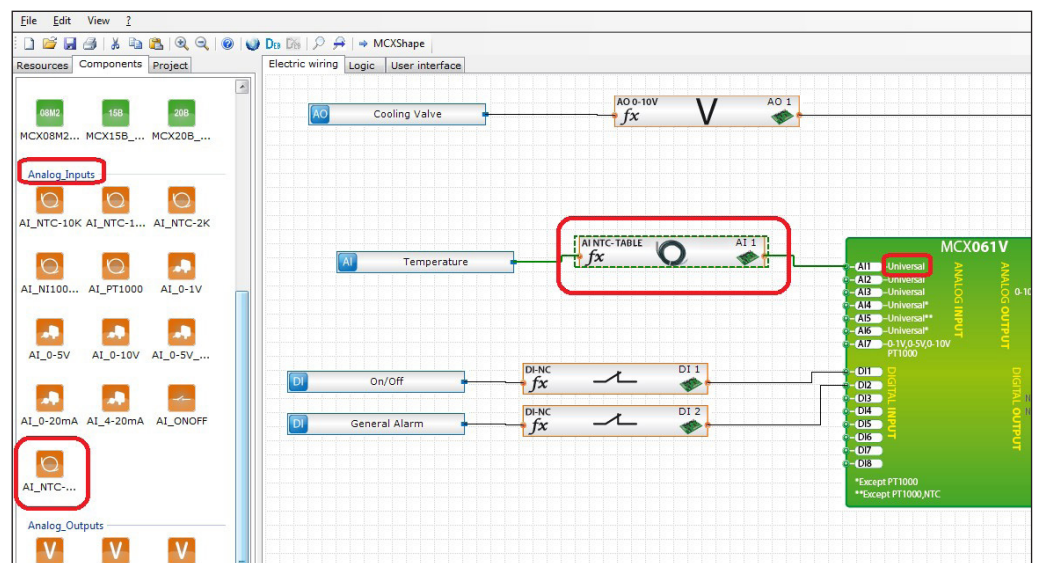
How to add a custom NTC probe

Summary

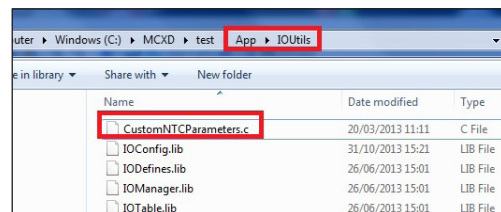
In MCXDesign version 3.00.5822, it is possible to use a new analogue input brick called "AI_NTC_TABLE". It allows you to define the relationship between °C and Ohm.

Description

1. Update MCXDesign to a version equal to or higher than **3.00.5822**.
2. From the "Components" tab of the "Electric wiring", drag and drop the "AI_NTC_TABLE" brick, ensuring that you connect it to an analogue input of the MCX that is able to read the NTC sensor:



3. In order to build the cross table, edit the "CustomNTCParameters.c" file in the "App/IOUtils" folder:



4. In the “CustomNTCParameters.c” file, the only part to update is the one related to the correspondence between temperature in °C x 10 (red square) and Ohm (green square):

```
CustomNTCParameters.c - Notepad
File Edit Format View Help
/**
 * Custom NTC table
 */
// Description used in the configurab
#define CUSTOM_NTC_DESCRIPTION "N86K"

struct TNTCtableItem {
    long x;
    long y;
};

struct t_conv {
    TNTCtableItem NTCConvTable[];
};

const t_conv NTC_conv_table= {
    {
        // [°C x10] [OHM]
        {1800, 830},
        {1750, 920},
        {1700, 1010},
        {1650, 1120},
        {1600, 1250},
        {1550, 1390},
        {1500, 1590},
        {1450, 1800},
        {1400, 2020},
        {1350, 2280},
        {1300, 2580},
        {1250, 2920},
        {1200, 3350},
        {1150, 3870},
        {1100, 4450},
        {1050, 5090},
        {1000, 5850},
        {950, 6770},
        {900, 7870},
        {850, 9200},
        {800, 10790},
        {750, 12730},
        {700, 15070},
        {650, 17870},
        {600, 21270},
        {550, 25470},
        {500, 30570},
        {450, 36870},
        {400, 44570},
        {350, 54070},
        {300, 65870},
        {250, 79870},
        {200, 97470},
        {150, 119470},
        {100, 146870},
        {50, 180870},
        {0, 222870}
    }
};
```

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