Beckhoff_Modbus

V1.0 - First release

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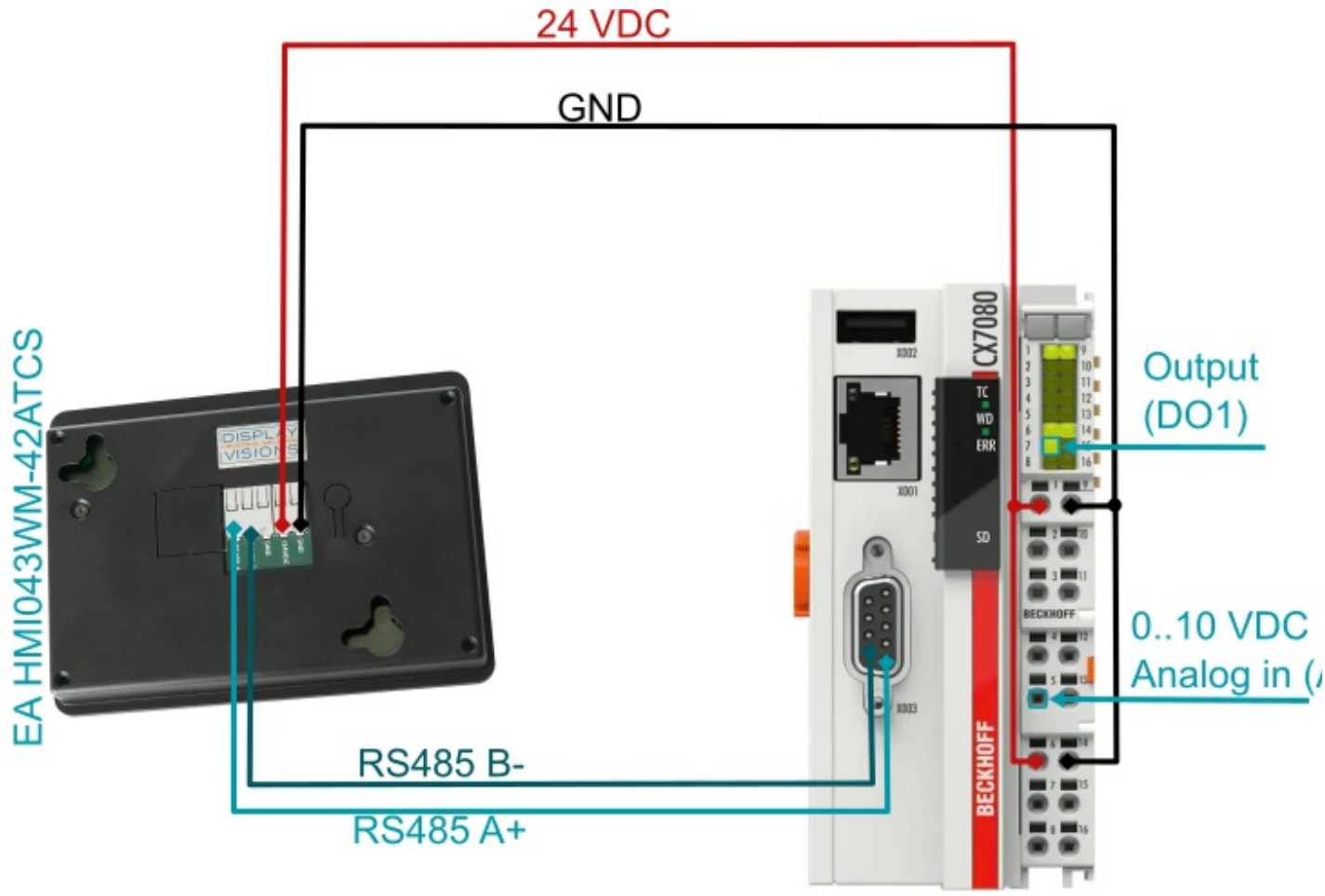
Hardware



Software EA HMI043WM-42ATCS

This HMI-Project explains how to visualize data coming from Modbus Master. It also shows how to send a value to the master.

Data mapping:
Analog value from modbus master to HMIRegister R_Beck_Analog1

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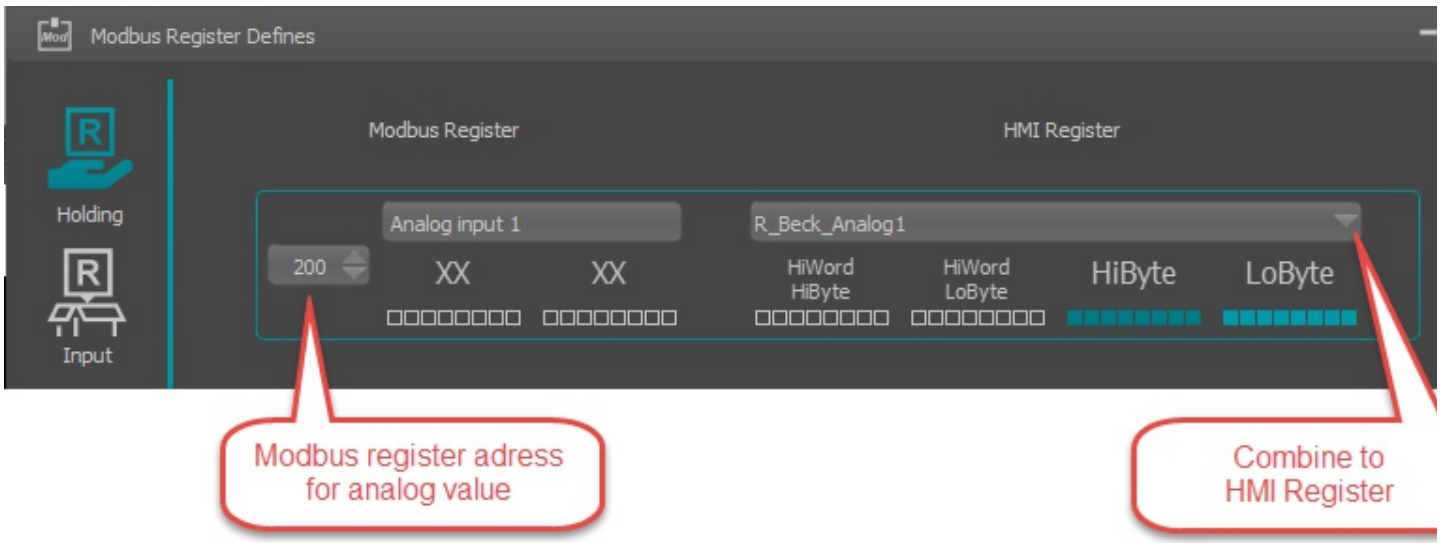

Single bit HMIRegister R_Beck_Out1 to set an Output in Modbus Master (Beckhoff CX7080)

Data usage:
R_Beck_Analog1 holds raw signed 16 bit value of Beckhoff's analog input 1. The raw value is printed to an auto updating label. There is another label, is also updating on value change, but calculates the voltage from the digits. The bargraph visualizes the raw value as well.

R_Beck_out1 changes in the Macro TM_Beckout1, which is triggered by the switch bt_output

Software Beckhoff CX7080
Please see Beckhoff project for details. To summarize: TwinCat projects sets up ModbusRtuMasterV2_PcCOM. It reads every 100ms slave's (EA HMI043WM-42ATCS) descrete modbus register from modbus data adress 1. The return value is directly mapped to output 1. On the other hand it sends to slave's holding register from modbus data adress 200 the raw analog input 1 value.