

## Beckhoff\_ProtocolExample

### V1.0 - First Issue

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#### General

This example project shows how a PLC (BECKHOFF CX7080) can be connected to a display of the uniTFT series (EA uniTFTs028-ATC). The project implements the communication protocol of the uniTFT series on the PLC and enables a basic exchange of user data.

In the display the 4 outputs of the PLC can be switched by touch.

For this purpose, a register with the new switching state is sent from the display to the PLC.

In the opposite direction, the PLC sends the status of inputs to the display in the form of a register value.

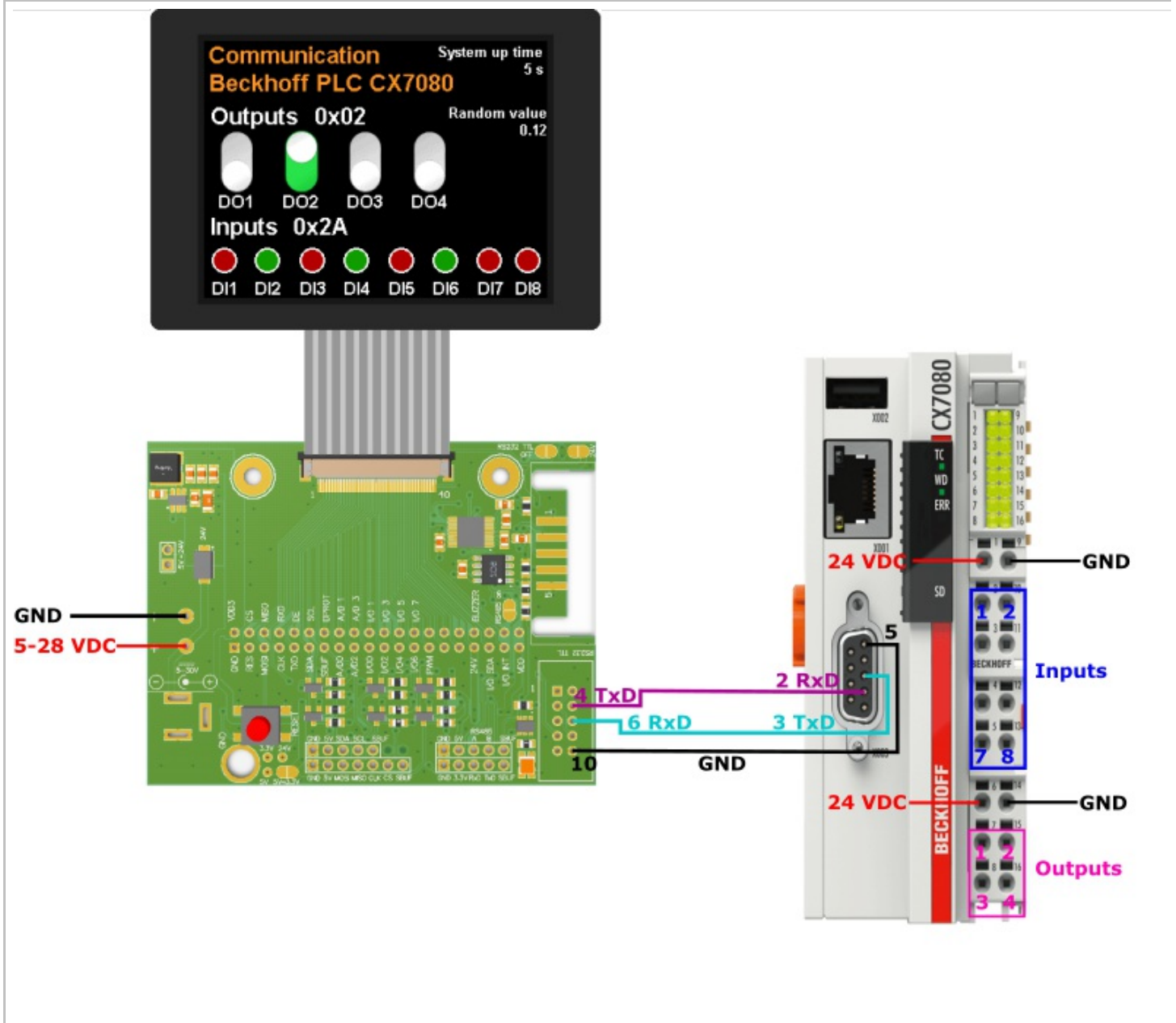
The display automatically interprets the register when it is changed and displays the new status graphically and as a value.

In addition, a second counter and a randomly generated floating point number are transmitted from the PLC to the display, which shows the two values on the screen.

#### Hardware

[EA DEMOPACK-CONNI](#) - Demmo board with several level shifter (RS-232, RS485, SPI, I<sup>2</sup>C) and 2.8" intelligent TFT Display [EA uniTFTs028-ATC](#)  
[BECKHOFF CX7080](#) - Embedded PC for RS232/RS485

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### Software

The complete example project consists of two different software projects:

- Visualisation with uniTFTDesigner: Beckhoff\_ProtocolExample
- PLC-Programm with Visual Studio 2017: uniTFT\_ProtocolExample