Connecting UniOP to Idec Micro 3C

This Technical Note contains the information and tips for successful communications between a UniOP operator panel and the Idec Micro 3C PLC.

Contents

1. Introduction 1
2. Communication Cable 1
3. Protocol Selector Switch 2
4. Pass-through Operation 2
5. Accessing the I/O 2

1. Introduction

The most important piece of information in establishing communication is related to the **Protocol Selector Switch**. The Micro 3C has a circular selector that allows the user to change the communication protocol used over the two communication ports: the RS-232 port on the mini-DIN connector and the RS-485 port on the terminal block.
The RS-232 port is referenced in the Idec documentation as the **Loader Port**.
The RS-485 port is referenced as the **Data Link Terminal**.
UniOP can be connected to either of the two ports. It is also possible to connect the PLC programming software to the Loader Port and UniOP to the other port.

Note: *The support for the Micro 3C has been initially introduced in the driver file* ***UPLC42.DLL*** *version* ***5.01****.*

2. Communication Cable

Use cable CA138 to connect a UniOP panel to the RS-232 port with the mini-DIN connector.
Use cable CA159 to connect UniOP panel to the RS-485 port on the terminal block.

3. Protocol Selector Switch

The Protocol Selector Switch has 8 different positions as described in the table below.

Protocol Selector Switch Position	Loader Port Protocol	Data Link Protocol
0	Loader protocol	Data link protocol
1	User protocol	Data link protocol
2	Loader protocol	Loader protocol
3	User protocol	Loader protocol
4	Loader protocol	Loader protocol
5 through 7	Reserved	Reserved

To establish communication between UniOP and the PLC, the port must be set to use the Loader Protocol. Depending on the selected port for communication with UniOP, the switch must be properly set.
For example, if you want to use at the same time the programming software on the Loader port and UniOP on the Data Link port you should use position 2.

Please keep in mind that when the Protocol Selector Switch setting is changed while the Micro 3C is powered up, you should press the button **Communication Enable** to enable the new communication mode for the Loader and the Data link port. The Communication Enable button is located on the PLC close to the Loader Port.

4. Pass-through Operation

Pass-through operation is possible with the Idec Micro 3C only in connection with the Loader Port (RS-232). To do this, you will need the CA114 programming cable connected from your computer to the UniOP PC/Printer port , and the CA138 cable connected from the PLC to the UniOP PLC port.

5. Accessing the I/O

The UniOP Designer will let you address Input and Output bits in the range I0-I37 and Q0-Q37. Note that not all the I/O signals in this range are physically available in the PLC base or expansion modules.
For example, if you reference from UniOP the bit Q12, you will access a bit in the PLC memory that is not connected to a real output and it is not directly addressable from the ladder program.