EXOR

Tech-note

Connecting UniOP to Mitsubishi Q Controllers

This Technical Note contains the information needed to connect UniOP to Mitsubishi Q Series controllers using a serial connection to the PLC programming port.
The Mitsubishi Q communication driver is delivered with the Designer file D32UPLC201.DLL.

Contents

1 Introduction

To create a Designer project for the Mitsubishi Q Series communication protocol, select the driver "Mitsubishi Q" from the list of drivers in the Configure Controller dialog box.

UniOP communication protocol is designed to connect to the programming port of the PLC.

2 Communication Parameter Setting

Parameters for serial communication can be adjusted by clicking the "PLC Comm..." button in the "Controller Setup" dialog box.
The default communication parameters are defined as follows:

	Default value
Speed	19200 baud
Start bits	1
Data	8
Parity	Odd
Stop bits	1

Only the baud rate can be modified in Designer project. Other parameters are fixed in the communication interface of the PLC and must not be changed.

Changing the baud rate in Designer does not require any modification in the PLC settings. An automatic baud rate adjustment session in the protocol will do all the necessary settings.

Communication is supported for RS-232 interface.

2.1 Communication cable

To connect UniOP to Q Series controllers use communication cable CA236.

Appendix A. Communication Error Codes

Current communication status is displayed on the system page of the UniOP. Beside the string, describing current state of the communication (OFF, ON, ERR), there is an additional error code representing the last (which may be not the current one) error encountered. The codes are:

Code	Description	Notes
00	No error	There are no communication errors and there have been no errors since start-up.
04	Negative ACK	The request sent to the PLC was not valid and the plc responded with a NAK
05	Time out (receiving)	The PLC did not respond to the request within the timeout interval
06	Response error	Unexpected response format in application layer
08	Error in read operation	The PLC response did not match the expected format for a read operation
09	Error in PLC response length	The PLC response was of a different length to that expected.
11	Line error	Wrong bad baud rate, parity, etc.
13	Error in write operation	The PLC response did not match the expected format for a write operation