Rockwell: Ethernet Ip Micro 800 PLC family

Driver Documentation

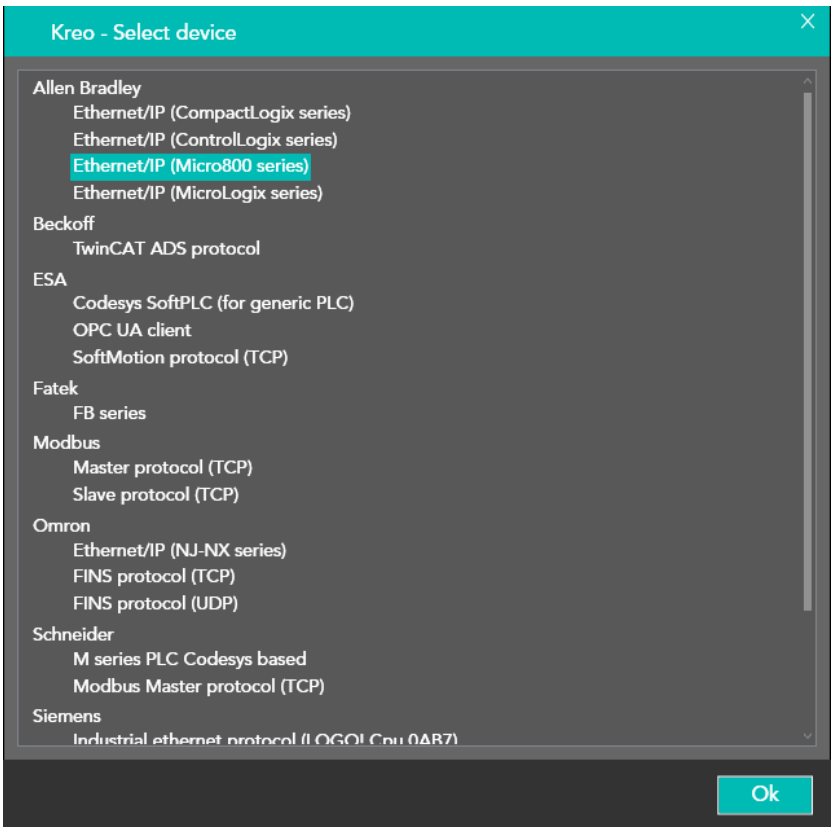
Connect
Ideas.
Shape
solutions.

Table of contents

Document description

This document is dedicated to the programming and functionality of the Rockwell Micro 800 driver included in the Kreo HMI driver portfolio.

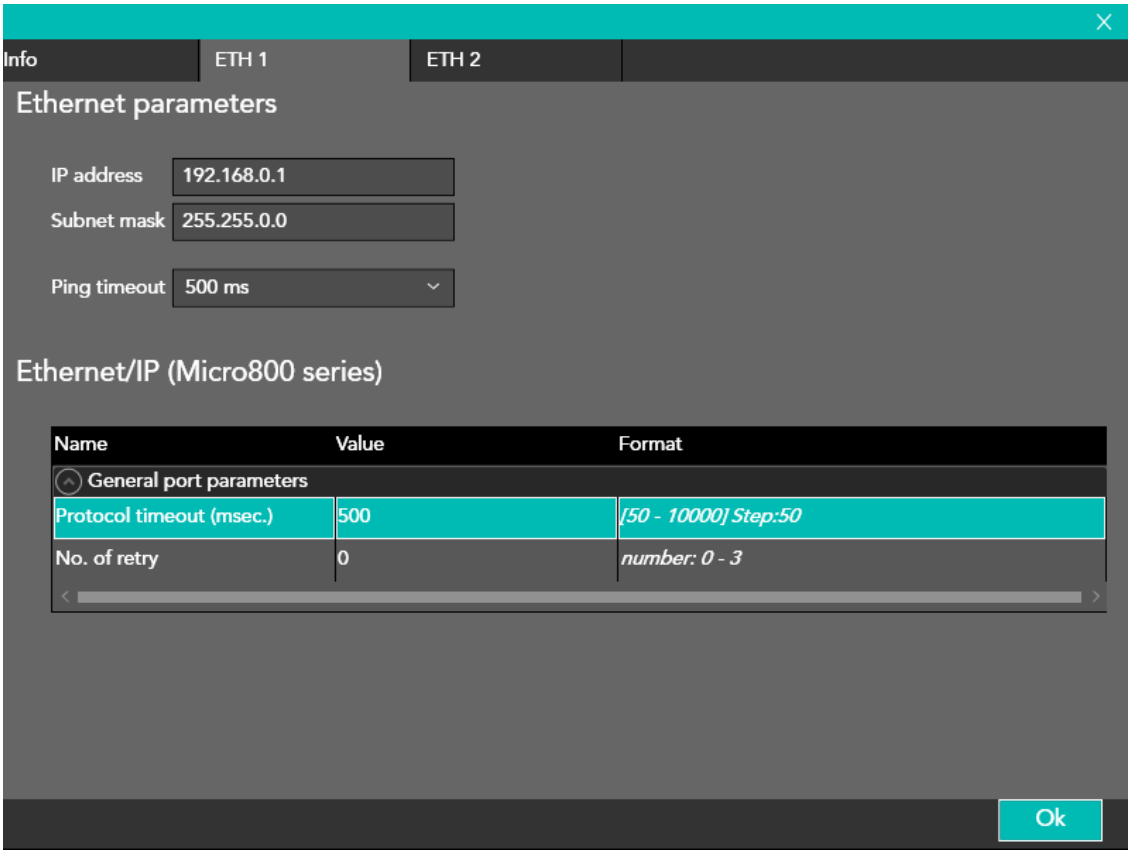
Driver Selection



In the driver portfolio of Kreo HMI select Rockwell – Ethernet Ip (Micro800).

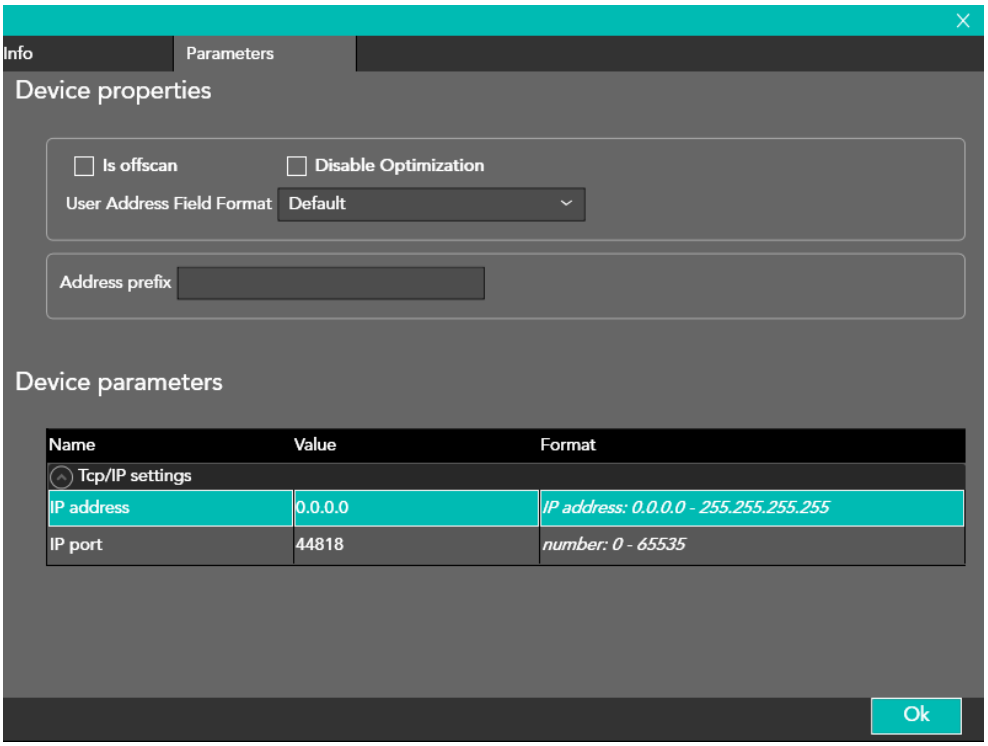
Communication parameters

Double click on the HMI model will display the pop_up window below.



IP address	Ip address of the HMI port connected to the Micro800 PLC
Subnet mask	HMI port subnet mask
Ping timeout	The PING message is used to check the connection stability
Protocol timeout	Ethernet Ip communication time out. The PLC has to reply inside this timing in order not to have the communication error.
No. of retry	Number of retries to be sent (with communication error) before rising the HMI error status.

Double click on the communication driver will open the pop_up window below.



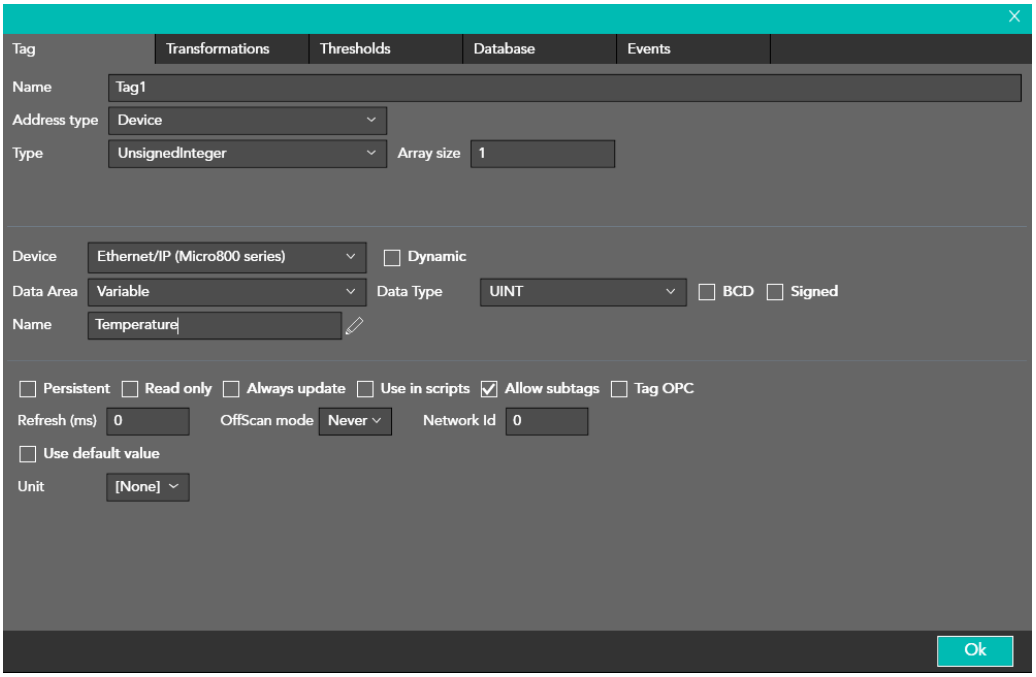
Is Offscan	The communication driver is not scheduled. In order to enable the communication the user has to force the ST script functions below. TAG_SETOFFSCANDEV (device, state) TAG_SETOFFSCAN (Tag, state)
Disable optimization	The data exchange optimization is disabled. Each Tag is required with a separate message.
User address field format	Tag addressing format. The default one is defined in the driver database configuration but the user can select the preferred one (DECIMAL or HEX). In case of symbolic addressing driver this parameter does not have any effect.
Address prefix	Prefix added to the initial part of the Tag path
IP address	PLC Ip address
IP port	PLC communication port. The value displayed is the default port.

Offscan
The Offscan option can be selected in case the machine module is part of the application but is not physically connected.

A device wich is NOT CONNECTED but in ONSCAN state will redeuce dramatically the data refresh performance.
The timeout error of the communication driver will delay the Tag requests.

Disable optimization
This option can be used in order to identify wich Tag displayed on a specific page is causing the communication error.
The value of this Tag will not be displayed but some ????? will be displayed in the numeric field.

Tag definition



The Tag addressing is totally symbolic.
The Tag name is the address.
If the Tag is part of a data structure the Tag name is the complete structure path.

Data Area

AREA	TYPE	DIM.	R/W	DESCRIPTION
Variable	Bool Sint Int Dint Real LReal LInt ULInt String	1 8 16 32 32 64 64 64 8	R/W	Read and Write access to the PLC area named Controller TAGs via the predefined format.

- <TagName>: Simple Tag
- <TagName>[X]: Array element
- <TagName>.<ElementName>: Tag structure element

Communication error codes

CODE	*DESCRIPTION*
DRIVER ERROR	The message cannot be sent HW problem at the port level
PROTOCOL ERROR	Generic error
PROTOCOL TIMEOUT	The HMI did not receive any reply from the PLC inside the time out window
PROTOCOL OFFLINE	The TCP/IP connection cannot be established
SOCKET ERROR	The ethernet socket cannot be created
TRANSMISSION ERROR	The TCP message cannot be created
ERROR	Unknown error

Connect
ideas.
shape
solutions.