

Bloc Fonction



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0.15€ TTC/mm

Référence	Modbus_TCP_Connect
Révision	2.4
Auteur	Regis C. & JPV
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+ Support	http://support-omron.fr/

Function Bloc Modbus TCP Client

Basic Function	Connection Modbus TCP Client
Symbol	<p style="text-align: center;">CONNECT</p>
File name	Modbus_TCP_Connect.cxf
Applicable models	CJ1xx-V3 + CJ1W-ETN21, CS1xx + CS1W-ETN21, CJ2H/M + CJ1W-ETN21
Conditions of usage	<p>The FB Modbus TCP Client offers some read/write features in accordance with the specifications defined by the Modbus organisation.</p> <p>The Modbus TCP Client function block is offered 'as is' and may serve as a basis for development. Users should previously test its adequacy to the final application. Omron could not be held responsible in case of malfunction.</p>
Function description	<p>At rising / falling edge of 'Open_Socket' start sending a request to open / close a socket to the server "IP_Address1.IP_Address2.IP_Address3.IPAddress4" on its port 502 (port used by the Modbus TCP). The bit "Connection_OK" indicates the acceptance of remote server. The bit "Busy" is turned ON until the opening of socket has not been accepted. The bit "Error" indicates a failure of the connection.</p> <p>The request to open the socket is repeated every second while "Open_Socket" is ON and the application for opening has not been accepted. This feature provides an automatic reconnection after a disconnection from the server.</p>

Input variables

Name	Data type	Range	Description
Unit_n°	UINT	0 to 15	ETN21 Unit number
Socket_n°	UINT	1 to 8	socket number to use
Open_Socket	Bool	OFF, ON	Bit to open the Socket
IP_AdressN	UINT	0 to 255	IP adresse IP of last IP field

Output variables

Name	Data type	Range	Description
ENO	Bool	OFF, ON	ON : Operating normally
Busy	Bool	OFF, ON	Busy
Connection_OK	Bool	OFF, ON	Flag connected to the server
Error	Bool	OFF, ON	Error flag
Error_Code	UINT	0000 to FFFF	8720 (&h2210): Specified socket is not open 8721 (&h2211): Unit is busy; cannot execute 9735 (&h2607): Specified socket service parameter is already being used for another socket 770 (&h0302): CPU Unit error; cannot execute

Error Code

Hexa	Decimal	Description
&h8720	2210	Specified socket is not open
&h8721	2211	Unit is busy; cannot execute
&h9735	2607	Specified socket service parameter is already being used for another socket
&h0770	0302	CPU Unit error; cannot execute
&hFFFF	65535	Parameter error in the function block

Note: It is possible to optimize the communication time by allocating more time to process the card ETN21 in service settings device:

- Select the execution mode "Normal"
- Uncheck "default" and enter a time value multiple of 0.1 ms.

Warning: high value may cause an increase of the PLC scan time.

