

Bloc Fonction



OMRON ELECTRONICS S.A.S.
14 Rue de Lisbonne
93561 Rosny-sous-Bois cedex

N° Indigo 0 825 825 679
0.15€ TTC/mn

Référence	Modbus_TCP_Fn_03
Révision	2.3
Auteur	Regis C. & JPV
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+ Support	http://support-omron.fr/

Function Block Modbus TCP Fn 03

Function Symbol	Modbus TCP Read Reg																																					
	<table border="1"> <tr> <td colspan="3" style="text-align: center;">MODBUS_TCP_Fn_03</td> </tr> <tr> <td style="text-align: center;">P_On CF113</td> <td>(BOOL) EN</td> <td>(BOOL) ENO</td> </tr> <tr> <td style="text-align: center;">&1</td> <td>(UINT) Unit_No</td> <td>(BOOL) Busy W10.01</td> </tr> <tr> <td style="text-align: center;">&2</td> <td>(UINT) Socket_No</td> <td>(BOOL) Error W10.02</td> </tr> <tr> <td style="text-align: center;">W10.00</td> <td>(BOOL) Start</td> <td>(INT) Error_Code W11</td> </tr> <tr> <td style="text-align: center;">#FF</td> <td>(UINT) Unit_Identifier</td> <td></td> </tr> <tr> <td style="text-align: center;">&0</td> <td>(UINT) Register_1st_Address</td> <td></td> </tr> <tr> <td style="text-align: center;">&10</td> <td>(UINT) Register_Qty</td> <td></td> </tr> <tr> <td style="text-align: center;">P_DM A460</td> <td>(WORD) Process_Data_Area</td> <td></td> </tr> <tr> <td style="text-align: center;">&0</td> <td>(UDINT) Process_Data_1st_Address</td> <td></td> </tr> <tr> <td style="text-align: center;">P_DM A460</td> <td>(WORD) Receive_Data_Area</td> <td></td> </tr> <tr> <td style="text-align: center;">&200</td> <td>(UDINT) Receive_Data_1st_Address</td> <td></td> </tr> </table>		MODBUS_TCP_Fn_03			P_On CF113	(BOOL) EN	(BOOL) ENO	&1	(UINT) Unit_No	(BOOL) Busy W10.01	&2	(UINT) Socket_No	(BOOL) Error W10.02	W10.00	(BOOL) Start	(INT) Error_Code W11	#FF	(UINT) Unit_Identifier		&0	(UINT) Register_1st_Address		&10	(UINT) Register_Qty		P_DM A460	(WORD) Process_Data_Area		&0	(UDINT) Process_Data_1st_Address		P_DM A460	(WORD) Receive_Data_Area		&200	(UDINT) Receive_Data_1st_Address	
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PLC	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>																																					
Restrictions	The function block Modbus_TCP_Fn03 could not be used without establishing first a connection using the function block Modbus_TCP_Connect.																																					
Principe	<p>The "Socket_No" must be the same number that FB "Modbus_TCP_Connect" has used to establish the connection to the server. The input "start" send a request to read n words (n= Register_Qty) to the server specified by "Socket_No". Response data area stored in the "Receive_Data_Area", at address "Receive_Data_1st_Address". "Busy" output stay ON during the process. "Error" output is rised when error occurs and "Error_Code" will be output. 128 words are allocated for the execution of this function block. "Process_Data_Area" start at address "Process_Data_1st_Address".</p>																																					

Input Variables

Name	type	Range	Description
Unit_n°	UINT	0 to 15	ETN21 Unit number
Socket_n°	UINT	1 to 8	socket number (same used with the FB Modbus TCP_Connect)
Start	BOOL	OFF, ON	Send command
Unit_Identifier	UINT	00 to FF	Unit identifier number (always FF)
Register_First_Address	UINT	0 to 65535	Address of first register to read
Register_Qty	UINT	1 to 123	Number of registers to read
Process_Data_Area	WORD	P_CIO, P_DM, P_EMx, P_HR, P_WR	Memory area allocated to the execution of Modbus_TCP_Fn_03.
Process_Data_1st_Address	UDINT		1 st address of the process area (128 words reserved)
Receive_Data_Area	WORD	P_CIO, P_DM, P_EMx, P_HR, P_WR	Memory area to store response data
Receive_Data_1st_Address	UDINT		1st address of response area

Output Variables

Name	type	Range	Description
ENO	BOOL	OFF, ON	FB executed
Busy	BOOL	OFF, ON	Send in process
Error	BOOL n	OFF, ON	Error flag
Error_Code	UINT	0000 to FFFF	Error Code (see bellow)

Error Code

Hexa	Decimal	Description
&h1100	4352	Number bytes to send not in allowed range
&h 110C	4364	Request switch turned ON during other processing
&h 220F	8719	Specified socket is already processing a SEND request
&h 2607	9735	Specified socket service parameter area is already being used by another socket
&h 003E	0062	Internal buffer cannot be obtained due to high reception traffic
&h 0045	0069	Error in communication with remote node
&h 004B	0075	Error communication with remote node (again)
&h 004E	0078	Remote IP address parameter error (ET unreachable)
&h 0051	0081	Remote IP address parameter error (Host unreachable)
&h 0053	0083	Error communication with remote HOST
&h 0081	0129	Specified socket was closed during receive processing