

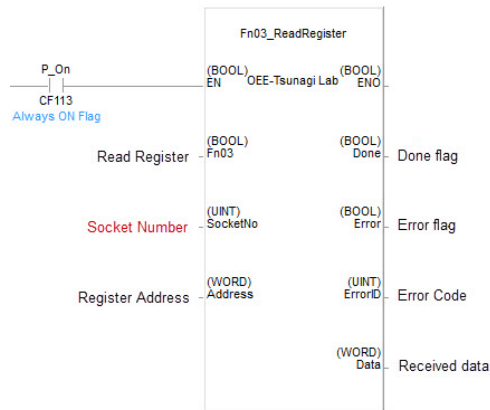
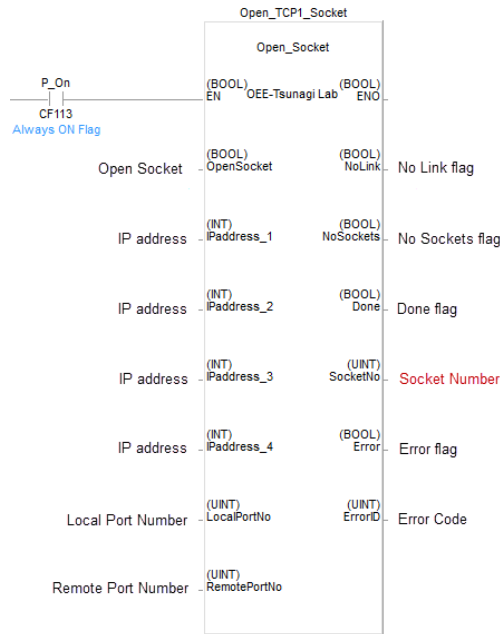
| Open_Socket | TCP Active Open Socket |
|-------------------------------------|--|
| Basic function | Request for open Socket 1, 2 or 3 and Output the opened Socket Number |
| Symbol | |
| File name | Open_Socket.cxf |
| Applicable models | CP1L-EL or CP1L-EM |
| Conditions for usage | CX-Programmer Version 9.40 or higher |
| Function description | TCP Active Open_Socket Function Block opens one of the three Sockets that is available and Outputs the opened Socket Number. If all three of the Sockets are occupied the No Sockets available flag will be high. |
| FB precautions | Socket Number Output is a single Request to open Socket Value. The Socket Number Output is only reset when a new Open Socket trigger is active. |
| EN input condition | <ul style="list-style-type: none"> • Connect EN to condition for the FB to Work. • Open Socket send the Request for Open an Available Socket. • IP Address. • Port Number. |
| Restrictions Input variables | <ul style="list-style-type: none"> • |
| Output variables | <ul style="list-style-type: none"> • This FB requires multiple cycles to process. • The status of the Outputs bits are Reset if the OpenSocket bit is OFF. Except the SocketNo Output. |

Application example

TCP Active Open_Socket Function Block is designed for use with the other Function Blocks. The Socket Number Output can be used for the Socket Number Input used by :

- Fn03_ReadRegister
- Fn04_ReadInputRegister
- Fn05_ForceSingleCoil
- Fn06_WriteRegister
- Close_Socket

Example:



■ Variable Tables
Input Variables

| Name | Variable name | Data type | Default | Range | Description |
|--------------------|---------------|-----------|---------|-------------|--|
| EN | EN | BOOL | | | 1 (ON): FB ON. 0 (OFF): FB OFF. |
| Open Socket | OpenSocket | BOOL | | | Start request for open socket |
| IP address 1 | IPAddress_1 | INT | | &0 to &255 | Specify the local IP address. For example 192.168.250.2: IPAddress_1 = &192, IPAddress_2 = &168, IPAddress_3 = &250, IPAddress_4 = &2 |
| IP address 2 | IPAddress_2 | INT | | &0 to &255 | |
| IP address 3 | IPAddress_3 | INT | | &0 to &255 | |
| IP address 4 | IPAddress_4 | INT | | &0 to &255 | |
| Local Port Number | LocalPortNo | UINT | | &0 to 65535 | If port number 0 is specified the TCP port number will be automatically allocated and the number of the port that was opened will be stored in the local UDP/TCP port number in the Socket Service Parameter Area (i.e., the actual port number will be overwritten on the value of 0 set by the user). Do not specify the port being used as the FINS UDP port (default: 9600), TCP port numbers 20, 21 and 25. As a rule, use port numbers 1,024 and higher. |
| Remote Port Number | RemotePortNo | UINT | | &0 to 65535 | When opening a passive TCP socket, the combination of the remote IP address and the remote TCP port number can be used to affect processing as shown in the table for the Remote IP Address, above. If the Remote UDP/TCP Port No. is set to 0, the UDP/TCP port number of the remote device will be written as the Remote UDP/TCP Port No. in the Socket Service Parameter Area. Modbus Portno = &502 |

Output Variables

| Name | Variable name | Data type | Range | Description |
|--------------------------|---------------|-----------|-------|--|
| ENO (May be omitted.) | ENO | BOOL | | 1 (ON): FB processed normally. 0 (OFF): FB not processed or ended in an error. |
| No link | NoLink | BOOL | | No cable Connection |
| No Sockets | NoSockets | BOOL | | No Sockets Available |
| Done | Done | BOOL | | Done |
| Socket Number | SocketNo | UINT | | Opened Socket Number |
| Error | Error | BOOL | | Error |
| Error ID | ErrorID | UINT | | Error code: TCP/UDP Error Codes Ethernet Units Construction of Networks Operation Manual (W420) 7-3 Command/Response Reference FINS Error Codes Communications Commands Reference Manual (W342) 5-1-3 Error Codes CP1L-EL/EM CPU Unit Operation Manual (W516) 12-1 Troubleshooting |

■ Version History

| Version | Date | Contents |
|---------|------------|--|
| 1.00 | 21-03-2012 | Original production |
| 1.01 | 13-07-2012 | Added Local Port Number. Open Socket Request even if Storage Error Flag is ON for the socket. |