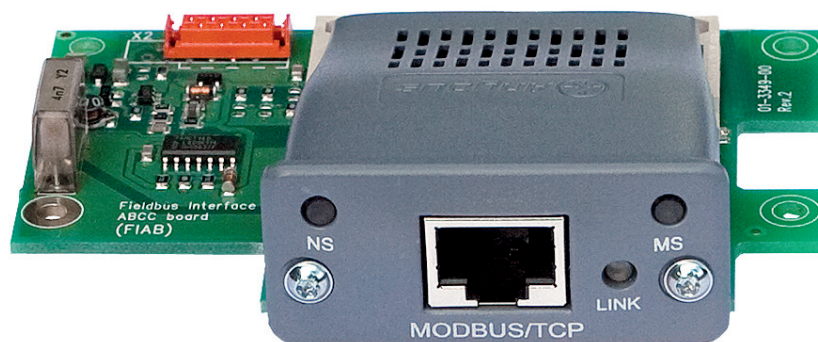




# Industrial Ethernet Option

## Modbus/TCP

For Emotron VFX/FDU 2.0 AC drive and  
Emotron TSA softstarter



Information sheet

English

## Brief description

The Modbus/TCP option board makes it possible to control the Emotron VFX 2.0 and FDU 2.0 variable speed drives and Emotron TSA softstarters via an Industrial Ethernet bus system. All functions can be accessed via the network, making it possible to control, monitor, adjust and configure the drive.

The Industrial Ethernet Modbus/TCP option offers a high-speed communication data exchange, with more information/data flow in shorter time and communication in both directions at the same time (full duplex). The network can be built with redundancy to increase safety if transmission in one direction is not possible. For instance, if a cable is cut, an alternative route is automatically selected.

The Modbus/TCP has a user-friendly built-in web server, which can be accessed through any computer with any commonly used web browser, without any need for additional PC software.

When using the Modbus/TCP Industrial Ethernet option, it is still possible to control the Reference, Start/Stop and Reset commands from different control sources:

- Remote I/O terminals
- Communication network
- Keyboard

The Emotron VFX 2.0, FDU 2.0 and Emotron TSA offer various options as to what actions should be taken when a communication fault is detected:

- Ignore the communication fault
- Give a Warning and maintain operation
- Give a Fault message and stop operation by either coast or ramp down to standstill.

## Technical information

Modbus/TCP	Connector	Isolated RJ45 connector
	Transmission speed	10/100 Mbit/s – half/full duplex
	Physical interface	10BASE-T / 100BASE-TX (standard for Ethernet)
	IP Address configuration	<ul style="list-style-type: none"> <li>• Manually configured</li> <li>• Automatically set by DHCP server</li> <li>• By PC program 'IPconfig'</li> </ul>
	Application protocol	Modbus TCP
	Carrier protocol	TCP/IP
	Transfer cable	Recommendation: CAT5e (or better), STP type
Features	Web server	Server is factory-configured and automatically adapted in case of firmware updates. The built-in server supports DNS (Domain Name Server) and contains the following pages: <ul style="list-style-type: none"> <li>• Main Menu; showing product information</li> <li>• Network Interface; showing system information</li> <li>• Network Configuration &amp; Statistics</li> <li>• Parameter data; access to the drive parameters for configuration, adjustment and monitoring.</li> </ul>
	Function codes	Read Coil Status (01h) Read Holding Registers (03h) Read Input Registers (04h) Force Single Coil (05h) Write Single Register (06h) Force Multiple Coils (0Fh) Write Multiple Registers (10h) Read/Write Multiple Registers (17h)
Diagnostics	LEDs	Network status, Module status, and Link activity
	Control Panel Display	Bus status, Module status, Internal communication link status, Incoming and outgoing process data from/to PLC.