



# Profinet IO (RT) 1 & 2-port version

Industrial Ethernet Option  
for Emotron VFX / FDU 2.0 AC drive and  
Emotron TSA softstarter



## Brief description

The Profinet IO option boards opens up for fast real time (RT) Industrial Ethernet communication to the Emotron VFX2.0 and FDU2.0 AC drives and Emotron TSA Softstarter at the same time as standard TCP/IP traffic can flow in the network, allowing e.g. vertical integration of production to 'top' ERP and MES systems, or access to built-in web server for simple diagnostics and parameter settings.

The 2-port version also supports the LLDP and SNMP protocols which can be used to significantly improve diagnostic information and cut downtimes in the case of a communication fault. Both modules support Profinets 'Fast Start Up' feature to allow a machine to quickly come into operation at power on.

Further, the 2-port module has a built-in switch which allows easy daisy-chaining between units.

Profinet is a collection name of an open industrial Ethernet standard of Profibus & Profinet International (PI) for automation. PI is an international umbrella organization which started 1995. Today there are more than 25 regional Profibus/Profinet organizations and more than 1400 member companies worldwide.

By using Profinet IO in combination with managed switches supporting the MRP or MRRT protocol one can implement very robust LANs with redundant information paths. In this way the process can continue even though one Ethernet cable is damaged. Please note that these Profinet IO options does not support MRP and therefore the ring must be formed by actual MRP switches, and the Profinet IO option may then be connected to any free port of a MRP switch as long as it is not a part of the ring topology.

The AC drive or Softstarter is controlled by a simple I/O data control/status message, which can be tailor made to fit your application. The options are delivered together with a CD containing Simatic Step7 PLC code examples allowing you to get a rapid start of your Profinet IO implementation!

## Technical information

Profinet IO	Connectors	RJ45 connector(s), both 1- and 2-port option available
	Transmission speed	100 Mbit/s – full duplex
	Physical Layer	100BASE-TX (IEEE802.3)
	Address configuration	<ul style="list-style-type: none"> <li>• DCP with Device name / Station name</li> <li>• DHCP</li> </ul>
	Application protocol	Profinet RT (main protocol)
	Transfer cable	Profinet cable type A,B or C depending on installation type
Features	Process data	Configured by user to best fit the application. Default: compact 4 byte control/status message.
	Built in switch	The 2-port version has a built-in switch for easy daisy chaining
	Conformance	Conformance class A (1-port ver), B (2-port ver)
	DAP support	Supporting both DAP ver 2.x and 1.x (for compability with older PLC systems)
	Web server	Simple built-in web server to view or set AC drive or Softstarter parameters / com status
	FSU	'Fast Start Up' allows the Profinet node to faster go online at power on
Diagnostics	LED's	Network status, Module status, Link/Activity
	Drive control panel info	Bus status, Module status, Internal communication link status, Incoming and outgoing process data.
	SNMP protocol	Network diagnostics (available 2-port ver)
	LLDP protocol	User friendly graphical topology overview / status info (available 2 port ver)

For more information: [www.profinet.com](http://www.profinet.com)