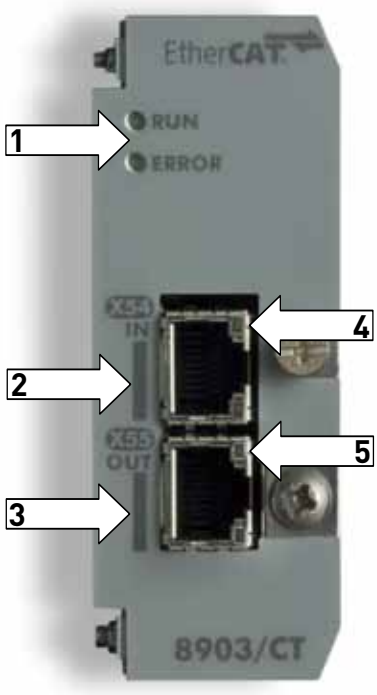
AC890 Accessories

8903/CT EtherCAT Communications Module

Description:

The 8903/CT EtherCAT option card has been specifically designed to enhance the communications capabilities of the AC890 and AC890PX modular Systems Drives. EtherCAT offers high communication speeds and cabling flexibility.

Available as a factory or field installed option card, the 8903/CT EtherCAT communications card enables simple, low-cost connectivity to Ethernet fieldbus based systems, opening up the possibility of advanced control and supervision in a wide range of applications, improving system performance and ultimately machine or process productivity.



1	RUN and ERROR status LEDs
2	RJ45 EtherCAT Interface (IN port)
3	RJ45 EtherCAT Interface (OUT port)
4	LINK/Activity LED (IN port)
5	LINK/Activity LED (OUT port)

Contact Information:

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Product Features:

- Suitable for use with
  AC890CD Common bus
  AC890SD Standalone
  AC890PX High power drives
- Galvanically isolated electronics
- Speed of 100Mbits/s
- Software configurable
- Up to 256 bytes of fast cyclic I/O in each direction
- Up to 128 DSE input registers and 128 DSE output registers
- CANopen over EtherCAT (COE)
- DS301 Compliant
- EMCY Support
- EtherCAT slave interface files available

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Product Details

EtherCAT Connectivity

EtherCAT (Ethernet for Control Automation Technology), the Ethernet-based fieldbus system sets new communication performance standards. Handling is straightforward thanks to a flexible topology and simple configuration.

Cabling Flexibility

Moreover, since EtherCAT can be implemented using CAT5 cabling, the system allows fieldbuses to be used in applications where networking was not an open in the past. Due to this inherent flexibility, EtherCAT can be implemented in virtually any topology required.

EtherCAT Cost Advantages

Inexpensive slave controllers reduce the overall cost of slave devices. No special master card is required and the on-board Ethernet controller is sufficient.

As hubs and switches are not required for EtherCAT, the associated costs of this hardware including power supplies, installation etc. are avoided. The ability to use standard Ethernet cable and connectors in many environments also reduce the cost implementing a EtherCAT solution.

Auto-configuration is supported and no manual address setting or network tuning is required, reducing configuration time and costs.

Part Number:	Factory installed: 8903/CT/FF
	Field installed: 8903/CT/00
Suitable for:	AC890 and AC890PX drives Version 3.7 onwards Version 4.1 onwards
Restrictions:	Must be installed in Slot A
For further information on the EtherCAT option card, please refer to the technical manual: HA501144U001. Available for download in the Resource Center at **www.ssddrives.com/usa**	

Is EtherCAT limited to Master/ Slave Applications?

The simple answer is No. As with every real time industrial Ethernet system, one drive (the master) has to be in charge of network management and organize the Medium Access Control. With EtherCAT, slave-to-slave communication is supported in two ways:

1. Topology dependant within one communication cycle ("upstream" device talks to "downtstream" device).

2. Topology independent within two cycles.

Since EtherCAT is so much faster than competing systems, slave-to-slave communications using two cycles is still faster than many other options.

Other Ethernet protocols available for AC890 and AC890PX:

- 8903/IP - Ethernet/IP
- 8903/IM - Modbus/TCP
- 8903/PN - Profinet/IO

For further information on EtherCAT, please visit the EtherCAT Technology Group website: www.ethercat.org

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