MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

ABB

CI873K01

FIELDBUS INTERFACE KIT

Used with the applicable AC 800M EtherNet/IP configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

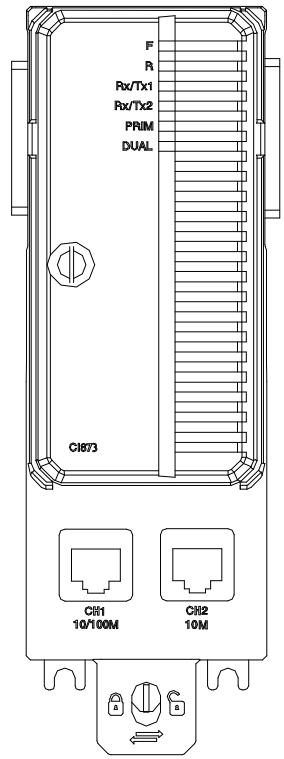
Selected official manufacturer pages follow this cover.

Source: ABB AC 800M Controller Hardware 3BSE036351-600 A

CI873 and TP867 - EtherNet/IP Interface

Key Features

- CEX-Bus Module.
- MPC862P 96MHz.
- 32 Mbps SDRAM with integrity check.
- 4 Mbps Flash PROM.
- Ethernet/IEEE 802.3u supporting full Fast Ethernet 10/100Mbps operation.
- Supports EtherNet/IP protocol.
- 10/100 Mbps use IEEE standard Media Independent Interface (MII)



Description

The CI873 can be used to connect an AC 800M controller to external Ethernet devices using the EtherNet/IP protocol.

The TP867 Baseplate has two RJ45 Ethernet connectors. For CI873, only the CH1 connector that supports 10 Mbps/100 Mbps is used.The baseplate has a code lock which prevents the installation of an incorrect unit type onto the TP867 Baseplate.

The CI873 expansion unit contains the CEX-Bus logic, a communication unit and a DC/DC converter that supplies appropriate voltages from the +24 V supply through the CEX-Bus. The Ethernet cable must be connected to the main network through an Ethernet Switch.

Functional Block Diagram

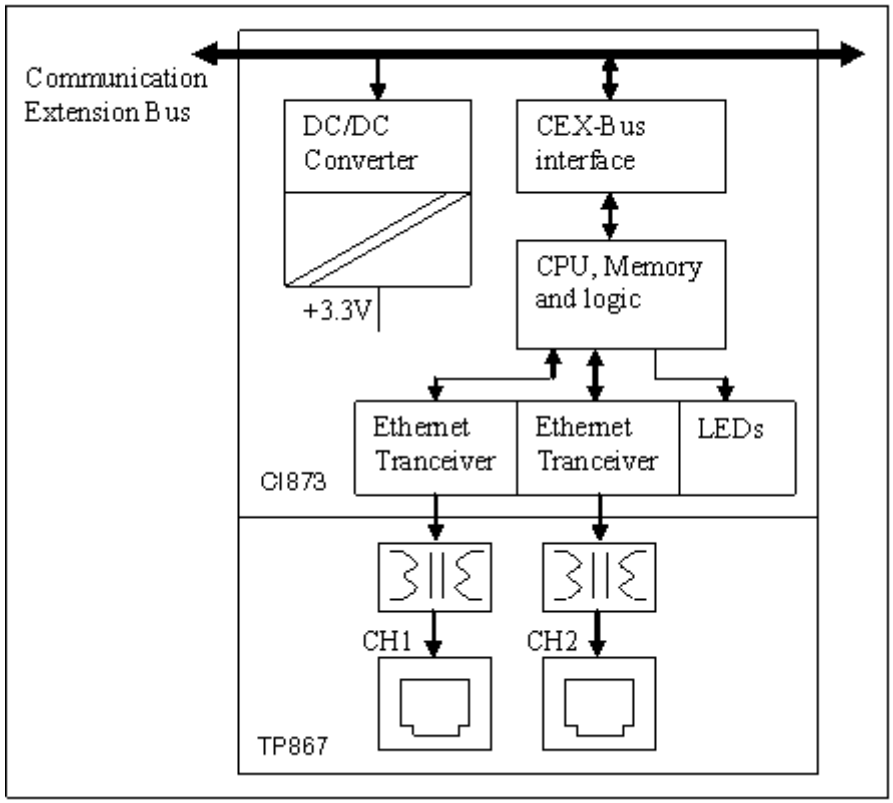


Figure 93. Block Diagram – CI873

Indicators

There are six LED indicators on the front panel of CI873 that indicate the various

states and conditions on the CI873.

Table 116. EtherNet/IP Interface CI873 - LED indicators

Designation/Color	Function
F(ault) / Red	The red F(ault) LED indicates a fault condition on CI873. Reset turns the LED ON. Software can turn it On and OFF through a register in the CEX-Bus controller.
R(un) / Green	The green R(un) LED indicates that the CI873 is operational. Reset turns the LED OFF. Software can turn the LED ON and OFF through a register in the CEX-Bus controller.
RxTx1 / Yellow	The yellow Rx/Tx1 LED is intended to be ON to indicate a receiving/transmitting telegram at CH1. The LED is controlled by Ethernet PHY. It is turned OFF by reset.
RxTx2 / Yellow	The yellow Rx/Tx2 LED (LED will always be switched OFF) is intended to be ON to indicate a receiving/transmitting telegram at CH2 (The channel is disabled). The LED is controlled by Ethernet PHY. It is turned OFF by reset.
PRIM(ary)	This LED is ON if this CI873 acts as the primary in a redundant configuration.
DUAL	The yellow DUAL LED is ON when both CI873's in a redundant pair are synchronized. The LED is controlled by software. It is turned OFF by reset.

Technical Data

Table 117. EtherNet/IP Interface CI873 - Technical Specification

Item	Value
Type	Ethernet unit.
Protocol	EtherNet/IP.
Communication speed CH1	10 Mbps / 100 Mbps defined in IEEE 802.3u 10/100 Base-Tx.
Status indicators	Running normally: Green. Exceptional fault: Red. Two traffic indicators – RxTx1 and RxTx2(LED will always be switched off) -- controlled by traffic pace: Flashing Yellow Running as primary: Yellow.
Connectors	RJ45.
Current consumption (from CEX-Bus 24VDC)	160 mA typical (250 mA max).
Power dissipation	3.8W typical (6W max).
Protection rating	IP20 according to EN60529, IEC 529.
Weight	500 g (700g with package) (package CI873K01with CI873 and TP867).
Dimensions	W 59 x H 185 x D 127.5 mm (W 2.9 x H 7.3 x D 5.0 in).