Cutler-Hammer

New Information

Power Management Systems PONI Communication Modules

PONI Communication Modules

Applications

The Product Operated Network Interface (PONI) cards attach to Cutler-Hammer devices to enable communications.

Metered Parameters/ Communications

A PONI enables communication of the metered parameters and set-points consistent with those of the device to which it is attached.

Physical Characteristics

Each PONI attaches to its associated product[①]. The BPONI and IPONI obtain power from the host product. The EPONI may be host or separately powered depending on the host.
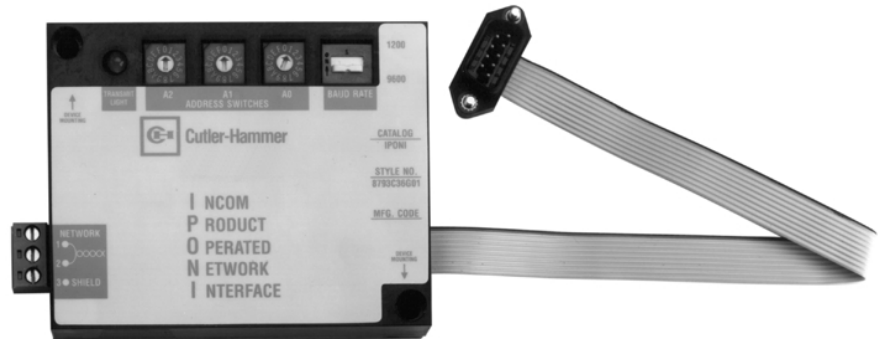
Certifications/Listings

IPONI

■ UL/CUL

EPONI

■ UL/CUL(EN61010-1)

Communications

The IPONI and BPONI enable communications over a twisted shielded pair INCOM device network. The Ethernet PONI enables device communications over a 10 megabaud Ethernet network.

General Description

The Product Operated Network Interface (PONI) cards add communications to various Cutler-Hammer products. With the addition of the PONI card, the Cutler-Hammer device can communicate with a master unit such as a MINT, a NetLink, or a CONI card in a personal computer. The PONIs can be easily mounted to the Cutler-Hammer device.

All PONIs enable communications and work together as part of a Cutler-Hammer PowerNet monitoring system. There are multiple communication levels possible throughout a Cutler-Hammer Power-Net system. The BPONIs and IPONIs are daisy-chained together on the first level network, the INCOM network and can be terminated at a NetLink, a MINT II, or a CONI card in a personal computer. EPONIs attach a device directly to an Ethernet network. An Ethernet network is often applied as the high speed backbone network for larger facilities.

PONIs enable continuous remote communications of all metering parameters, protective settings, device status to a remote monitoring device. Each PONI uniquely identifies its associated device on the network with a unique 3-digit hex address, or IP address in the case of the Ethernet PONI. BPONIs and IPONIs include a terminal block for terminating the twisted shielded pair network cables. The Ethernet PONI has an RS-232 port for configuration and firmware upgrades along with an RJ45 Ethernet port.

① MP-3000 and IQ 1000 II application may require a mounting bracket.

F·T·N

Technical Data

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IPONI

The INCOM Product Operated Network Interface card, or IPONI card, adds communication capability to various Cutler-Hammer products. Each IPONI has three 16-digit address switches to uniquely identify each device on the network. IPONIs are designed to be daisy-chained throughout a unit substation or equipment room to a master device such as a NetLink, MINT II or a CONI in a master computer. From the NetLink or a master computer, information is distributed through the facility's TCP/IP Ethernet network. A twisted shielded pair network connecting IPONIs may extend up to 10,000 feet before terminating in a NetLink, computer, or another master device. The IPONI comes with mounting hardware and attaches to the back of its associated device.

IPONI Wiring
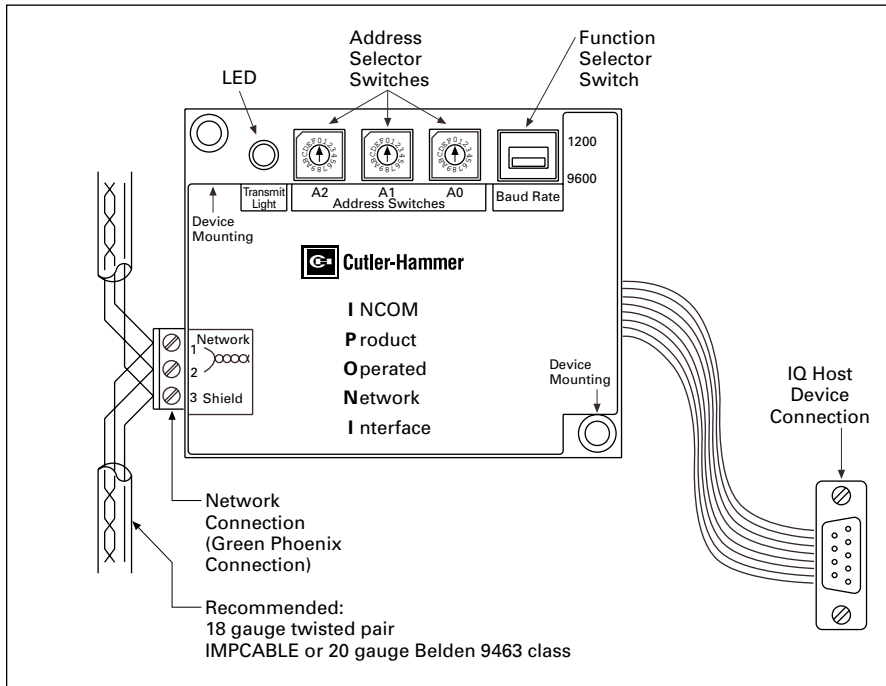
BPONI

The Buffered Product Operated Network Interface card, or BPONI card, adds communication capability to various Cutler-Hammer products. It provides the same functionality as the IPONI but is recommended for different devices. Each BPONI has three 16-digit address switches to uniquely identify each device on the network. BPONIs are designed to be daisy-chained throughout a unit substation or equipment room to a master device such as a NetLink, MINT II or a CONI in a master computer. From the NetLink or a master computer, information is distributed through the facility's TCP/IP Ethernet network. A twisted shielded pair network connecting BPONIs may extend up to 8,500 feet before terminating in a NetLink, computer, or another master device. The BPONI comes with mounting hardware and attaches to the back of its associated device.[1]

BPONI Wiring
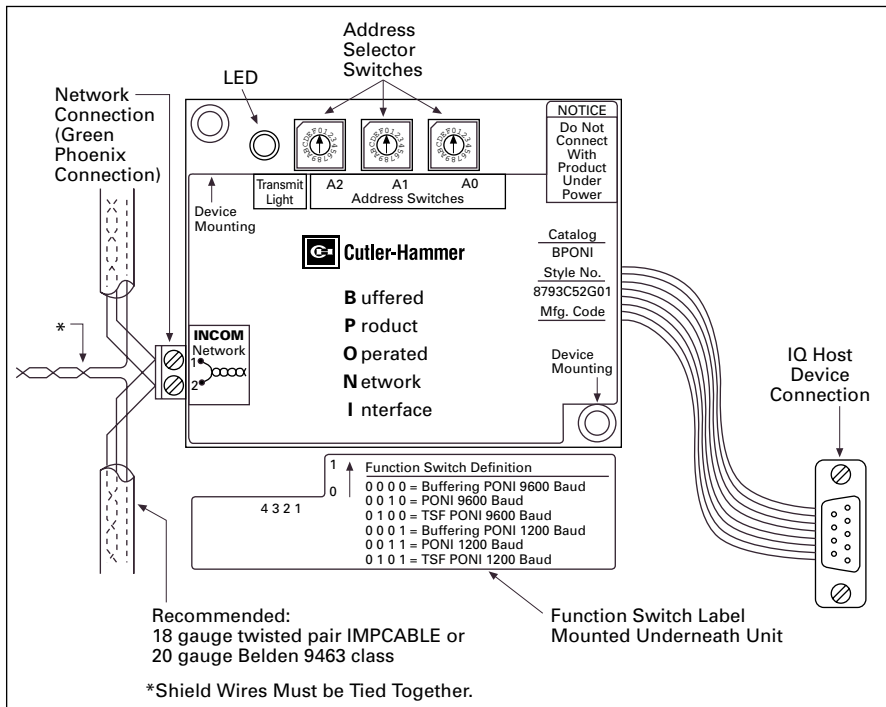
BPONIs and IPONIs may be daisy-chained together with other IMPACC devices on a common twisted shielded pair network.

[1] The BPONI must be mounted on the load end of the IQ 500.

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EPONI

The Ethernet Product Operated Network Interface card, or EPONI card, attaches directly to the back of an IQ Analyzer, an IQ DP-4000 or IQ Data Plus II. It supports TCP/IP Ethernet communications at 10 Megabaud. It has a 10Base-T (RJ45) interface. Contact Cutler-Hammer for EPONI compatibility with other Cutler-Hammer products and availability.

EPONI Wiring

**Power Management Systems
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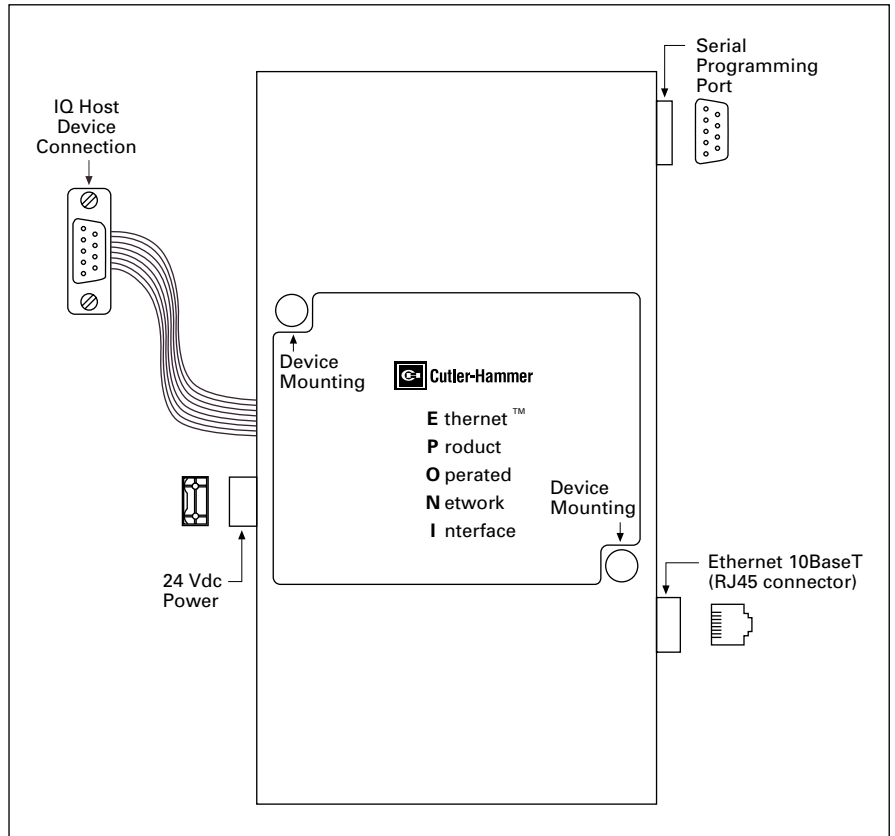
PONI Selection Chart

	IPONI	BPONI	EPONI
IQ Analyzer	>=1.06	<=1.05	●
DP-4000	●		●
AEM	●		
CED	●		
CMU	●		
BIM	●		
IQ Transfer	●		
IQ 1000 II		●	
MP-3000	●		
IQ 500		●	
IQ Generator	●		
IQ Data	●		
IQ Data Plus II		In Buff-mode	●
Power Command Software Support			
Cutler-Hammer PowerNet	●	●	●
IMPACC Series III	●	●	
Universal RTD Module		In Buff-mode	

TD1720TE

Specifications

IPONI

Temperature
-20°C to 70°C

Humidity
5%-95% non-condensing

Power
20-30 Vdc max., 50 mA nominal,
100 mA max.

Speed
1200 and 9600 baud

Communications
3-position removable terminal block
for twisted shielded pair INCOM

BPONI

Temperature
-20°C to 70°C

Humidity
5%-95% non-condensing

Power
20-30 Vdc max., 150 mA max.

Speed
1200 and 9600 baud

Communications
2-position removable terminal
block, twisted shielded pair INCOM

EPONI

Temperature
-20°C to 70°C

Humidity
5%-95% non-condensing

Power
20-30 Vdc max., 150 mA max.

Speed
10 Mbaud

Communications
10Base-T (RJ45) AUI port

Ordering Information

PONI Communication Modules

Description	Catalog Number
INCOM PONI	**IPONI**
Buffered PONI	**BPONI**
Ethernet PONI	**EPONI**