

Product Specification

FOUNDATION™ Fieldbus
Profibus PA

FCS-PH-110-yy

The Relcom Power Hub is designed as a Fieldbus impedance controlled power supply and double terminator. This configuration functions as a zero length homerun with spurs (star topology). The recommended maximum length of any spur is 120 meters so it performs well in a laboratory, test, or demonstration environment. It is powered by a 15 Watt plug-in wall transformer, with an input voltage range of 100-240VAC (50-60Hz). Adapters are supplied with the transformer for four different country power outlets (North America, Europe, UK, and Australia). The Power Hub may be mounted on a 35mm DIN rail or attached to a surface with screws. See the diagram for additional mounting and dimensional details.

Use

Fieldbus devices are connected to the Power Hub with shielded or unshielded twisted pair Fieldbus cable. Up to four devices may be connected to the Power Hub. The Controller (Host), if present, is considered to be a device. More than four devices may be powered by the Power Hub by plugging in a Relcom Fieldbus Expander Module, FCS-E. This will expand the number of Fieldbus devices to eight. Additional expansion is not advised because of the power limitation of the Power Hub. If a test segment is to be set up which exceeds the current capability of the Power Hub, a doubly terminated Power Conditioner, FCS-BPCT2-xx will provide an alternative solution.

Wire Connections

Three types of connectors are available; pluggable (FCS-PH-110-PL), screw terminal (FCS-PH-110-ST), and Cage Clamp (FCS-PH-110-CC).

Polarity

Polarity of the Fieldbus system must be maintained throughout the network. Fieldbus cable consists of a shielded twisted pair of wires. The twisted pair has a different color for each wire in the pair. Depending on the wire manufacturer, this pair can be Red/Black, Black/White, or Red/White etc. Since the wire colors are not covered by the Fieldbus standard, they can be any color as long as the two wires are different. Maintaining polarity IS covered by the standard and MUST be consistent throughout the network. The polarity is embossed on each Relcom Wiring block. The wire terminals are color coded for easy identification (CC version):

- Shield = Green
- (+) = Orange
- (−) = Blue

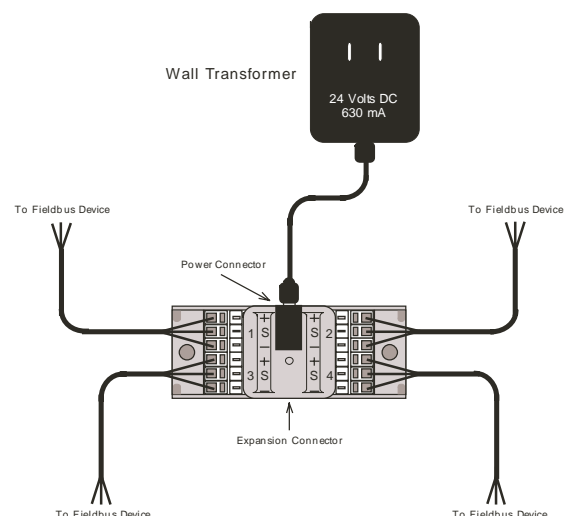
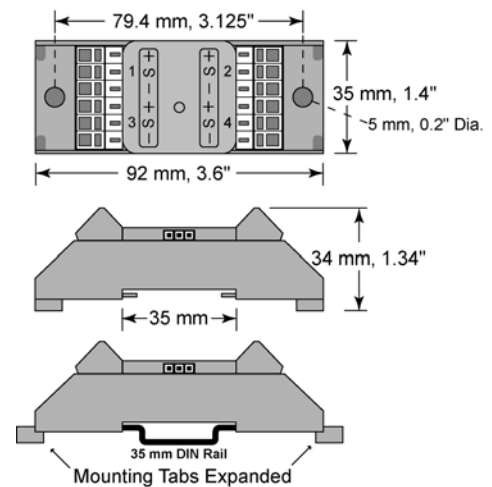
Certification

CE Marked for sale in Europe.

The FCS-PH-220-yy products have been replaced by the FCS-PH-110-yy products. The Power Hub used to be sold with two different transformers—110 and 220 volt versions—using two different part numbers. The transformer now handles the entire voltage range even though the part number contains '110'.

Specifications

Fieldbus Connectors	Four sets, Pluggable, Screw Terminal, or Cage Clamp
Expansion Connector	One female set (gold plated)
Fieldbus Termination	2 each networks, 100 ohm in series with 1 μ F
Fieldbus Voltage	18.5 Volt nominal at 100 mA
Fieldbus Current	200 mA max. with bus voltage > 18 Volts
Current Limit	240 mA short circuit for a maximum of 1 minute
Temperature Range:	0 to +50°C



Product specifications are subject to change without notice.