



F11 Fieldbus Power Hub

power conditioner with terminators for fieldbus networks

- built-in fieldbus power conditioning
- 5 fieldbus device ports
- 30mA current per device
- up to 315mA total current
- auxiliary port for expansion
- complete with AC power supply
- battery-pack option



The Relcom Power Hub (F11) is the next generation of the popular Power Hub. Ideal for bench-tops, labs, demonstrations and test setups, the Power Hub is a mini fieldbus segment in a box—just add devices.

The Power Hub is a combined bulk power supply, fieldbus power conditioner, two built-in terminators, five ports for attaching devices (Device Ports), and an Auxiliary Port for expansion and connection of additional devices. It functions as a zero length homerun with spurs (star topology).

The Power Hub is powered by a 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).

Fieldbus devices can be connected to the Power Hub with shielded or unshielded twisted pair fieldbus cable. The controller (host), if present, is considered to be a device.

The Power Hub provides a minimum of 30mA of power-conditioned current for each Device Port. If the current needs of a fieldbus segment exceed the capability of a Device Port, the Auxiliary Port can also be used to provide additional power-conditioned current.

The Power Hub can supply up to 315mA of power-conditioned current for all Device Ports and the Auxiliary Port. The Power Hub can be mounted on a 35mm DIN rail. For applications where AC power is not available, the Power Hub can also be mounted on a battery pack (accessory FCS-A11) for fieldbus power in the field.

Current limiting SpurGuard™ protection for each Power Hub Device Port limits the current draw of an attached cable and device and protects against short circuits. A short circuit in a spur cable or device will not take down the entire segment. The remaining devices on the segment continue to operate normally.

Wire Connections to the Power Hub are made using pluggable screw terminal connectors. Pluggable connectors allow easy connecting, disconnecting, and moving of devices for reconfiguration, maintenance, and troubleshooting. Two securing screws on each connector ensure it stays in place.

To connect a device, cut and strip the +, -, and shield (S) wires, insert them into the terminals, and tighten the screw terminals. Plug the connector into a Device Port or the Auxiliary Port and tighten the securing screws.

A typical use for the Power Hub is to configure, precommission, test, or calibrate Fieldbus devices. In this case, the Fieldbus device and host device (Emerson 375 or 475, National Instruments Fieldbus interface, etc.) are connected to the Power Hub. No other components are required to have a functioning Fieldbus segment.

SPECIFICATIONS

ELECTRICAL

Device Port Rated Current
30mA

Total Current for all Device Ports and Auxiliary Port
315mA max. (for specified operation)

Device Port Short Circuit Protection
Continuous protection against damage

Maximum Fieldbus Cable Length
120 metres

Auxiliary Port Short Circuit Protection
Continuous protection against damage

Wall-mounted Bulk Power Supply
Input voltage: 100 - 240V ac, 50/60Hz
Output voltage: 24V dc (nominal)

MECHANICAL

Fieldbus Connectors
Six sets, pluggable screw-terminal, with two securing screws

Mounting requirements
35mm DIN rail

Wire capacity
0.14 to 2.5mm²

Case material
Lexan polycarbonate

Temperature range
0° to +50°C

Weight
146g (nominal)

PHYSICAL NETWORK

IEC 61158-2
Foundation™ fieldbus H1
Profibus PA

ORDERING INFORMATION

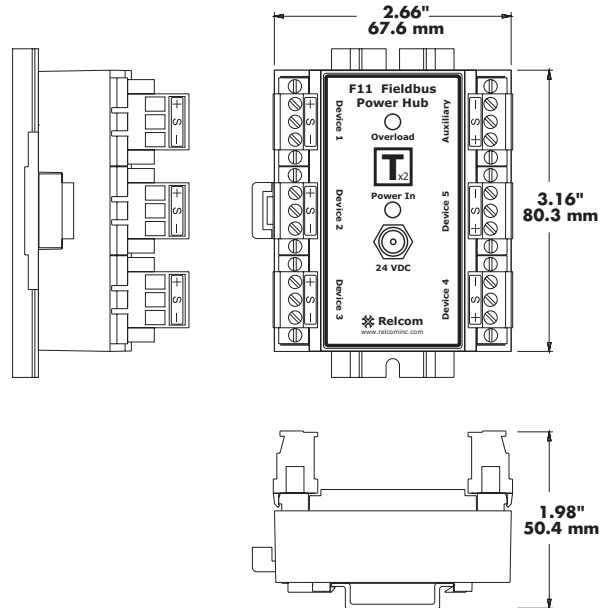
Fieldbus Power Hub
Battery Pack (Power Hub power in the field)
Heavy-duty DIN rail end stop
35mm DIN rail, aluminum, 1 meter

F11
FCS-A11
FCS-A06
FCS-A01

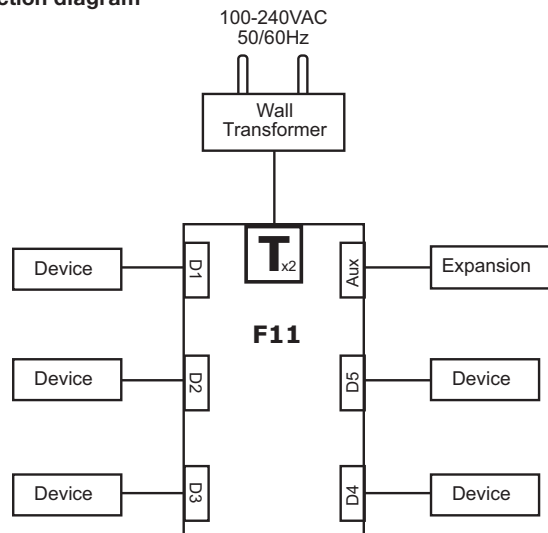
Wall Power Supply and Interchangeable Power Outlet Adapters (included with F11)



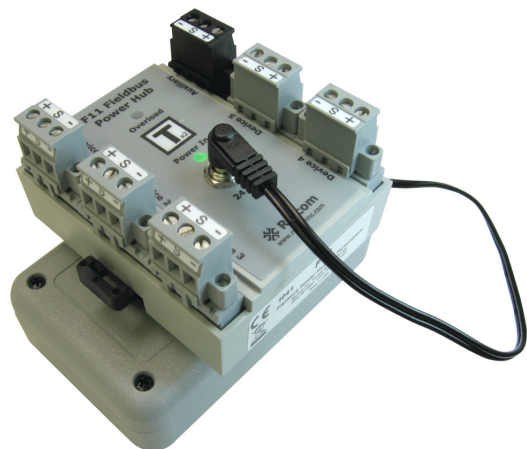
CASE DIMENSIONS



Connection diagram



F11 with Optional Battery Pack



The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.



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