

# Product Specification

FOUNDATION™ Fieldbus  
Profibus PA

# FBT-10

## Earlier Fieldbus Segment Checkout

The **FBT-10** provides a convenient, portable platform for everything needed to commission a Fieldbus segment. This is accomplished with or without mains power, and with or without the host. Commissioning can then begin at an earlier stage in the project. Sockets in the FBT-10 provide a convenient way to connect, store, and transport Fieldbus diagnostic tools such as the FBT-6, F809F, FBT-9 and FBT-11 (please see literature on these tools for more information on their features). The unit is rugged enough to be shipped to site or checked onboard an airplane.

## Key Features

- ◆ Internal rechargeable battery or mains powered
- ◆ Built-in 28V, 500mA Fieldbus Power Supply
- ◆ Switch selectable Terminator
- ◆ Four short circuit protected Spur connections
- ◆ Host and Field Trunk connections
- ◆ Oscilloscope connection
- ◆ F809F socket
- ◆ FBT-6 socket
- ◆ FBT-9 / FBT-11 socket
- ◆ Rugged "Pelican-style" case
- ◆ LED lights for low-light operation

Some of the diagnostic tools are specific to Foundation Fieldbus and will not work with Profibus PA. See the individual product specifications for more information.



## Related Documents:

- 502-940: FBT-10 User Manual
- 501-123: Relcom Fieldbus Wiring Guide

## Accessories

- Fieldbus Monitor
- Fieldbus ComTool
- Fieldbus Diagnostic Module
- Fieldbus Fault Generator

## Part Number

- FBT-6
- FBT-9
- F890F
- FBT-11

## Specifications

<b>Connector Wire Capacity</b>	12-24 AWG, 2.5mm <sup>2</sup> maximum
<b>Case Material / Size</b>	ABS / 47.24 cm x 36.83 cm x 19.56 cm
<b>Operating Temperature</b>	-10°C to +50°C
<b>Storage Temperature</b>	-40°C to +50°C
<b>Humidity</b>	0 to 90% (non-condensing)
<b>Weight</b>	12 kilograms (26.5 lbs.)
<b>Input Voltage</b>	90-264VAC, 47-63Hz
<b>Device Current</b>	30mA maximum (only one Device per spur)
<b>Device Short Circuit Current</b>	49mA maximum
<b>Maximum DC Output Current</b>	500mA (with Fieldbus Power Supply Enabled)
<b>DC Output Voltage</b>	20 - 30 VDC
<b>Battery Capacity</b>	8Ah @ 24VDC nominal



Product specifications are subject to change without notice.

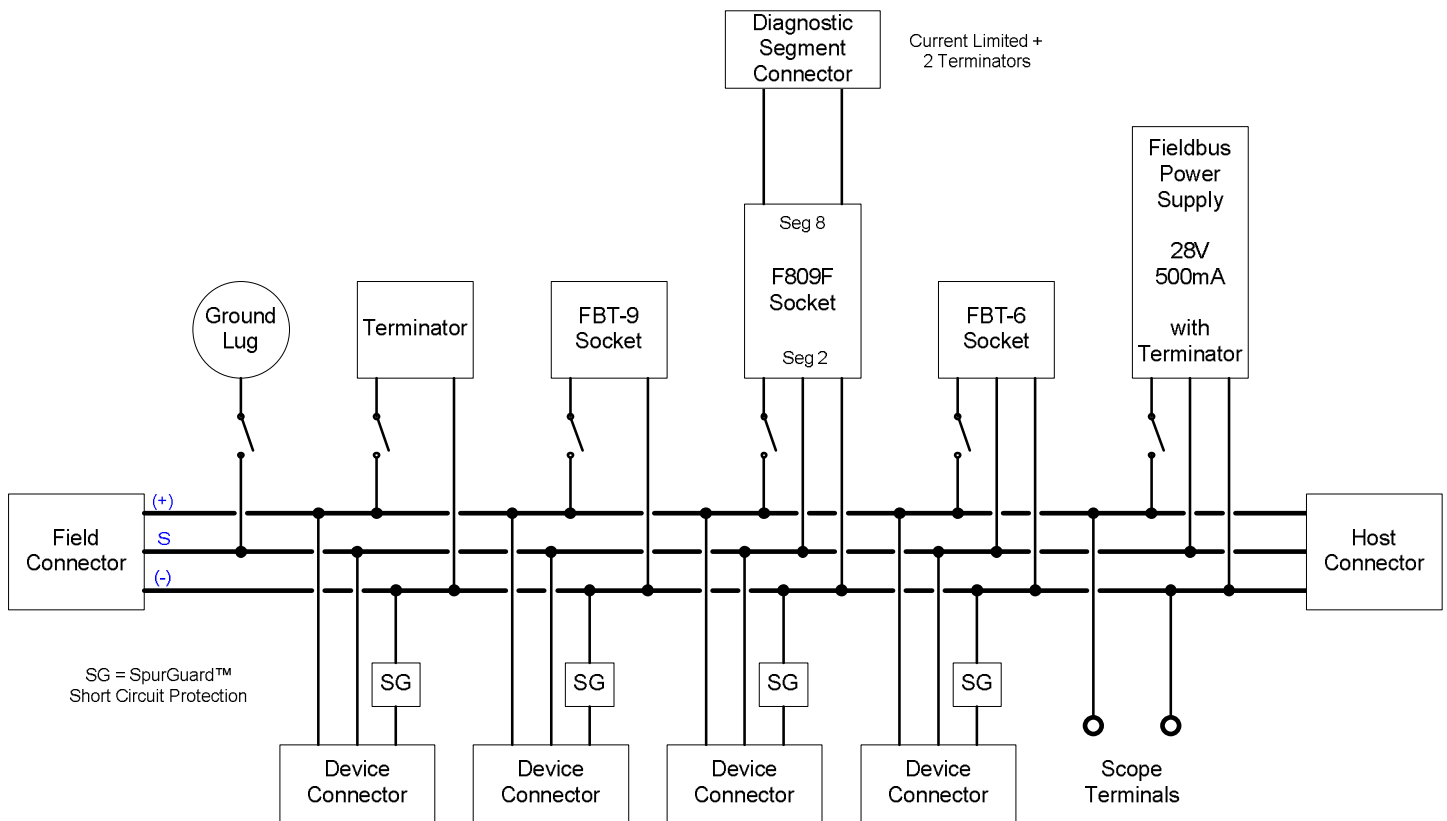


Figure 1 - FBT-10 Block Diagram

## Typical FBT-10 Applications

**Skid validation** - A skid will typically have several Fieldbus devices and a Terminator. A Fieldbus Power Supply, Terminator and Host must be connected to the skid segment to test its operation. The FBT-10 contains everything to accomplish this except for the Host. Attach a portable host, such as a laptop with a National Instruments Fieldbus interface or an Emerson 375/475, and validation may begin. If Fieldbus device configuration/exercise is not required, an FBT-9 may be used instead of a portable Host. The FBT-9 is a simulated Host that will establish communication with all Fieldbus devices on the segment. See the FBT-9 product specification for more information on its capability.

**Pre-commissioning** - In order to configure a Fieldbus device, a working segment including a Host must be connected to it. With a portable Host and the device to configure connected to the FBT-10, communication can be established and the device configuration can be completed. The battery in the FBT-10 supports pre-commissioning anywhere - in the field, on a truck or barge, in a maintenance shop, etc.

**Segment checkout** - The FBT-10 facilitates testing a segment before it is fully complete. If the Fieldbus Power Supply is not yet online, the FBT-10 can supply power to the segment. It also provides sockets for diagnostic equipment. The FBT-6 or F809F can be used to monitor the health of the segment. An FBT-9 can be used to simulate a Host to establish communication among the Fieldbus devices. Using an FBT-11 in the FBT-6 slot, the resilience of the segment can be tested. The segment's robustness is measured by how well it will tolerate the adjustable disturbances imposed by the FBT-11. See the FBT-11 product specification for more information.

**Training** - A complete Fieldbus segment on a table can be achieved by adding a Fieldbus Device and Host to the FBT-10. This can be invaluable for demonstrations or training of personnel. Adding the diagnostic tools mentioned above allows trainees to see diagnostic results from segments that are operating well and those that are not (when inducing disturbances with the FBT-11).

## FBT-10 Dimensions and Panel Layout

