

August 2006

Description

Designed for high-density applications, the TRUNKGUARD FPS200 Fieldbus Power Conditioner enables fast and easy implementation of fieldbus systems by providing properly conditioned power for FOUNDATION fieldbus™ (H1) networks. The FPS200 is fully compliant with FF831-1 (the technical specification for fieldbus power supplies) and is FOUNDATION fieldbus™ registered.

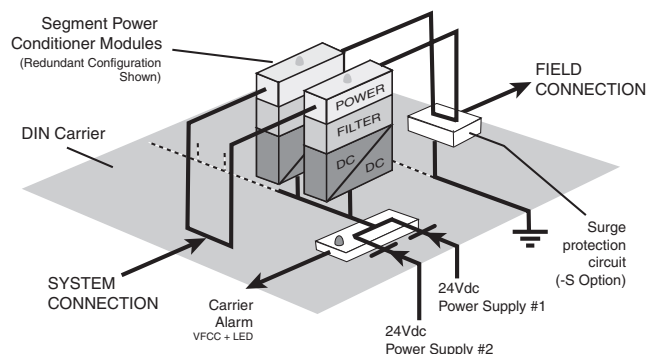
Modular Design Allows for Simplex or Duplex Configuration and “Hot Swapping” Under Load

The FPS200 is composed of a multi-position DIN Carrier populated with individual Power Conditioner Modules. To accommodate segment changes or additions, Power Conditioner Modules can be added, or removed, from the carrier without affecting power or fieldbus communications on any other segment. Built-in connectors accept one or two DC (18-30V) power supply inputs.

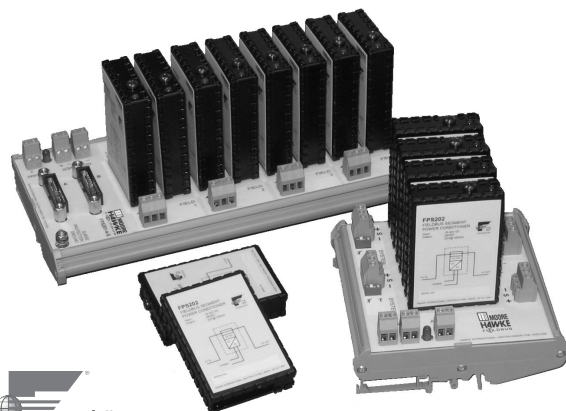
Complete Systems Compatibility for Hazardous Areas

MooreHawke offers the TRUNKGUARD Fieldbus Device Couplers for complete compatibility in Zone 2/Division 2 locations (Model TG200) and Zone 1 (Model TG300) locations for use with the TRUNKGUARD Fieldbus Power Conditioner.

Figure 1. The TRUNKGUARD Fieldbus Power Conditioner provides simplex or duplex (redundant) power to each fieldbus segment.



* The FPS200 is appropriate for non-incendive applications when it is installed in a safe area and connected to a device coupler approved for non-incendive applications (such as the MooreHawke TRUNKGUARD TG200 Device Coupler).



The high-density TRUNKGUARD Fieldbus Power Conditioner provides fieldbus-conditioned power to two or four (duplex) or eight (simplex) fieldbus spurs.

Features

- **Delivers 350mA from 26V per segment.** FPS200 models supply 350mA of isolated, conditioned power to two or four segments (duplex) or eight segments (simplex).
- **High-availability, redundant design.** The FPS200 can be used in load-sharing, hot swappable pairs to assure power to the segment should one module need to be removed.
- **On-board segment diagnostics.** An LED indicates proper power conditioner operation. An on-board alarm LED is combined with a contact closure output to provide local and remote general alarms.
- **Optional surge protection.** The FPS200 can be ordered with integral, multi-stage surge protection (rated at 20kA single shot) to protect each segment against incoming surges.

General purpose and hazardous area installation. Normally safe-area mounted, the FPS200 can drive suitably-certified fieldbus device couplers in both safe and hazardous areas. The FPS200 is also suitable for Zone 2/Division 2 locations (consult the factory for agency approvals).

Certifications



FOUNDATION Fieldbus Registered



CE Conformant – EMC Directive 89/336/EEC
EN 61326

All product names are registered trademarks of their respective companies.

FPS200

TRUNKGUARD™ Fieldbus Power Conditioner
(General Purpose and Non-Incendive Applications*)

Specifications

| | | |
|--|--|---|
| <p>Performance</p> <p>POWER CONDITIONER MODULE</p> <p>Output: 350mA capability, 26V (no load)</p> <p>DC/DC Isolation: 500Vdc (segment to power supply)</p> <p>Power Dissipation: 5.5W per segment at full load (shared in duplex mode)</p> <p>MTBF (MIL HDBK-217): 53.90 years (per individual module)</p> | <p>Performance (continued)</p> <p>DIN CARRIER</p> <p>Supply Voltage: 18-32Vdc</p> <p>Power Requirement: 13.5VA (per segment, fully loaded)</p> <p>Alarm Action: Input Voltage, <18V Output Voltage, <22V (contact rating, 0.4A@125Vac/2A@30Vdc)</p> <p>Terminator: 100 ohms/1.0 µF (per segment, switchable)</p> <p>Terminals: Cage-clamp type max. 4mm² (12-24AWG)</p> <p>DCS Cables: Two Multi-way sockets (accepts Yokogawa AKB336 cables)</p> | <p>Indicators</p> <p>Indicators: Green LED on when operating properly</p> <p>Ambient Conditions</p> <p>Operating: -20°C to +60°C (-4°F to +140°F)</p> <p>Storage: -40°C to +85°C (-40°F to +185°F)</p> <p>Relative Humidity: 0-95%, non-condensing</p> <p>Surge Protection: Rated 20kA (8/20 µs) single shot; 10kA (8/20 µs) multi-shot; 5 ohms/series loop resistance</p> |
|--|--|---|

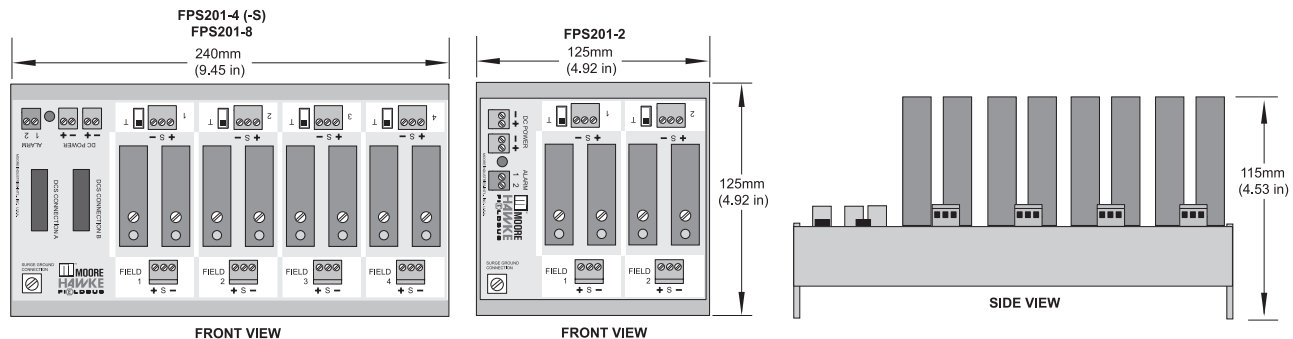
Ordering Information

| Description* | Model Number |
|--|-------------------|
| 1. Select a DIN Carrier and Order as a Separate Line Item: | |
| DIN Carrier, 2-Segment Redundant (Duplex) Power | FPS201-2 |
| DIN Carrier, 4-Segment Redundant (Duplex) Power | FPS201-4 |
| DIN Carrier, 4-Segment Redundant (Duplex) Power with Surge Protection | FPS201-4-S |
| DIN Carrier, 8-Segment Non-Redundant (Simplex) Power | FPS201-8 |
| 2. Select the Number of Power Conditioner Modules Required and Order as a Separate Line Item: | |
| Fieldbus Segment Power Conditioner Module (For Both Duplex and Simplex Configurations) | FPS202 |

* **Redundant (Duplex) Configurations**—Require two positions on the DIN Carrier and two Power Conditioner Modules (FPS202) to power each fieldbus segment. The DIN Carrier must be ordered as Redundant (Duplex), and can not be used in a Simplex configuration. Any number of Power Conditioner Modules can be ordered and installed in pairs on a DIN Carrier, and additional Power Conditioner Modules can be added in pairs in unoccupied DIN Carrier positions at any time.

Non-Redundant (Simplex) Configuration—Requires one position on the DIN Carrier and one Power Conditioner Module (FPS202) to power each fieldbus segment. The DIN Carrier must be ordered as Non-Redundant (Simplex), and can not be used in a Redundant configuration later. Any number of Power Conditioner Modules can be ordered on a DIN Carrier, and additional Power Conditioner Modules can be added in unoccupied DIN carrier positions at any time.

Figure 2. Installation Dimensions.



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