

Sensus NaviComm™

Faulted Circuit Indicator Receiver

Description

Sensus Automation has partnered with the leading manufacturer of faulted circuit indicators and its North American distributors to develop the NaviComm™, a self-contained communicating faulted circuit indicator (FCI) solution for overhead distribution lines. The NaviComm is an integrated FCI receiver and communications unit that monitors and controls up to 12 Smart Navigator wireless faulted circuit indicators, which provide fault current magnitude and load metrics. Its unique load monitoring and reporting capabilities give utilities access to critical operational and planning information in real-time along with traditional fault indication. The NaviComm communicates using Sensus FlexNet™ private networks. End-to-end interoperability is then achieved with the companion AutomationControl™ software suite. This allows for easy integration with third-party SCADA software platforms via our SCADA-Xchange™ interface.



Features

APPLICATIONS

The NaviComm is ideally suited for smart grid distribution automation applications on overhead distribution lines. A NaviComm system provides the ability to monitor and control Smart Navigator faulted circuit indicators.

Fault information is delivered to utility SCADA or Outage Management Systems using DNP3 or Modbus protocols. Distribution engineers, planners and field technicians can simultaneously view the same information directly from the Sensus AutomationControl™ application via text message or email (future feature). Additional information can be obtained from the AutomationControl application using a standard PC browser.

FlexNet enabled models incorporate all of the standard system security features. FlexNet system enabled models also work 'out of the box' on FlexNet systems.

FEATURES AND BENEFITS

- Monitors up to 12 wireless Smart Navigator faulted circuit indicators
- Load current reports are configurable from 15 minute to 240 hour averages (10 day with maximum and minimum values for the average period)
- Reports permanent vs momentary fault magnitude with timestamp
- Reports fault duration
- Ambient temperature average for load current period with maximum and minimum values for the period
- Remote firmware update capability
- Battery backup to report faults following control power outages

Communication is initiated in three ways:

- Automatic report upon digital and analog change (user configurable)
- Time-scheduled reports from once every 15 minutes to once every 14 days
- Users may request reports through AutomationControl applications or utility SCADA system

Remote Control and User Notification

An AutomationControl application can be used to configure rule-based actions and user notifications that are performed based on NaviComm system reports.

Examples include:

- Notify a designated utility person or group of people of a fault event (future feature)
- Notify a customer by email or text messaging with data from the NaviComm such as current load information, location, feeder name or number (future feature)

FEATURES AND BENEFITS

Continued

AutomationControl™ Applications

The AutomationControl application is a powerful and flexible suite of tools for managing communications and distribution system equipment.

- Access equipment status from any PC using a standard browser
- Each customer has a secure account that provides access to their equipment
- Data is secure and password protected
- No master software is required
- Manage equipment, communications and users
- Monitor and control field equipment
- Automated user notifications (by email or text message) provide immediate information on fault events (future feature)
- Device history logs all communications with equipment
- Request equipment status and analog values at any time (future feature)
- Tools for communications diagnostics and data volume monitoring
- Encryption and key rotation. Sensus uses industry-standard Advanced Encryption Standard (AES) 256-bit key encryption to secure data in transit over the FlexNet™ system.
- Sensus offers AutomationControl as a flexible and secure cloud-based Software as a Service (SaaS) solution

SCADA Interface

All Sensus Automation devices can be monitored and controlled through an existing SCADA or DMS system via DNP3/IEEE 1815 protocols.

Specifications

Communications

Local Configuration Port

- USB 2.0 compliant, full speed

FlexNet Network

- Two-way communication — all communications are acknowledged
- Transmit power: 2W
- Frequency: 900 MHz
- Phantom antenna

Processor

- 32 bit microcontroller, 72 MHz
- 8MB Flash
- 32MB Ram

Operating Power

- 100-135VAC, 60Hz

Environmental Data

- Operating temperature range: -40° to +70°C
- Humidity: 5-95% non-condensing
- Electrical Transient Immunity: ANSI/IEEE C37.90.1; ANSI/IEEE 62.41, 6kV
- Surge Suppression: EN61000-4-4 & EN61000-4-5
- Radiated Emissions: FCC Part 15 Class B, EN 55022

Enclosures

The non-metallic, fiberglass reinforced polyester enclosure features:

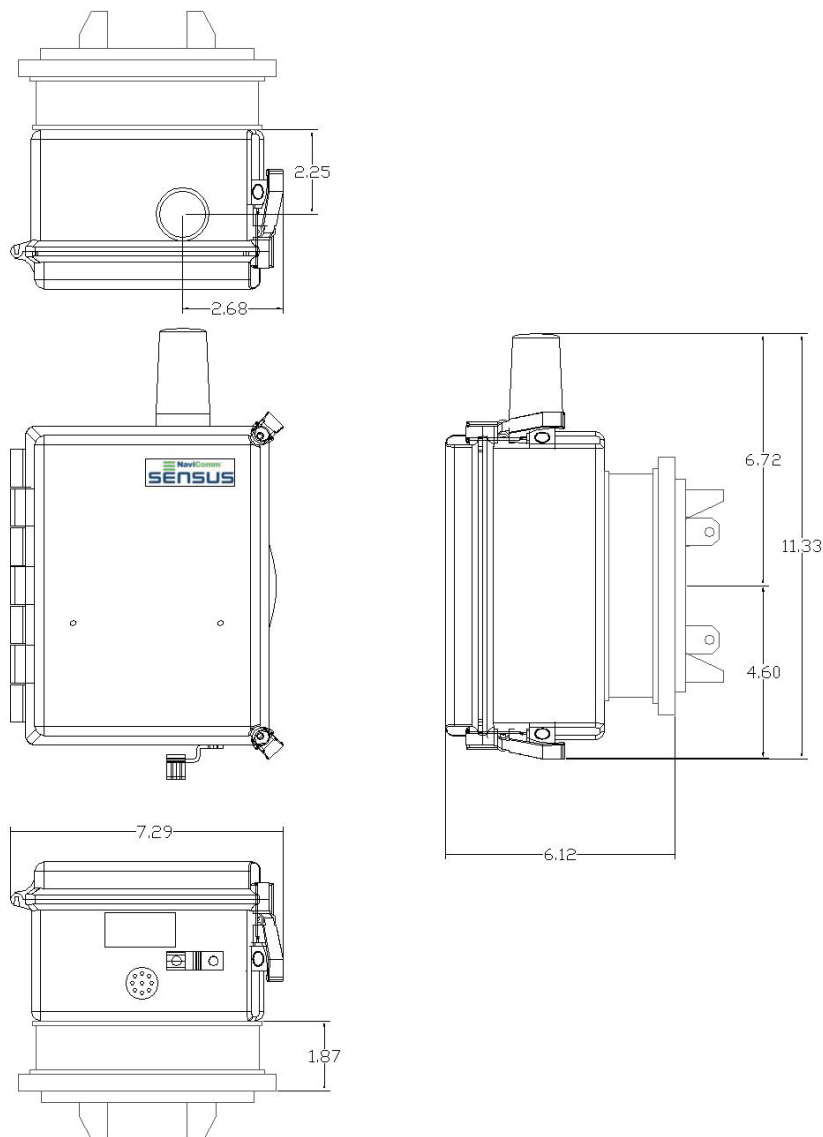
- NEMA 3R rating
- Suitable brackets for mounting on wood, steel and concrete poles
- External ground connector
- Hinged door with padlocking provisions
- Optional meter socket mount
- Dimensions: 8"H x 6"W x 4"D
- Weight: 5 lbs.

Models

| Model | Radio | Frequency | Protocol | Mount |
|---------------|---------|-----------|----------|---------|
| NAVI-FLX9-SKT | FlexNet | 900MHz | DNP | Socket |
| NAVI-FLX9-BKT | FlexNet | 900MHz | DNP | Bracket |

Models with FlexNet radios communicate using packet data over Sensus FlexNet private networks. The units can be installed on any FlexNet system that is configured to support the AutomationControl™ application platform.

Socket Mount

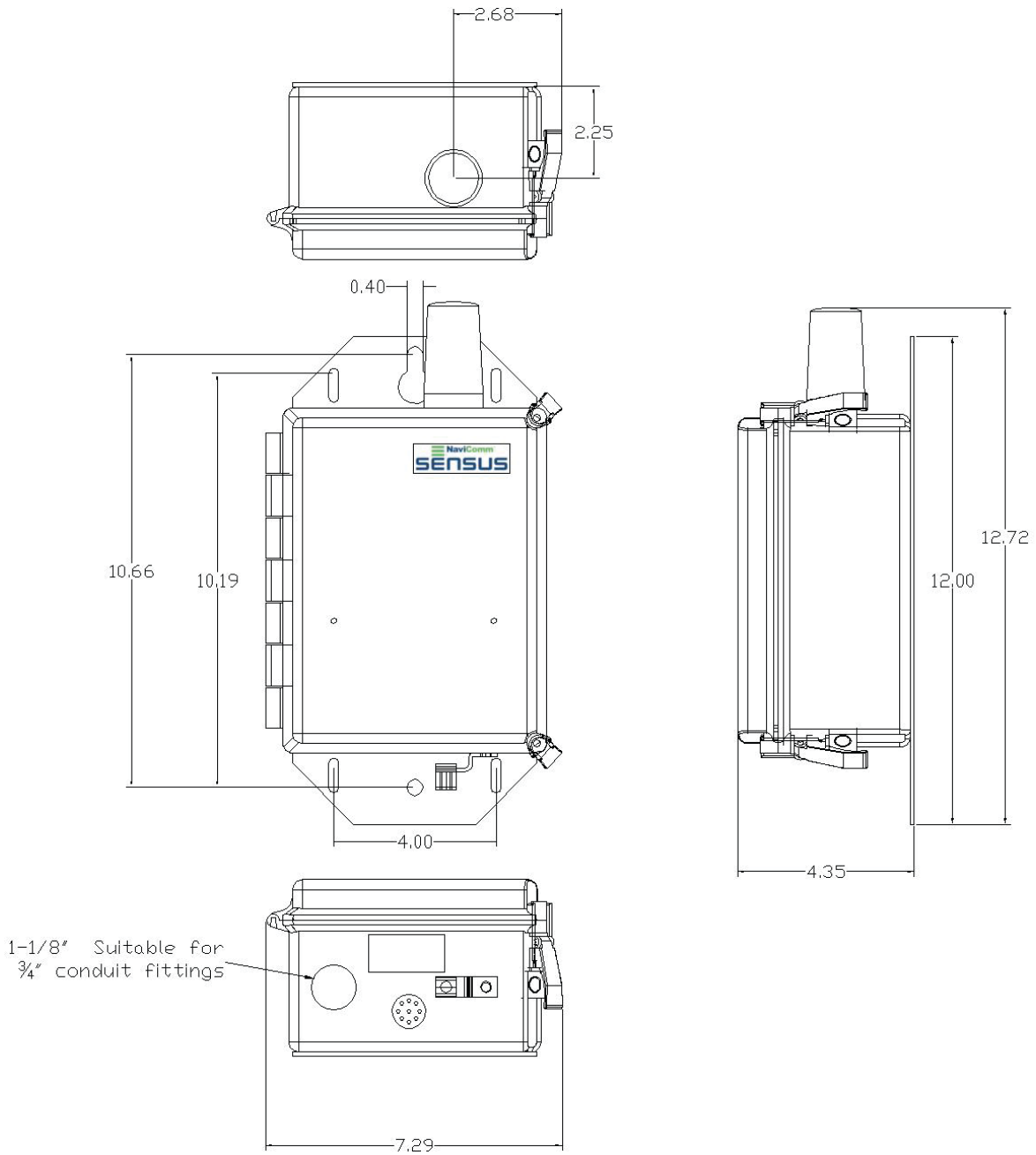


See additional drawings on back page.

Sensus NaviComm™

Faulted Circuit Indicator Receiver

Bracket Mount



For more information, visit us at www.sensus.com

© 2013 Sensus. All rights reserved. FlexNet, NaviComm, SCADA-Xchange, AutomationControl, and SmartPoint are trademarks of Sensus.