

Quick Start Guide for F-PRO 116 Non-Directional Feeder Protection Relay

In our ongoing efforts to run our business in an environmentally sensitive way, we are encouraging the use of PDF manuals and software downloads, available from our website. For your convenience, links are provided below to all the required software files to be downloaded.

If you are reading a hard copy of this document, download the soft copy (includes links) from our website's Support/Documents page, in the Quick Start Guide column.

<http://www.erlphase.com/support.php?ID=documents>

Downloading the Required Software and Manual

- a. The F-PRO 116 comes loaded with the requested firmware version. All required software, as well as the release description of the latest firmware version, is available on the Software page (<http://www.erlphase.com/support.php?ID=software>) of our website. Contact the Customer Support team for release descriptions of any other firmware version.
- b. Download the following software on your computer:
 - Terminal Emulation Program
HyperTerminal – This can be purchased from [Hilgraeve Inc.](#)
or
Tera Term – An open-source free [Terminal Emulator](#) software
 - [F-PRO 116 Offliner](#)
 - [USB Driver \(STM32 Virtual Com Port Driver\)](#)
- c. Install HyperTerminal/Tera Term and F-PRO 116 Offliner
- d. Install the recommended USB driver

Download the [F-PRO 116 User Manual](#). Other documents such as Drawings are also available on the [Documents page](#) of our website.

Hardware and Operating System Requirements

Minimum Hardware Requirements

- 1 GHz processor
- 2 GB RAM
- 20 GB available hard disk space
- USB port

Operating System

ERLPhase Software requires a minimum of Windows 7 OS


Unpacking and Connecting the Relay


The following items are included in the F-PRO 116 carton pack:

- F-PRO 116 relay
- Relay front cover
- Grounding wire
- Terminal Block Connectors
- Terminal Block Screws (M4)

There are no power switches on the relay. When the power supply is connected, the relay starts its initialization process.

1. Connect the power supply to terminal 2, 3 of CON1, shown in Figure 2. The wire used for the power supply wiring shall be at least 18 AWG (1.02 mm²).
2. Ground the F-PRO 116 to the case grounding terminal, as shown in Figure 2.
3. Ensure to install the grounding wire (shipped with the F-PRO 116) between the case grounding terminal 29 of SLOT 2 and terminal 1 of CON1, as shown in Figure 3.

 *Verify the voltage level before connecting the relay to power supply.*

 *The relay is calibrated before it leaves the factory.*

F-PRO 116 Relay Front and Rear View

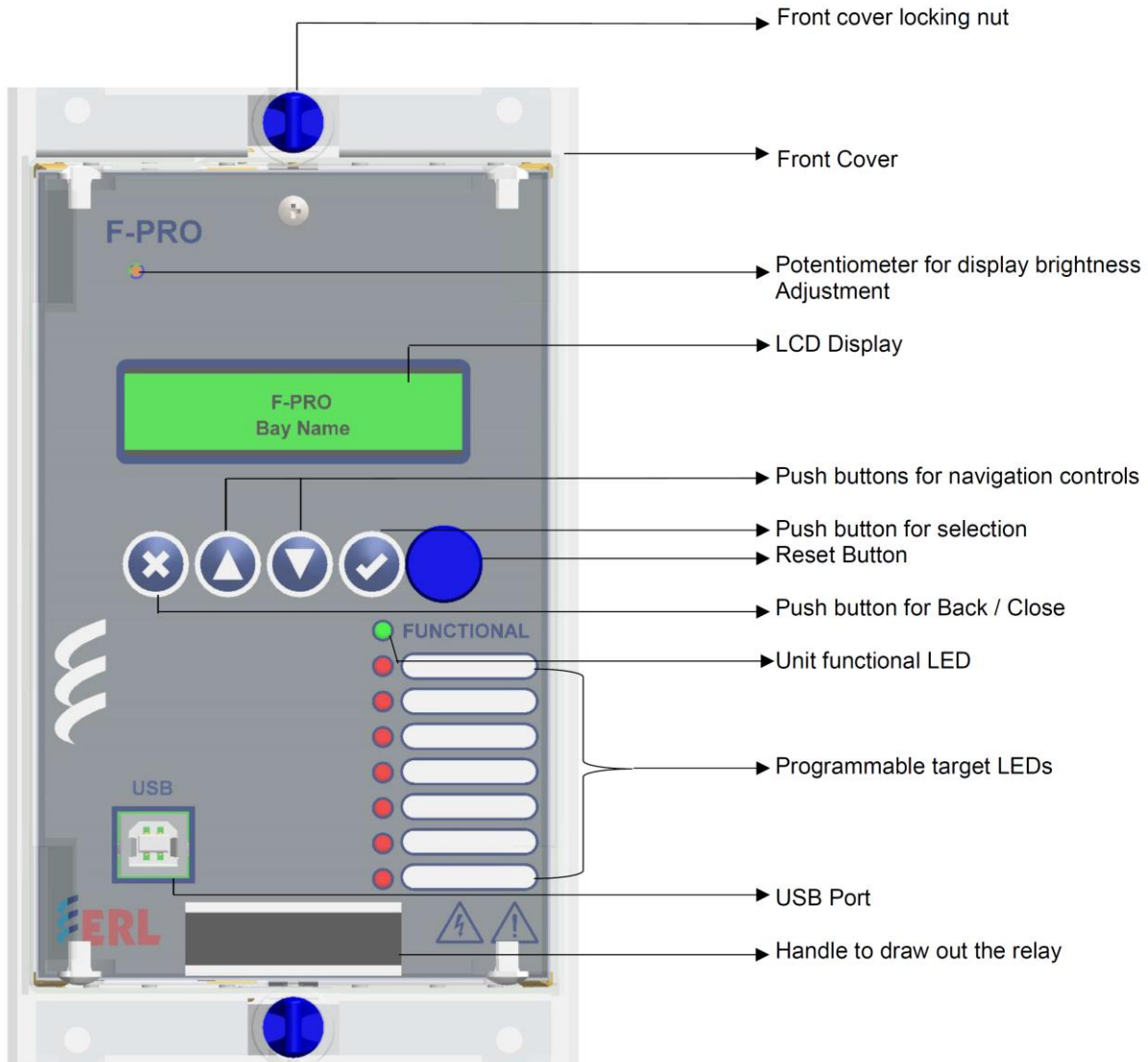


Figure 1: Front view

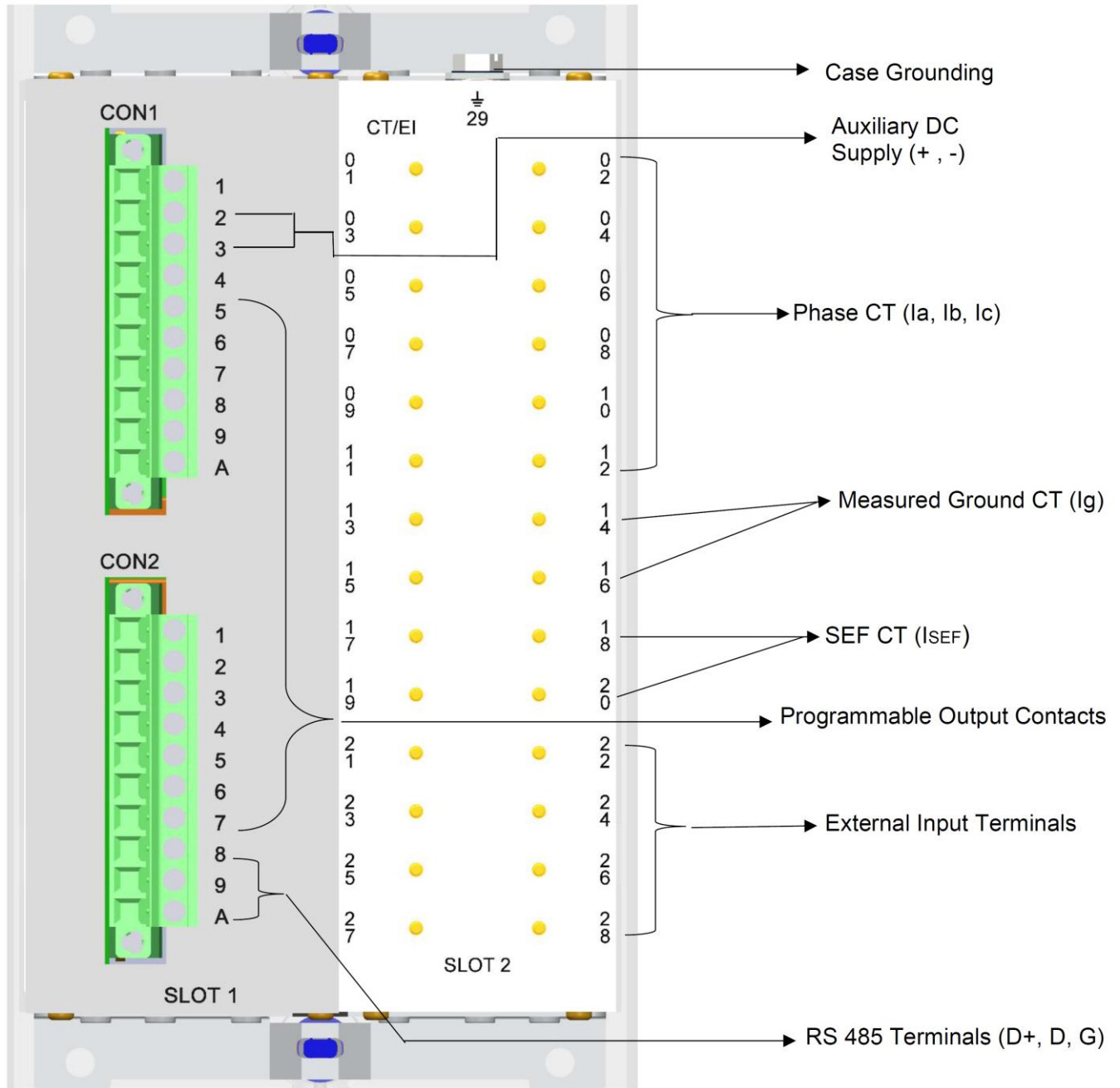


Figure 2: Rear view

Terminal Details

SLOT 1 - CON: 1

Auxiliary Power Supply: positive (2), negative (3)
 Programmable Output Contacts: RL1 (5, 6) RL2 (7,8) RL3 (9, A)

SLOT 1 - CON: 2

Programmable Output Contacts: RL4 (1, 2) RL5 (3, 4) RL6 (5, 6, 7)
 RS 485 Terminals: D+ (8), D- (9), G (A)

SLOT 2

1 A CT: Phase CT I_a (1, 2), I_b (5, 6), I_c (9, 10), I_g (13, 14), ISEF (17, 18)
 5 A CT: Phase CT I_a (3, 4), I_b (7, 8), I_c (11, 12), I_g (15, 16), ISEF (19, 20)
 External Inputs: EI-1 (21, 22), EI-2 (23, 24), EI-3 (25, 26), EI-4 (27, 28)

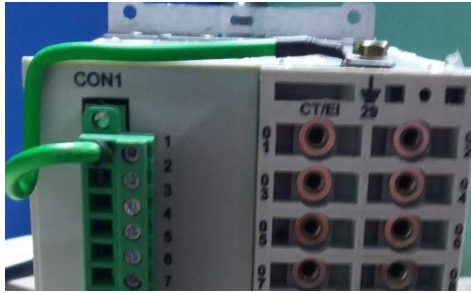


Figure 3: Grounding wire connection

Contact and Customer Support

For further information, assistance and details contact:

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