

This document is intended as a reference guide for installing and using a BENDER WF series current transformer, for use with RCMS series ground fault monitors. This document includes installation, setup, and usage instructions. For complete details, including installation, setup, settings, and troubleshooting, refer to the WF series user manual, document number TBP409020deen, as well as the RCMS series user manual, document number TGH1393en. This document is intended as a supplement and not a replacement to the complete user manuals.

Only qualified maintenance personnel shall operate or service this equipment. These instructions should not be viewed as sufficient for those who are not otherwise qualified to operate or service this equipment. This document is intended to provide accurate information only. No responsibility is assumed by BENDER for any consequences arising from use of this document.

Installation

Use

WF series modules are flexible, splittable type current transformers for use only with RCMS series ground fault monitors on AC systems only. Contents include the flexible current transformer, as well as the RCC420 signal converter which connects the current transformer to the RCMS monitor.

Mounting

The RCC420 signal converter may be DIN rail mounted, or screw mounted using the black clips located on the top and bottom of the device. Screw mounting requires an extra black clip (article number B98060008, sold separately).

Wiring - General

Refer to figure 1 for wiring the WF current transformer to the applicable RCMS. **Follow all instructions for properly wiring the RCMS device.** Refer to the RCMS user manual for instructions. The WF current transformer may be split via the connector; it is not necessary to disconnect the system conductors in order to install the current transformer.

Follow the below steps when installing the current transformer:

1. Mount the RCC420 signal converter.
2. Connect the current transformer to the RCC420 signal converter as shown in Figure 1.
3. Connect the RCC420 signal converter to the appropriate channel of the RCMS monitor (Figure 1 shows connecting to channel 1 as an example).
4. Route the system conductors through the CT.

When routing the system conductors, ensure the following conditions are met:

- Whether it is single-phase or three-phase ensure all conductors are routed through, including the neutral if it is being used. Do not place the ground conductor through the CT.
- Arrange the conductors so they pass centrally at a right angle through the opening.
- Do not place the current transformer close to strong magnetic fields.

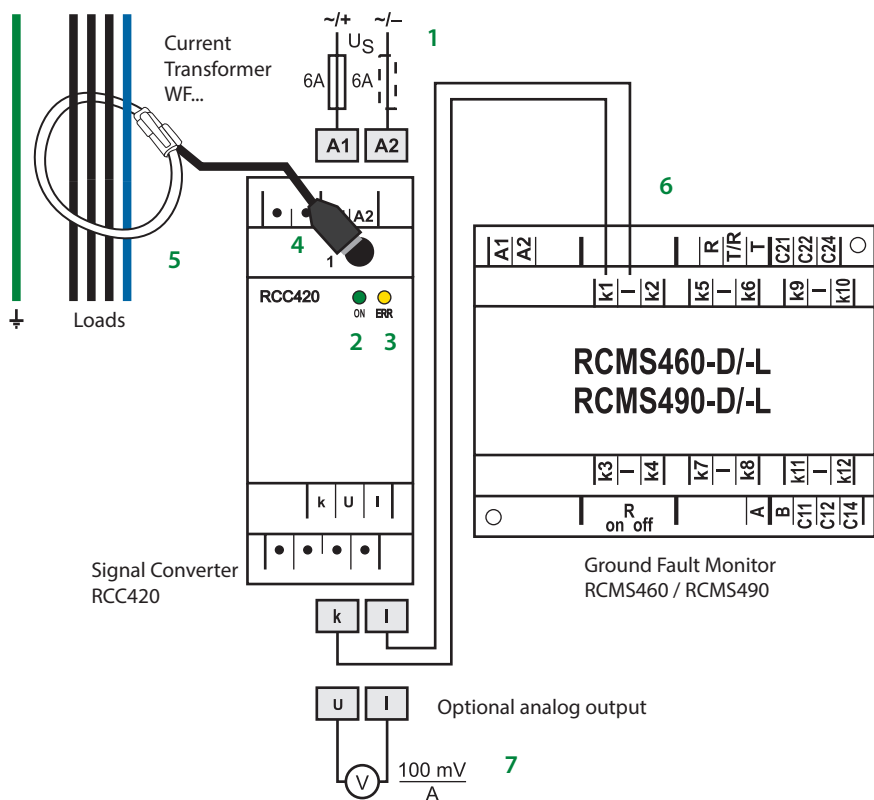


Figure 1 - Wiring WF series current transformer to RCMS series ground fault monitor

1. External supply voltage; 6A fuse recommended for internal device protection.
2. Power ON LED: Illuminates when voltage is available and signal converter is properly operating.
3. Device Error LED: Illuminates when there is a connection error or signal converter malfunction.
4. Connection from current transformer to signal converter
5. Current transformer connection to system conductors. Install as instructed above.
6. Connection from signal converter to RCMS monitor
7. Optional analog output for external measuring equipment



Installation - CT Connectors

When locking the current transformer around the system conductors, ensure that the connection is completed and that the locking connector remains clean. Refer to Figure 2 and 3 below.

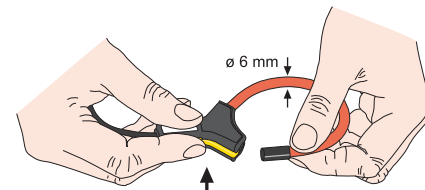


Figure 2 - Locking connector for WF170 and WF250 current transformers

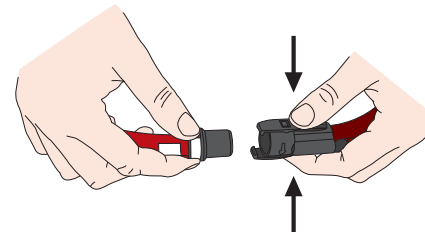


Figure 3 - Locking connector for WF500, WF800, and WF1200 current transformers

Required Changes to Device Settings

In order for WF series current transformers to properly function, settings in the onboard menu of the RCMS must be modified. For more information on changing these settings, refer to RCMS series user manual (document TGH1393en) and installation bulletin (document NAE1048060). The required setting change is dependent on the firmware version of the RCMS. To locate the firmware version, when on the main screen of the RCMS, press the INFO key.

For firmware versions D233 V.221 and above:

- Enter menu option SETTINGS > CHANNEL.
- Locate the appropriate channel that the WF current transformer is connected to.
- Change the setting "CT" to Flex.
- Repeat for any other channels with WF current transformers.

For firmware versions below D233 V.221:

- Enter menu option SETTINGS > CHANNEL.
- Locate the appropriate channel that the WF current transformer is connected to.
- Change the setting "CT MONITOR" to OFF.
- Repeat for any other channels with WF current transformers.

Dimensions

The dimension specified in the ordering information and in Figure 4 as Dimension A is the circumference of the opening, or total length of the cable. Refer to ordering information in WF series datasheet (NAE1048060) for sizes available.

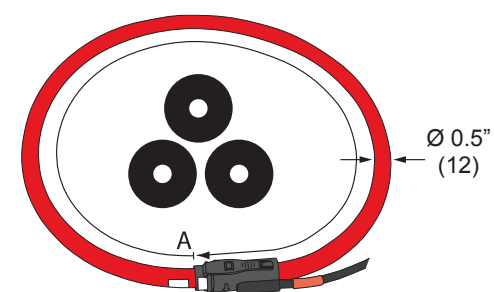


Figure 4 - WF current transformer dimensions

Technical Data

For detailed technical data on WF series current transformers, refer to WF series user manual (document TBP409020deen) or WF series datasheet (document NAE1048060). For detailed technical data on RCMS series ground fault monitors, refer to RCMS series user manual (document TGH1393en) or RCMS series datasheet (document NAE1042060).