Commissioning Guide for Vigilohm IM400C in M-RW-PV mode

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

About this guide

This guide explains about the commissioning procedure of Vigilohm IM400C

Throughout this guide, the term “device” refers to Vigilohm IM400C

For detailed installation and operating instructions, including safety messaging, read the device instruction sheets and user manual.

Document Reference

Title	Number
Instruction Sheet: Vigilohm IM400C	S1B90076
User Manual: Vigilohm IM400C	7EN02-0493

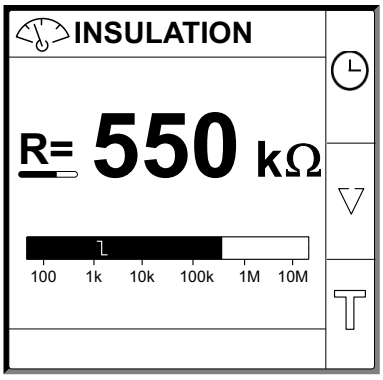
Setting date and time

On first power up, set the date and time. Setting date and time ensures proper timestamps for the logs and trends.

1. Turn on the power supply.

   Auto-test begins in the device. Wait for 10 seconds for auto test to complete.

   - If auto-test passes, the **INSULATION** screen displays a resistance value. An example **INSULATION** screen is:



   - If auto-test fails, an error code is displayed.

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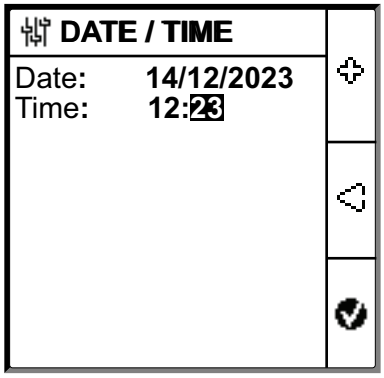
2. Press the flashing button.

   NOTE: The clock icon flashes to show that date and time needs to be set.

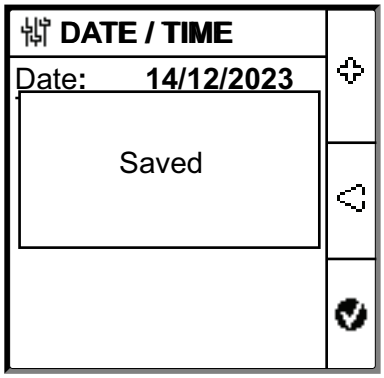
   The **DATE/TIME** screen displays.



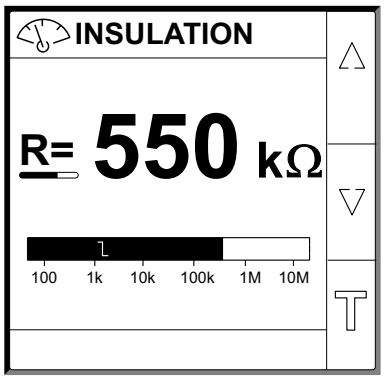
3. Set the date and time using the contextual menu buttons and .

4. Press button to save the date and time.

   A message **Saved** displays.

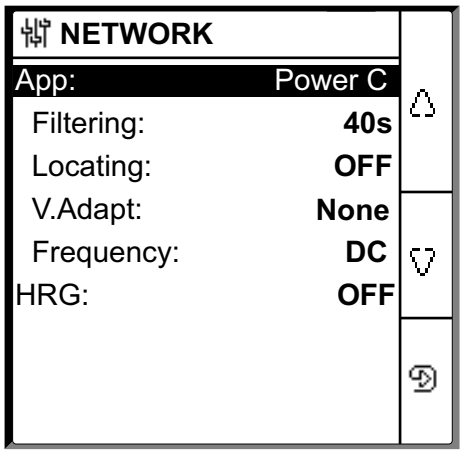


The **INSULATION** screen displays a resistance value. An example **INSULATION** screen is:



Configuring network parameters

1. Navigate to **Menu > Settings > Network**.
   The **NETWORK** screen displays.

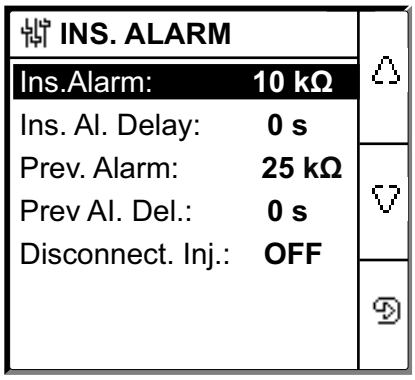


2. Modify the parameters value as per the following table:
   NOTE: Use the contextual menu buttons to modify the parameters value.

Parameter	Allowed Values	Default Value	Description
App	• **Power C** • **Control C** • **M-RW-PV**	**Power C**	• Select **Power C** for industrial or power loads and power electronics such as speed drives, inverters, or rectifiers. • Select **Control C** for auxiliary control circuits used to drive power systems which contain sensitive loads such as PLCs, IOs, or sensors. • Select **M-RW-PV** for Marine or Railways or Photovoltaic application.
Filtering	• **4s** • **40s** • **400s**	**40s**	Select the filtering time depending on the application. **NOTE:** This value selection is restricted depending on the **App** value selection.
Locating	• **OFF** • **IFL** • **XD**	**OFF**	• Select **OFF** if no IFL is installed or if the Mobile Fault Locator "IMDMFLK1" is not to be used. • Select **IFL** if "IMDIFL12xx" is installed or if the Mobile Fault Locator "IMDMFLK1" is used. • Select **XD** if "XD301" or "XD312" are installed, even if "IMDIFL12xx" is present in parallel.
V.Adapt	• **PHT1000** • **IM400VA2** • **HV1700** • **None**	**None**	Select the adaptor if the network voltage is greater than the rated network voltage of the device. **NOTE:** This value selection is restricted depending on the **App & Locating**value selection.
Frequency	• **50 Hz** • **DC** • **400 Hz** • **60 Hz**	**DC**	Select the rated frequency of the monitored power system. **NOTE:** This value selection is restricted depending on the **App** value selection.
HRG	• **OFF** • **0.1....2 MΩ**	**OFF**	• Select **OFF** when no grounding resistance is connected. • Select the value of the neutral grounding resistance, which is connected to the device.

Configuring insulation alarm parameters

1. Navigate to **Menu > Settings > Ins. Alarm**.
   The **INS. ALARM** screen displays.

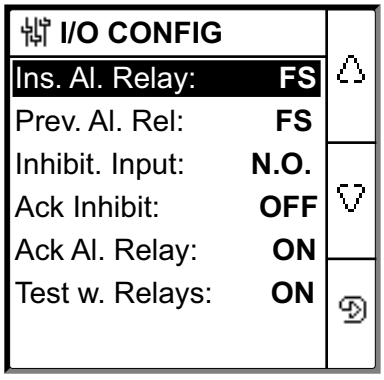


2. Modify the parameters value as per the following table:
   NOTE: Use the contextual menu buttons to modify the parameters value.

Parameter	Allowed Values	Default Value	Description
Ins. Alarm	**0.04…500 kΩ**	**10 kΩ**	Select the value of insulation alarm threshold.
Ins. Al. Delay	**0 s...120 minutes**	**0 s**	Select the value of time delay for insulation alarm.
Prev. Alarm	• **1 kΩ...1 MΩ** • **OFF**	**25 kΩ**	Select the value of preventive insulation alarm threshold.
Prev. Al. Del.	**0 s...120 minutes**	**0 s**	**NOTE:** This parameter is enabled when **Prev. Alarm** is set to any value between **1 kΩ...1 MΩ**. Select the value of time delay for preventive insulation alarm.
Disconnect. Inj	• **ON** • **OFF**	**OFF**	• Select **ON** to detect the disconnection of injection wiring. • An Alarm will be generated here when the Insulation Resistance is measured above 10 MOhm • Select **OFF** to disable this feature.

Configuring input output parameters

1. Navigate to **Menu > Settings > I/O Config**.
   The **I/O CONFIG** screen displays.



2. Modify the parameters value as per the following table:

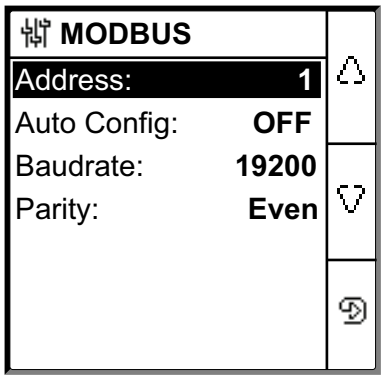
   NOTE: Use the contextual menu buttons to modify the parameters value.

Parameter	Allowed Values	Default Value	Description
Ins. Al. Relay	• **Std.** (Standard) • **FS** (Failsafe)	**FS** (Failsafe)	Select the mode of insulation alarm relay depending on the status of insulation. Refer user manual for more information.
Prev. Al. Rel	• **Std.** (Standard) • **FS** (Failsafe) • **Mirror**	**FS** (Failsafe)	Select the mode of preventive insulation alarm relay depending on the status of insulation. Refer user manual for more information.
Inhibit. Input	• **N.O.** • **N.C.** • **OFF**	**N.O.**	Select the configuration of injection inhibition input . Refer user manual for more information.
Ack Inhibit	• **ON** • **OFF**	**OFF**	• Select **ON** to acknowledge the inhibition signal status. • Select **OFF** to disable this feature.
Ack Al. Relay	• **ON** • **OFF**	**ON**	• Select **ON** to trigger relays when acknowledging alarm. • Select **OFF** to disable this feature.
Test w. Relays	• **ON** • **OFF**	**ON**	• Select **ON** to include a three-second toggle of the preventive insulation alarm relay and insulation alarm relay during a manually launched auto-test. • Select **OFF** to disable this feature.
Inhibit. Type	• **Int.** • **Ext.**	**Int.**	• Select **Int.** to disconnect the device from network during inhibition state. • Select **Ext.** to disconnect the device from network using external relay during inhibition state.

Configuring Modbus parameters

1. Navigate to **Menu > Settings > Modbus**.

   The **Modbus** screen displays.



2. Modify the parameters value as per the following table:

NOTE: Use the contextual menu buttons to modify the parameters value.

Parameter	Allowed Values	Default Value	Description
Address	**1...247**	**1**	Select the required Modbus address.
Auto Config	• **ON** • **OFF**	**OFF**	• Select **ON** to activate Modbus communication with different baud rate or parity. • Select **OFF** to disable this feature. **NOTE:** If you select **ON**, the parameters **Baudrate** and **Parity** are disabled.
Baudrate	• **4800** • **9600** • **19200** • **38400**	**19200**	Select the required baud rate.
Parity	• **Even** • **Odd** • **None**	**Even**	Select the required parity.