

Commissioning Guide for Vigilohm IM400C

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	DOCA0049EN

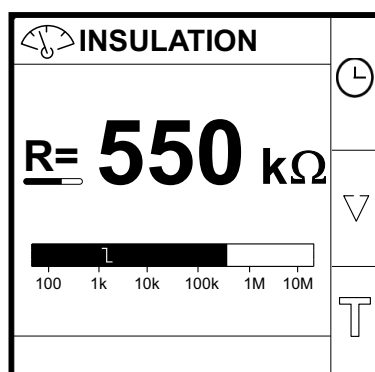
Setting date and time

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:

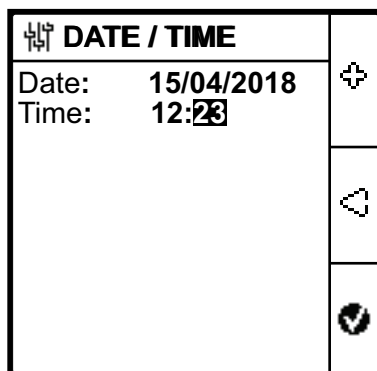





- If auto-test fails, an error code is displayed.

- 2. Press the flashing  button.

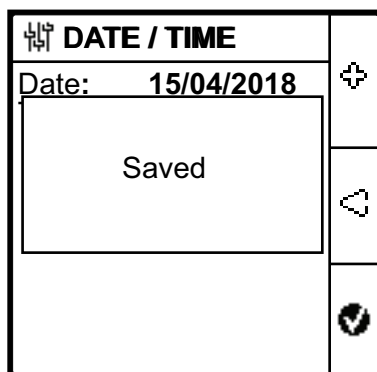
NOTE: The clock icon flashes to show that date and time needs to be set.

The **DATE/TIME** screen displays.

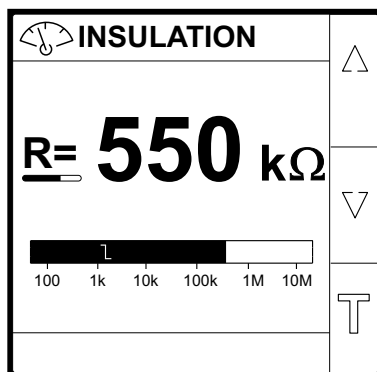


- 3. Set the date and time using the contextual menu buttons  and .
- 4. Press  button to save the date and time.

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.

NETWORK		
App:	Power C.	△
Filtering:	40s	
Locating:	Alarm	▽
V.Adapt:	None	
Frequency:	50 Hz	
HRG:	OFF	⊗

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

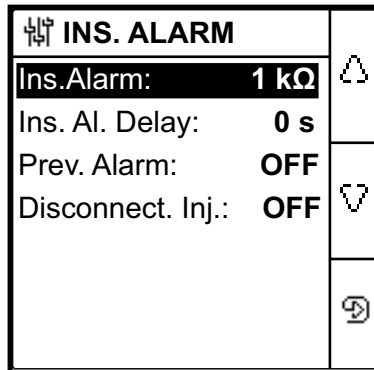
NOTE: Use the contextual menu buttons to modify the parameters value.

Parameter	Allowed Values	Default Value	Description
App	<ul style="list-style-type: none"> • Power C. • Control C • Photovolt 	Power C	<ul style="list-style-type: none"> • Select Power C for industrial or marine applications that contain 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 Photovolt for large photovoltaic power generation systems. <p>NOTE: If you select Photovolt,</p> <ul style="list-style-type: none"> • Locating value is set to OFF • V.Adapt value is set to HV1700C • Frequency value is set to DC
Filtering	<ul style="list-style-type: none"> • 4s • 40s • 400s 	40s	<p>Select the filtering time depending on the application.</p> <p>NOTE: This value selection is restricted depending on the App value selection.</p>
Locating	<ul style="list-style-type: none"> • OFF • Prev.AI. • Alarm • IFL 	Alarm	<ul style="list-style-type: none"> • Select Alarm if boost mode is required in case of active insulation alarm and Insulation resistance is less than 2 KΩ (if using XD312 as fault locator). • Select Prev.AI if boost mode is required in case of active preventive insulation alarm and Insulation resistance is less than 50 KΩ (if using XD312H as fault locator). • Select IFL if boost mode is required in case of active preventive insulation alarm and Insulation resistance is less than 2 KΩ (if using IFL12, IFL12MC, IFL12LMC, IFL12MCT, and IFL12LMCT as fault locator). <p>NOTE:</p> <ul style="list-style-type: none"> • If you select Prev.AI., you need to select the preventive alarm threshold. • This value selection is restricted depending on the App value selection.
V.Adapt	<ul style="list-style-type: none"> • None • VA2 • PHT1000 • HV1700C 	None	<p>Select the adaptor if the network voltage is greater than the rated network voltage of the device.</p> <p>NOTE: This value selection is restricted depending on the App value selection.</p>
Frequency	<ul style="list-style-type: none"> • 50 Hz • DC • 400 Hz • 60 Hz 	50 Hz	<p>Select the rated frequency of the monitored power system.</p> <p>NOTE: This value selection is restricted depending on the App value selection.</p>
HRG	<ul style="list-style-type: none"> • OFF • 0.1....2 MΩ 	OFF	<ul style="list-style-type: none"> • Select OFF so that the device does not compensate the reported insulation resistance with the value of the neutral grounding resistance. • Select the value of the neutral grounding resistance, which the device compensates the measure insulation resistance.

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:

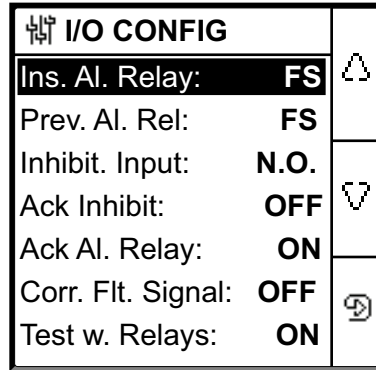
NOTE: Use the contextual menu buttons to modify the parameters value.

Parameter	Allowed Values	Default Value	Description
Ins. Alarm	0.04...500 kΩ	1 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	<ul style="list-style-type: none"> • 1 kΩ...1 MΩ • OFF 	OFF	Select the value of preventive insulation alarm threshold.
Prev. Al. Del	0 s...120 minutes	0 s	<p>NOTE: This parameter is enabled when Prev. Alarm is set to any value between 1 kΩ...1 MΩ.</p> Select the value of time delay for preventive insulation alarm.
Disconnect. Inj	<ul style="list-style-type: none"> • ON • OFF 	OFF	<ul style="list-style-type: none"> • Select ON to detect the disconnection of injection wiring. • 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:

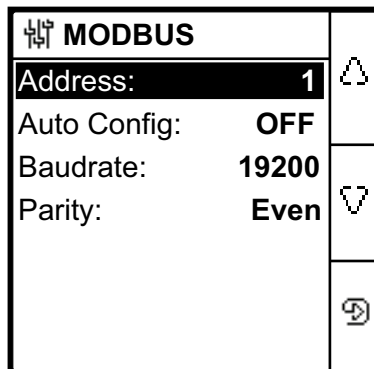
NOTE: Use the contextual menu buttons to modify the parameters value.

Parameter	Allowed Values	Default Value	Description
Ins. Al. Relay	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> N.O. N.C. OFF 	N.O.	Select the configuration of injection inhibition input . Refer user manual for more information.
Ack Inhibit	<ul style="list-style-type: none"> ON OFF 	OFF	<ul style="list-style-type: none"> Select ON to acknowledge the inhibition signal status. Select OFF to disable this feature.
Ack Al. Relay	<ul style="list-style-type: none"> ON OFF 	ON	<ul style="list-style-type: none"> Select ON to trigger relays when acknowledging alarm. Select OFF to disable this feature.
Corr. Flt. Signal	<ul style="list-style-type: none"> ON OFF 	OFF	<ul style="list-style-type: none"> Select ON to reactivate the insulation alarm relay for 3 seconds when the insulation level rises above the setup threshold. Select OFF to disable this feature.
Test w. Relays	<ul style="list-style-type: none"> ON OFF 	ON	<ul style="list-style-type: none"> 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.
Inhibition type	<ul style="list-style-type: none"> Int Ext 	Int	<ul style="list-style-type: none"> Select Int to disconnect the device relay from external network during inhibition state. Select OFF to connect the device relay to the external network 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	<ul style="list-style-type: none"> • ON • OFF 	OFF	<ul style="list-style-type: none"> • Select ON to activate Modbus communication with different baud rate or parity. • Select OFF to disable this feature. <p>NOTE: If you select ON, the parameters Baudrate and Parity are disabled.</p>
Baudrate	<ul style="list-style-type: none"> • 4800 • 9600 • 19200 • 38400 	19200	Select the required baud rate.
Parity	<ul style="list-style-type: none"> • Even • Odd • None 	Even	Select the required parity.