

Commissioning Guide for Vigilohm IM400THR / IM400LTHR

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 IM400THR / IM400LTHR.

Throughout this guide, the term “device” refers to Vigilohm IM400THR / IM400LTHR. All differences between the models, such as a feature specific to one model, are indicated with the appropriate model number or description.

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

Document Reference

Title	Number
Instruction Sheet: Vigilohm IM400THR / IM400LTHR	QGH89902
User Manual: Vigilohm IM400THR / IM400LTHR	DOCA0049EN

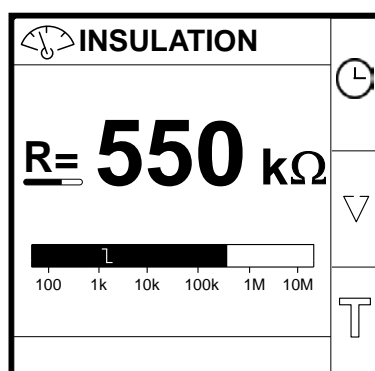
Setting date and time

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.

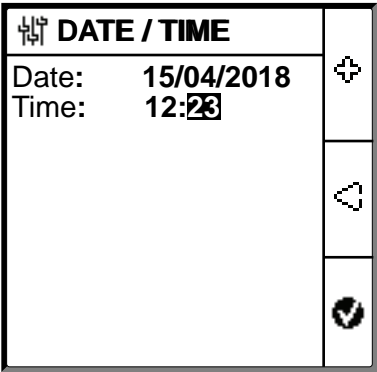
- If auto-test passes, the **INSULATION** screen displays a resistance value. An example **INSULATION** screen is:






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

2. Press the flashing  button.

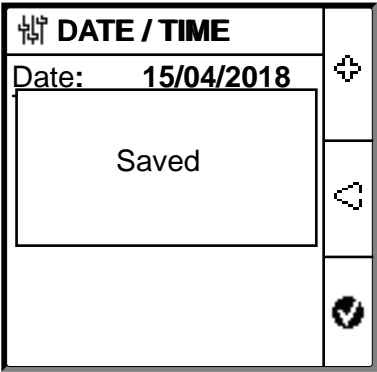
NOTE: The clock icon flashes to show that date and time needs to be set.
The **DATE/TIME** screen displays.



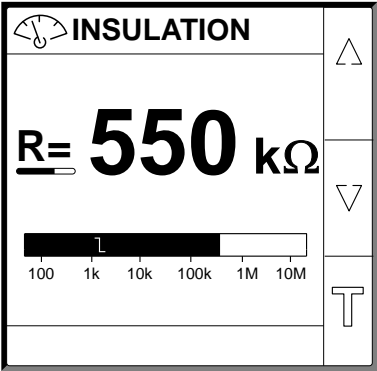
3. Set the date and time using the contextual menu buttons  and .

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:	THR
Filtering:	20s
V.Adapt:	None
Injection:	60V
HRG:	OFF
Pri. DC Resis.:	0 kΩ
No. of Transfo.:	0

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	THR	THR	THR for medium voltage systems.
Filtering	<ul style="list-style-type: none"> 2s 20s 200s 	20s	Select the filtering time depending on the application. NOTE: This value selection is restricted depending on the App value selection.
V.Adapt	<ul style="list-style-type: none"> None P1N 	P1N	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 value selection.
Injection	<ul style="list-style-type: none"> 20V 40V 60V 80V 	60V	Select the injection depending on the application. NOTE: This value selection is restricted depending on the App value selection.
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.
Pri.DC Resis	0....50 kΩ	0 kΩ	Select the value of resistance of the compatible Schneider Electric voltage transformer primary winding.
No. of Transfo	<ul style="list-style-type: none"> 0 1 3 	0	Select the value of number of transformer connected.

Configuring insulation alarm parameters

1. Navigate to **Menu > Settings > Ins. Alarm**.

The **INS. ALARM** screen displays.

⚡ INS. ALARM	
Ins.Alarm:	1 kΩ 
Ins. Al. Delay:	0 s
Prev. Alarm:	OFF 
Disconnect. Inj.:	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
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> <p>Select the value of time delay for preventive insulation alarm.</p>
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.

I/O CONFIG	
Ins. Al. Relay:	FS
Prev. Al. Rel:	FS
Inhibit. Input:	N.O.
Ack Inhibit:	OFF
Ack Al. Relay:	ON
Corr. Flt. Signal:	OFF
Test w. Relays:	ON

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.
Inhibit. 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.