MOTORTRONICS™
Solid State AC Motor Control

Innovation in soft start technology

VMX-synergy™

REMOTE KEYPAD (VMX-SGY-012)

INSTALLATION GUIDE
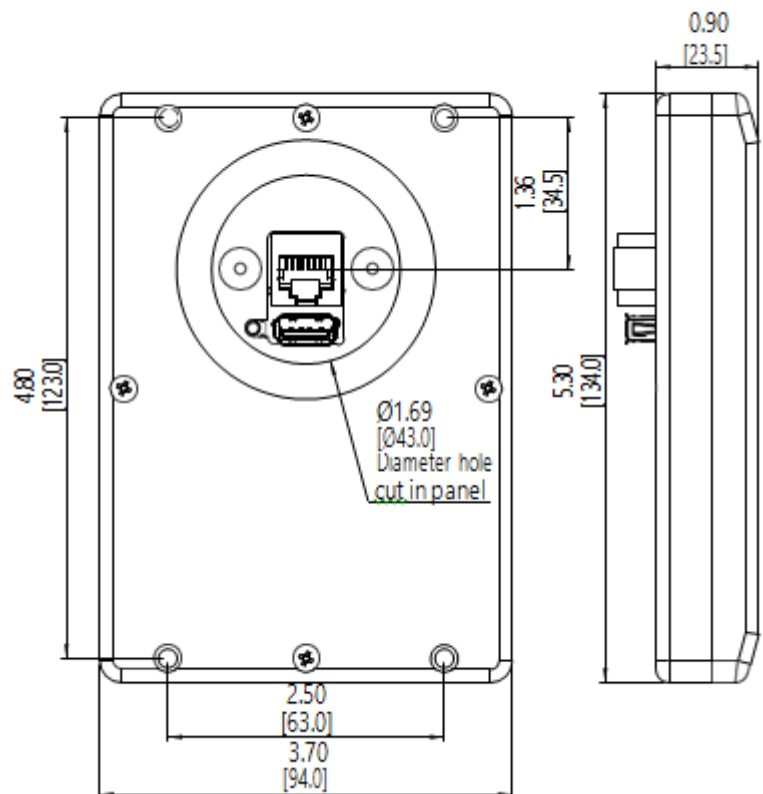
VMX-SGY-012 Installation Guide

Remote Keypad Setup – VMX-SGY-012

Introduction

The remote keypad (VMX-SGY-012) can be used to control, monitor and program up to 32 VMX-synergy™ soft starters.

The remote unit is powered from the host VMX-synergy™ and requires only an Ethernet cable for communication.

Installation

The remote keypad can only be used with the standard 'on-board' Modbus RTU connection. It cannot be used with Anybus modules.
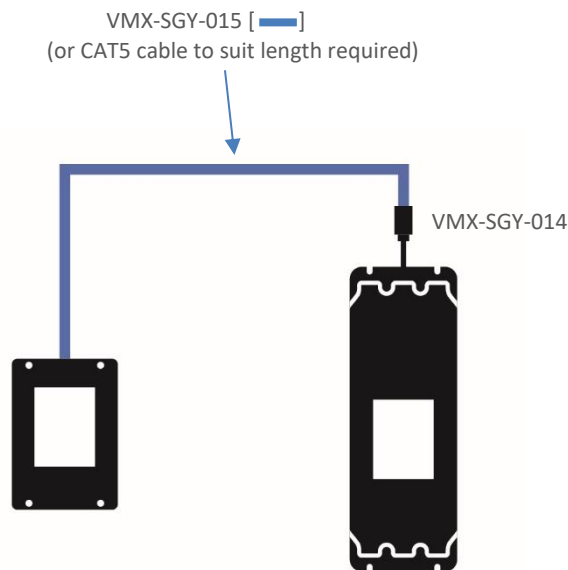
The remote touchscreen is a Modbus RTU master device. A PLC, HMI, or other Modbus Master device cannot be used on the same network while the remote touchscreen is connected.

Remote Keypad Setup (continued)
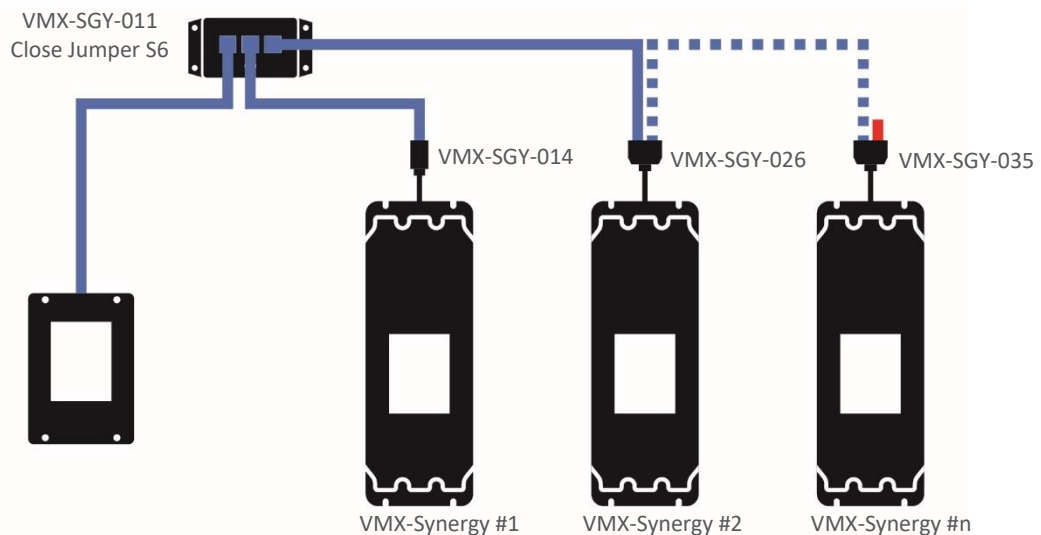
Network Connection

Keypad to one VMX-synergy™ unit.

For a configuration where there is only one VMX-synergy™ unit (one-to-one) the remote and main unit can be directly cabled. See diagram below:

VMX-SGY-015 [▬]
(or CAT5 cable to suit length required)

VMX-SGY-014

A RJ45 to RJ12 adaptor cable is available from Motortronics UK (part number VMX-SGY-014). The use of this adaptor is recommended to ease network installation and reduce the possibility of incorrect wiring.

Keypad to multiple VMX-synergy™ unit

For multiple base units connected to the keypad, the use of VMX-SGY-011 is highly recommended. See diagram below:

VMX-SGY-011
Close Jumper S6

VMX-SGY-014   VMX-SGY-026   VMX-SGY-035

VMX-Synergy #1   VMX-Synergy #2   VMX-Synergy #n

Remote Keypad Setup (continued)

Remote Keypad Operation

Ensure starter's Modbus Network Settings are: Even parity and 19200 baud rate. If connecting to multiple starters, set the Address to a unique number for each VMX-synergy™ starter.

If remote touchscreen start/stop control is desired, set the Control Method to Modbus Control. If the remote touchscreen will only be used for monitoring or configuration (digital input or local touchscreen start/stop control will be used), select the appropriate setting (Local Touchscreen, User Programmable, 2-wire control, or 3-wire control).

Connect remote touchscreen using the VMX-SGY-014 adapter (VMX-synergy™ end) and a standard Ethernet patch cable. If connecting to multiple starters, a Modbus splitter (VMX-SGY-011) will be required for the first starter. VMX-SGY-026 may be used for the remaining units

On the remote touchscreen go to Modbus Network Settings as shown in Fig 1. and select Scan Bus. This will show all the VMX-synergy™ starters on the bus (Fig 2). Select which starter you wish to connect to.

Alternatively, you can select the Address number and then select Connect to connect to that particular starter.

The status screen Fig 3 on the remote touchscreen will display the current starter it is connected to by displaying the starter's node address and serial number (Example: address 01 and serial number A0167805).

| Figure 1 | Figure 2 | Figure 3 |

The remote touchscreen's control for starting and stopping overrides the starter's onboard touchscreen when the starter's Control Method is set to Modbus Control. Menu navigation, configuration, and monitoring are still possible on the starter's touchscreen.

Press the starter icon box on the Status screen of the remote touchscreen to change to another starter if controlling multiple starters from one remote touchscreen.

When using the remote touchscreen for start/stop control the remote touchscreen has full control, configuration, and monitoring capabilities, while the local touchscreen on the starter only has configuration and monitoring capabilities. Digital outputs always function as programmed, regardless of Control Mode. Digital inputs are disabled during Modbus Control and Keypad Control Modes but are active during all other Control Modes.

The remote touchscreen can be used for monitoring and configuration during any other control method besides Modbus Control.