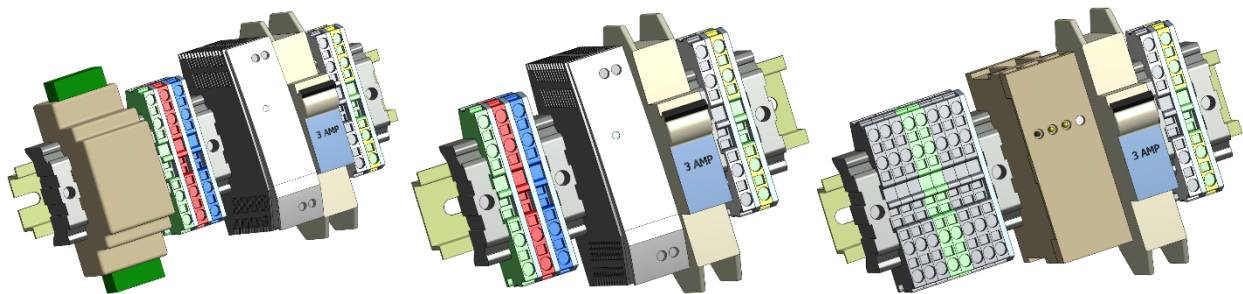


TS Series

TS... Serial Communication Kits for use with LMV3, LMV5, and RWF... Controls



Description

A TS... series serial communication kit connects a Siemens LMV linkageless control system to an SCC Master Lead/Lag Panel without a local touchscreen at each boiler.

The TS... serial kit communicates serially between each LMV linkageless control system and an SCC Master Lead/Lag Panel for up to eight boilers.

Features

- Serial RS485 Modbus interface to SCC Master Lead/Lag Panel
- Daisy chain via shielded cable between serial kits at each burner with LMV controls
- LMV3 or LMV5 serial RS485 communications

Application

TS... serial communication kits are suited for condensing boilers, steam boilers, and other applications utilizing an LMV3 or LMV5 linkageless control system without a local touchscreens at each boiler.

Components

TS... serial communication kits include the following components:

- 3 Amp circuit breaker
- 24 VDC power supply with TS-3X-KT or TS-3M-KT
- RS232 to RS485 converter with TS-5X-KT
- Field interconnecting terminals

Product Part Numbers

For communication kit part number identification only. See Table 1 for available part numbers.

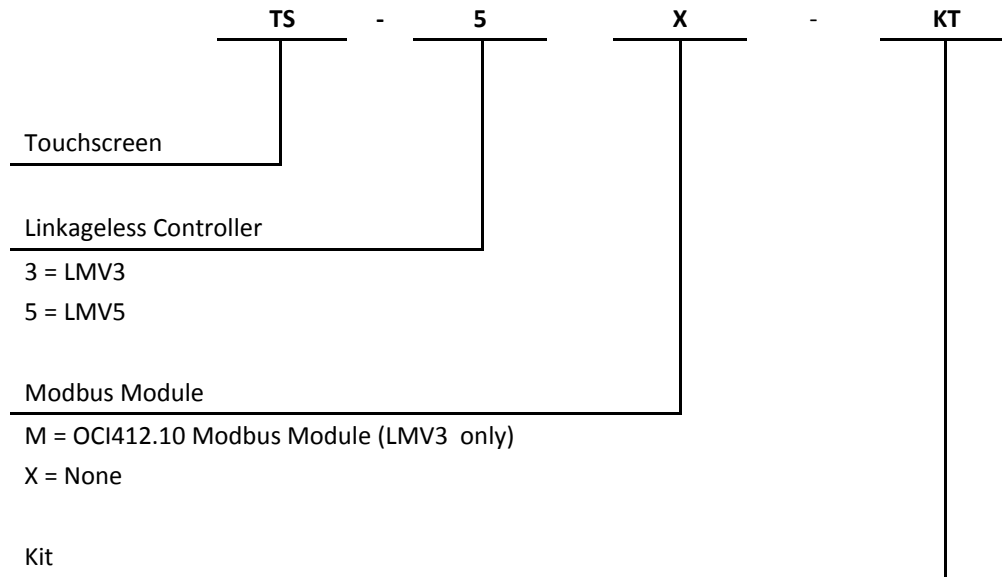


Table 1: Available Serial Communication Kits

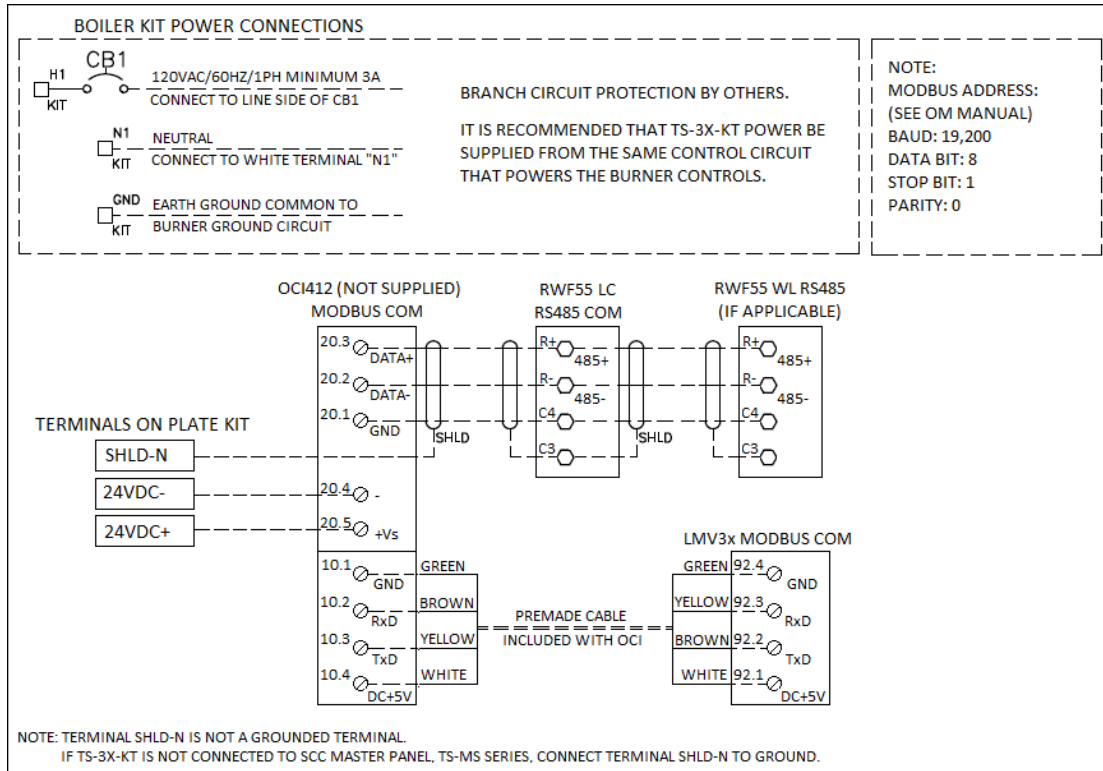
| Part Number | Connects to Linkageless System | | Modbus Module LMV3 | 24 VDC Power Supply |
|-------------|--------------------------------|------|--------------------|---------------------|
| | LMV3 | LMV5 | OCI412.10 | TS-PS-24VDC2.5A |
| TS-3X-KT | x | | | x |
| TS-3M-KT | x | | x | x |
| TS-5X-KT | | x | | |

Specifications

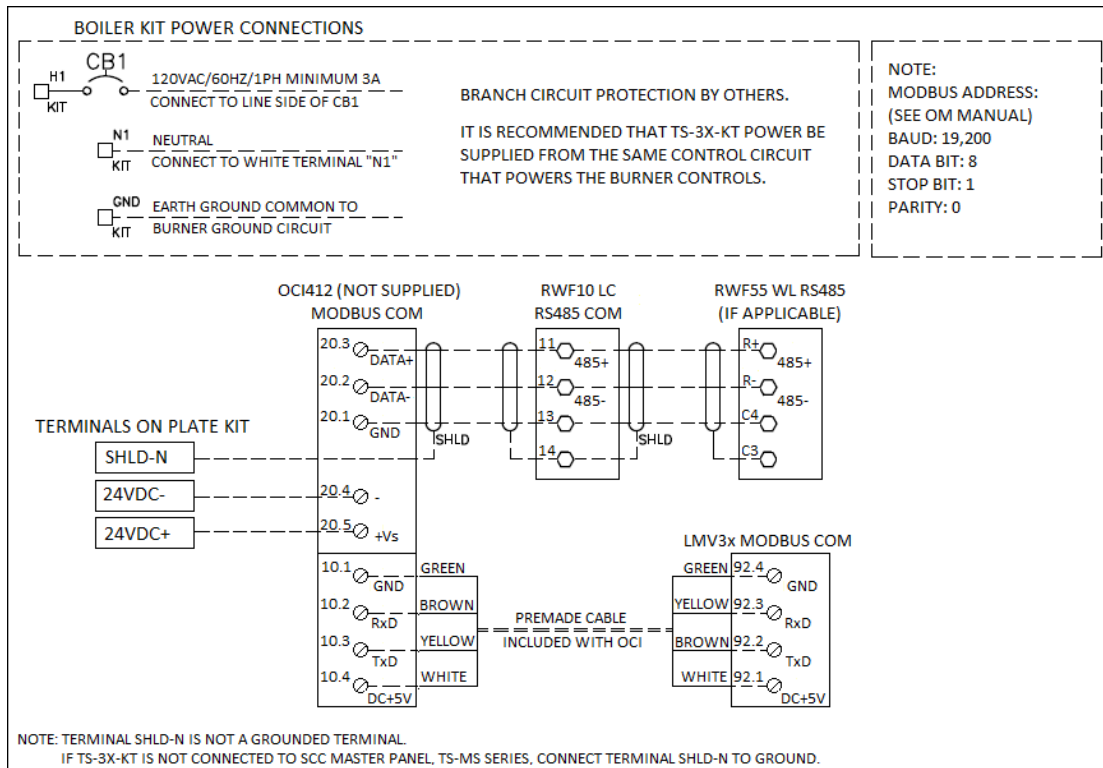
| | | TS-3X-KT, TS-3M-KT | TS-5X-KT |
|----------------------------|-----------------------------|-------------------------------|---------------------------------|
| Electrical characteristics | Main Operating Voltage | 120 VAC | 120 VAC |
| | Main Operating Frequency | 50 – 60 HZ | 50 – 60 HZ |
| | Component Operating Voltage | 24 VDC/VAC | 120 VAC |
| | Power Consumption | ≤ 60 VA | 5 VA max |
| Operating environment | Operating Temperature | 32 to 122 °F [0 to 50 °C] | -10 to 131 °F [-16 to 55 °C] |
| | Humidity | Max. 85% with no condensation | Max. 85% with no condensation |

Connections

TS-3X-KT with LMV3, RWF55 load controller (LC), and RWF55 for water level controller (WL)

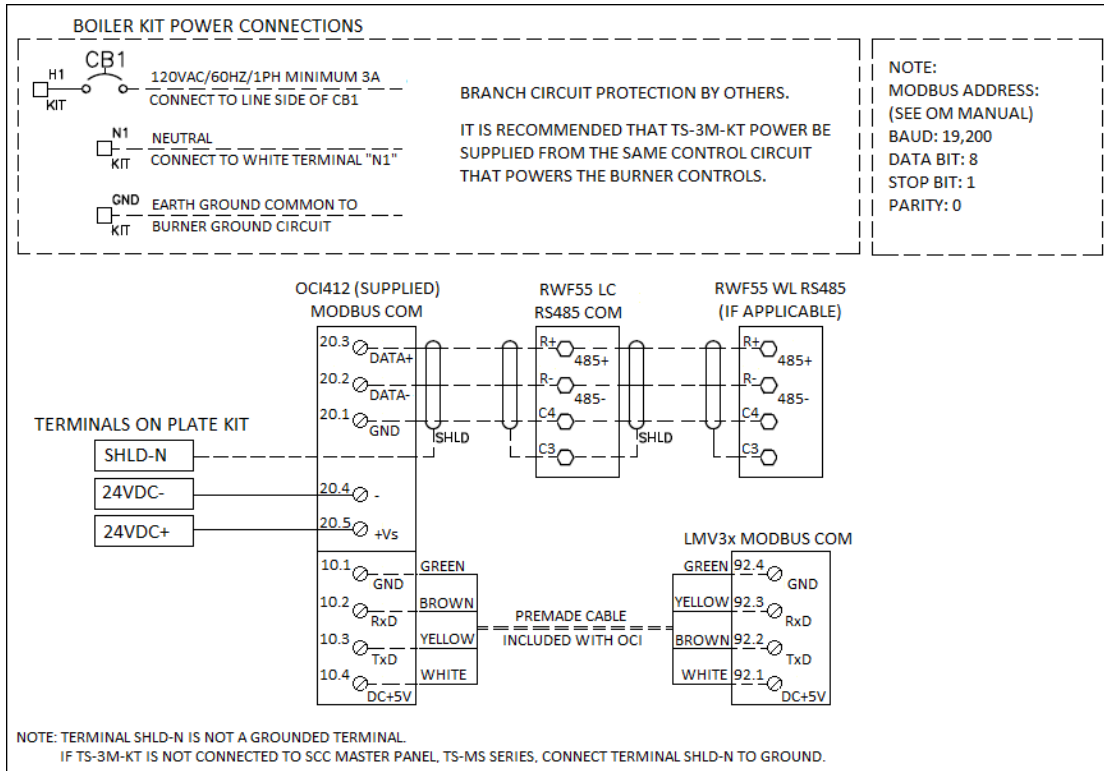


TS-3X-KT with LMV3, RWF10 load controller (LC), and RWF55 for water level controller (WL)

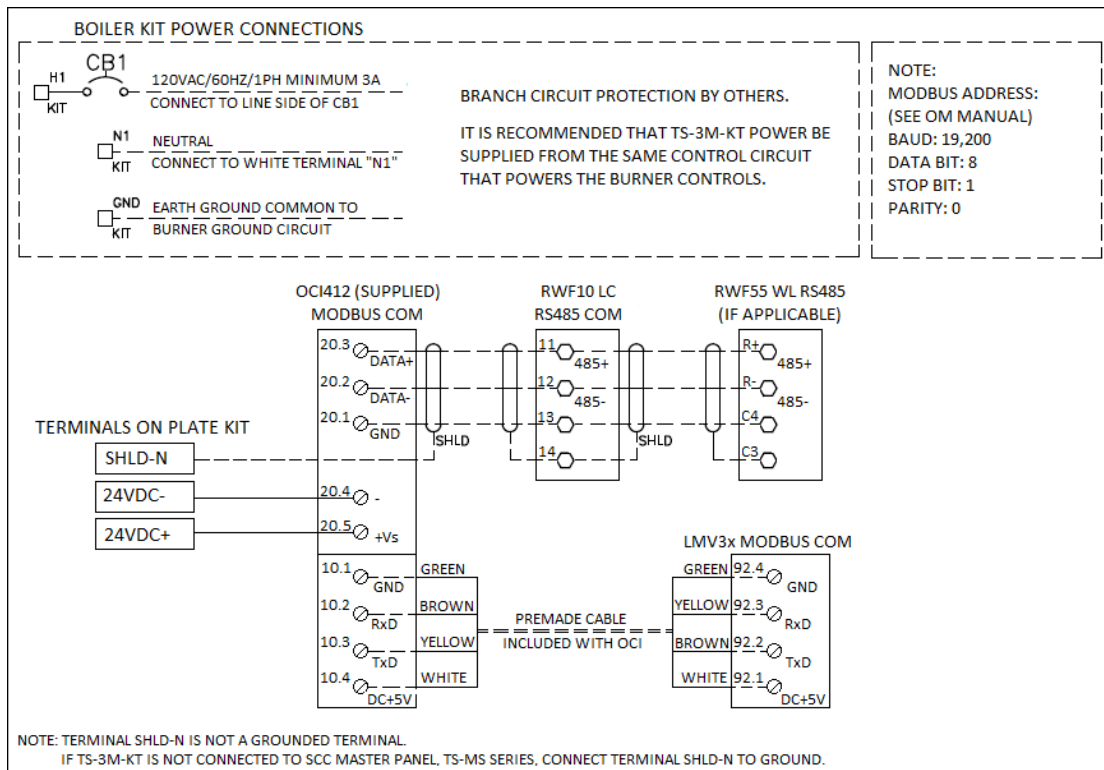


Connections (continued)

TS-3M-KT with LMV3, RWF55 load controller (LC), and RWF55 for water level controller (WL)

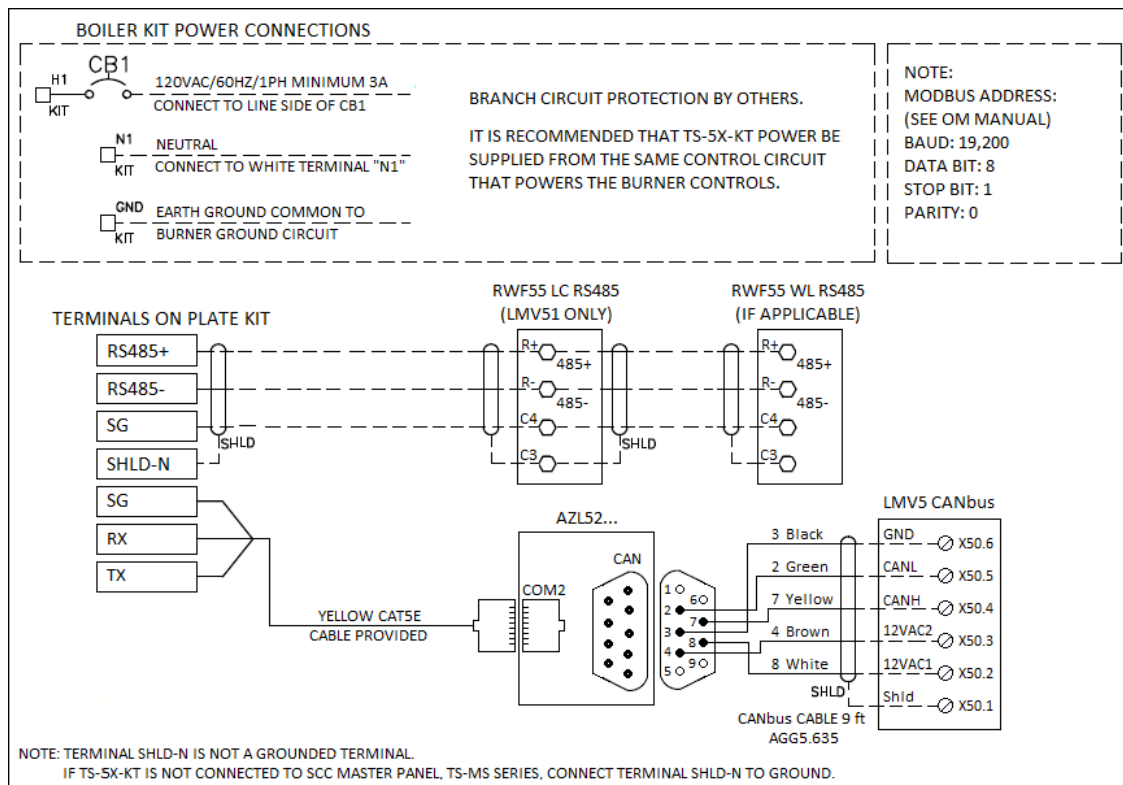


TS-3M-KT with LMV3, RWF10 load controller (LC), and RWF55 for water level controller (WL)



Connections (continued)

TS-5X-KT with LMV5, RWF55 load controller (LC), and RWF55 for water level controller (WL)



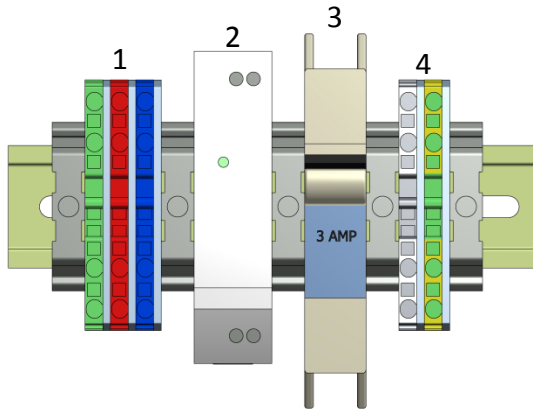
Note: For all RS-485 connections, use Belden Cable 3106A (multi-conductor cable with twisted pair, EIA Industrial RS-485 PLTC/COM) or equivalent.

Table 2: Belden Cable 3106A Wire Color Designation

| Electrical Diagram | Belden Cable 3106A |
|--------------------|--------------------|
| Red (RS485+) | Orange (RS485+) |
| Black (RS485-) | White (RS485-) |
| White (SG) | Blue (SG) |

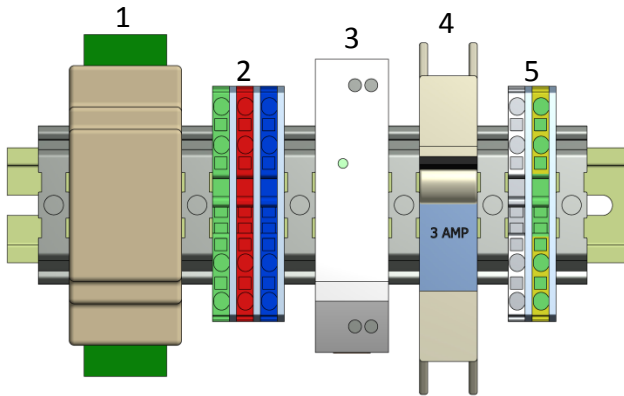
Parts Description

TS-3X-KT



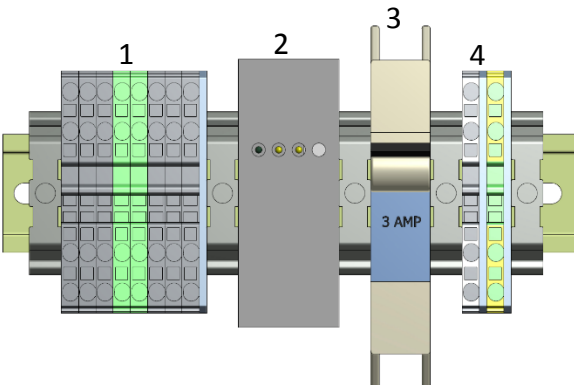
- 1- 24 VDC Terminals
- 2- 24 VDC Power Supply
- 3- 3 Amp Circuit Breaker
- 4- Neutral and Ground Power Terminals

TS-3M-KT



- 1- OCI Modbus RS485 Module
- 2- 24 VDC Terminals
- 3- 24 VDC Power Supply
- 4- 3 Amp Circuit Breaker
- 5- Neutral and Ground Power Terminals

TS-5X-KT

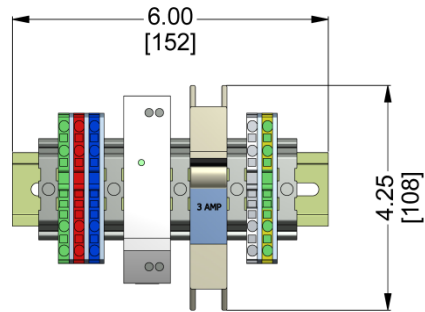


- 1- RS232-RS485 Modbus Interconnecting Terminals
- 2- Modbus Communication Module
- 3- 3 Amp Circuit Breaker
- 4- Neutral and Ground Power Terminals

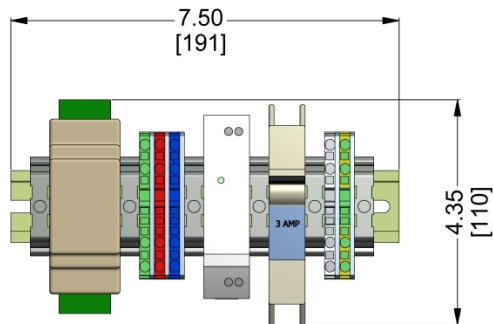
Dimensions

Dimensions in inches; millimeters in brackets

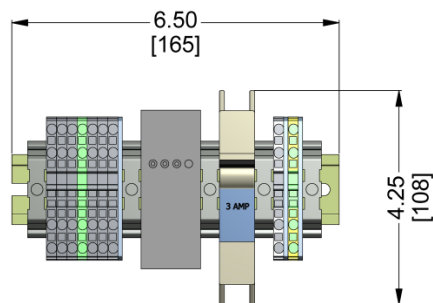
TS-3X-KT



TS-3M-KT



TS-5X-KT



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