

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
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Product Part Numbers

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

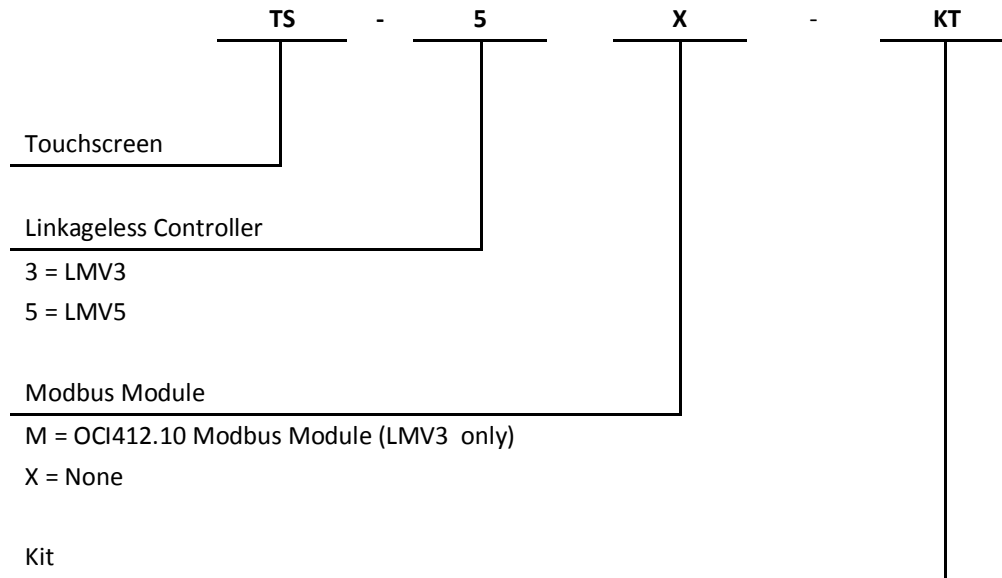


Table 1: Available Serial Communication Kits

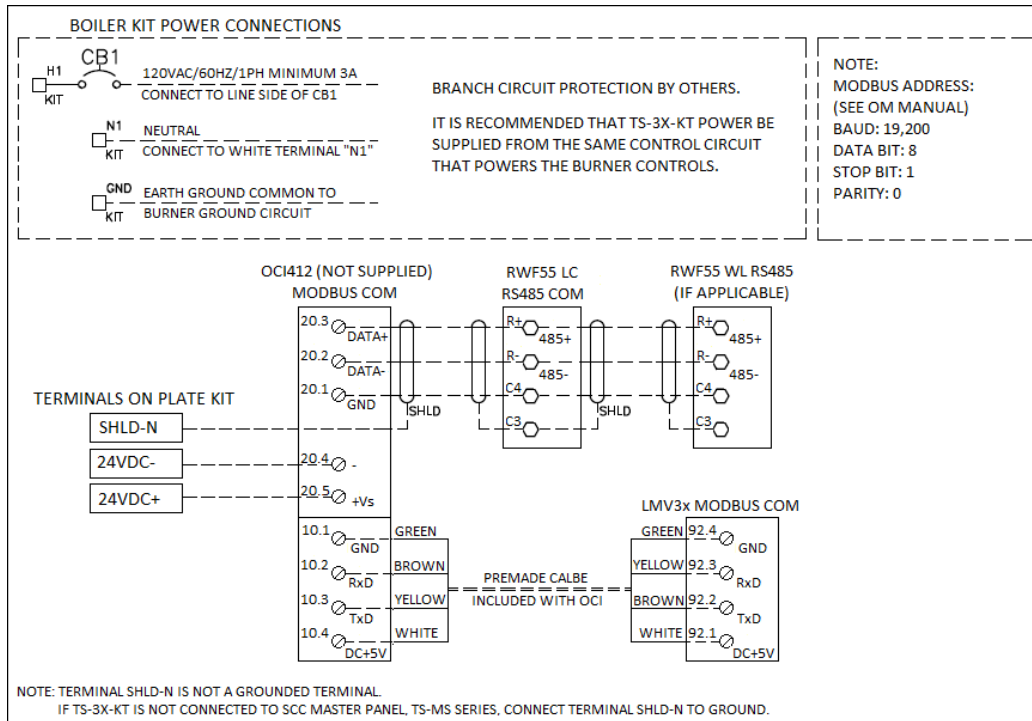
Part Number	Connects to Linkageless System		Modbus Module LMV3	24 VDC Power Supply
	LMV3	LMV5	OCI412.10	TS-PS-24VDC2.5A
TS-3X-KT	x			x
TS-3M-KT	x		x	x
TS-5X-KT		x		

Specifications

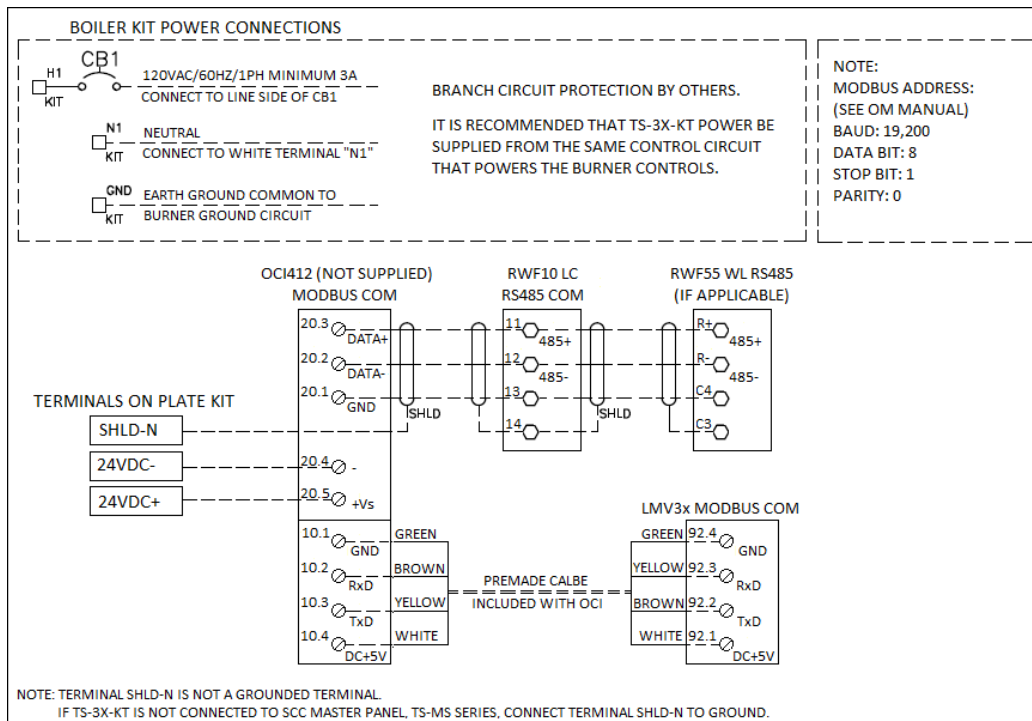
		TS-3X-KT, TS-3M-KT	TS-5X-KT
Electrical characteristics	Main Operating Voltage	120 VAC	120 VAC
	Main Operating Frequency	50 – 60 HZ	50 – 60 HZ
	Component Operating Voltage	24 VDC/VAC	120 VAC
	Power Consumption	≤ 60 VA	5 VA max
Operating environment	Operating Temperature	32 to 122 °F [0 to 50 °C]	-10 to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

Field Connections

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

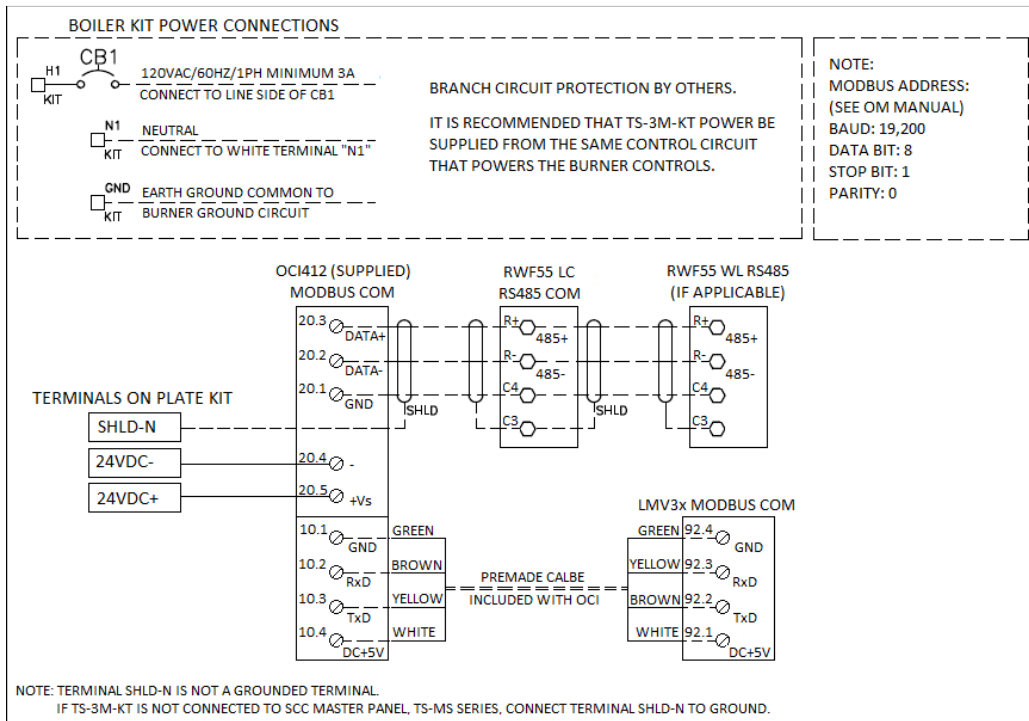


TS-3X-KT with LMV3, RWF10 load controller (LC), and RWF55 for water level controller (WL)

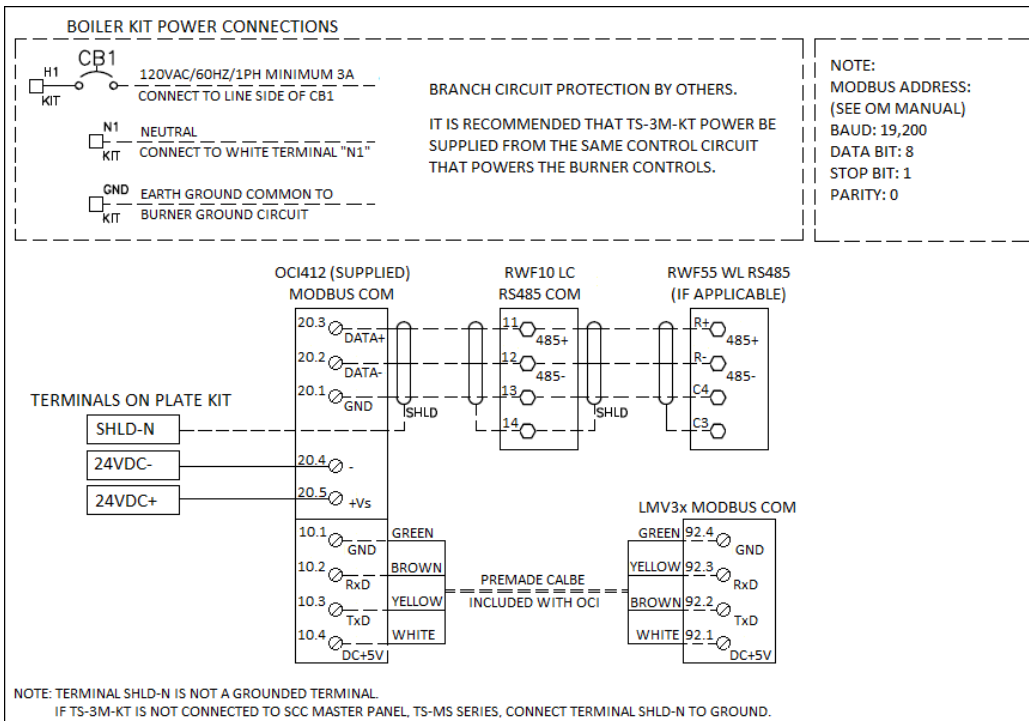


Field Connections (continued)

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

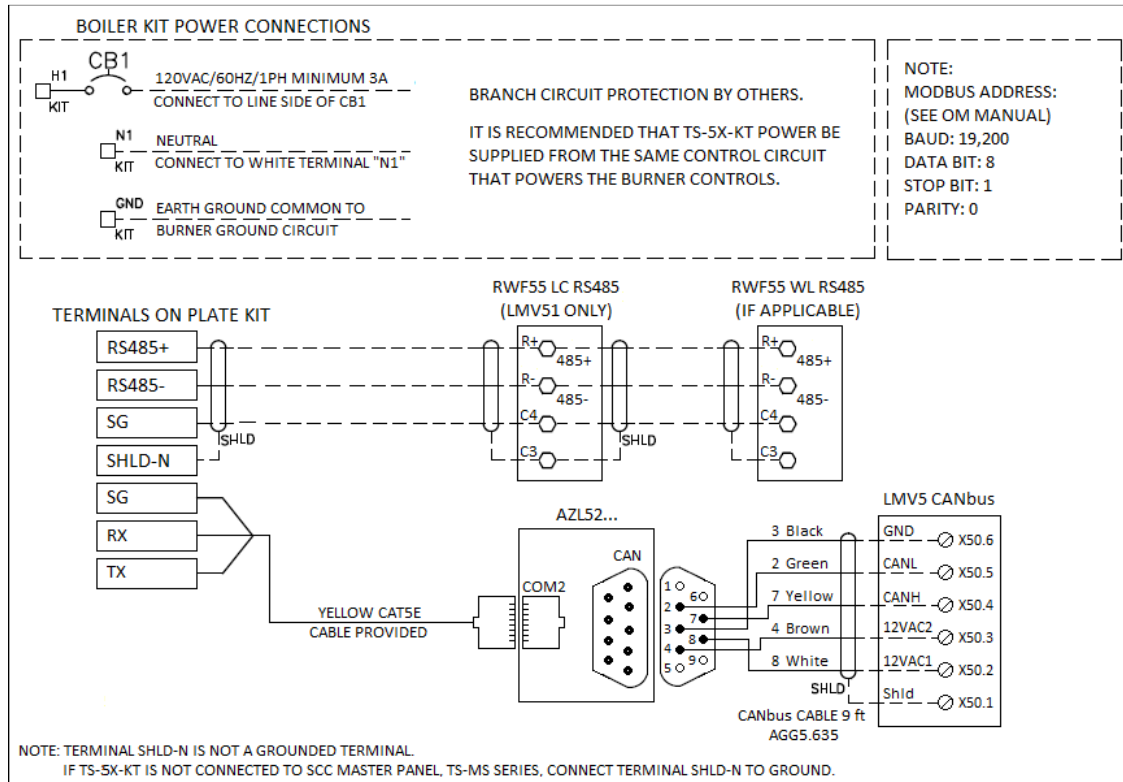


TS-3M-KT with LMV3, RWF10 load controller (LC), and RWF55 for water level controller (WL)



Field Connections (continued)

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



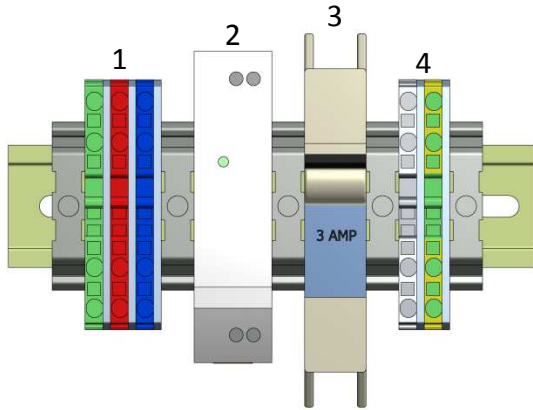
Note: For all RS-485 connections, use Belden Cable 3106A (multi-conductor cable with twisted pair, EIA Industrial RS-485 PLTC/COM) or equivalent.

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)

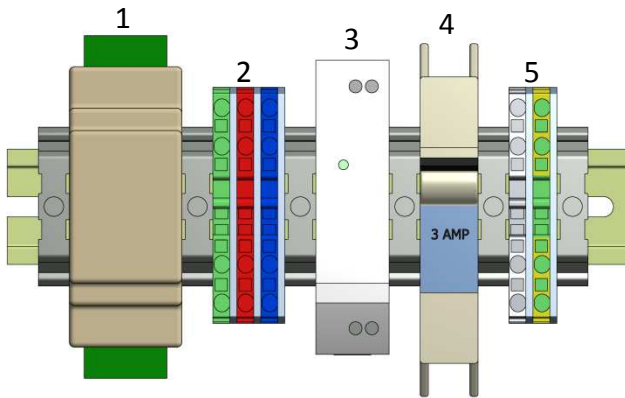
Parts Description

TS-3X-KT



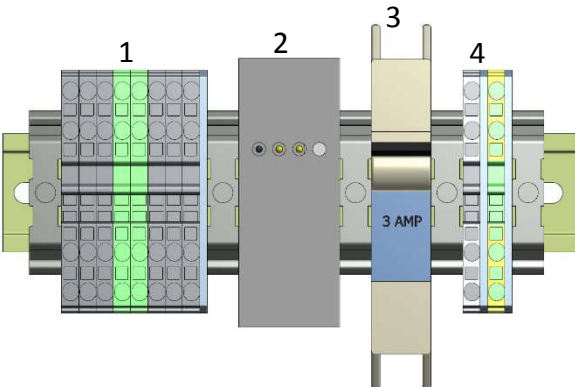
- 1- 24 VDC Terminals
- 2- 24 VDC Power Supply
- 3- 3 Amp Circuit Breaker
- 4- Neutral and Ground Power Terminals

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

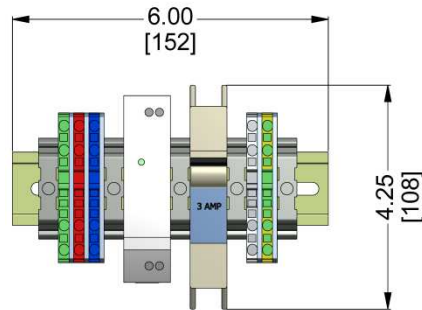


- 1- RS232-RS485 Modbus Interconnecting Terminals
- 2- Modbus Communication Module
- 3- 3 Amp Circuit Breaker
- 4- Neutral and Ground Power Terminals

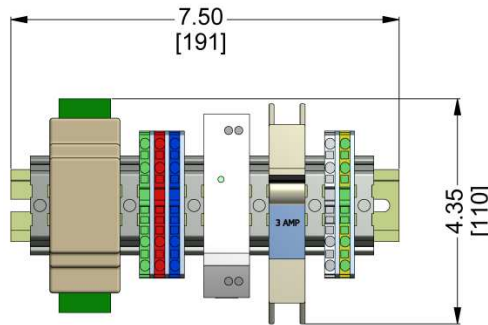
Dimensions

Dimensions in inches; millimeters in brackets

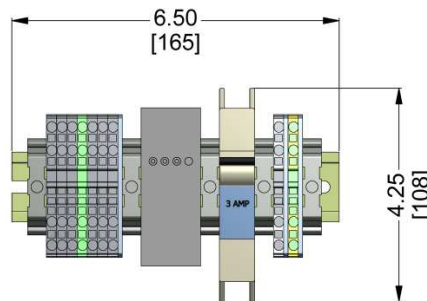
TS-3X-KT



TS-3M-KT



TS-5X-KT



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