PLC Connection Guide

TN541D

Communication Setup Between Parker Hannifin/Compax3 and PanelMaster HMI

Driver Name:C32001

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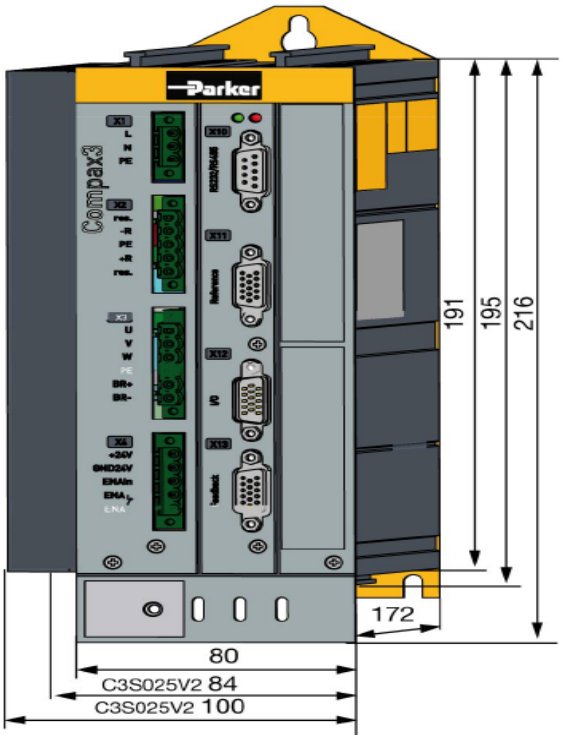
Preface

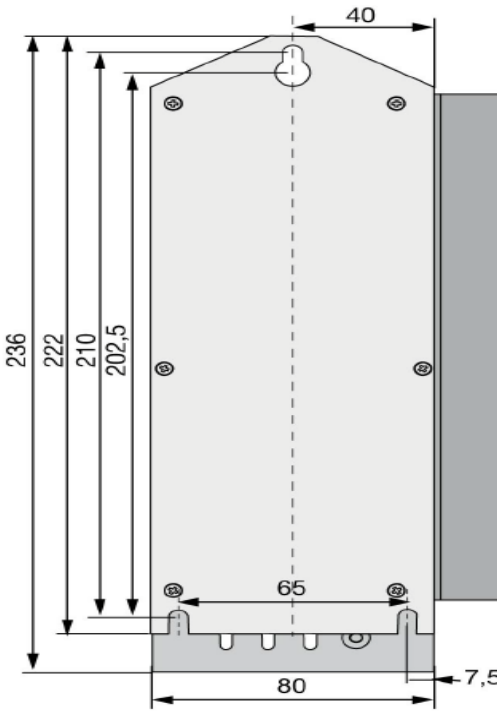
This technote is to explicate how to connect Parker Hannifin—Compax3 with PanelMaster HMI as well as the associated communication settings.

This technote goes for Parker Hannifin -Compax3. Take Compax3s as example.

Compax3 connectors

X1	AC Supply	X20	HEDA in (Option)	
X2	Ballast / DC power voltage	X21	HEDA out (Option)	
X3	Motor / Brake	X22	Inputs Outputs (Option M10/12)	
X4	24VDC / Enable	X23/ X24	Bus (Option)	Connector type depends on the bus system!
X10	RS232/RS485	S24	bus settings	
X11	Analog/Encoder	LED1	Device status LEDs	
X12	Inputs/Outputs	LED2	HEDA LEDs	
X13	Motor position feedback			





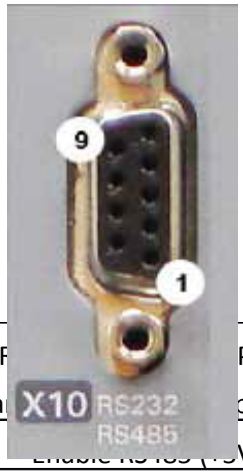
Controller Setup:

1) **Compax3 Controller Setup:**

甲、 **X10 communication port:**

Select RS232/485(2-wire/4-wire) for X10.

When you select RS485, pin 1 and 9 have to be short circuit.



乙、 **X10 pin**

PIN X10	RS232 (Sub D)	RS485 2-wire Sub D Pin 1 and 9 externally jumpered	Pin 1
1	(Enable RS232) 0V	Enable RS485 (+5V)	
2	RxD	res.	RxD
3	TxD	TxD_RxD/	TxD/
4	DTR	res.	res.
5	GND	GND	GND
6	DSR	res.	res.
7	RTS	TxD_RxD	TxD
8	CTS	res.	RxD/
9	+5V	+5V	+5V

丙、 **Address Setting**

1: 20; **2:** 21; **3:** 22; ... **7:** 26; **8:** reserved

Settings:

Left: OFF

Right: ON

Address Range: 1 ...127

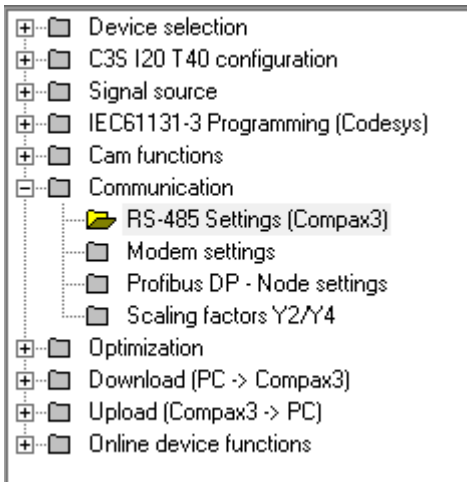
Address 0 is set internally to address 126.

2) **Compax3 Software Settings:**

3.1. Open Paker PIET and Compax3 to setup RS485 communication parameter. Please click RS485 settings (Compax3) and the parameters are 9600, 8, n, 1, two wire respectively.

Note: RS232 can communicate directly without the settings. (default parameters are

115200, 8, n, 1 respectively)



Overview	RS-485 Settings (Compax3)
Master	POP
Multicast Address	98
Device Address	1
Baud Rate	9600
Connection Type	Two wire
Parity	No
Stop bits	1
Data bits	8

3) **Connection Illustration: (HMI and Compax3)**

3.1 **RS232**

PV/PT COM 1 Compax3-X10

9-PIN D-Sub Male 9-PIN D-Sub Male

2 RS232 RXD ---------- 3 RS232 TXD

3 RS232 TXD ---------- 2 RS232 RXD

5 RS232 GND ---------- 5 RS232 GND

3.2 **RS485**

PV/PT COM 1 Compax3-X10

9-PIN D-Sub Male 9-PIN D-Sub Male

1 RS485 + ---------- 3 TxD_RxD/

6 RS485

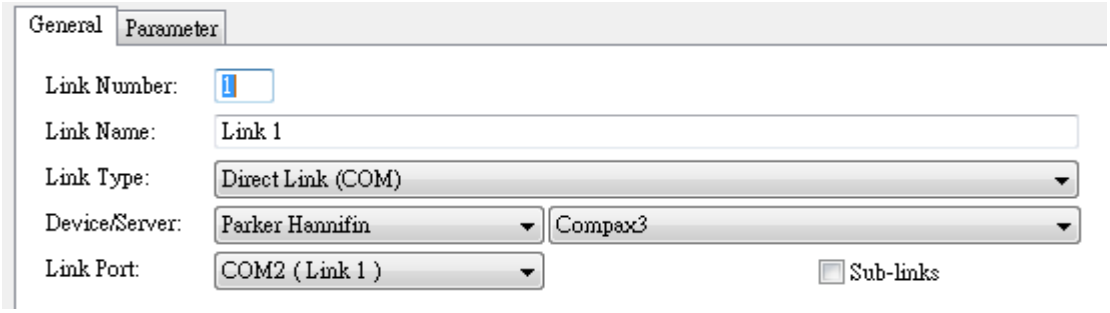
---------- 7 TxD_RxD

1

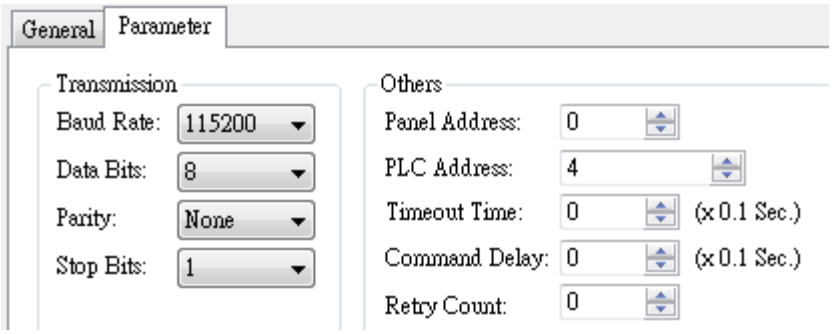
9

PM Designer Settings:

1. **Link Settings:**



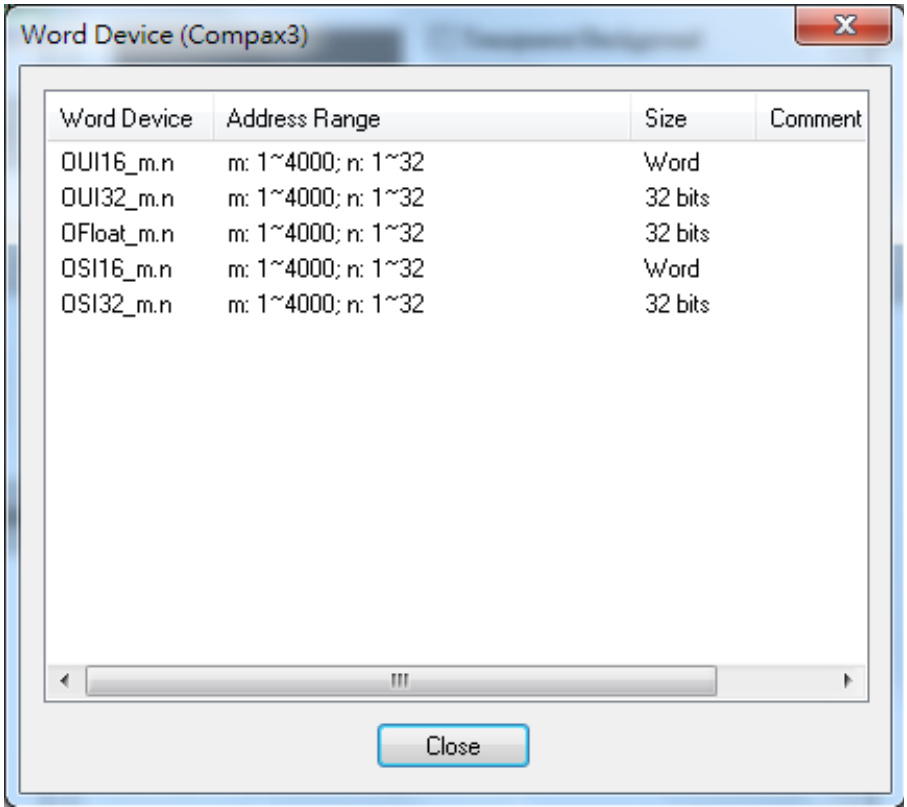
2. **Parameter Settings: The parameters settings need to be identical with the ones in PLC.**



In this illustration, we uses RS232/COM2 Address: 4

Note 1: RS232 can change communication parameters settings.

Note 2: RS485 has 2 connection type: 2-WIRE and 4-WIRE.
(change in Compax3 software)



3. **The following illustration are the word devices for HMI:**

4. **The following illustration are the bit devices for HMI:**