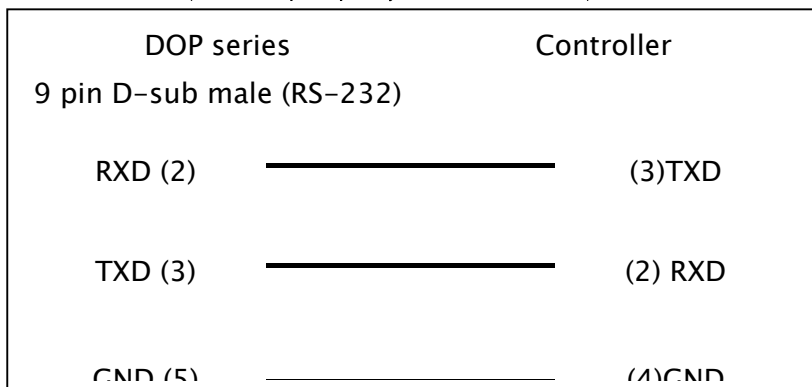# Emerson EC20 Series PLC

HMI Factory Setting:

Baud rate: 19200, 8, Even, 1

Controller Station Number: 1
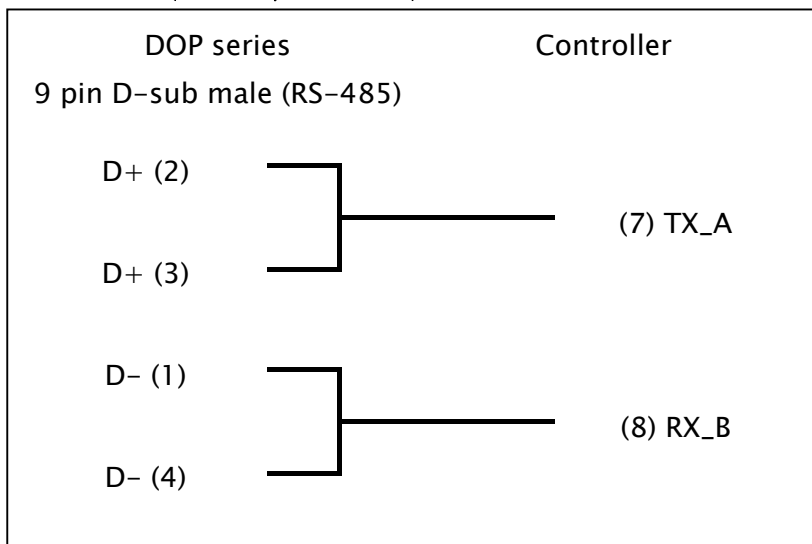
Control Area / Status Area: D0/D10

Connection

a. RS-232 (DOP-A/AE/AS, DOP-B Series)

DOP series   Controller

9 pin D-sub male (RS-232)

RXD (2) ————————————— (3)TXD

TXD (3) ————————————— (2) RXD

GND (5) ————————————— (4)GND

b. RS-485 (DOP-A/AE Series)

DOP series   Controller

9 pin D-sub male (RS-485)

D+ (2)

D+ (3) ————————————— (7) TX_A

D- (1)

D- (4) ————————————— (8) RX_B

c. RS-485 (DOP-AS57 Series)

DOP series   Controller

Terminal Block(RS-485)   (RS-485)

R+ ——————————————— (7) TX_A

R- ——————————————— (8) RX_B

GND ——————————————— (5) GND
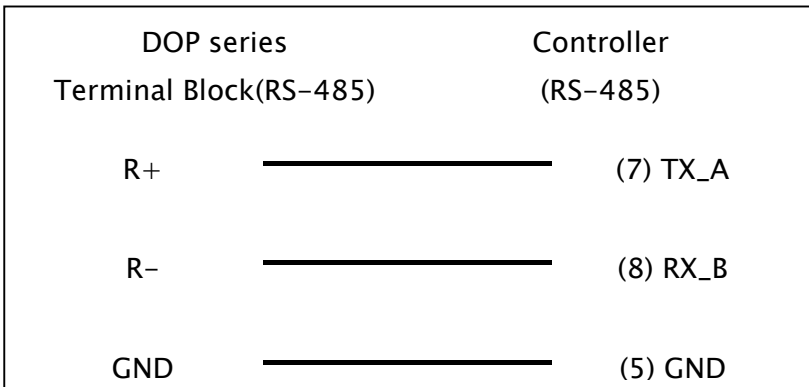
d. RS-485 (DOP-AS35/AS38 Series)

DOP series   Controller

Terminal Block (RS-485)   (RS-485)

R+

T+ ——————————————— (7) TX_A

R-

T- ——————————————— (8) RX_B

e. RS-485 (DOP-B series)

DOP series   Controller

9 pin D-sub male (RS-485)   (RS-485)

D+ (1) ——————————————— TX_A (7)

D- (6) ——————————————— RX_B (8)

GND (5) ——————————————— GND (4)
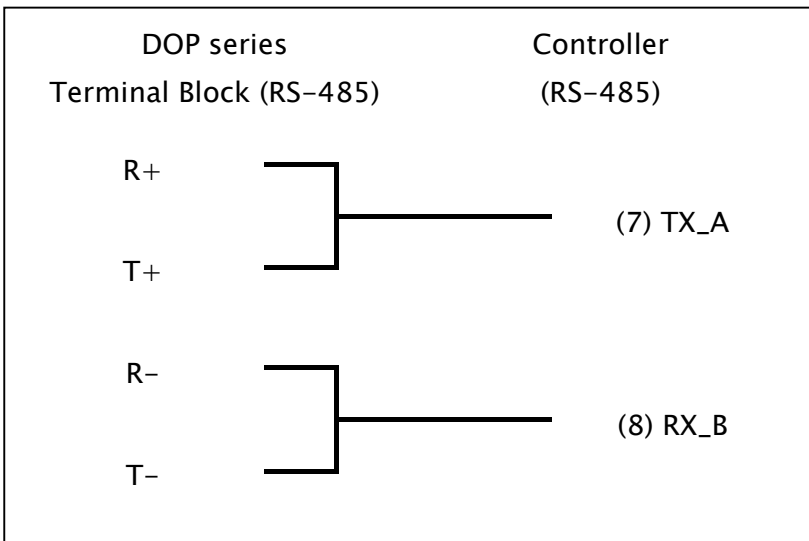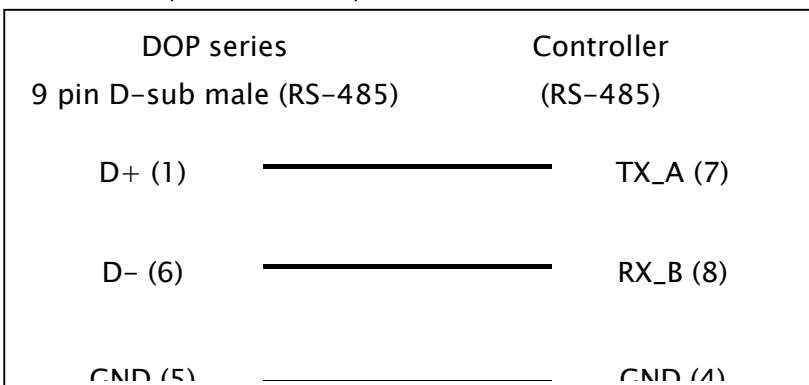
Definition of PLC Read/Write Address

a. **Registers**

Type	Format Word No. (n)	Read/Write Range	Data Length	Note
Data Word **D**	**D**n	**D**0 – **D**7999	Word	
Special Data Word **SD**	**SD**n	**SD**0 – **SD**255	Word	3
Data Word **Z**	**Z**n	**Z**0 – **Z**15	Word	
Timer **T**	**T**n	**T**0 – **T**255	Word	
Counter **C**	**C**n	**C**0 – **C**199	Word	
Double word Counter **CDW**	**CDW**n	**CDW**200 – **CDW**255	Double Word	
Double word Data Word **DDW**	**DDW**n	**DDW**0 – **DDW**7998	Double Word	

b. **Contacts**

Type	Format Bit No. (b)	Read/Write Range	Note
External Output Relay **Y**	**Y**b	**Y**0 – **Y**377	Octal
External Input Relay **X**	**X**b	**X**0 – **X**377	Octal
Internal Relay **M**	**M**b	**M**0 – **M**1999	
Special Internal Relay **SM**	**SM**b	**SM**0 – **SM**255	3
Status Relay **S**	**S**b	**S**0 – **S**991	
Timer **T**	**T**b	**T**0 – **T**255	
Counter **C**	**C**b	**C**0 – **C**255	

NOTE

1) Emerson EC20 series PLC has two communication ports, COM0 and COM1. They are provided for the communication protocol for connecting to PC, Modbus communication protocol and user-defined protocol. The default setting is COM0 to be enabled only, so the user needs to set the communication mode as Modbus RTU via PC software before using it.

2) COM1 supports RS-232 and RS-485.

3) Please note that not all of the addresses can be written when reading SM and SD device. We recommend the user not to set all of the addresses as write address except when setting parameters.