Modicon TSX NEZA (Uni-Telway)

HMI Factory Setting:

Baud rate: 9600, 8, Odd, 1

Controller Station Number: 2

Control Area / Status Area: %MW0 / %MW10
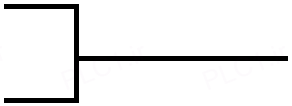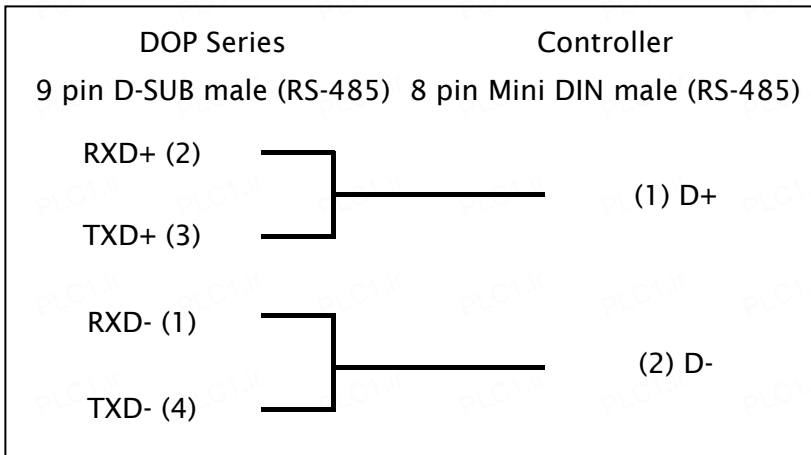
Connection

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

It requires specific TSX PCX1031 cable of Modicon Uni-Telway for wiring.

DOP Series	Controller
9 pin D-SUB (RS-232)	9 pin D-SUB male (RS-232)
RXD (2) —————————	(2) SD
TXD (3) —————————	(3) RD
GND (5) —————————	(5)SG

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

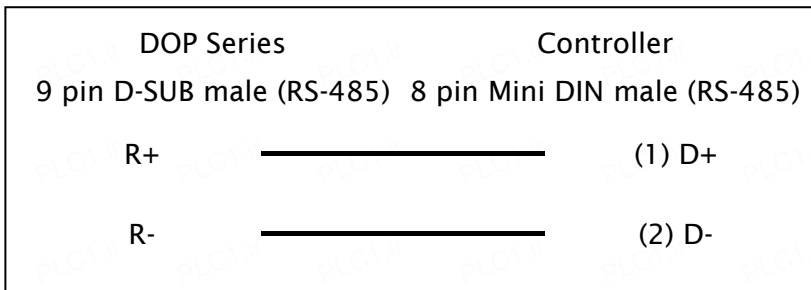| DOP Series	Controller
9 pin D-SUB male (RS-485)	8 pin Mini DIN male (RS-485)
RXD+ (2)	(1) D+
TXD+ (3)	
RXD- (1)	(2) D-
TXD- (4)	

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

DOP Series   Controller

9 pin D-SUB male (RS-485)   8 pin Mini DIN male (RS-485)

RXD+ (2)

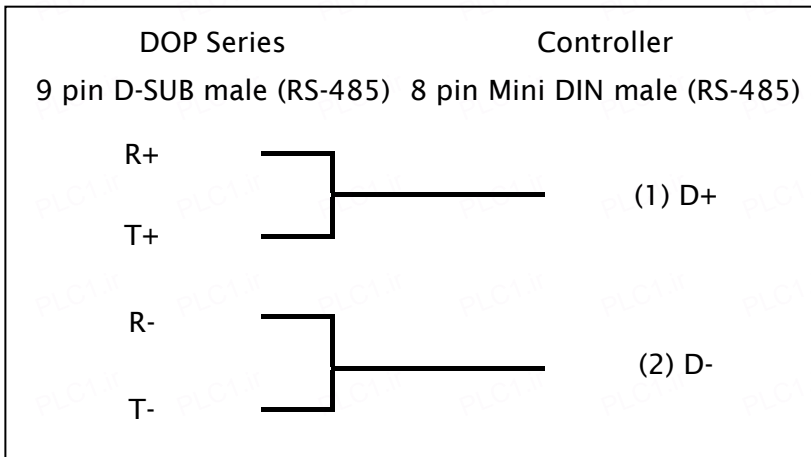TXD+ (3)   (1) D+

RXD- (1)

TXD- (4)   (2) D-

d. RS-485 (DOP-AS57 Series)

DOP Series   Controller

9 pin D-SUB male (RS-485)   8 pin Mini DIN male (RS-485)

R+   (1) D+

R-   (2) D-

e. RS-485 (DOP-AS35/AS38 Series)

DOP Series   Controller

9 pin D-SUB male (RS-485)   8 pin Mini DIN male (RS-485)

R+

T+   (1) D+

R-
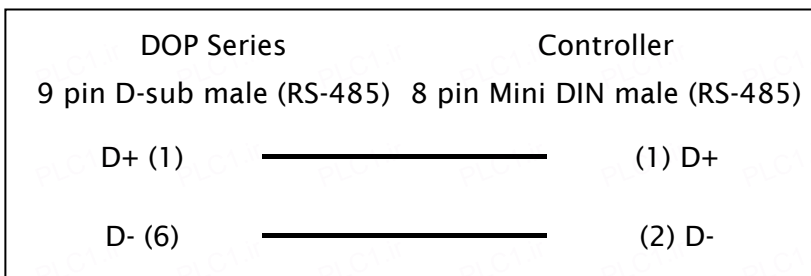
T-   (2) D-

f. RS-485 (DOP-B Series)

DOP Series   Controller

9 pin D-sub male (RS-485)   8 pin Mini DIN male (RS-485)

D+ (1)   (1) D+

D- (6)   (2) D-

Definition of PLC Read/Write Address

a. Registers

Type	Format Word No. (n)	Read/Write Range	Data Length	Note
WORD_DEVICE_ Internal	%MWn	%MW0 – %MW65534	Word	6
WORD_DEVICE_ System	%SWn	%SW0 – %SW127	Word	
WORD_DEVICE_ Input	%KWn	%KW0 – %KW65534	Word	Read only

b. Contacts

Type	Format Word No. (n) Bit No. (b)	Read/Write Range	Note
BIT_DEVICE_ Internal	%Mn:b	%M0:0 – %M65534:15	4, 6
BIT_DEVICE_ System	%Sb	%S0 – %S127	
BIT_DEVICE_ Internal1	%Mb	%M0 – %M65534	5

NOTE

1) HMI Station needs to be in range of 1 – 8.

2) PLC station number can be the same as HMI station number.

3) Internal memory of PLC and other relative parameters must be set up first or only %S will function, others will not be able to communicate.

4) **%M**n:b is the Bit address that corresponds to WORD_DEVICE_ Internal (**%MW**n).

5) **%M**b is the internal Relay address of PLC.

6) The read/write range of WORD_DEVICE_ Internal / BIT_DEVICE_ Internal depends on the used memory space of PLC.

7) The differences between **Modbus Slave** and **Uni-Telway Slave** mode:

When PLC is in **Modbus Slave** mode	When PLC is in **Uni-Telway Slave** mode
The following drivers are all available for use. 1. Modicon / TWIDO 2. Modbus / 984 RTU (Master) 3. Modbus / 984 RTU (Master, 6 Digits) 4. Modbus / RTU Hex Address (Master)	To increase communication efficiency: 1. Select <u>TSX NEZA (Uni-Telway)</u> when reading and writing only one word of %MW data for one time communication. 2. Select <u>TSX (Uni-Telway)</u> when reading and writing up to 30 words of %MW data for one time communication and there are more than two PLCs and HMIs connected. 3. Select <u>TSX (1-1 Uni-Telway)</u> when reading and writing up to 30 words of %MW data for one time communication and there are one PLC and one HMI connected.