MKS BY125 Low Cost Synchrocontroller
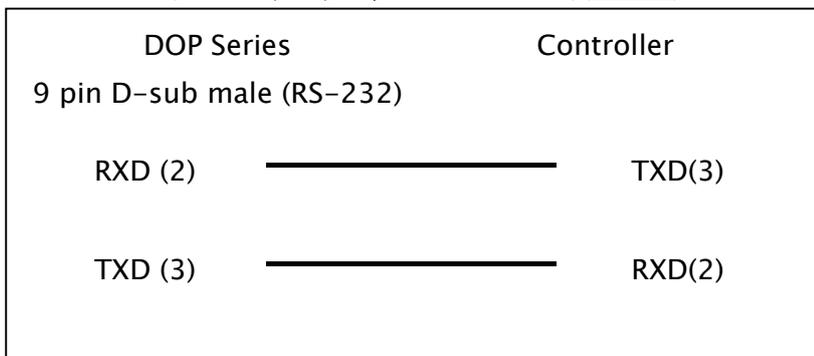
HMI Factory Setting:

Baud rate: 9600, 7, Even, 1

Controller Station Number: 11(Note1)
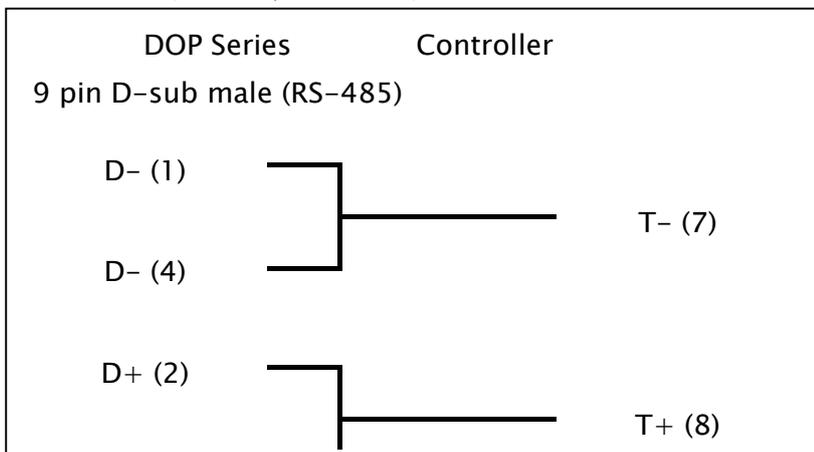
Control Area / Status Area: None/None
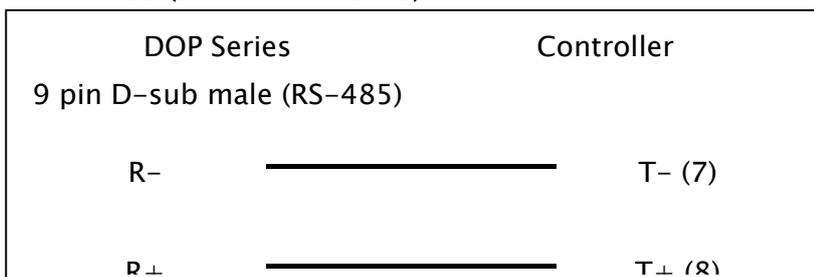
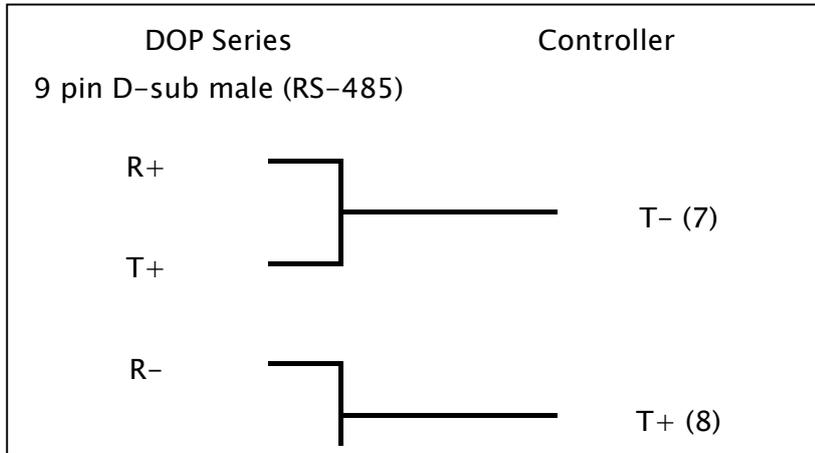## Connection

a. RS-232 (DOP-A/AE/AS, DOP-B Series)(Note2)

```
        DOP Series                    Controller
  9 pin D-sub male (RS-232)


       RXD (2)      ——————————        TXD(3)


       TXD (3)      ——————————        RXD(2)
```

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

```
        DOP Series          Controller
  9 pin D-sub male (RS-485)


        D- (1) ┐
               ├————————         T- (7)
        D- (4) ┘


        D+ (2) ┐
               └————————         T+ (8)
```

c. RS-485 (DOP-AS57 Series)

```
        DOP Series                    Controller
  9 pin D-sub male (RS-485)


         R-       ——————————         T- (7)


         R+       ——————————         T+ (8)
```

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

e. RS-485 (DOP-B Series)
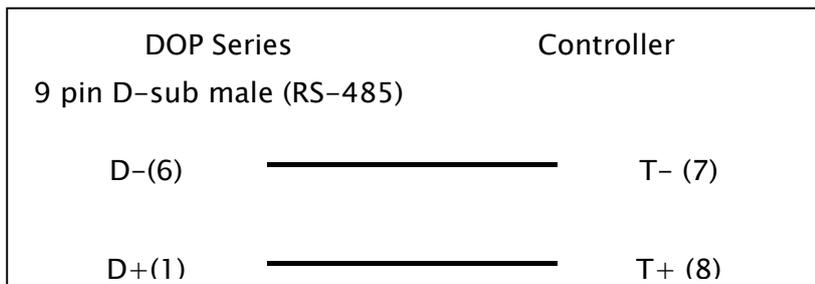
Definition of PLC Read/Write Address

a. Registers

Type	Format Word No.(n)	Read/Write Range	Data Length	Note
Data In Register / Setup Register	Cn	C0 – C17, C40 – C41, C45 – C48, C50, C90 – C92	Double Word	3
Synchronizing (Differential Counter)	SYN_ERRn	SYN_ERR0	Double Word	
Integration register	IRn	IR0	Double Word	
Actual Master speed	MAS_SPDn	MAS_SPD0	Double Word	

b. Contacts

Type	Format Bit No.(n)	Read/Write Range	Note
Reset	RSTb	RST0	
Jog Trim+	JOGTRIM_INCb	JOGTRIM_INC0	

Jog Trim-	**JOGTRIM_DEC**b	**JOGTRIM_DEC**0	
Activate Data	**ACT_DATA**b	**ACT_DATA**0	4

Type	Format	Read/Write Range	Note
	Bit No.(n)		
Store EEPROM	**STR_EEPROM**b	**STR_EEPROM**0	
Index Slave	**IND_SLA**b	**IND_SLA**0	
Index Master	**IND_MAS**b	**IND_MAS**0	

NOTE

1) The valid station number is in the range of 11 to 99. The station number 20, 30, 40, 50, 60, 70, 80, 90 are broadcast station number.

    00 for all broadcast

    10 for broadcast range from 11 to 19

    20 for broadcast range from 21 to 29

    … and so on

The broadcast function is not yet available, therefore do not use broadcast station number.

2) Please be aware RS-232 can only be connected to pin2, pin3 and pin5. Pin 9 is for +5V. DO NOT use pin 9 or serious damage may occur.

3) The effective addresses of Cn are not consecutive (5 blocks: C0~17, C40~41, C45~C48, C50, C90~C92). When setting the addresses, do not exceed the block range. For example, when using a Numeric Entry or Character Entry element, if the address is C15, the data length can only be 6 Words(for C15, C16, C17). A data length exceed 6 words would occupy other address setting except C0 ~ C17, in this case, an error may occur.

4) The received value of the device will not change even when all register address is written in. The user needs to press ACT_DATA0 again for value be updated.