Mitsubishi Q Series Computer Link　(3C Frame)

HMI Factory Setting:

Baud rate: 19200, 8, Odd, 1
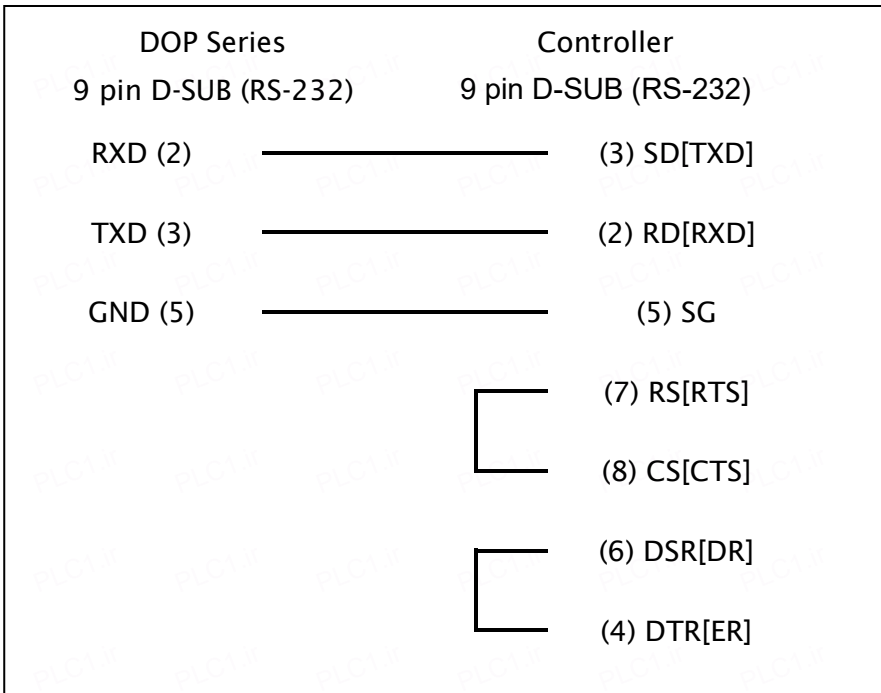
Controller Station Number: 0

Control Area / Status Area: D0 / D10

Applicable models: DOP-B / DOP-W / DOP-H / HMC series、DOP-100

Connection

a. RS-232

DOP Series 9 pin D-SUB (RS-232)		Controller 9 pin D-SUB (RS-232)
RXD (2)	————————	(3) SD[TXD]
TXD (3)	————————	(2) RD[RXD]
GND (5)	————————	(5) SG
		(7) RS[RTS]
		(8) CS[CTS]
		(6) DSR[DR]
		(4) DTR[ER]

b. RS-422

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        DOP Series              Controller
    9 pin D-SUB (RS-422)       QJ71C24N, CH2

       RXD+ (4) ──────────────── (1) SDA

       RXD- (9) ──────────────── (3) SDB

       TXD+ (1) ──────────────── (5) RDA

       TXD- (6) ──────────────── (7) RDB

        GND (5) ──────────────── (2) SG
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c. RS-485

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        DOP Series              Controller
    9 pin D-SUB (RS-485)       QJ71C24N, CH2

                              ┌───── (1) SDA

       TXD+ (1) ──────────────┴───── (5) RDA

                              ┌───── (3) SDB

       TXD- (6) ──────────────┴───── (7) RDB

        GND (5) ──────────────────── (2) SG
```

Definition of PLC Read/Write Address

a. Registers

Type	Format Word No. (n)	Read/Write Range	Data Length	Note
Input	**X**-n	**X**-0 – **X**-1FFF	Word	Hexadecimal, [2]
Output	**Y**-n	**Y**-0 – **Y**-1FFF	Word	Hexadecimal,

Type	Format	Read/Write Range	Data Length	Note
	Word No. (n)			[2]
Direct Input	DX-n	DX-0 – DX-1FFF	Word	Hexadecimal, [2]
Direct Output	DY-n	DY-0 – DY-1FFF	Word	Hexadecimal, [2]
Latch Relay	L-n	L-0 – L-32767	Word	[2]
Annunciator	F-n	F-0 – F-32767	Word	[2]
Edge Relay	V-n	V-0 – V-32767	Word	[2]
Step Relay	S-n	S-0 – S-8191	Word	[2]
Link Relay	B-n	B-0 – B-7FFF	Word	Hexadecimal, [2]
Special Link Relay	SB-n	SB-0 – SB-7FF	Word	Hexadecimal, [2]
Internal Relay	M-n	M-0 – M-32767	Word	[2]
Special Internal Relay	SM-n	SM-0 – SM-2047	Word	[2]
Timer Value	TN-n	TN-0 – TN-23087	Word	
Retentive Timer Value	SN-n	SN-0 – SN-23087	Word	
Counter Value	CN-n	CN-0 – CN-23087	Word	
Data Register	D-n	D-0 – D-45055	Word	
Special Data Register	SD-n	SD-0 – SD-2047	Word	
Index Register	Z-n	Z-0 – Z-19	Word	
File Register	R-n	R-0 – R-32767	Word	
File Register	ZR-n	ZR-0 – ZR-65535	Word	[4]
		ZR-0 – ZR-FFFF	Word	Hexadecimal, [4]
Link Register	W-n	W-0 – W-657F	Word	Hexadecimal
Special Link Register	SW-n	SW-0 – SW-7FF	Word	Hexadecimal

b. Contacts

Type	Format	Read/Write Range	Note
	Bit No. (b)		
Input	X-b	X-0 – X-1FFF	Hexadecimal
Output	Y-b	Y-0 – Y-1FFF	Hexadecimal
Direct Input	DX-b	DX-0 – DX-1FFF	Hexadecimal
Direct Output	DY-b	DY-0 – DY-1FFF	Hexadecimal
Latch Relay	L-b	L-0 – L-32767	

Type	Format	Read/Write Range	Note
	Bit No. (b)		
Annunciator	**F**-b	**F**-0 – **F**-32767	
Edge Relay	**V**-b	**V**-0 – **V**-32767	
Step Relay	**S**-b	**S**-0 – **S**-8191	
Link Relay	**B**-b	**B**-0 – **B**-7FFF	Hexadecimal
Special Link Relay	**SB**-b	**SB**-0 – **SB**-7FF	Hexadecimal
Internal Relay	**M**-b	**M**-0 – **M**-32767	
Special Internal Relay	**SM**-b	**SM**-0 – **SM**-2047	
Timer Contact	**TS**-b	**TS**-0 – **TS**-23087	
Timer Coil	**TC**-b	**TC**-0 – **TC**-23087	
Retentive Timer Contact	**SS**-b	**SS**-0 – **SS**-23087	
Retentive Timer Coil	**SC**-b	**SC**-0 – **SC**-23087	
Counter Contact	**CS**-b	**CS**-0 – **CS**-23087	
Counter Coil	**CC**-b	**CC**-0 – **CC**-23087	
Data Register	**D**-n.b	**D**-0.0 – **D**-45055.15	
File Register	**R**- n.b	**R**-0.0 – **R**-32767.15	
File Register	**ZR**-n.b	**ZR**-0.0 – **ZR**-32768.15	4
		ZR-0.0 – **ZR**-7FFF.F	Hexadecimal, 4
Link Register	**W**-n.b	**W**-0.0 – **W**-1FFF.F	Hexadecimal

1) If the baud rate is incorrect, HMI will set PLC baud rate as HMI baud rate automatically.

2) The device address must be the multiple of 16.

3)   It can set Format Type on "DopSoft → Communication Setting → Com port → Extra", default is "Type 4".
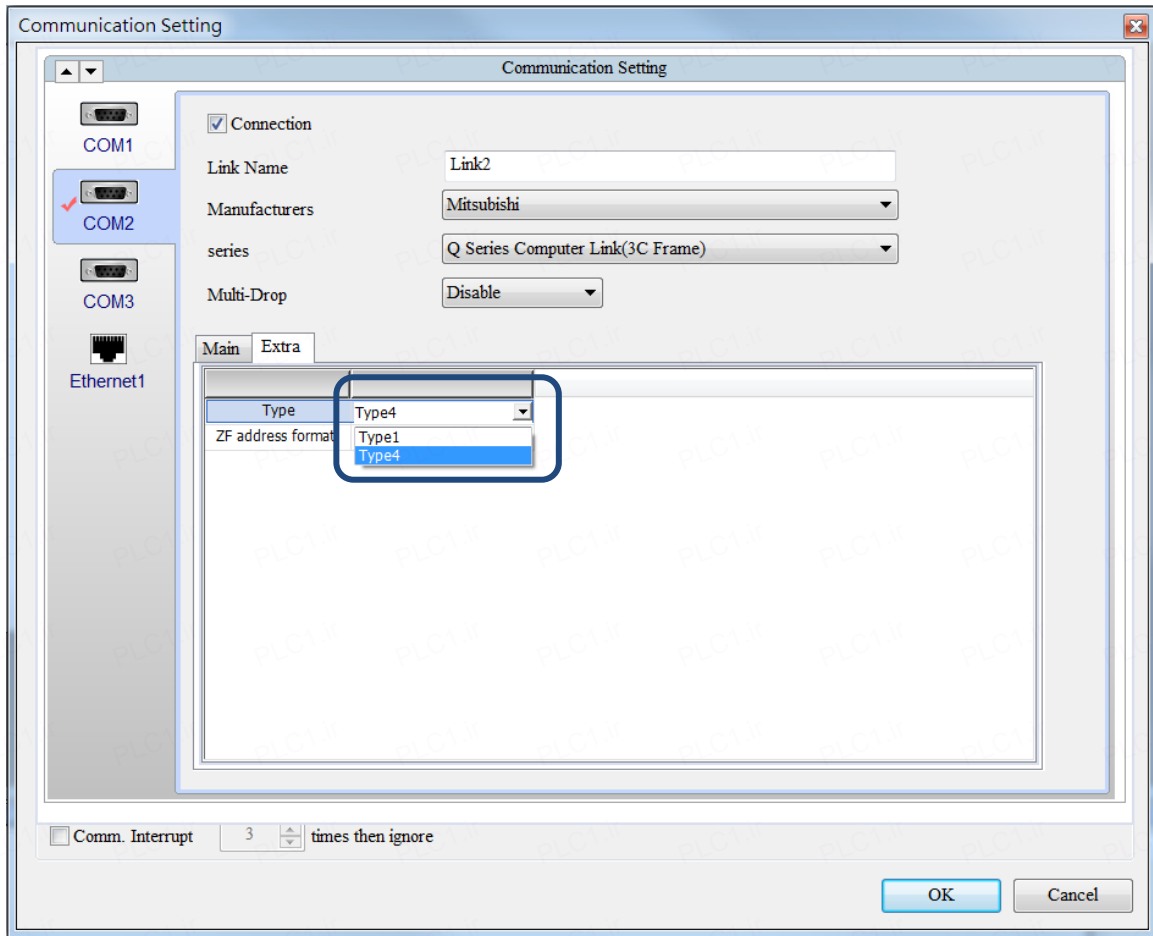
4) This controller supports both hexadecimal /decimal format for File Register **ZR**, it can be done through set extra parameter in "DopSoft → Communication Setting → Com port → Extra → ZF address format", default value is hexadecimal.