

# Weintek Remote IO (CANopen)

Supported series: Weintek Remote IO (iR-COP)

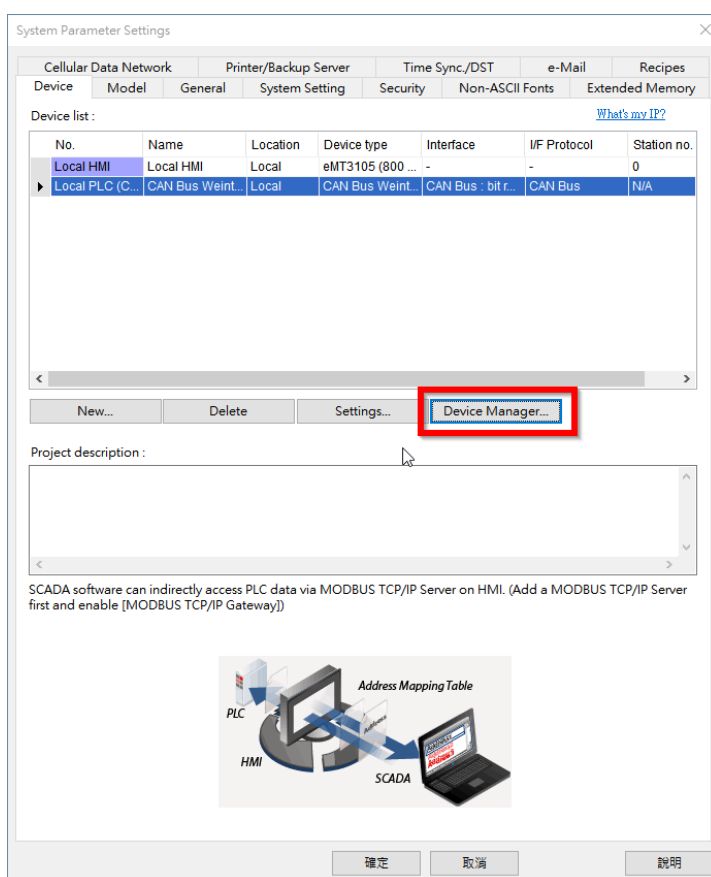
## HMI Setting:

Parameters	Recommended	Options	Notes
<b>PLC type</b>	Weintek Remote IO (CANopen)		
<b>Baud rate</b>	250K	10K~1M	

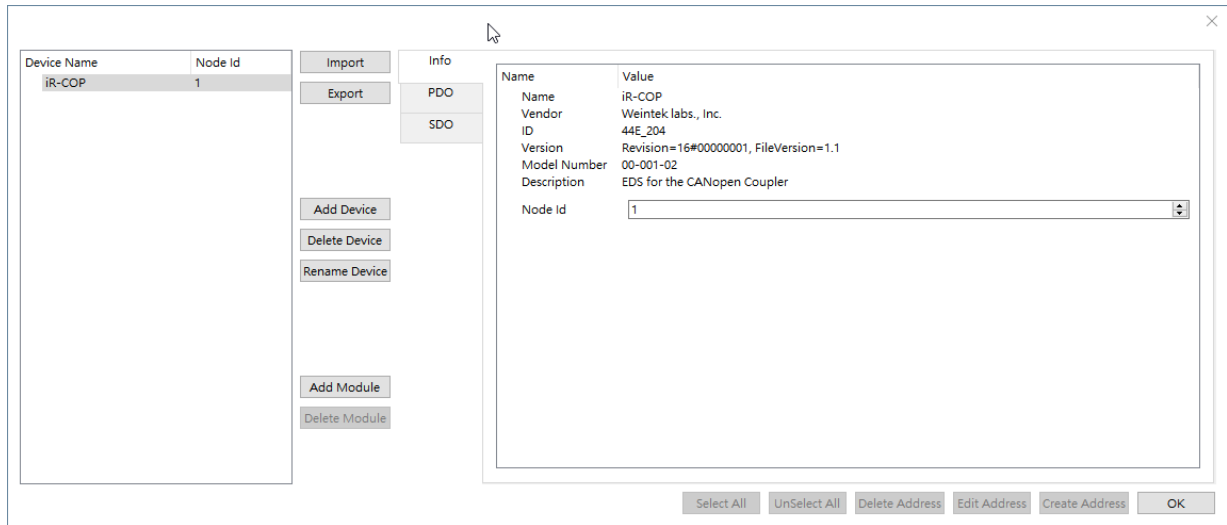
<b>Online simulator</b>	NO	<b>Extend address mode</b>	NO
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## Device Setting:

1. Launch EasyBuilder Pro and add **Weintek Remote I/O (CANopen)** driver into the device list, Click **[Device Manager]** to configure CANopen device and addresses.



2. In Device Manager window, a Weintek Remote I/O CANopen device can be found by default.



3. Clicking the buttons on the left side can:

**Import:** Import the predefined .wtco file into the device list. Please note that current device list will be overwritten by the imported list.

**Export:** Export current setting as a .wtco file for future use.

**Add Device:** Add a new Weintek Remote I/O CANopen device.

**Delete Device:** Delete the selected Weintek Remote I/O CANopen device.

**Rename Device:** Change device name.

**Add Module:** Weintek Remote I/O supports the following modules.

Item	Model	DeviceId	Describe	Type	Input Points	Output Points	Output Mode	Input Mode
1	iR-DI16-K	0x0154	16DI	DI	16	0	N/A	Source+Sink
2	iR-DM16-P	0x0351	8DI8DO_P	DI+DO	8	8	Source	Source+Sink
3	iR-DQ16-P	0x0251	16DO_P	DO	0	16	Source	N/A
4	iR-DM16-N	0x0352	8DI8DO_N	DI+DO	8	8	Sink	Source+Sink
5	iR-DQ16-N	0x0252	16DO_N	DO	0	16	Sink	N/A
6	iR-DM16-R	0x0353	8DI8DO_R	DI+DO	8	8	Relay	Source+Sink
7	iR-DQ16-R	0x0253	16DO_R	DO	0	16	Relay	N/A
8	iR-AI04-VI	0x0425	4AI	AI	4	0	N/A	Votage/Current
9	iR-AQ04-VI	0x0525	4AO	AO	0	4	Votage/Current	N/A
10	iR-AM06-VI	0x0635	4AI2AO	AI+AO	4	2	Votage/Current	Votage/Current
11	iR-AI04-TR	0x0426	RTDTC	RTD/TC	4	0	N/A	RTD/TC

Adding modules can show address information correctly.

**Delete Module:** Delete the selected module.

## Tags

**Info:** Shows device information. Node ID can be changed within 1~127.

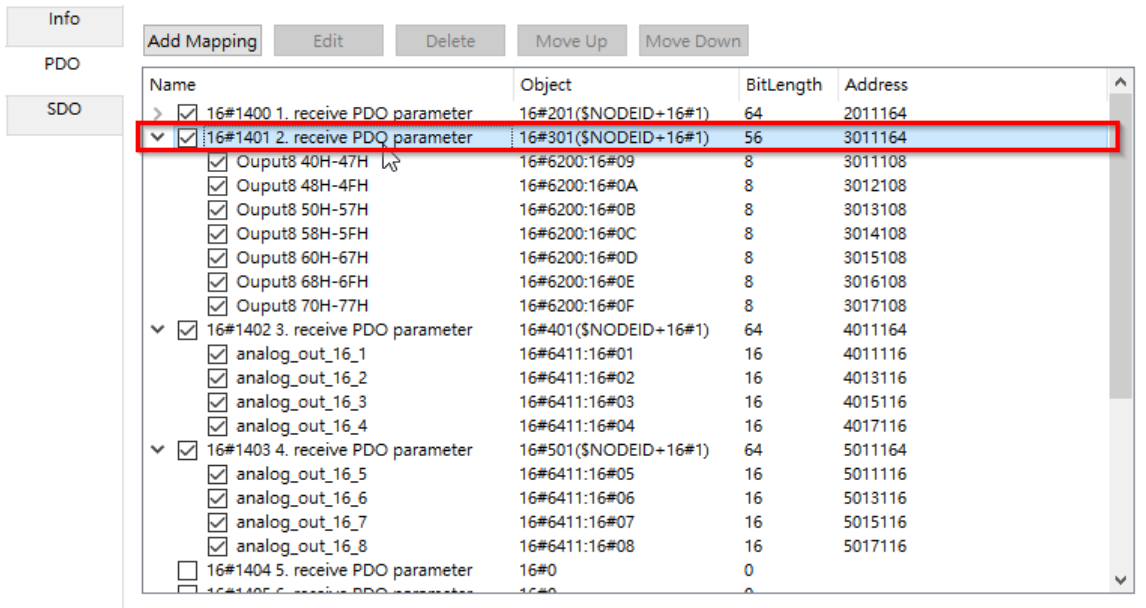
Info	Name	Value
PDO	Name	iR-COP
SDO	Vendor	Weintek labs., Inc.
	ID	44E_204
	Version	Revision=16#00000001, FileVersion=1.1
	Model Number	00-001-02
	Description	EDS for the CANopen Coupler
	Node Id	1

**PDO (Process Data Object):** This tab displays **TxPDO** and **RxPDO** Mapping for editing. Please note that changes in PDO tab will not be updated to Remote I/O. The purpose of editing PDO Mapping here is to ensure correct bit length when importing addresses to HMI, and that the displayed address names on HMI match those used in CANopen.

Info	Add Mapping   Edit   Delete   Move Up   Move Down				
PDO					
SDO					
	Name	Object	BitLength	Address	
	> <input checked="" type="checkbox"/> 16#1400 1. receive PDO parameter	16#201(\$NODEID+16#1)	64	2011164	
	> <input checked="" type="checkbox"/> 16#1401 2. receive PDO parameter	16#301(\$NODEID+16#1)	64	3011164	
	> <input checked="" type="checkbox"/> 16#1402 3. receive PDO parameter	16#401(\$NODEID+16#1)	64	4011164	
	> <input checked="" type="checkbox"/> 16#1403 4. receive PDO parameter	16#501(\$NODEID+16#1)	64	5011164	
	> <input checked="" type="checkbox"/> analog_out_16_5	16#6411:16#05	16	5011116	
	> <input checked="" type="checkbox"/> analog_out_16_6	16#6411:16#06	16	5013116	
	> <input checked="" type="checkbox"/> analog_out_16_7	16#6411:16#07	16	5015116	
	> <input checked="" type="checkbox"/> analog_out_16_8	16#6411:16#08	16	5017116	
	<input type="checkbox"/> 16#1404 5. receive PDO parameter	16#0	0		
	<input type="checkbox"/> 16#1405 6. receive PDO parameter	16#0	0		
	<input type="checkbox"/> 16#1406 7. receive PDO parameter	16#0	0		
	<input type="checkbox"/> 16#1407 8. receive PDO parameter	16#0	0		
	> <input checked="" type="checkbox"/> 16#1800 1. transmit PDO parameter	16#181(\$NODEID+16#1)	64	1811164	
	> <input checked="" type="checkbox"/> 16#1801 2. transmit PDO parameter	16#281(\$NODEID+16#1)	64	2811164	
	> <input checked="" type="checkbox"/> 16#1802 3. transmit PDO parameter	16#381(\$NODEID+16#1)	64	3811164	
	> <input checked="" type="checkbox"/> 16#1803 4. transmit PDO parameter	16#481(\$NODEID+16#1)	64	4811164	
	<input type="checkbox"/> 16#1804 5. transmit PDO parameter	16#0	0		
	<input type="checkbox"/> 16#1805 6. transmit PDO parameter	16#0	0		
	<input type="checkbox"/> 16#1806 7. transmit PDO parameter	16#0	0		
	<input type="checkbox"/> 16#1807 8. transmit PDO parameter	16#0	0		

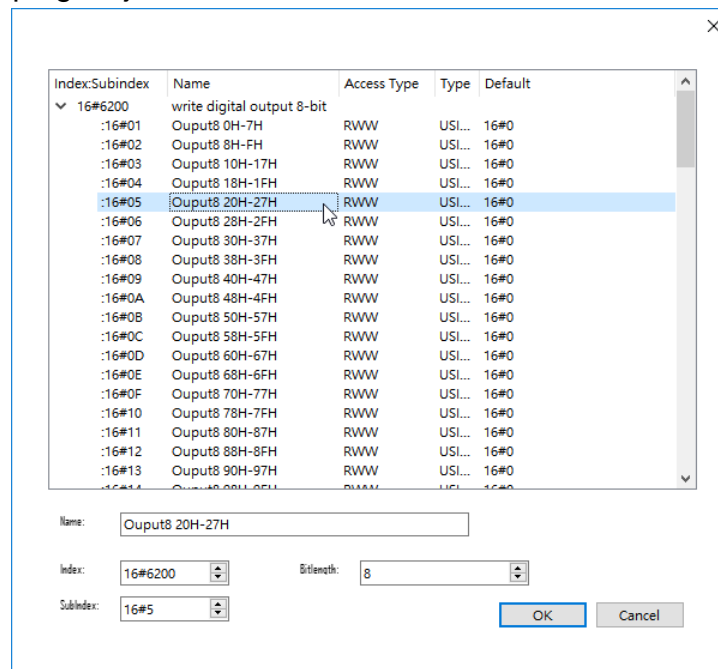
The five buttons at the top of the PDO tab can:

- **Add Mapping:** When the PDO object's bit length is less than 64, the user can add PDO Mapping into the list.



Name	Object	BitLength	Address
<input checked="" type="checkbox"/> 16#1400 1. receive PDO parameter	16#201(\$NODEID+16#1)	64	2011164
<input checked="" type="checkbox"/> 16#1401 2. receive PDQ parameter	16#301(\$NODEID+16#1)	56	3011164
<input checked="" type="checkbox"/> Output 40H-47H	16#6200:16#09	8	3011108
<input checked="" type="checkbox"/> Output 48H-4FH	16#6200:16#0A	8	3012108
<input checked="" type="checkbox"/> Output 50H-57H	16#6200:16#0B	8	3013108
<input checked="" type="checkbox"/> Output 58H-5FH	16#6200:16#0C	8	3014108
<input checked="" type="checkbox"/> Output 60H-67H	16#6200:16#0D	8	3015108
<input checked="" type="checkbox"/> Output 68H-6FH	16#6200:16#0E	8	3016108
<input checked="" type="checkbox"/> Output 70H-77H	16#6200:16#0F	8	3017108
<input checked="" type="checkbox"/> 16#1402 3. receive PDO parameter	16#401(\$NODEID+16#1)	64	4011164
<input checked="" type="checkbox"/> analog_out_16_1	16#6411:16#01	16	4011116
<input checked="" type="checkbox"/> analog_out_16_2	16#6411:16#02	16	4013116
<input checked="" type="checkbox"/> analog_out_16_3	16#6411:16#03	16	4015116
<input checked="" type="checkbox"/> analog_out_16_4	16#6411:16#04	16	4017116
<input checked="" type="checkbox"/> 16#1403 4. receive PDO parameter	16#501(\$NODEID+16#1)	64	5011164
<input checked="" type="checkbox"/> analog_out_16_5	16#6411:16#05	16	5011116
<input checked="" type="checkbox"/> analog_out_16_6	16#6411:16#06	16	5013116
<input checked="" type="checkbox"/> analog_out_16_7	16#6411:16#07	16	5015116
<input checked="" type="checkbox"/> analog_out_16_8	16#6411:16#08	16	5017116
<input type="checkbox"/> 16#1404 5. receive PDO parameter	16#0	0	
<input type="checkbox"/> 16#1405 6. receive PDO parameter	16#0	0	

Select source of Mapping Object.



Index/Subindex	Name	Access Type	Type	Default
16#6200	write digital output 8-bit			
:16#01	Output 0H-7H	RWW	USL...	16#0
:16#02	Output 8H-FH	RWW	USL...	16#0
:16#03	Output 10H-17H	RWW	USL...	16#0
:16#04	Output 18H-1FH	RWW	USL...	16#0
:16#05	Output 20H-27H	RWW	USL...	16#0
:16#06	Output 28H-2FH	RWW	USL...	16#0
:16#07	Output 30H-37H	RWW	USL...	16#0
:16#08	Output 38H-3FH	RWW	USL...	16#0
:16#09	Output 40H-47H	RWW	USL...	16#0
:16#0A	Output 48H-4FH	RWW	USL...	16#0
:16#0B	Output 50H-57H	RWW	USL...	16#0
:16#0C	Output 58H-5FH	RWW	USL...	16#0
:16#0D	Output 60H-67H	RWW	USL...	16#0
:16#0E	Output 68H-6FH	RWW	USL...	16#0
:16#0F	Output 70H-77H	RWW	USL...	16#0
:16#10	Output 78H-7FH	RWW	USL...	16#0
:16#11	Output 80H-87H	RWW	USL...	16#0
:16#12	Output 88H-8FH	RWW	USL...	16#0
:16#13	Output 90H-97H	RWW	USL...	16#0

Name:

Index:  BitLength:

Subindex:

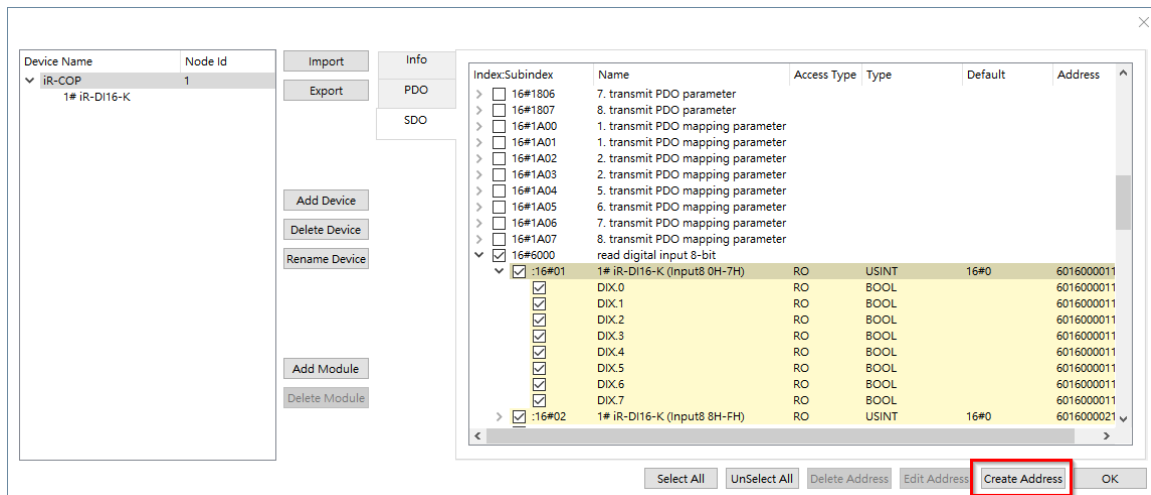
- **Edit:** Change the source of the selected Mapping Object.
- **Delete:** Delete the selected Mapping Object.
- **Move Up:** Move the selected Mapping Object one row upward.
- **Move Down:** Move the selected Mapping Object one row downward.

**SDO (Service Data Object):** Displays all items in Object Dictionary.

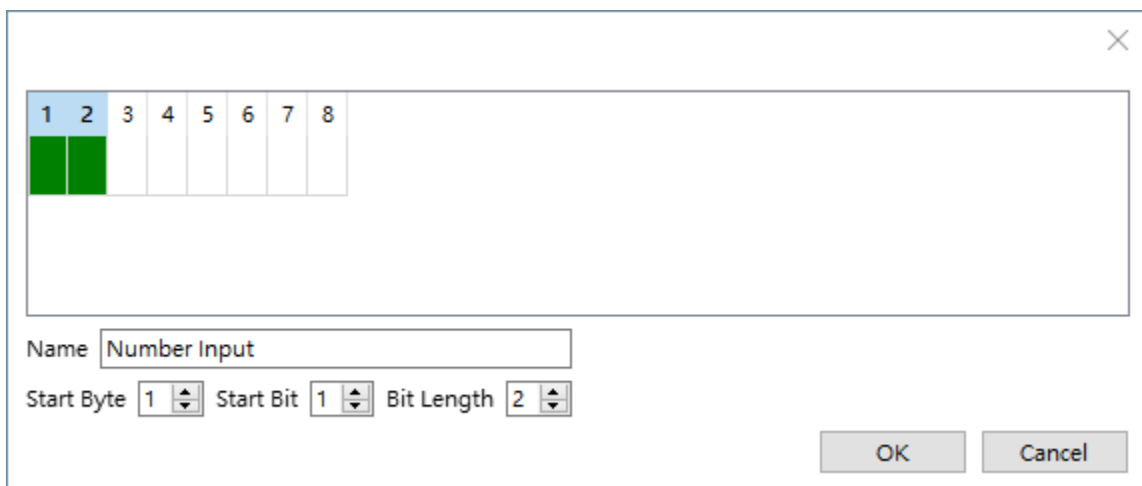
## Selecting and Defining Addresses

Users can define address range of the existing items.

For example, to add a user-defined address range under item **[6000] read digital input 8-bit #01** in SDO tab, select the item in the index tree and then click [Create Address].



A dialog box pops up for defining address range. Using the same settings below will add a **Number Input** tag under item **[6000] read digital input 8-bit #01**. The tag will use bit 1~2 of the item as its value. That is, if the value in the item is 15, the value in the tag will be 3.



The buttons at the bottom of both SDO and PDO tab can:

- **Select All:** Select all items.
- **Unselect All:** Unselect all items.
- **Delete Address:** Delete user-defined address.
- **Edit Address:** Edit user-defined address.
- **Create Address:** Create user-defined address.
- **OK:** Import addresses.

Info  
 PDO  
 SDO

Index/Subindex	Name	Access Type	Type	Default	Address
> <input type="checkbox"/> 16#1803	4. transmit PDO parameter				
> <input type="checkbox"/> 16#1804	5. transmit PDO parameter				
> <input type="checkbox"/> 16#1805	6. transmit PDO parameter				
> <input type="checkbox"/> 16#1806	7. transmit PDO parameter				
> <input type="checkbox"/> 16#1807	8. transmit PDO parameter				
> <input type="checkbox"/> 16#1A00	1. transmit PDO mapping parameter				
> <input type="checkbox"/> 16#1A01	1. transmit PDO mapping parameter				
> <input type="checkbox"/> 16#1A02	2. transmit PDO mapping parameter				
> <input type="checkbox"/> 16#1A03	2. transmit PDO mapping parameter				
> <input type="checkbox"/> 16#1A04	5. transmit PDO mapping parameter				
> <input type="checkbox"/> 16#1A05	6. transmit PDO mapping parameter				
> <input type="checkbox"/> 16#1A06	7. transmit PDO mapping parameter				
> <input type="checkbox"/> 16#1A07	8. transmit PDO mapping parameter				
> <input checked="" type="checkbox"/> 16#6000	read digital input 8-bit				
> <input checked="" type="checkbox"/> :16#01	1# iR-DI16-K (Input8 0H-7H)	RO	USINT	16#0	6016000011
> <input checked="" type="checkbox"/> :16#02	1# iR-DI16-K (Input8 8H-FH)	RO	USINT	16#0	6016000021
> <input type="checkbox"/> :16#03	Input8 10H-17H	RO	USINT	16#0	6016000031
> <input type="checkbox"/> :16#04	Input8 18H-1FH	RO	USINT	16#0	6016000041
> <input type="checkbox"/> :16#05	Input8 20H-27H	RO	USINT	16#0	6016000051
> <input type="checkbox"/> :16#06	Input8 28H-2FH	RO	USINT	16#0	6016000061
> <input type="checkbox"/> :16#07	Input8 30H-37H	RO	USINT	16#0	6016000071

Select All   UnSelect All   Delete Address   Edit Address   Create Address   OK

## Device Address:

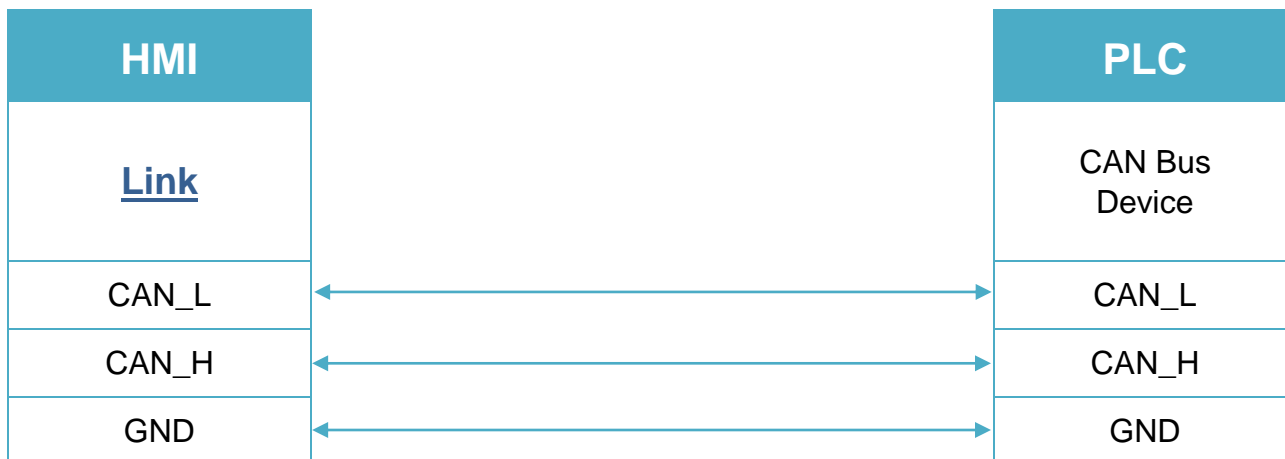
Bit/Word	Device type	Format	Range	Memo
W	SDO_DATA	HHHHIISS BbNN	1101~FFFF FFFFF8801	H: Can ID I: Index S: SubIndex B: Byte position (1~8) b: bit start position (1~8) NN: bit no. (1~64)
W	PDO_DATA	HHHHHH HHBbNN	1101~1FFF FFFFF8801	H: Can ID B: Byte position (1~8) b: bit start position (1~8) NN: bit no. (1~64)
B	PDO_DATA_Bit	HHHHHH HHBb	11~1FFFFFF FF88	H: Can ID B: Byte position (1~8) b: bit start position (1~8)
B	SDO_DATA_Bit	HHHHIISS Bb	11~FFFFFF FFF88	H: Can ID I: Index S: SubIndex B: Byte position (1~8) b: bit start position (1~8)
B	SEND_NMT	D	0	Set on sends NMT Command , it will automatically return to off.

## Wiring Diagram:

### Diagram 1

#### CAN BUS

The serial port pin assignments may vary between HMI models, please click the following link for more information.



To minimize signal reflection on the CAN bus network, termination resistors should be installed at both ends of the network, as shown in the following figure. (eMT3070A has built-in termination resistor, so it is not required for eMT3070A)

