

# ELYX-10A Wireless Power Transfer Solution



1 Tx control module 2 Tx coil module 3 Rx coil module 4 Rx control module

## FEATURE

- High distance charging range / Robust to misalignment
- Maximum 800W transmitting power
- 3 types of receivers Max 290W (24V-10A), Max 420W (36V-10A), Max 536W (48V-10A)
- Protection: over voltage / over current / over temperature / Foreign Object Detection (FOD)
- High End-to-End Efficiency (DC-to-Battery) (Max. 88%)
- Pre-Charge / Full-Charge Function (User Setup)
- Compatible with wired charging and wireless charging
- Cloud Server Monitoring & Power Management / [ELYX Link](#)

Eta Electronics [contact@etaelec.com](mailto:contact@etaelec.com)

HQ 38542 2514, Globalventure-dong, Gyeongbuktechnopark, 27, Sampung-ro, Gyeongsan-si, Gyeongsangbuk-do

R&D 04314 6F, 271, Wonhyo-ro, Yongsan-gu, Seoul

## SYSTEM COMPONENTS

- Transmitter (DT-10A)
  - Transmitter control module
  - Transmitter coil module
  
- Receiver (DR-10A-24, DR-10A-36, DR-10A-48)
  - Receiver control module
  - Receiver coil module
  
- Option 1. Tx/Rx Cable length (30, 50, 100 cm)
- Option 2. Server communication (Wi-Fi, LTE)

## VERSION

- Version 1.3 Apr. 2026

**SPECIFICATION**

<b>TOTAL SYSTEM</b>		
<b>CHARGING CHARACTERISTIC</b>	FREQUENCY	79 ~ 90 kHz
	EFFICIENCY (Max.)	88 % (DC to Battery)
	CHARGE BATTERY	Li-ion battery (7, 10, 13 series pack)
	CHARGE MODE	CC/CV
	CHARGE RANGE	0 ~ 50 mm distance (z-axis) offset (15~40 mm Optimal distance) Max. ±70 mm x-axis offset Max. ±40 mm y-axis offset
<b>COMMUNICATION</b>	Server	Wi-Fi or LTE
	Application	CAN / UART
<b>ENVIRONMENT</b>	AMBIENTTEMP.	- 15 ~ 45°C

<b>TRANSMITTER</b>		<b>DT-10A</b>
<b>INPUT</b>	AC VOLTAGE RANGE	90~264 VAC
	AC CURRENT (MAX.)	9.3 A / 115VAC 3.5 A / 230VAC
<b>DIMENSION</b>	CONTROL MODULE SIZE	300 mm X 254 mm X 59 mm (3,410 g)
	COIL MODULE SIZE	304.5 mm X 185 mm X 28 mm (1,490 g)
<b>PROTECTION</b>	OVER CURRENT	Power amp. Protection
	Foreign Object Detection	Conductive material sensing & shut down

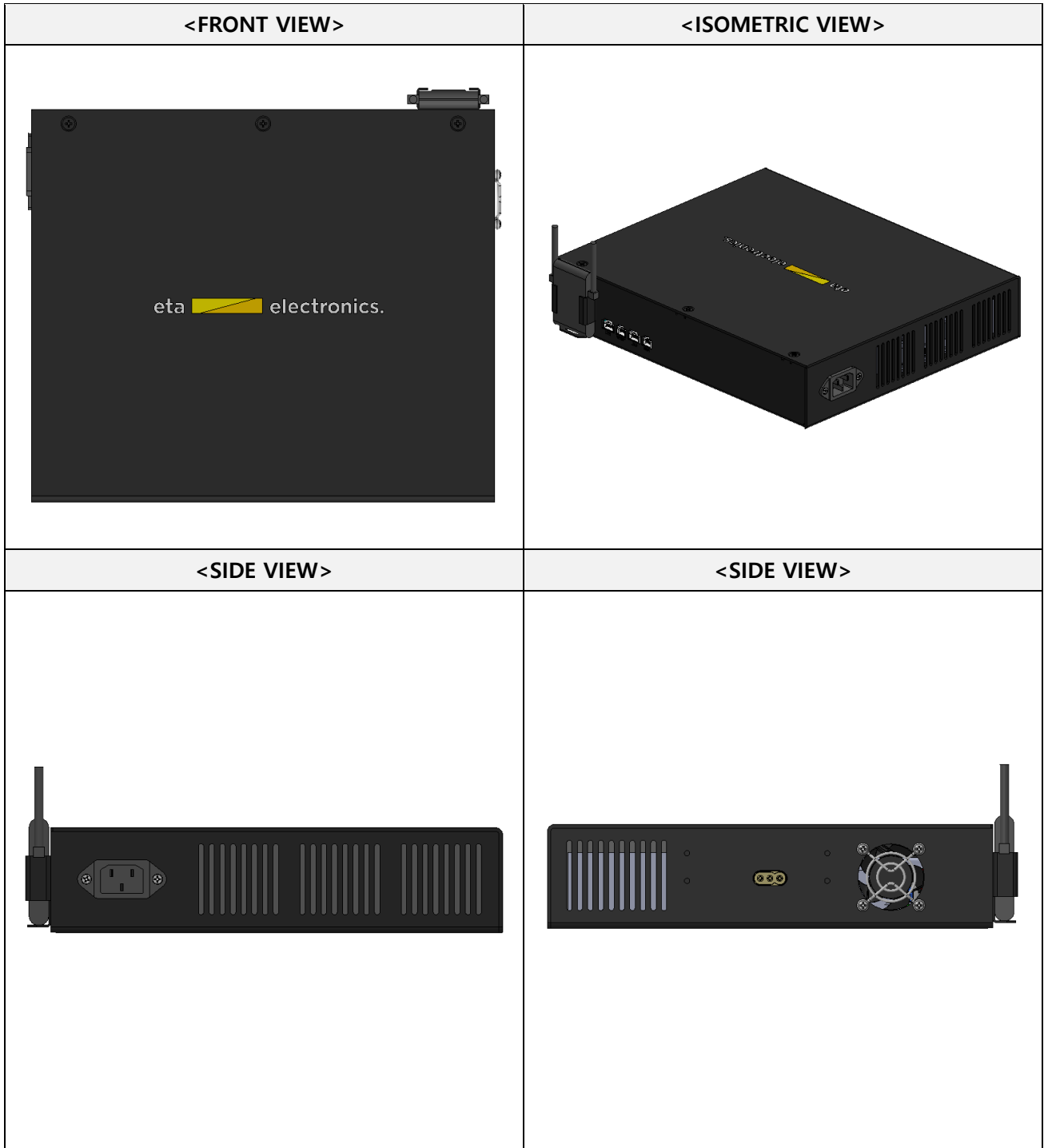
<b>RECEIVER</b>		<b>DR-10A-24</b>	<b>DR-10A-36</b>	<b>DR-10A-48</b>
<b>OUTPUT</b>	VOLTAGE RANGE	15 – 29V	25 – 42V	38 – 53.6V
	CHARGE CURRENT (MAX)	10 A	10 A	10 A
	CHARGE POWER (MAX)	290W	420W	536 W
<b>DIMENSION</b>	CONTROL MODULE SIZE	198 mm X 103 mm X 47 mm (630 g)		
	COIL MODULE SIZE	202.5 mm x 135.12 mm X 28 mm (790 g)		
<b>PROTECTION</b>	OVER VOLTAGE	105 % rated voltage of full charged battery		
	OVER CURRENT	120 % rated output current		

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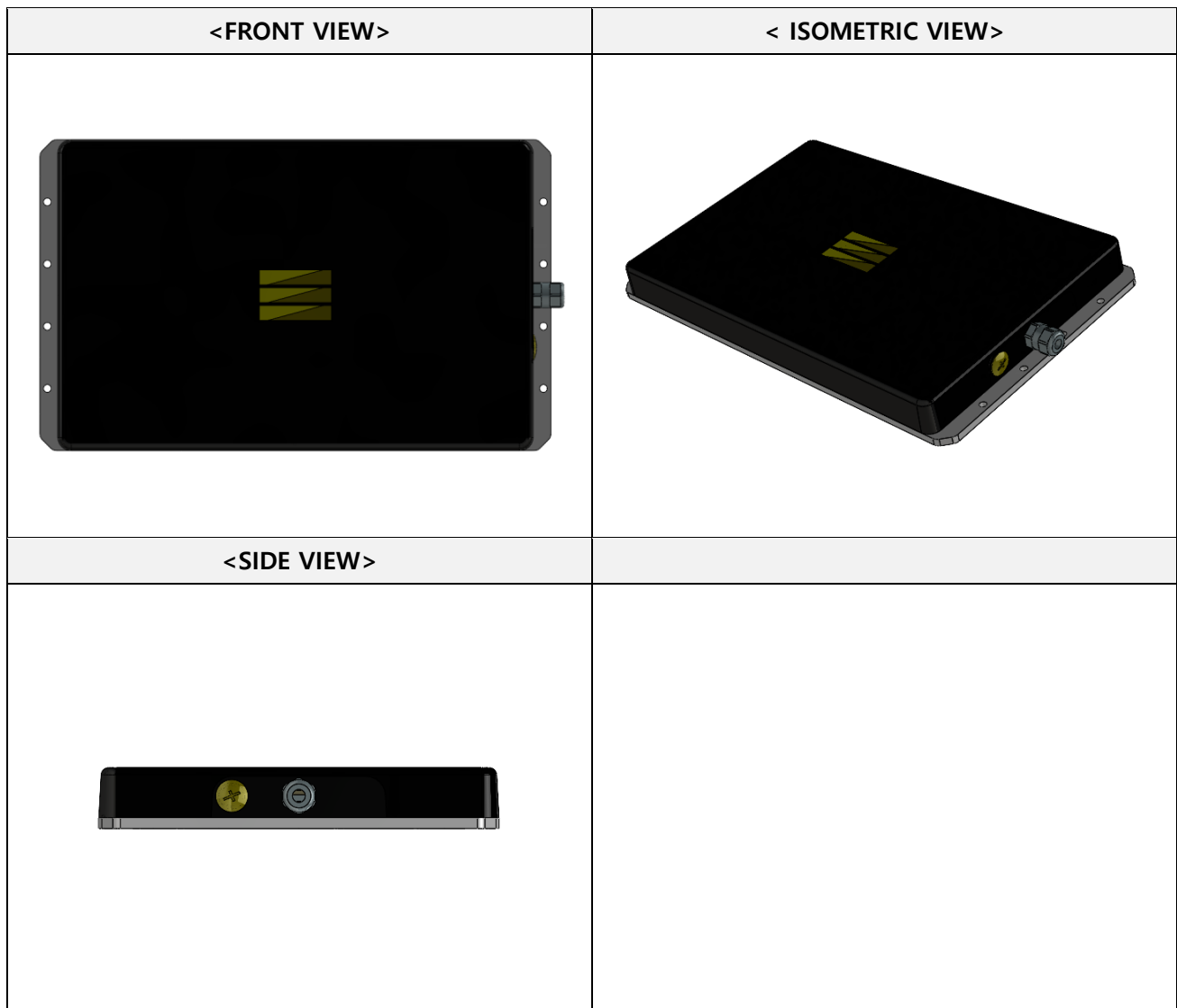
### TRANSMITTER CONTROL MODULE



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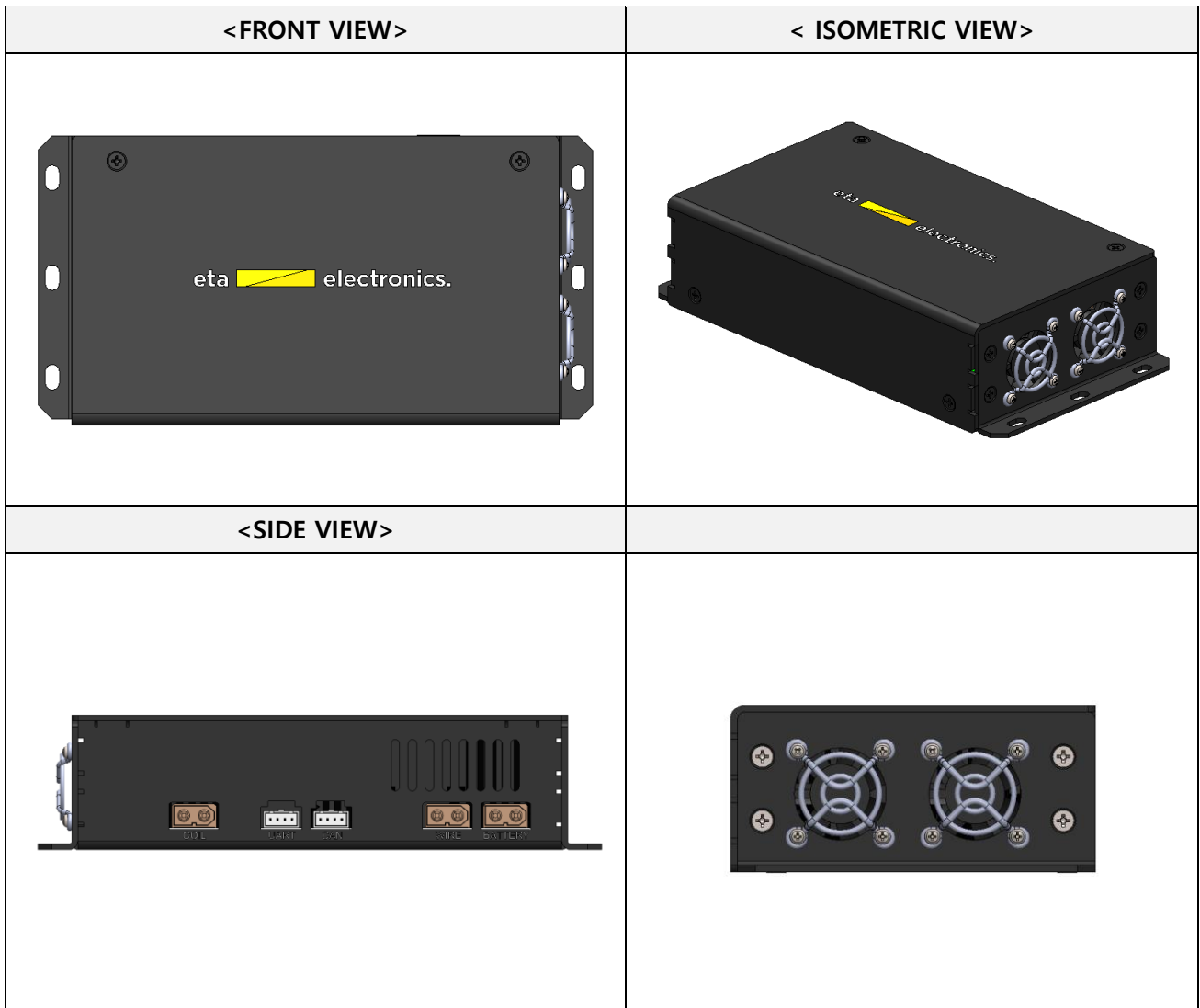
**TRANSMITTER COIL MODULE**

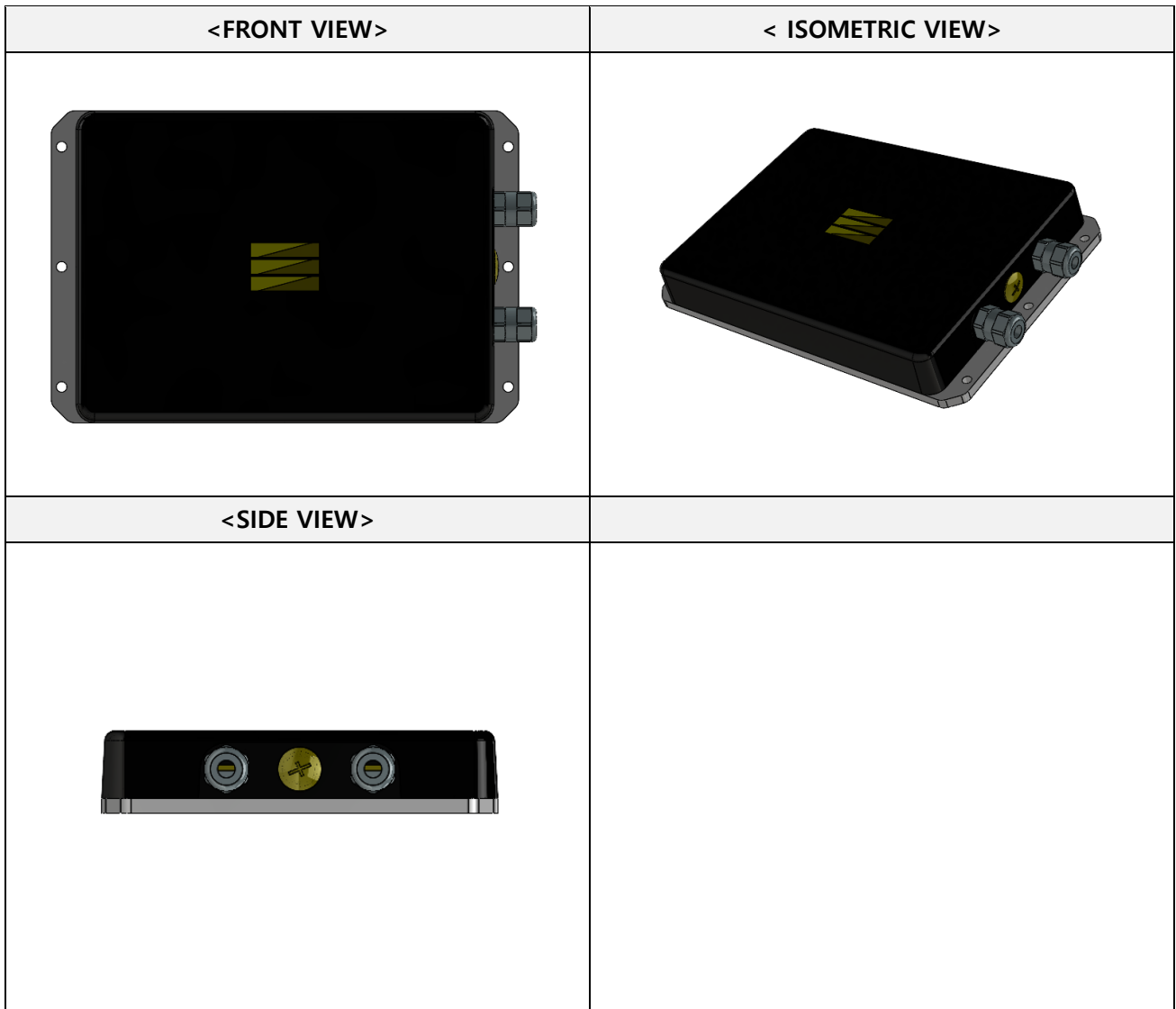
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### RECEIVER CONTROL MODULE



**RECEIVER COIL MODULE**

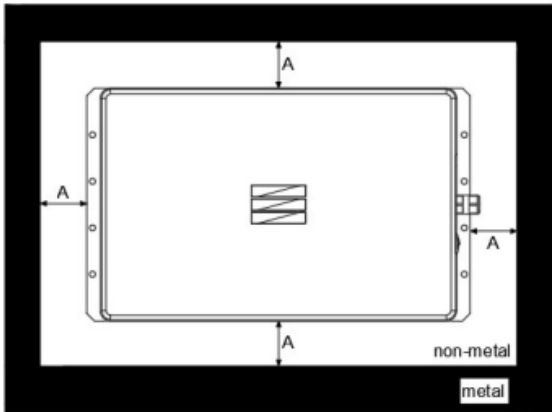
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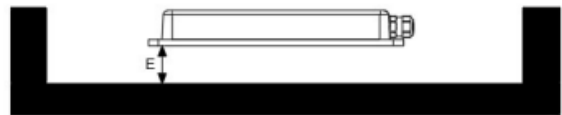
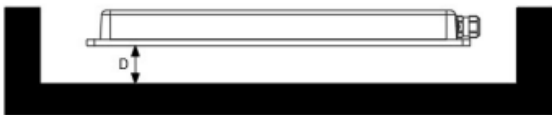
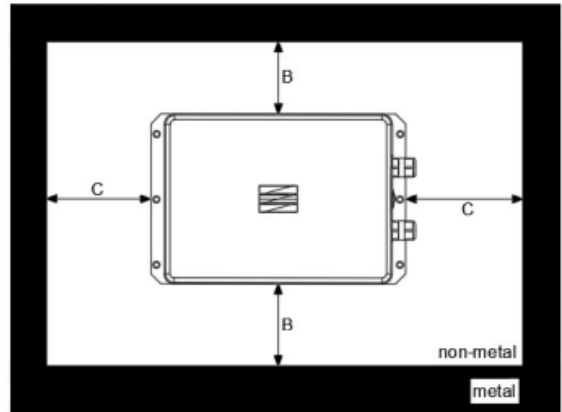
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**INSTALLATION GUIDE**

**Tx Coil Module**



**Rx Coil Module**



(mm)	A	B	C	D	E
Tx Coil Module	35**	/	/	*Al : 0 20	/
Rx Coil Module	/	60**	120**	/	*Al : 0 20

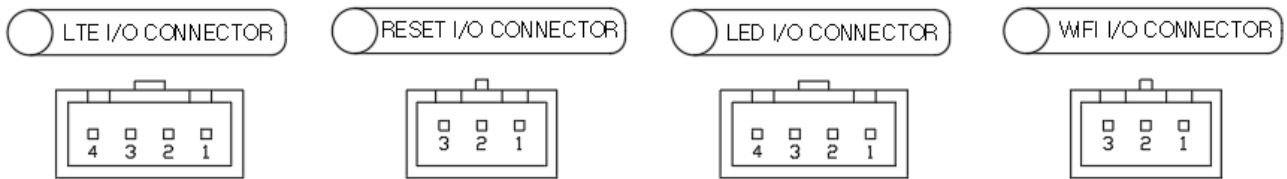
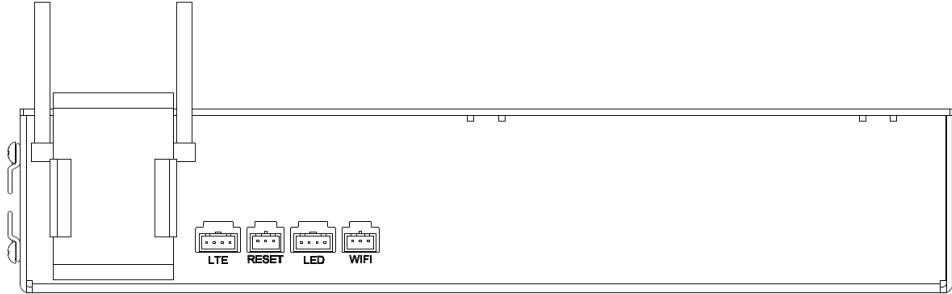
**\*Al : Aluminum**

**\*\*This numbers could be changed.**

## I/O CONNECTOR

### Tx Control Module

- LED housing/ contact : SMAW250-04 or equivalent
- RESET,WIFI SETTING housing/ contact : SMAW250-03 or equivalent



#### RESET I/O Connector

Pin number	Pin Name	Type	Function
1	RESET	Input	MCU Reset
2	VDD	Output	3.3V Output
3	GND	-	Ground

#### LED I/O Connector

Pin number	Pin Name	Type	Function
1	Red	Output	Red Light Control Signal
2	Green	Output	Green Light Control Signal
3	Blue	Output	Blue Light Control Signal
4	GND	-	Ground

#### WIFI Setting I/O Connector

Pin number	Pin Name	Type	Function
1	SET_W	Input	Set the WIFI Configuration
2	VDD	Output	3.3V Output
3	GND	-	Ground

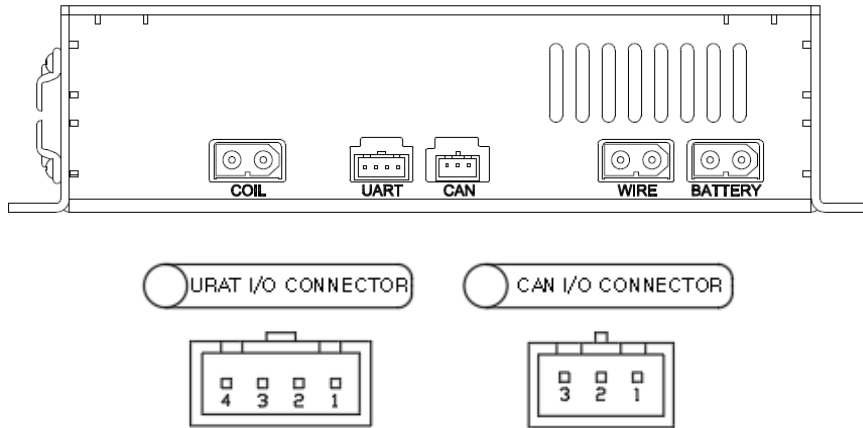
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### Rx Control Module

- BATTERY,WIRE, COIL output housing/ contact: AMASS XT60E-M or equivalent
- UART, CAN housing/ contact: SMAW250-04 or equivalent



#### CAN I/O Connector

Pin number	Pin Name	Type	Function
1	GND	Output	Ground
2	CAN_H	Input/Output	High level CAN bus line
3	CAN_L	Input/Output	Low level CAN bus line
4	VDD	Input	5V**

**\*\* (Optional) If 5V is not supplied to pin 4, charging data can be received only during charging time.**

#### UART I/O Connector

Pin number	Pin Name	Type	Function
1	GND	Output	Ground
2	TXD	Output	UART Transmit Data
3	RXD	Input	UART Receive Data
4	VDD	Input	5V**

**\*\* (Optional) If 5V is not supplied to pin 4, charging data can be received only during charging time.**