



CO250CAN KIT CONTACTLESS POWER & DATA

Product Manual



CO250CAN KIT | 250W CAN CONTACTLESS POWER & DATA

OVERVIEW

This document guides users on how to use the Co250CAN kit. The Co250CAN kit includes a transmitter (Tx) and receiver (Rx). Modules Tx and Rx are inductive couplers that supply power without physical contact power and data transmission, providing 250W at short range (few centimeters). This kit tests the benefits of contactless connectors by enabling cable limits and design barriers for more reliability and flexibility.

APPLICATIONS

Contactless connectors offer a new way to connect devices without physical cables or connectors, making it easier to link equipment in tight or moving spaces. This technology is ideal for industrial, defense, aerospace and medical applications.

For example:

- Changing out tools on robots can wear out the connectors, causing them to break or deform. Contactless connectors provide a more reliable, maintenance-free solution.
- In harsh or enclosed spaces like clean rooms, wired systems with open contacts are costly and can weaken the system. Contactless connectors offer a more reliable option, transferring power or data through non-conductive materials, including gases and liquids, without contact or drilling holes.

Use cases:

- Supply power through any non-electrically conducting material
- Supply power moving electronic systems
- Supply power to embedded electronic systems
- Enable new design (transfer through sealed enclosures)

FEATURES

- 250W continuous power
- 1 Mbps bidirectional data
- 15 mm max. air gap
- ± 5 mm misalignment
- 360° unlimited rotation

BENEFITS

- No wear and tear
- Simplified interconnection
- No Wi-Fi or Bluetooth interface
- Not limited by mating cycle
- Maintenance free
- Provides immunity to vibration
- Provides immunity to contaminants, moisture and dust

KIT CONTENT ^[1]

Transmitter Tx	MU317620232300	Contactless Power & Data Receiver 250W CAN 15 mm 24 VDC	1
Receiver Rx	MU327620232300	Contactless Power & Data Receiver 250W CAN 15 mm 24 VDC	1

REFERENCES

[1]	Datasheet, MU347620232400	Revision 1
[2]	Handout, MU347620232400	Revision 1
[3]	External Presentation, MU347620232400	Revision 1

SPECIFICATIONS**GENERAL SPECIFICATIONS**

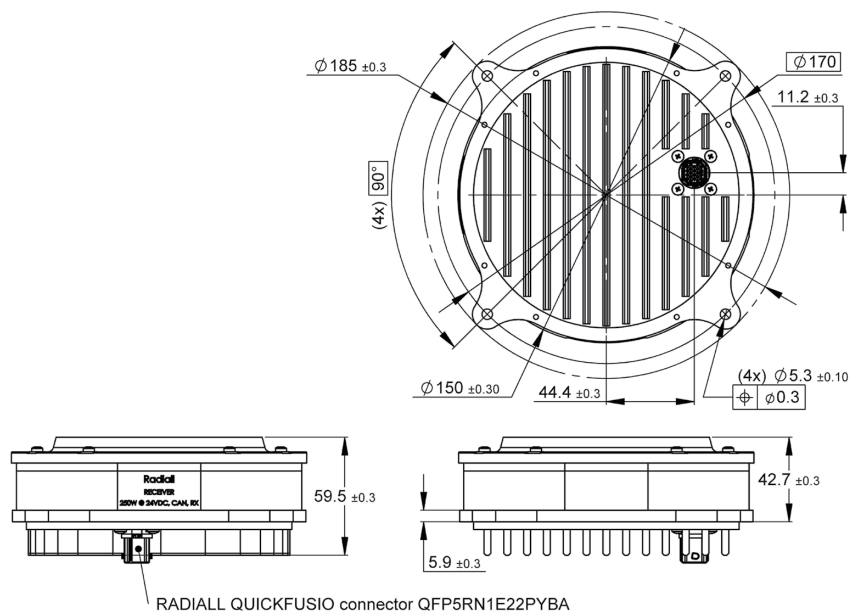
Tx Input Voltage	24	Vdc	± 10%	-
Rx Output Voltage	24	Vdc	± 5%	@ Load = 0 A
Input Current Max	12.5	A	-	@ Output Power = 250W, Z = 15 mm, X:Y = 5 mm
Rx Output Power	250	W	-	@ Z = 0.15 mm, X:Y = 0.5 mm
Efficiency	90%		-	See Efficiency Section
Operating Indication	LED			See LED Indicators Section
Maximum Axial Distance	15	mm	-	See Air Gap & Misalignment Section
Minimum Axial Distance	0	mm	-	
Misalignment X,Y	± 5	mm	-	

DATA COMMUNICATIONS

Protocol	CAN			
Data Rate	1	Mbps	-	-
Interface Space	10	ms	-	Minimum Latency
Termination	No			120 Ohms on Request

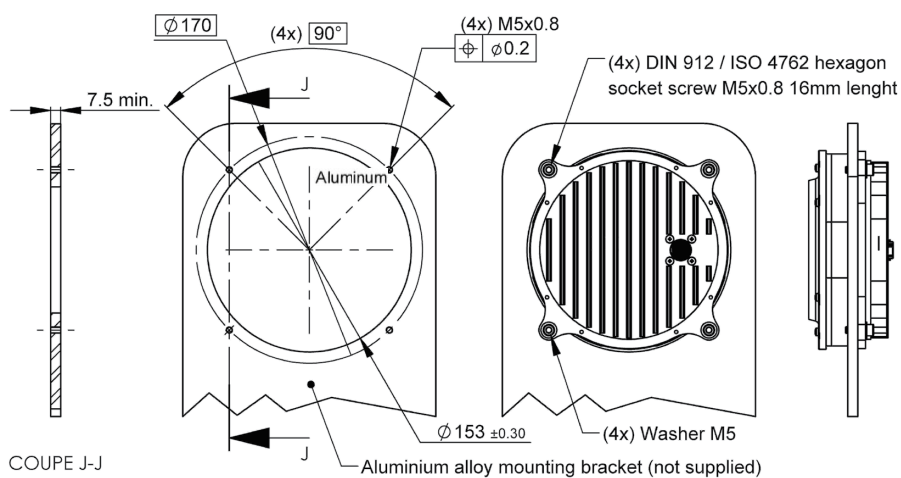
Notes

1. Available in sample volumes only

MECHANICAL SPECIFICATIONS ^[1]

Size	Ø185 x 59.5 mm	mm	-
Typ. Weight	950	g	-
Case	Aluminum Alloy		
Top Cover	PET		

BRACKET MOUNTING ADVICES



Notes

1. Tx and Rx have similar mechanical specifications.

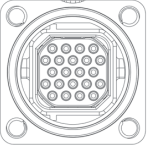
ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40 to 70 °C	
Storage Temperature	-40 to +85 °C	
Protection Degree	IP67	
Reverse Polarity Protection of the Power Supply	Yes	
Short-Circuit Protection of the Power Output	Yes	
Short-Circuit Protection for Data Output	Yes Under Conditions	CAN Link: Yes
Overheating Protection	Yes	
Dynamic Coupling	Yes	

CONNECTOR PINNING

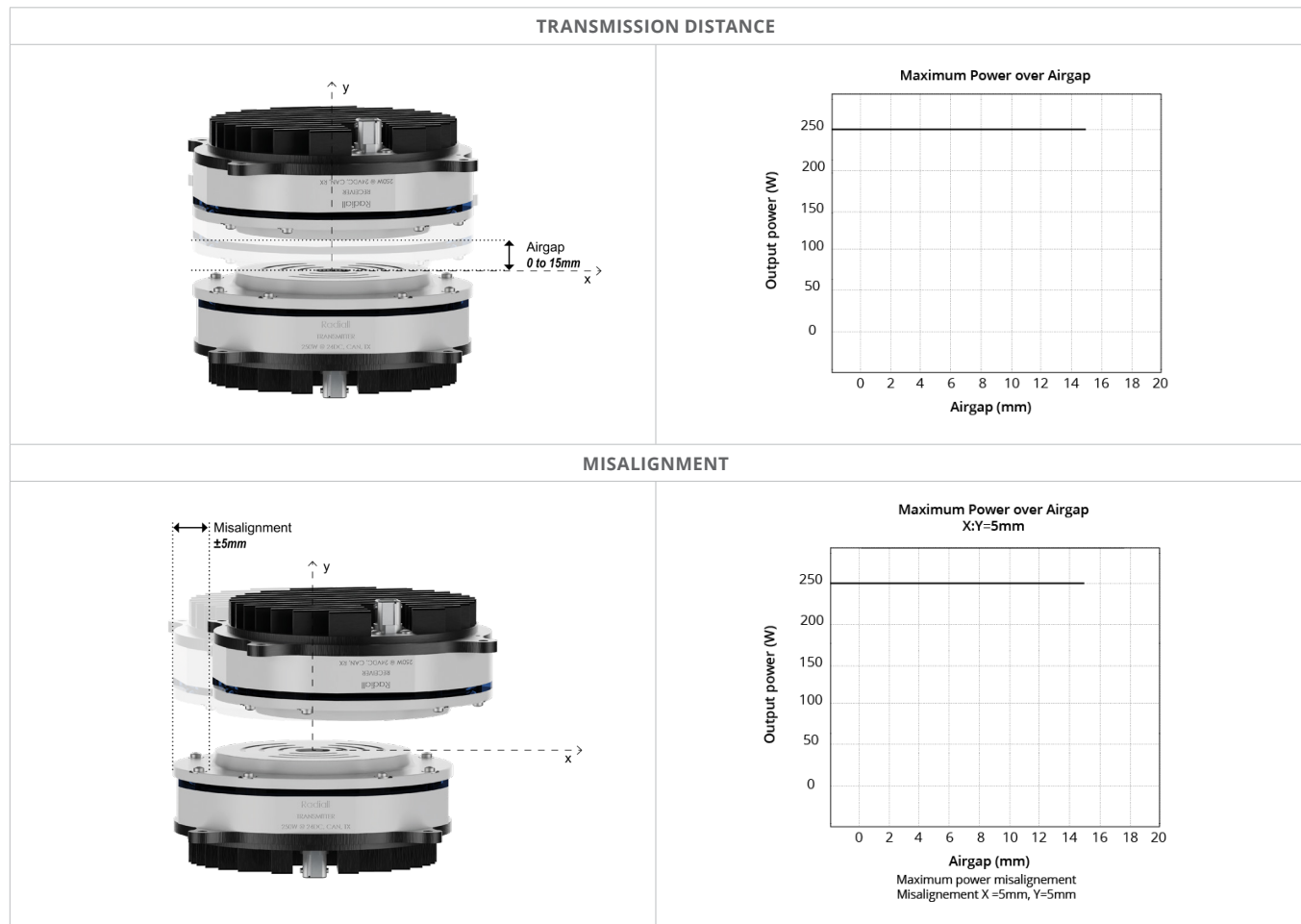
Connector Pinning Transmitter (Tx) and Receiver (Rx)

QuickFusio 22PIN with Harness Adapter

	24 VDC	Pin Number: 8, 9, 12, 13, 16, 17, 18, 22
	GND	Pin Number: 6, 10, 11, 14, 15, 19, 20, 21
	MM	Pin Number: 2, 3, 4, 7
	CANH	Pin Number: 1
	CANL	Pin Number: 5

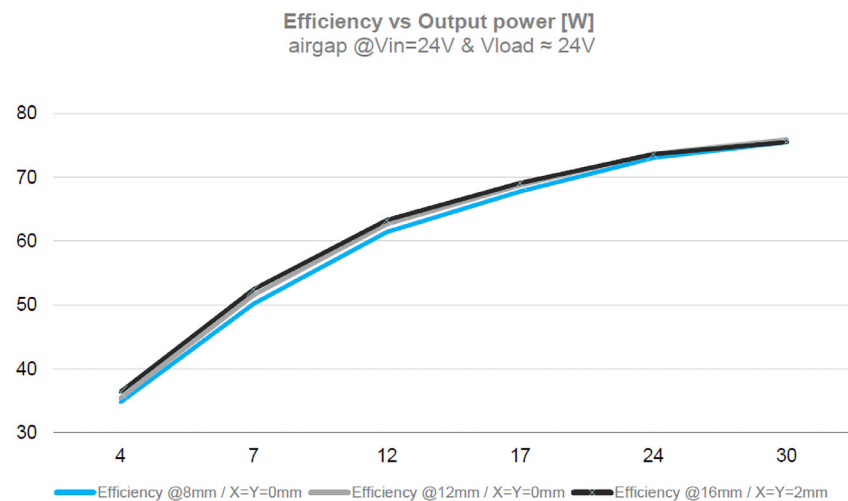
AIRGAP & MISALIGNMENT

The system transmits contactless power at 0 to 15 mm for max power level of 250W.



EFFICIENCY

90% of efficiency guarantee at 15 mm of transmission with the transmitter and receiver aligned.



GUIDE

QUICK START

1. INSTALLATION

Fix the transmitter Tx and the receiver Rx following the mounting instructions.

2. POWER SUPPLY

To power the transmitter Tx and the receiver Rx, connect the power source to the Tx.

- Connect the transmitter Tx to power supply (24 VDC)
- Connect receiver Rx to a load by the connector QUICKFUSIO - see connector pinning

Do not use both power supply inputs at the same time as it could damage the attached modules and/or device.

3. INITIATE CONTACTLESS CONNECTIVITY

Align the transmitter Tx and the receiver Rx.

Following LEDs status that indicate the achieved power and/or data transmission:

- With a distance of transmission 0 to 15 mm $\pm$ 5 mm
- With maximum misalignment of 5 mm (X:Y)

Do not place any conducting materials between the transmitter Tx and receiver Rx.

PAIRING

For proper communication, the transmitter Tx and receiver Rx must be synchronized. The kit comes with a pre-paired Tx and Rx. To connect a different Tx or Rx or replace a system, you will need to sync them manually. Contact technical support for assistance.

SAFETY INSTRUCTIONS & WARNING

The MU347620232400 is for evaluation only and does not meet CE conformity standards. It is intended solely for feasibility and testing in lab or development settings by qualified engineers or technicians due to the risks of handling electrical equipment.

REVISION HISTORY

DATE	REVISION	CHANGES
29/05/2026	1.0	Initial Version



Contactless Power & Data KIT 250W CAN 0-15 mm 24 VDC

Version	250W CAN Contactless Power & Data
Part Number	MU347620232400
Type	MUCPDTR250WCAN15MM24DCBK00
Qty.	1

This user manual is valid for Co250CAN kit version 0.1 - MU347620232400. It provides guidelines to quickly understand the system and offers recommendations for users to achieve optimal performance for testing contactless power and data transmission.

2026 EDITION