

# Diamond Target Baseline

**R. Assiro, G. Chiodini, G. Fiore and A. Miccoli**

**INFN Lecce**

**A.P. Caricato, M. Corradi, M. De Feudis, C. Pinto, M. Martino, F. Oliva,  
S. Spagnolo**

**INFN Lecce and Università del Salento**

**G. Maruccio, A. Monteduro**

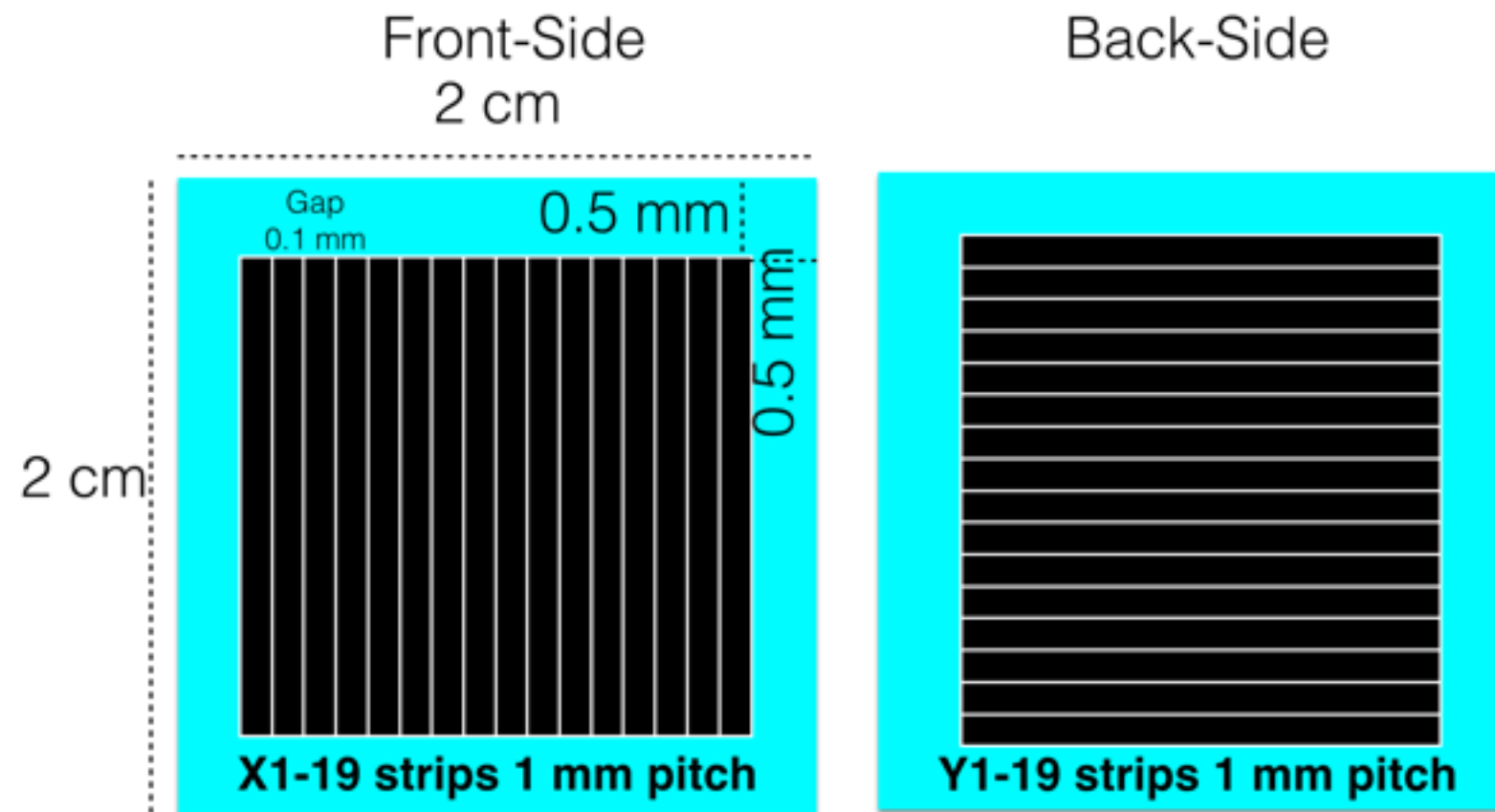
**CNR-NANOTEC and Università del Salento**

**PADME Collaboration meeting 1-2 March 2016**

# Overview

- 1. Sensor specifications**
- 2. PC-board**
- 3. Mechanics**
- 4. Front-end**
- 5. Target motion**

# Sensor specifications



A.P. Caricato, M. Corradi,  
M. De Feudis, M. Martino

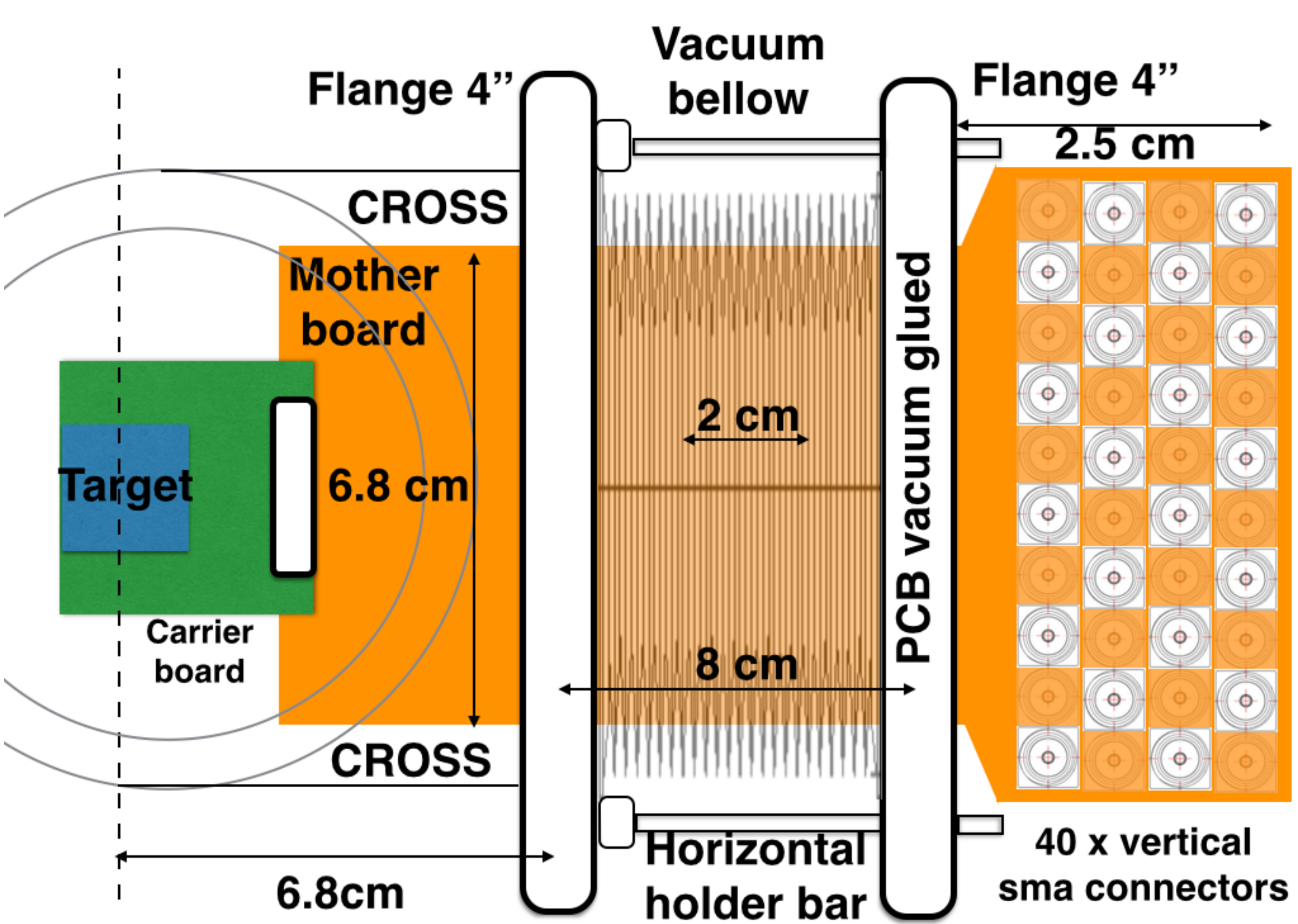
Average Charge / MIP = 360 e-

Landau Width = 25% MPV

Uniformity = 10 %

FE noise = 6000 e-

!!!NB:1000 e- possibile with  
near-by electronics but not  
in the baseline)



# Interconnections

Kapton bus Y strips with z-axis conductive or wire bonding

X-Y channels connector

Sensor

Carrier board

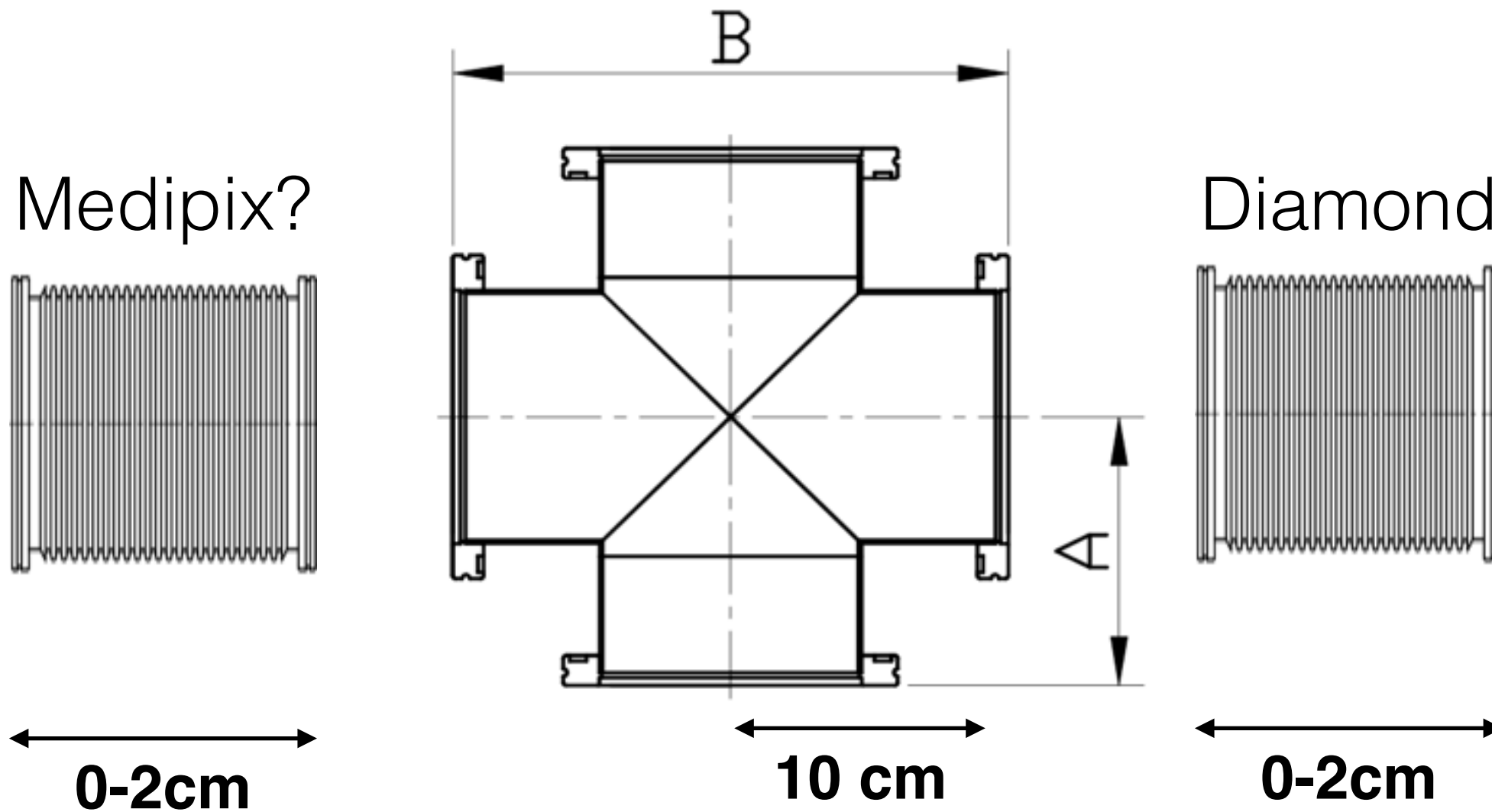
Mother board

z-axis conductive tape or glue (UV and/or thermal curing) for X strips

**C. Pinto**  
**G. Maruccio**  
**A. Monteduro**

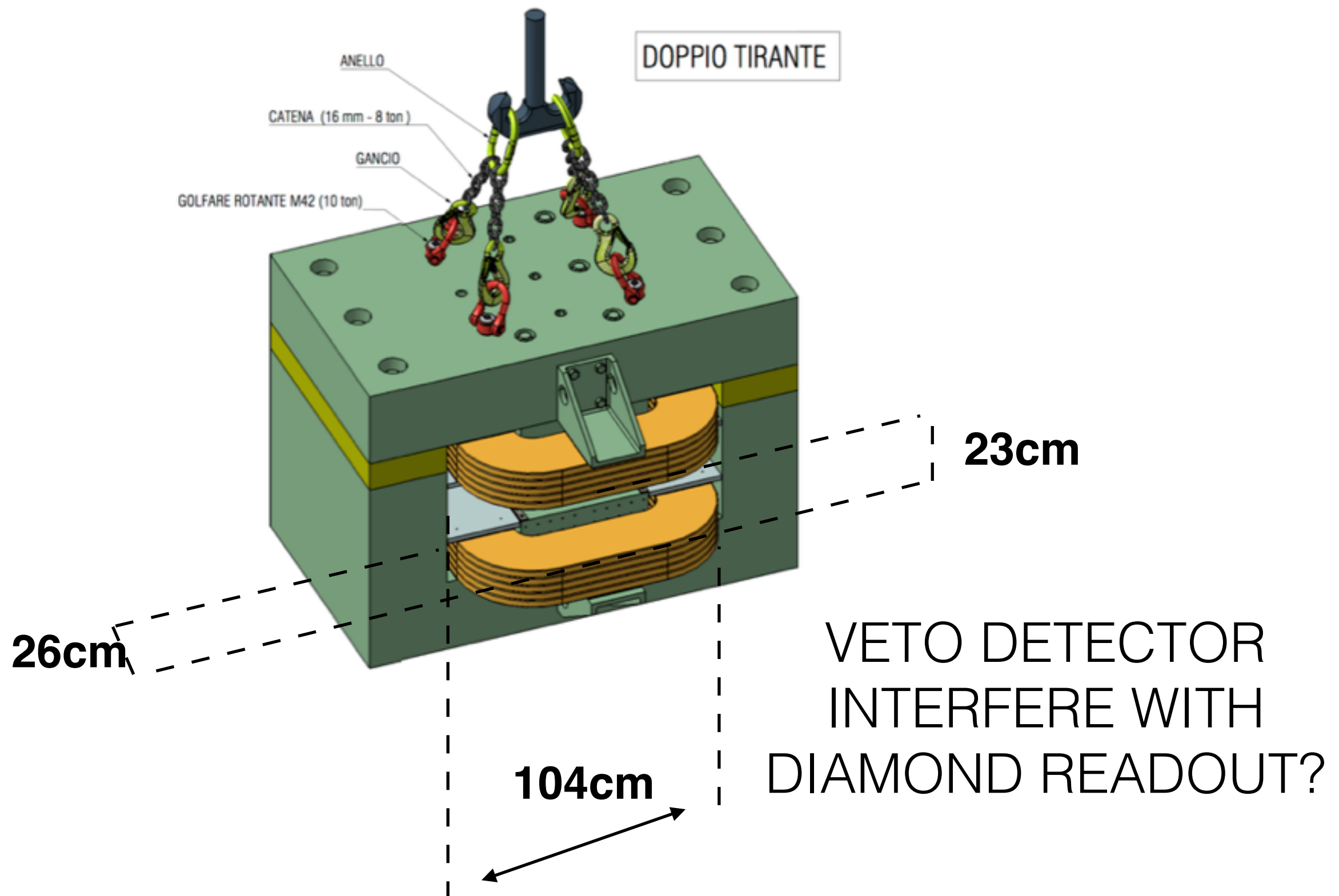
# Mechanics

G. Fiore  
A. Miccoli



**How much the bellow could be short?**

# Mechanical Interference ?



# Front-end



- **10 RF +10 CSA channels amplifier box from CIVIDEC.**
- **Width = 43 cm, High = 9 cm, Depth = 10 cm.**
- **Used in tesbeam Nov 2015 without any problems.**
- **We could put one on top of the other**
- **We could remove the power supply.**
- **Cable length from 5 to 20 cm more (for a total of 20-35 cm).**



# Table for target

G. Fiore  
A. Miccoli

