TPC production

Igal Jaegle

University of Hawaii

for the Belle2 Collaboration

Mini-Group Meeting, 25th September 2015

Table of contents

Grounding implementation

2 TPC design: How the first four detectors differ

Grounding implementation

Wires AWG:

- LV PWR (3 wires) and GND (3 wires) => 22 AWG, conductor is smaller
- HitOR \pm (2 wires) => 24 AWG
- LVDS (8 wires) => 24 AWG

Grounding implemented as we agreed except for the wire AWG



3 / 5

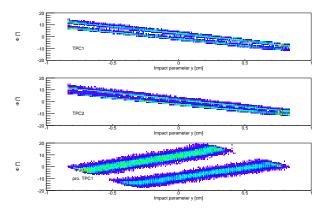
Grounding implementation

Two vacuum LV wirings are done and the two others were about to be terminated with molex and ring lugs today

- If all 22 AWG switched to 20 AWG (with or without PTFE insulation), (one to two days) delays expected in the construction
 - ► All PEEK conectors must be re-done (really annoying)
 - Only PVC 18 or 22 AWG available in the LAB, PVC outgassing a lot
- ullet Order \sim 100 USD of crimp contacts to replace the ones that will be used
- Order PTFE 20 AWG wires, 20 AWG with insulator or without?
- TPC shipement should be delayed by at least 2 or 3 days

TPC design: How the first four detectors differ

- Resistor type
 - Production resistors: MOX750F-100ME-ND
 - Prototype resitors: RNX100MBCT-ND
- FE orientation, 180° difference between production and prototype
- Prototype #2 will have a GEM spacer in Delrin instead of PEEK
- Possibly Prototype #2 might have a shorter drift gap but good hope 10cm might work, I will be sure only once HV test performed in He:CO₂



5 / 5