

Sensor handling for HPK Sensors

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<i>CONTENTS</i>	2
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Contents

1	Arrival	3
2	Visual Inspection	3
3	Metrology	4
4	Longterm and IV-CV Measurement	5
5	Automatic test station	5
6	Far dispatch	5

This note describes the handling procedure for every shipment of sensors. Please note that the dust-free room at the G floor can only be entered by wearing hairnet, booties, coat and gloves

1 Arrival

Staff: Angela Büchler , Frank Lehner

1. controlling with the packing list if the shipment is correct
2. the packing list gets a mark in red with the date, the comment (if the shipment is ok or whats wrong with it) and the signature of the controller.
3. the packing list is stored in a folder called LIEFERSCHEINE LHCb at the office of Frank Lehner
4. the floppy discs with the vendor information are stored at the H-floor in the cupboard
5. every sensor gets a label with the printed sensorID
6. every sensor gets a visual inspection traveler (punched) with the printed sensorID, travelerID and type (no electrical probing travelers!!)
7. the travelers are stored in the travelers folder at the G floor
8. all sensors with vendor information *bad strips* get marked with a yellow point for the automatic test station on the label
9. 5% of each batch is chosen for longterm testing (preferable those with high leakage current at 500 V) and get marked with a green point
10. the vendor information is uploaded to the database
11. all sensors are stored at the dust-free room at the G floor
12. Gisela Baumann is announced to start the visual inspection as fast as possible

2 Visual Inspection

Staff: Gisela Baumann , Thomas Mattle , Ananda Landwehr , Samuel Nüesch

The following procedure is done for each sensor:

1. inspection with the magnifying glass at the front and the back

2. inspection with the microscope
3. all informations from the visual inspection are filled in the *visual inspection traveler*
4. if scratches or acid damages (Kratzer oder Verätzungen) are reported, the sensor gets marked for the automatic test station on the label
5. all worksteps done are marked on the label
6. make sure that 10% of each shipment is going to automatic test station and marked with a yellow point. If there are not enough already chosen by Angela Büchler , chose some randomly
7. make sure that 10% of each batch is chosen for longterm testing and marked with a green point. If there are not enough already chosen by Angela Büchler , chose some according to visual inspection or randomly
8. these longterm testing sensors are handed out imediately to Eveline Eisenring
9. the grade, comments and pictures are entered to the database
10. Gisela Baumann hands out all the rejected sensors (grade E) to Angela Büchler
11. Angela Büchler organizes the reshipment of the rejected sensors with Frank Lehner
12. Gisela Baumann informs Metrology and CV-IV people to begin their measurement

3 Metrology

Staff: Ananda Landwehr

1. the metrology measurements are done
2. every sensor gets a metrology grade
3. the sensors are handed out to Eveline Eisenring by Ananda Landwehr
4. Ananda Landwehr enters the grade to the database

4 Longterm and IV-CV Measurement

Staff: Eveline Eisenring , Dominic Böni

1. longterm tests are done first for the marked sensors
2. sensortest IV and sensortest CV are done for the sensors marked for the automatic test station, then the others are tested
3. all results are notated in the lab-journal
4. all results are uploaded in the database, also the curves
5. the sensors marked for the automatic test station are handed out to Lukas Buchmann by Eveline Eisenring , all the other sensors are handed out to Gisela Baumann who stores them at the dry-box

5 Automatic test station

Staff: Lukas Buchmann

1. automatic testing is done
2. the results are uploaded in the database
3. the sensors are handed out to Gisela Baumann who stores them at the dry-box

6 Far dispatch

Staff: Angela Büchler

1. Angela Büchler supervises the progress of all procedures and updates an overview weekly
2. if all measurements are done, Angela Büchler organizes the shipment of the sensors to other collaborating institutions with Frank Lehner
3. the packing lists are stored also at the folder LIEFERSCHEINE LHCB
4. all shipping information (parcel number, etc) is written on the packing list