

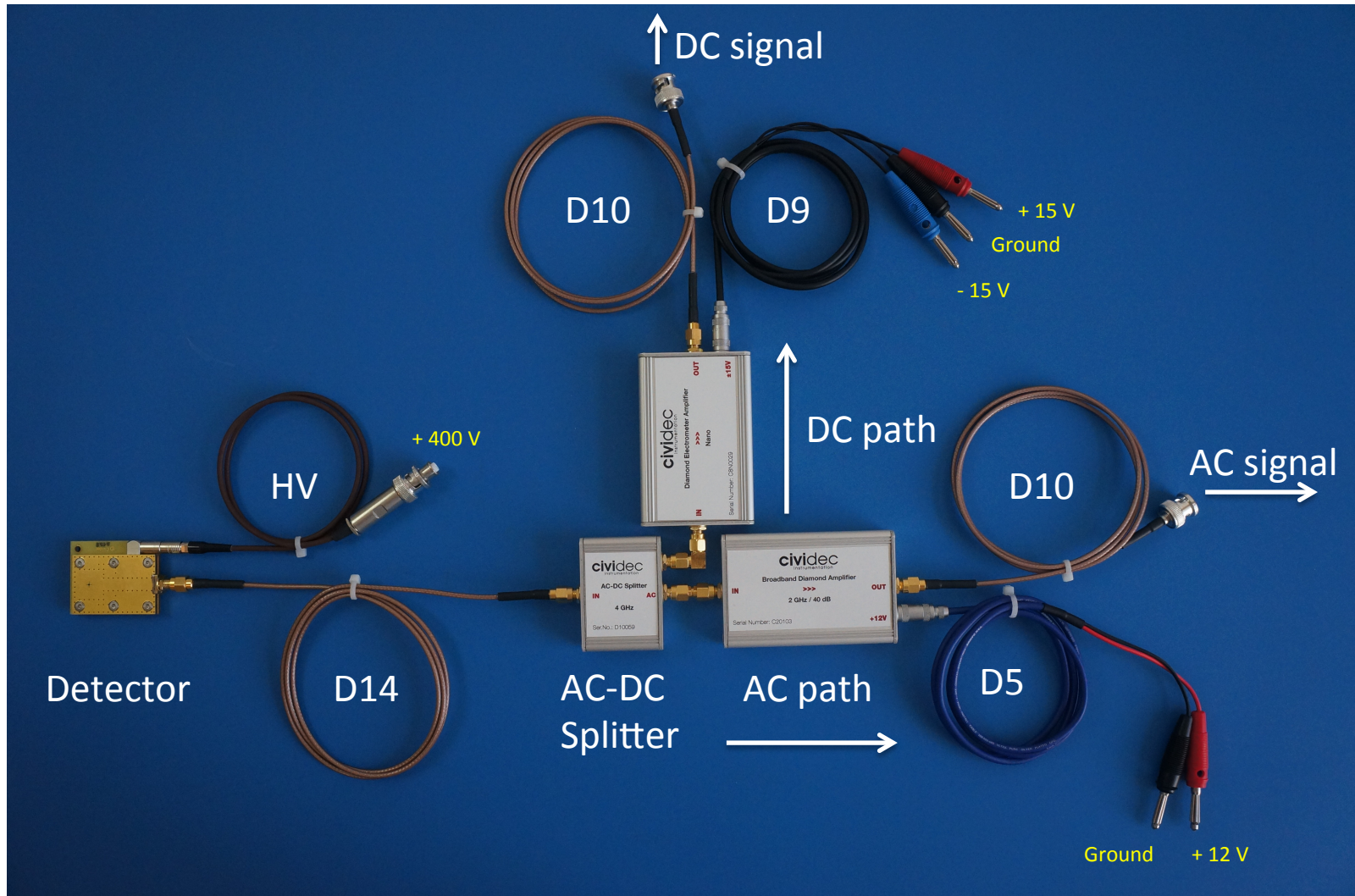
Operation Manual

AC-DC Neutron Flux Monitor

For University of Lancaster
Wien, 4.7.2016



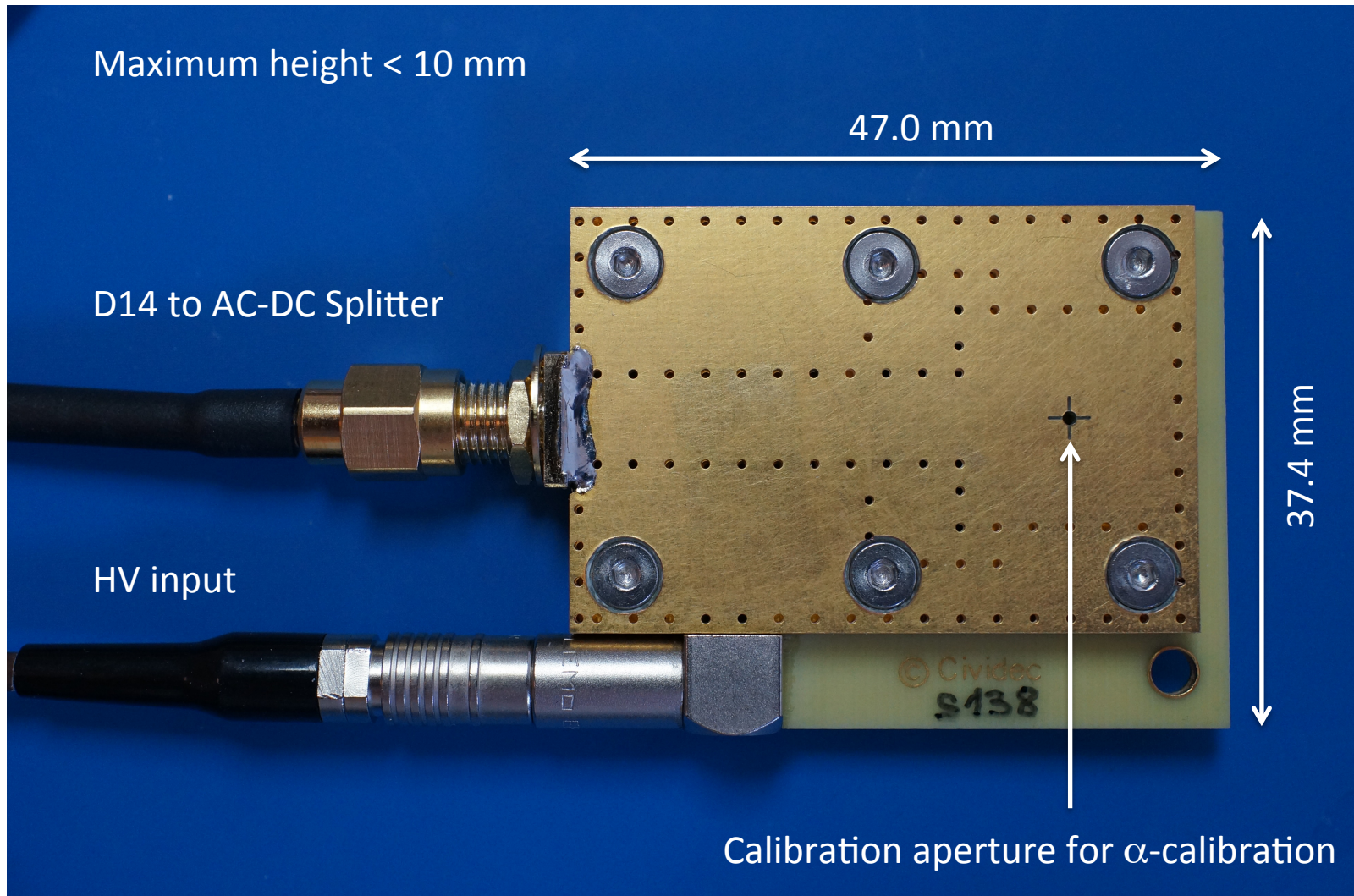
Measurement Setup



Assembly Instruction

1. On slide 2 the measurement setup, including all delivered components is shown.
2. Once all components are connected as shown on the picture, the cables D5 and D9 can be connected to the low-voltage supplies (NB: the low voltage must be turned off while connecting the cables to the supply).
3. Apply the LV to the preamplifiers (+ 12 V for C2 amplifier, ± 15 V for C8 amplifier).
4. Connect the HV cable to the high-voltage supply (NB: the high voltage must be turned off while connecting the cable to the supply).
5. Apply HV to the detector. The bias voltage of the detector can either be positive or negative. The recommended HV is + 400 V.

Detector Dimensions



Additional Information

- When the detector is calibrated with α -particles in the lab, remove the Kapton tape from the calibration aperture which protects the sensor.
- The detector can as well be operated with either of the amplifiers alone, when the amplifier is connected directly to the detector output. The AC-DC splitter is not to be used in this case.
- The D14 cable on slide 2 can be replaced by a high quality RF cable of up to 100 m length without minimizing the performance of the measurement system.
- When applying + 400 V bias voltage to the detector, the AC output signals will be positive, while the DC output will be negative.

www.cividec.at

