

**AN OPTICAL FOCUS SENSOR, AN INSPECTION APPARATUS AND A
LITHOGRAPHIC APPARATUS**

ABSTRACT

To detect whether a substrate is in a focal plane of an inspection apparatus, an optical focus sensor is arranged to receive a radiation beam via an objective lens. The optical focus sensor includes a splitter configured to split the radiation beam into a first sub-beam and a second sub-beam. With an aperture and a detector in the light path of each of the sub-beams it is possible to detect whether the substrate is in focus by comparing the amount of radiation received by each of the detectors.

Figure 4a