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Abstract

POSITION-MEASURING DEVICE

The present invention relates to a position-measuring device having a measuring graduation provided on a material measure going around in ring-like fashion; having a scanning unit for optically scanning the measuring graduation using electromagnetic radiation; having a scanning plate with a periodic scanning graduation which is situated in the beam path of the electromagnetic radiation used for scanning the measuring graduation, so that the radiation interacts both with the scanning graduation and with the measuring graduation; and having a detector of the scanning unit, whose detector surface is used for detecting the electromagnetic radiation after interaction with the scanning graduation and the measuring graduation and which is designed with a period (P_D) for detecting electromagnetic radiation in the form of a stripe pattern. According to the present invention, the period P_M of the measuring graduation (15) and the period P_A of the scanning graduation (25) are coordinated so that

$$1/(1/P_A - 1/P_M) < P_D.$$

Figure 1a