

Abstract



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POSITION-MEASURING DEVICE



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The present invention relates to a position-measuring device for generating a measuring signal having a track (12), which has an incremental graduation (13, 14) having a specified graduation period (TP_{INC}) that extends along a measuring direction (x), having at least one discontinuity of the incremental graduation (13, 14) at a reference position (x_{REF}) for generating a reference signal (REF) and having a scanning unit (2) movable relative to the track (12) along the measuring direction (x), for scanning the incremental graduation (13, 14), the at least one discontinuity being formed by a modification of a transverse substructure of the incremental graduation (13, 14) that runs perpendicular to the measuring direction (x), and that bends radiation beams (S) originating from the scanning unit (2); the bending direction at the discontinuity deviating from the bending direction in other regions of the incremental graduation (13, 14); and the scanning unit (2) having at least two reference-pulse detectors (25.1, 25.2; 25.4, 25.5) which are provided for receiving radiation beams (S_{T1} , S_{T2}) having a different bending direction. It is provided by the present invention that, upstream of the reference-pulse detectors (25.1, 25.2; 25.4, 25.5) at least one imaging optics system (20) is situated in the beam path of the respective bent radiation beam (S_{T1} , S_{T2}).

Figure 1