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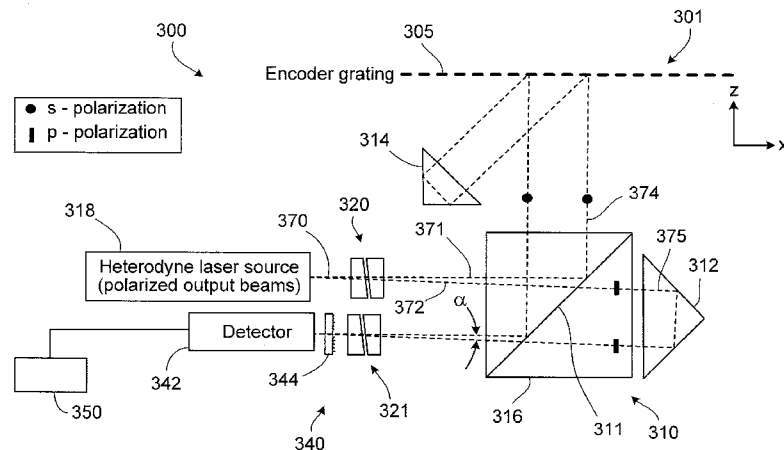


FIG. 3

(57) Abstract: An encoder interferometry system includes an interferometer positioned to receive first and second beams having different frequencies, in which the interferometer has at least one polarizing beam splitting element for directing the first beam along a measurement path to define a measurement beam and the second beam along a reference path to define a reference beam. The encoder interferometry system further includes an encoder scale positioned to diffract the measurement beam at least once, a detector positioned to receive the measurement and reference beams after the measurement beam diffracts from the encoder scale, and an output component positioned to receive the measurement and reference beams before they reach the detector and deflect spurious portions of the first and second beam away from the detector.

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A. CLASSIFICATION OF SUBJECT MATTER**G01D 5/26(2006.01)i, G01B 11/00(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G01D 5/26; G06F 19/00; G03B 27/54; G01N 21/00; G01B 9/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: encoder, frequency, prism, optic, modulator, interferometric and similar terms

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6201609 B1 (HILL, H. A. & De GROOT, P. J.) 13 March 2001 See the whole document.	1-32
A	WO 01-16557 A1 (ZYGO CORPORATION) 08 March 2001 See the whole document.	1-32
A	US 2008-0165345 A1 (HILL, H. A.) 10 July 2008 See the whole document.	1-32
A	US 2010-0079767 A1 (ISHIZUKA, K.) 01 April 2010 See the whole document.	1-32

 Further documents are listed in the continuation of Box C. See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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