

Title (en)
ANGLE MEASUREMENT BY MAGNETIC TRANSDUCER

Title (de)
MAGNETWANDLER FÜR WINKELMESSUNG

Title (fr)
MESURE D'ANGLE PAR TRANSDUCTEUR MAGNETIQUE

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Application
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Abstract (en)
[origin: WO0242713A2] A magnetic transducer for measuring the angle about an axis (A-A) of a part such as a shaft (10) is constructed to emanate a magnetic field which is detectable by a fixed sensor (30) to produce a signal which is dependent on the angle. The construction may include a transducer element (20: 70) mounted eccentrically with respect to the axis (A-A) or a magnetically-conductive element (92) having a surface (94) whose radius is a function of angle. Alternatively a part of circular cross-section is given a radial depth (122) of permanent magnetisation which is a function of angle or is provided with a magnetised zone (142') of different magnetic property to the remainder and having a radial depth which is a function of angle. Such a zone may be a case-hardened zone of a steel part. Transducer regions (20, 22) arranged at 90 DEG can be used in resolving ambiguities in the measurement. The transducer region or a magnetically conductive part (112, 114) thereof may provide a cyclic variation of the emanated magnetic field within one revolution of 360 DEG .

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