

Title (en)

Device for measuring the axial position of a piston rod relatively to a cylinder housing

Title (de)

Vorrichtung zur Messung der axialen Position einer Kolbenstange bezüglich eines Zylindergehäuses

Title (fr)

Dispositif de mesure de la position axiale d'une tige de piston par rapport à un boîtier de cylindre

Publication

EP 2226514 B1 20111221 (DE)

Application

EP 09003286 A 20090306

Priority

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Abstract (en)

[origin: EP2226514A1] The device has circular structures of bulges and recesses formed in a mantle surface of a piston rod (18), and a sensor device (28) for contactlessly scanning the structures using sensors e.g. magneto-resistive sensors, inductive sensors, eddy current sensors and ultrasound sensors, for determining an axial position of the rod. A wear-resistant cover guides the structures into a cylinder housing (10), where the structures concentrically surround the rod. The cover is formed as a pipe (26) that is coaxially pushed into the rod, and the structures form an absolutely coded solid unit. The piston rod is made of soft magnetic material or ultrasound reflecting material, and the pipe is made of magnetically transparent material or non-magnetic stainless steel e.g. austenitic steel, or ultrasound permeable material.

IPC 8 full level

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CPC (source: EP US)

F15B 15/2861 (2013.01 - EP US); **F15B 15/2884** (2013.01 - EP US)

Cited by

CN103375454A; CN112676254A

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