

Title (en)

POSITION-MEASURING DEVICE FOR FLUID CYLINDER

Title (de)

POSITIONSMESSVORRICHTUNG FÜR FLUIDZYLINDER

Title (fr)

DISPOSITIF DE MESURE DE POSITION POUR VÉRIN HYDRAULIQUE OU PNEUMATIQUE

Publication

EP 2769104 B1 20151104 (DE)

Application

EP 12780072 A 20120824

Priority

- AT 12192011 A 20110825
- AT 2012050118 W 20120824

Abstract (en)

[origin: WO2013026080A2] The invention relates to a position-measuring device (2) for a piston rod (6) leading out of a fluid cylinder (1), comprising a material measure in the form of an optically detectable code pattern (8) arranged at the outer circumference (7) of and along the piston rod (6) and a sensor arrangement (9) for optically detecting a rectangular measurement section (29) of the code pattern (8) arranged in a housing (12) in a fixed manner on the fluid cylinder (1), an illumination source (15) emitting a luminous flux onto the code pattern (8), an image sensor (16), measuring lenses (21) for transferring an image of the measurement section (29) onto the image sensor (16) and an evaluating unit (18) for determining the absolute position of the piston rod (6) using the image information captured by the image sensor (16). The illumination source (15) and the image sensor (16) are fastened to a common printed circuit board (17) of the sensor arrangement (9) and a light guiding element (22) for transferring the luminous flux from the illumination source (15) to the measurement section (29) is arranged between the illumination source (15) and the measurement section (29).

IPC 8 full level

F15B 15/28 (2006.01)

CPC (source: EP)

F15B 15/2846 (2013.01)

Citation (opposition)

Opponent : Timothy Webster

- US 8482607 B2 20130709 - WEBSTER TIMOTHY DAVID [CA], et al
- US 6834574 B2 20041228 - NEUMANN ULRICH W [US]
- US 6327791 B1 20011211 - NORCROSS RICHARD J [US], et al

Cited by

EP3855025A1; EP3225854A1; CN115143162A; FR3058212A1; DE102020101615A1

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DOCDB simple family (publication)

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