

Title (en)

DEVICE FOR TUNING A BRAGG GRATING BY MEANS OF COMPRESSION USING A PIEZOELECTRIC ACTUATOR

Title (de)

VORRICHTUNG ZUR ABSTIMMUNG EINES BRAGG-GITTERS DURCH KOMPRESSION MITTELS EINES PIEZOAKTORS

Title (fr)

DISPOSITIF D'ACCORD D'UN RESEAU DE BRAGG PAR COMPRESSION AU MOYEN D'UN ACTIONNEUR PIEZOELECTRIQUE

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Application

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Abstract (en)

[origin: WO2004029696A2] The invention relates to a device for tuning a Bragg grating by means of compression using a piezoelectric actuator. The inventive device, which is intended, in particular, for optical telecommunications, comprises, for example: means (8) of compressing a segment (4) of optical fibre containing a Bragg grating (2); means (10) of preventing said segment from buckling; a tube (14), through which the aforementioned segment passes; and means (32, 34) of guiding the segment inside the tube. The compression means comprise a dished deformable element (8) and a piezoelectric actuator (20, 22) which is disposed between the deformable element and the tube. According to the invention, the piezoelectric actuator lengthens when excited and, in this way, causes the deformable element to bend, said element in turn compressing the segment.

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