

Title (en)
OPTIMUM CONFIGURATION OF A 3 X 3 COUPLER FOR A FIBER OPTIC GYROSCOPE

Title (de)
OPTIMALE KONFIGURATION EINES 3X3 KOPPLERS FÜR EINEN FASEROPTISCHEN KREISEL

Title (fr)
CONFIGURATION OPTIMALE DE COUPLEUR 3 X 3 POUR GYROSCOPE A FIBRE OPTIQUE

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Application
EP 95943772 A 19951208

Priority
US 9516178 W 19951208

Abstract (en)
[origin: WO9721981A1] A fiber optic rotation sensor includes a 3 x 3 optical coupler formed of first, second and third optical waveguides. The first, second and third optical waveguides are formed such that the fractions of light coupled from anyone of the first, second and third optical waveguides to the other two optical waveguides are constant, independent of thermally-induced changes in the interaction length. An optical signal source provides an input optical signal to the first optical waveguide such that portions of the input optical signal are coupled from the first optical waveguide into the second and third optical waveguides. The optical fiber in which the sensing loop is formed has ends that are coupled to the second and third optical waveguides to receive optical signals that form counterpropagating optical waves in a fiber optic sensing loop and to combine the counterpropagating optical waves after they have traversed the sensing loop.

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