

Title (en)

DEVICE FOR DETECTING PRESENCE BY ULTRASOUND

Title (de)

VORRICHTUNG ZUR DETEKTION DER ANWESENHEIT MITTELS ULTRASCHALL

Title (fr)

DISPOSITIF DE DÉTECTION DE PRÉSENCE PAR ULTRASONS

Publication

**EP 3602115 A1 20200205 (FR)**

Application

**EP 18710502 A 20180319**

Priority

- FR 1752502 A 20170324
- EP 2018056893 W 20180319

Abstract (en)

[origin: WO2018172288A1] The invention relates to a device for detecting the presence of a target (T), comprising a generator, a pair (202) of sensors (202M, 202S), and a processing unit (210) that is suitable for: a) receiving and sampling ultrasonic signals; b) obtaining, by Hilbert transform, first and second complex signals; c) filtering, with a matched filter, each of the complex signals; d) associating, with each sample of the filtered first complex signal, the sample of the filtered second complex signal having the best correlation, from which there results one pair of samples for each reception time; e) selecting successive pairs of samples in an interval about each reception time; f) calculating a value of the statistical correlation between the pairs selected in step e); and g) detecting the presence of the target when one of the correlation values deviates significantly from the other correlation values.

IPC 8 full level

**G01S 7/527** (2006.01); **G01S 15/10** (2006.01); **G01S 15/42** (2006.01)

CPC (source: EP US)

**G01S 7/527** (2013.01 - EP); **G01S 15/04** (2013.01 - US); **G01S 15/104** (2013.01 - EP US); **G01S 15/42** (2013.01 - EP)

Citation (search report)

See references of WO 2018172288A1

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