

Title (en)

ANTENNA DEVICE FOR TRANSMITTING DATA OF A FILLING STATE MEASUREMENT DEVICE

Title (de)

ANTENNENVORRICHTUNG ZUR ÜBERTRAGUNG VON DATEN EINES FÜLLSTANDSMESSGERÄTS

Title (fr)

DISPOSITIF D'ANTENNE DESTINÉ DE TRANSMETTRE DES DONNÉES D'UN APPAREIL DE MESURE DE NIVEAU DE REMPLISSAGE

Publication

**EP 2926411 B1 20190814 (DE)**

Application

**EP 13798306 A 20131126**

Priority

- DE 102012111732 A 20121203
- EP 2013074689 W 20131126

Abstract (en)

[origin: WO2014086616A1] Disclosed is an antenna device for transmitting data of a filling state measurement device, comprising at least two coil arrangements ( $i = 1, 2, \dots, n$ ), the coil arrangements ( $i = 1, 2, \dots, n$ ) having a coil length and a coil diameter, the coil diameter being smaller than the corresponding coil length, the coil arrangements ( $i = 1, 2, \dots, n$ ) each intersecting a straight line (e) in such a manner that the straight line (e) and the longitudinal axis of the coil arrangements ( $i = 1, 2, \dots, n$ ) form a smaller intersection angle (g) of at least  $85^\circ$  at the intersection point, the intersection point of each coil arrangement ( $i = 1, 2, \dots, n$ ) being located at a point between  $3/7 l_1$  and  $4/7 l_1$ , the at least two coil arrangements ( $i = 1, 2, \dots, n$ ) being located along said straight line (e) in a sequence, in which the coil lengths ( $l_i$ ) of the coil arrangements ( $i = 1, 2, \dots, n$ ) monotonously decrease  $l_1 > l_2 > \dots > l_n$ , the at least two coil arrangements ( $i = 1, 2, \dots, n$ ) each having a distance (s<sub>i</sub>) along the straight line (e) between the coil arrangements (i) and (i + 1), which distance is at most a quarter as large as the coil length ( $l_i$ ).

IPC 8 full level

**H01Q 7/08** (2006.01); **H01Q 1/22** (2006.01); **H01Q 7/00** (2006.01); **H01Q 7/06** (2006.01)

CPC (source: EP US)

**H01Q 1/225** (2013.01 - EP US); **H01Q 7/00** (2013.01 - US); **H01Q 7/06** (2013.01 - US); **H01Q 7/08** (2013.01 - EP US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**DE 102012111732 A1 20140605**; CN 104956544 A 20150930; CN 104956544 B 20180605; EP 2926411 A1 20151007; EP 2926411 B1 20190814; US 2015325916 A1 20151112; US 9812781 B2 20171107; WO 2014086616 A1 20140612

DOCDB simple family (application)

**DE 102012111732 A 20121203**; CN 201380063180 A 20131126; EP 13798306 A 20131126; EP 2013074689 W 20131126; US 201314648962 A 20131126