

Title (en)

METHOD AND DEVICE FOR OPTICALLY MEASURING THE FILLING LEVEL OF FLUID-FILLED CONTAINERS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR OPTISCHEN FÜLLSTANDSBESTIMMUNG IN FLÜSSIGKEITSGEFÜLLTEN BEHÄLTERN

Title (fr)

PROCEDE ET DISPOSITIF POUR LA DETERMINATION OPTIQUE DE NIVEAUX DE CONTENANTS POUR LIQUIDES

Publication

EP 1476730 A1 20041117 (DE)

Application

EP 03709601 A 20030210

Priority

- DE 0300380 W 20030210
- DE 10206824 A 20020218

Abstract (en)

[origin: US2003155538A1] In a method of optically determining a level of liquid in a liquid-filled container a light guide body projects into the container. The light guide body has an end face for the entry and exit of light and stepped side faces forming separate reflection faces. The light is totally reflected at those reflection faces which are not immersed in the liquid but refracted into the liquid at immersed reflection faces. The totally reflected light is reflected back to the end face. The intensity of the light beam reflected totally by each reflection face back to the end face is measured separately. Measurement signals for determining the filling level are subjected to plausibility checking to recognise and eliminate measurement faults and errors. The invention can be used for determining the level of liquid in a container or tank for fuel, washing water, oil, hydraulic fluid and the like in a motor vehicle.

IPC 1-7

G01F 23/28; **G01F 23/04**

IPC 8 full level

G01F 23/28 (2006.01); **G01F 23/292** (2006.01)

CPC (source: EP US)

G01F 23/2927 (2013.01 - EP US); **G02B 6/0038** (2013.01 - EP US); **Y10S 250/904** (2013.01 - EP US)

Citation (search report)

See references of WO 03071239A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)

US 2003155538 A1 20030821; **US 6921911 B2 20050726**; AU 2003213996 A1 20030909; CA 2476709 A1 20030828; CN 1633586 A 20050629; DE 10206824 A1 20030828; DE 10206824 B4 20050428; EP 1476730 A1 20041117; JP 2005517950 A 20050616; WO 03071239 A1 20030828

DOCDB simple family (application)

US 36908403 A 20030218; AU 2003213996 A 20030210; CA 2476709 A 20030210; CN 03804071 A 20030210; DE 0300380 W 20030210; DE 10206824 A 20020218; EP 03709601 A 20030210; JP 2003570096 A 20030210