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(54) Title: DISCRETE FLUID LEVEL SENSOR AND MOUNT

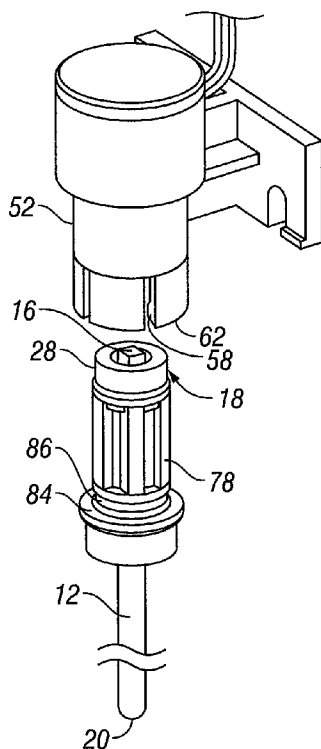


FIG. 5

(57) Abstract: A level sensor for determining the presence or absence of a liquid in contact with the sensor includes an elongate probe, a transducer operably connected to the probe and configured to produce compressional waves in the probe, and circuitry for detecting acoustic energy emitted into the liquid when liquid is in contact with the probe. A mount for the releasably holding the sensor includes a base having a receiving region formed in part by a plurality of flexible securing fingers. The fingers have locking projections extending therefrom. A contact is mounted to the base and extends into the receiving region. A cartridge supports the level sensor and is received in the receiving region. The cartridge includes a circumferential recess for receiving the securing fingers. When the level sensor is positioned in the cartridge and the cartridge is inserted into the base, the level sensor is operably connected to the contact and the cartridge is resiliently secured in the base.

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B FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

USPC - 73/290V, 632, 642, 644, 866 5, 310/327, 335, 336, 338, 340/621, 367/99, 108, 151, 902, 908 (Text limited search, see terms below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 PubWEST(USPT,PGPB,EPAB,JPAB), Google Scholar; Google Patents, terms sensor, probe, waveguide, circuit\$2, electrc\$4, mount\$3, cartridge, contact, conduct\$4, fluid, liquid, spring, inert\$4, coupl\$3, rod, tube, bar, strp, level, acoustic, energy, wave, compress\$5

C DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
X - Y	US 4,890,490 (Telford) 02 January 1990 (02 01 1990) Fig 1, abstract, col 2, ln 5-7, col 3, ln 20-21, 27-31	1, 6, 8 - 2-5, 7, 9, 10
Y	US 5,119,676 A (Bower et al) 09 Jun 1992 (09 06 1992) col 3, ln 23-27	7, 10
Y	US 5,697,248 A (Brown) 16 December 1997 col 6, ln 16-22	9
Y	US 6,993,967 B2 (Forgue) 7 February 2006 (07 02 2006) Figs 1, 2, 4, col 4, ln 24-25	11-20, 22
Y	US 6,640,658 B1 (Guerrero et al) 04 November 2004 (04 11 2004) Figs 3, 5b, col 1, ln 58-64, col 4, ln 8-10	2-5, 11-22
Y	US 2006/0250426 A1 (Wanibe et al) 9 November 2006 (09 11 2006) para [0019], [0084]	11-22
Y	US 5,718,816 A (Savage et al) 7 Februar 2006 (07 02 2006) Rg 3c, col 11, ln 36-38	12, 14

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