

Title (en)

DEVICE FOR THE CONTACTLESS DISTRIBUTION OF MEASURED QUANTITIES OF LIQUID

Publication

EP 0090207 A3 19860122 (DE)

Application

EP 83102228 A 19830307

Priority

DE 3212378 A 19820402

Abstract (en)

[origin: US4464941A] A device for the non-contacting dosing or metering of liquids, designed as a dosing syringe, comprises a piston centrally disposed within a sleeve, with a spring surrounding the piston. The spring bears against an upper end of a barrel within which the piston reciprocates and which is surrounded by the lower end of the sleeve. The outside of the barrel is formed with stroke-limiting abutments.

IPC 1-7

B01L 3/02

IPC 8 full level

B01L 3/02 (2006.01)

CPC (source: EP US)

B01L 3/0217 (2013.01 - EP US)

Citation (search report)

- [Y] US 2705494 A 19550405 - BROADWIN SAMUEL M
- [Y] BE 493795 A
- [A] US 2798647 A 19570709 - BROADWIN SAMUEL M
- [A] US 3334788 A 19670808 - HAMILTON CLARK H
- [A] DE 2632970 A1 19780126 - MERCK PATENT GMBH

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WO2012121879A1

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

EP 0090207 A2 19831005; EP 0090207 A3 19860122; AU 1246783 A 19831006; CA 1179301 A 19841211; DE 3212378 A1 19831013; JP S58223445 A 19831226; US 4464941 A 19840814

DOCDB simple family (application)

EP 83102228 A 19830307; AU 1246783 A 19830315; CA 423504 A 19830314; DE 3212378 A 19820402; JP 5497783 A 19830330; US 47426283 A 19830311