

Title (en)

MULTICHANNEL SYRINGE FOR USE WITH A METERING DEVICE

Title (de)

MEHRKANALSPRITZE FÜR DEN GEBRAUCH MIT EINER DOSIERVORRICHTUNG

Title (fr)

SERINGUE À CANAUX MULTIPLES À UTILISER AVEC UN DISPOSITIF DE DOSAGE

Publication

EP 3472575 A1 20190424 (DE)

Application

EP 17731583 A 20170621

Priority

- EP 16175499 A 20160621
- EP 2017065277 W 20170621

Abstract (en)

[origin: WO2017220673A1] The invention relates to a multichannel syringe for use with a metering device for metering liquids in a laboratory with a first holding device for a barrel holding device of a syringe barrel and an axially movable second holding device for a plunger holding device of a syringe plunger, comprising a single-part plunger unit made of plastic, said plunger unit having a drive rod comprising the plunger holding device on the upper end, a cross member which is oriented perpendicularly to the drive rod on the lower end of the drive rod, and multiple syringe plungers which protrude downwards from the cross member and which are parallel to the drive rod; a single-part barrel unit made of plastic, said barrel unit comprising a support and at least one row of syringe barrels which are arranged adjacently in a parallel manner, which protrude downwards from the support, and each of which has lower syringe openings, upper syringe openings, and a running region in the interior for one syringe plunger of the plunger unit. Each syringe plunger engages into a syringe barrel through an upper syringe opening and is sealingly guided in the running region, and the barrel holding device is arranged above the syringe barrel and is connected to the support.

IPC 8 full level

G01F 11/02 (2006.01); **B01L 3/02** (2006.01); **G01N 35/10** (2006.01)

CPC (source: EP US)

B01L 3/0217 (2013.01 - EP US); **B01L 3/0275** (2013.01 - EP US); **G01F 11/027** (2013.01 - EP US); **G01N 35/1065** (2013.01 - US); **G01N 35/1065** (2013.01 - EP)

Citation (examination)

JP 3389352 B2 20030324

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3260822 A1 20171227; **EP 3260822 B1 20200715**; CN 109564122 A 20190402; CN 109564122 B 20210112; EP 3472575 A1 20190424; JP 2019521847 A 20190808; JP 6964609 B2 20211110; PL 3260822 T3 20210208; US 11130121 B2 20210928; US 2020306746 A1 20201001; WO 2017220673 A1 20171228

DOCDB simple family (application)

EP 16175499 A 20160621; CN 201780047529 A 20170621; EP 17731583 A 20170621; EP 2017065277 W 20170621; JP 2018566532 A 20170621; PL 16175499 T 20160621; US 201716309045 A 20170621