

Title (en)

FREE INK-TYPE WRITING INSTRUMENT COMPRISING A MICROFLUIDIC VALVE

Title (de)

FREIES TINTENSCHREIBGERÄT MIT EINEM MIKROFLUIDISCHEN VENTIL

Title (fr)

INSTRUMENT D'ÉCRITURE À ENCRE LIBRE COMPRENANT UNE VALVE MICROFLUIDIQUE

Publication

EP 3638513 B1 20220406 (FR)

Application

EP 18749433 A 20180614

Priority

- FR 1755418 A 20170615
- FR 2018051410 W 20180614

Abstract (en)

[origin: WO2018229443A1] The invention relates to a writing instrument (10) which comprises a main body (12) provided with a writing tip (14), said writing tip (14) being supplied with ink by a free ink-type reservoir (12), the reservoir (12) being equipped with a pressure regulating device (16) for regulating the pressure within the reservoir (12), and said pressure regulating device (16) comprising at least one microfluidic valve (18, 18').

IPC 8 full level

B43K 23/12 (2006.01); **B43K 5/18** (2006.01); **B43K 7/10** (2006.01); **B43K 8/04** (2006.01); **B43K 8/14** (2006.01); **B43K 8/18** (2006.01)

CPC (source: EP US)

B43K 5/1827 (2013.01 - EP US); **B43K 7/03** (2013.01 - US); **B43K 7/10** (2013.01 - EP); **B43K 8/04** (2013.01 - EP); **B43K 8/143** (2013.01 - EP); **B43K 8/18** (2013.01 - EP); **B43K 23/12** (2013.01 - EP)

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)

WO 2018229443 A1 20181220; EP 3638513 A1 20200422; EP 3638513 B1 20220406; FR 3067652 A1 20181221; FR 3067652 B1 20200925; US 11117415 B2 20210914; US 2020207144 A1 20200702

DOCDB simple family (application)

FR 2018051410 W 20180614; EP 18749433 A 20180614; FR 1755418 A 20170615; US 201816622682 A 20180614