

Title (en)
KEY WITH ENHANCED EXPRESSIVE POSSIBILITIES

Title (de)
TASTE MIT ERWEITERTEN AUSDRUCKSMÖGLICHKEITEN

Title (fr)
TOUCHE AVEC POSSIBILITÉ D'EXPRESSIONS SUPPLÉMENTAIRES

Publication
EP 3547303 B1 20200513 (DE)

Application
EP 18165083 A 20180329

Priority
EP 18165083 A 20180329

Abstract (en)
[origin: US2019304421A1] A button includes a button unit suspended vertically in Z direction in a frame and which has a button body with an upper actuating surface and at least one shaft extending vertically downwardly from the button body. An X-Y sensor unit is arranged vertically below the button body and fixed to the frame for detecting X-Y positions on the actuating surface. The X-Y sensor unit has one opening such that the shaft can vertically move therethrough. One transfer element is elastically suspended vertically below the shaft and moved vertically downwardly upon downward movement of the shaft. A Z sensor unit arranged vertically below the transfer element is fixed to the frame. The Z sensor unit has at least one detection element for detecting vertical downward movement of the transfer element. The X-Y sensor unit may include a capacitive sensor. The Z sensor unit may include an inductive sensor, a capacitive sensor, or a magnetic sensor. The button may be illuminated by the shaft, where the shaft and the extension include a translucent material to form a light guide connected to the button body. A light source is located vertically below the shaft, so the light of the light source leaves upwardly and enters the shaft from below. An optical device deflecting the light that entered the shaft from the light source in a horizontal direction is arranged in the vertical upper area of the light guide above the shaft.

IPC 8 full level
G10C 3/12 (2006.01); **G10H 1/055** (2006.01); **G10H 1/34** (2006.01)

CPC (source: EP GB US)
G10C 3/12 (2013.01 - EP US); **G10H 1/0551** (2013.01 - EP US); **G10H 1/0555** (2013.01 - EP US); **G10H 1/34** (2013.01 - GB US); **G10H 1/344** (2013.01 - EP US); **G10H 1/46** (2013.01 - US); **H01H 13/023** (2013.01 - GB); **H01H 13/703** (2013.01 - US); **H01H 13/83** (2013.01 - US); **G10H 2220/026** (2013.01 - US); **G10H 2220/161** (2013.01 - EP GB US); **G10H 2220/275** (2013.01 - EP GB US); **G10H 2220/521** (2013.01 - EP US); **H01H 2219/056** (2013.01 - GB); **H01H 2219/058** (2013.01 - GB); **H01H 2219/062** (2013.01 - GB); **H01H 2219/066** (2013.01 - GB); **H01H 2231/018** (2013.01 - US)

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)
EP 3547303 A1 20191002; **EP 3547303 B1 20200513**; GB 201904363 D0 20190515; GB 2574303 A 20191204; GB 2574303 B 20211103; US 11727905 B2 20230815; US 2019304421 A1 20191003

DOCDB simple family (application)
EP 18165083 A 20180329; GB 201904363 A 20190328; US 201816035365 A 20180713