

Title (en)
PRODUCT DISPENSING SYSTEM WITH PWM CONTROLLED SOLENOID PUMP

Title (de)
PRODUKTAUSGABEVORRICHTUNG MIT PULSWEITENMODULATIONSGESTEUERTER MAGNETPUMPE

Title (fr)
SYSTÈME DE DISTRIBUTION DE PRODUIT AU MOYEN D'UNE POMPE À ÉLECTROAIMANT COMMANDÉE PAR MODULATION DE LARGEUR D'IMPULSION (PWM)

Publication
EP 2771579 B1 20190821 (EN)

Application
EP 12791338 A 20121026

Priority

- US 201161552938 P 20111028
- US 201161560007 P 20111115
- US 201261636298 P 20120420
- US 2012062215 W 20121026

Abstract (en)
[origin: WO2013063463A1] A system for monitoring flow conditions of fluid flowing from a product container through a solenoid pump. The system includes at least one solenoid pump comprising a solenoid coil, which, when energized, produces a stroke of the solenoid pump, at least one product container connected to the at least one solenoid pump wherein the at least one solenoid pump pumps fluid from the at least one product container during each stroke, at least one PWM controller configured to energize the at least one solenoid pump, at least one current sensor for sensing the current flow through the solenoid coil and producing an output of the sensed current flow, and a control logic subsystem for controlling the flow of fluids through the solenoid pump by commanding the PWM controller and for monitoring the current through the solenoid pump by receiving the output from the current sensor, wherein the control logic subsystem uses the measured current flow through the solenoid coil to determine whether the stroke of the solenoid pump is functional.

IPC 8 full level
F04B 49/06 (2006.01); **B67D 1/08** (2006.01); **G05B 21/02** (2006.01)

CPC (source: EP)
B67D 1/0888 (2013.01); **B67D 1/0892** (2013.01); **F04B 17/04** (2013.01); **F04B 49/06** (2013.01)

Cited by
WO2023232765A1

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 2013063463 A1 20130502; AU 2012328565 A1 20140417; AU 2012328565 B2 20170824; BR 112014009778 A2 20170613; CN 103890396 A 20140625; CN 103890396 B 20160928; EP 2771579 A1 20140903; EP 2771579 B1 20190821; IN 3021CHN2014 A 20150703; JP 2015504125 A 20150205; JP 2017096292 A 20170601; JP 2019074090 A 20190516; JP 2020190247 A 20201126; JP 2022058630 A 20220412; JP 2023169200 A 20231129; JP 6445599 B2 20181226; JP 6454151 B2 20190116; JP 6739504 B2 20200812; JP 7011686 B2 20220127; JP 7343627 B2 20230912; MX 2014005069 A 20140822; MX 352606 B 20171129; RU 2014121493 A 20151210; ZA 201402601 B 20150930

DOCDB simple family (application)
US 2012062215 W 20121026; AU 2012328565 A 20121026; BR 112014009778 A 20121026; CN 201280053085 A 20121026; EP 12791338 A 20121026; IN 3021CHN2014 A 20140422; JP 2014539068 A 20121026; JP 2017011769 A 20170126; JP 2018223731 A 20181129; JP 2020124493 A 20200721; JP 2022004713 A 20220114; JP 2023140635 A 20230831; MX 2014005069 A 20121026; RU 2014121493 A 20121026; ZA 201402601 A 20140409