

Title (en)
DIGITAL HYDRAULIC CONTROLLER

Title (de)
DIGITALHYDRAULISCHER REGLER

Title (fr)
RÉGULATEUR NUMÉRIQUE DE PRESSION HYDRAULIQUE

Publication
EP 2435715 A1 20120404 (DE)

Application
EP 10713639 A 20100413

Priority
• EP 2010054795 W 20100413
• DE 102009026606 A 20090529

Abstract (en)
[origin: WO2010136255A1] The invention relates to a digital hydraulic controller (2) comprising at least two rows of valve elements, one of said rows of valve elements being adapted to connect a supply conduit to a controller outlet and the other row of valve elements being adapted to connect the controller outlet to an outlet conduit. The valve elements of every row of valve elements are connected in parallel in the controller (2) and can be switched simultaneously either individually or in various combinations thereof. Each valve element of a row of valve elements has a different flow cross-section. The valve element which has the smallest flow cross-section is present in the row of valve elements twice. The invention further relates to a system unit comprising a differential cylinder (1) and a digital hydraulic controller (2) which has four rows of valve elements, two of which are connected to one pressure chamber of the differential cylinder with their common controller outlet while the other two rows of valve elements are connected to the other pressure chamber of the differential cylinder (1) with their common controller outlet. Due to the fact that the pressure in the two pressure chambers can be independently set, the differential cylinder can be used as a linear actuator that can be precisely set.

IPC 8 full level
F15B 11/042 (2006.01)

CPC (source: EP US)
F15B 11/0426 (2013.01 - EP US); **F15B 2211/40507** (2013.01 - EP US); **F15B 2211/40592** (2013.01 - EP US); **F15B 2211/411** (2013.01 - EP US); **F15B 2211/426** (2013.01 - EP US); **F15B 2211/455** (2013.01 - EP US); **F15B 2211/46** (2013.01 - EP US); **Y10T 137/87917** (2015.04 - EP US)

Citation (search report)
See references of WO 2010136255A1

Designated contracting state (EPC)
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 SE SI SK SM TR

DOCDB simple family (publication)
DE 102009026606 A1 20101202; CN 102449317 A 20120509; CN 102449317 B 20150121; EP 2435715 A1 20120404; EP 2435715 B1 20160406; JP 2012528279 A 20121112; JP 5284539 B2 20130911; US 2012073431 A1 20120329; WO 2010136255 A1 20101202

DOCDB simple family (application)
DE 102009026606 A 20090529; CN 201080023912 A 20100413; EP 10713639 A 20100413; EP 2010054795 W 20100413; JP 2012512272 A 20100413; US 201013322800 A 20100413