

Title (en)
WINDOW ACTUATOR WITH OBSTACLE DETECTION

Title (de)
FENSTERAKTUATOR MIT HINDERNISERKENNUNG

Title (fr)
ACTIONNEUR DE FENÊTRE AVEC DÉTECTION D'OBSTACLES

Publication
EP 3235993 A1 20171025 (EN)

Application
EP 17166777 A 20170418

Priority
EP 16165754 A 20160418

Abstract (en)
An electrically operated actuator (10) for operating a window (1), the window comprising a frame (2), a sash (3) being pivotally suspended from the frame (2) by a horizontal pivot axis and, when pivoted, positioned in one of an open position zone (A), a near closed position zone (B), and a visually closed position zone (C). A compressible seal or gasket (5) is provided between the frame (2) and the sash (3) such that it bridges at least a part of the visually closed position zone (C). The actuator (10) is adapted to perform a first closing operation (101) while monitoring an indicator of a closing force applied onto the sash (3) by the actuator (10). The actuator (10) is further adapted to initiate a first reversing operation (102) upon the indicator of closing force exceeding a threshold during the first closing operation (101), and the actuator (10) is configured to initiate a subsequent, second closing operation (104) after the first reversing operation (102). Monitoring of the indicator of closing force is disengaged when the sash reaches the visually closed position zone (C).

IPC 8 full level
E05F 15/41 (2015.01); **E05F 15/611** (2015.01); **E05D 7/08** (2006.01); **E05D 7/081** (2006.01); **E05D 7/082** (2006.01); **E05F 15/619** (2015.01)

CPC (source: EP)
E04D 13/0354 (2013.01); **E05F 15/41** (2013.01); **E05F 15/611** (2015.01); **E05D 7/08** (2013.01); **E05D 7/081** (2013.01); **E05D 7/082** (2013.01); **E05F 15/619** (2015.01); **E05Y 2400/54** (2013.01); **E05Y 2400/55** (2013.01); **E05Y 2400/554** (2013.01); **E05Y 2400/57** (2013.01); **E05Y 2800/41** (2013.01); **E05Y 2800/748** (2013.01); **E05Y 2900/148** (2013.01); **E05Y 2900/152** (2013.01)

Citation (applicant)
• EP 2754820 A2 20140716 - SCHUECO INT KG [DE]
• EP 1441100 A1 20040728 - SOMFY [FR]

Citation (search report)
• [Y] GB 2026723 A 19800206 - TEKRON PATENTS LTD
• [Y] US 2010228446 A1 20100909 - SCHULTER WOLFGANG [DE], et al
• [A] US 5449987 A 19950912 - MCMILLAN SCOTT D [US]

Cited by
EP3770356A1; EP3770355A1; CN111868349A; EP3770354A1

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 3235992 A1 20171025; **EP 3235992 B1 20240703**; EP 3235991 A1 20171025; EP 3235991 B1 20200812; EP 3235993 A1 20171025; EP 3235993 B1 20240703

DOCDB simple family (application)
EP 17166774 A 20170418; EP 16165754 A 20160418; EP 17166777 A 20170418