

Title (en)  
WINDOW ACTUATOR WITH OBSTACLE DETECTION

Title (de)  
FENSTERAKTUATOR MIT HINDERNISERKENNUNG

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

Publication  
**EP 3235991 A1 20171025 (EN)**

Application  
**EP 16165754 A 20160418**

Priority  
EP 16165754 A 20160418

Abstract (en)  
An actuator for operating a pivot hung or top hung window providing enhanced anti-pinch sensing. The actuator is adapted to perform a first closing operation while monitoring a closing force applied by the actuator. The actuator is adapted initiate a first reversing operation upon the closing force exceeding a first threshold during the first closing operation, and the actuator is configured to initiate a second closing operation after the first reversing operation.

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

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] US 5449987 A 19950912 - MCMILLAN SCOTT D [US]  
• [Y] GB 2026723 A 19800206 - TEKRON PATENTS LTD

Citation (third parties)  
Third party : Dipl.-Ing. Klaus Ernicke  
• DE 29802620 U1 19980528 - STEINEL AG [CH]  
• DE 102011051336 B3 20120920 - STG BEIKIRCH INDUSTRIELEKTRONIK & SICHERHEITSTECHNIK GMBH & CO KG [DE]  
• EP 1464786 A1 20041006 - MAYSERGMBH & CO KG [DE]

Cited by  
WO2019141327A1; DE102018104777A1; CN111868349A; CN114934731A; EP3505712A1

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