

Title (en)  
DIRECTIONAL VALVE AND RESPIRATOR MASK WITH A DIRECTIONAL VALVE

Title (de)  
RICHTUNGSVENTIL UND ATEMSCHUTZMASKE MIT EINEM RICHTUNGSVENTIL

Title (fr)  
CLAPET ANTI-RETOUR ET MASQUE DE PROTECTION RESPIRATOIRE DOTÉ D'UN CLAPET ANTI-RETOUR

Publication  
**EP 2570156 A2 20130320 (DE)**

Application  
**EP 12156933 A 20120224**

Priority  
DE 102011113716 A 20110917

Abstract (en)  
The valve has a fixing lug arranged at a valve housing for fixing a valve membrane in a valve seat (1) and for supporting sealing of a flat sealing surface (2) by the valve membrane during an inspiration phase. The fixing lug is arranged between a surface center of the valve membrane and an edge of the valve membrane such that an entire circumferential area of the valve membrane is lifted-out from the sealing surface during an expiration phase, and a flow resistance for an expired air, which is low in relation to a central arrangement of the fixing lug is adjusted. An independent claim is also included for a breathing mask.

Abstract (de)  
Ein Richtungsventil soll hinsichtlich seiner funktionellen Eigenschaften verbessert werden. Hierzu ist eine außermittig zur Ventilmembran (16) angeordneten Fixierungsnase (13) vorgesehen, die am Ventilgehäuse (15) angeordnet ist und deren Abmessungen zur Fixierung der Ventilmembran (16) gegenüber der Dichtungsfläche (2) des Ventilsitzes (1) ausgebildet sind, wobei das Maß des außermittigen Versatzes (x) in einem Bereich zwischen 8% und 15% der Achsenlänge (D) der größten Längserstreckung der Ventilmembran (16) liegt.

IPC 8 full level  
**A62B 18/10** (2006.01); **F16K 15/14** (2006.01)

CPC (source: EP US)  
**A62B 18/10** (2013.01 - EP US)

Citation (applicant)  
• DE 4017336 C1 19910613  
• US 6047698 A 20000411 - MAGIDSON MARK [US], et al

Cited by  
DE102022113700A1; WO2023232173A1

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)  
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DOCDB simple family (publication)  
**EP 2570156 A2 20130320; EP 2570156 A3 20150805; EP 2570156 B1 20180711**; CN 102989093 A 20130327; CN 102989093 B 20150617; DE 102011113716 A1 20130321; DE 102011113716 B4 20160811; US 2013068232 A1 20130321; US 9808657 B2 20171107

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**EP 12156933 A 20120224**; CN 201210343092 A 20120917; DE 102011113716 A 20110917; US 201213467516 A 20120509