

Title (en)  
MINIATURE FLUID CONTROL DEVICE

Title (de)  
MINIATURFLUIDSTEUERUNGSVORRICHTUNG

Title (fr)  
DISPOSITIF DE RÉGULATION DE FLUIDES MINIATURE

Publication  
**EP 3333423 B1 20220511 (EN)**

Application  
**EP 17200870 A 20171109**

Priority  
TW 105136555 A 20161110

Abstract (en)  
[origin: EP3333423A1] A miniature fluid control device (1A) includes a gas inlet plate (11), a resonance plate (12) and a piezoelectric actuator (13). The gas inlet plate (11) includes an inlet (110), a convergence channel (112) and a central cavity (111). A convergence chamber is defined by the central cavity (111). The resonance plate (12) has a central aperture (120). The piezoelectric actuator (13) includes a suspension plate (130), an outer frame (131) and a piezoelectric ceramic plate (133). A gap (g0) is formed between the resonance plate (12) and the piezoelectric actuator (13) to define a first chamber (121). The gas is fed into the miniature fluid control device (1A) through the inlet (110) of the gas inlet plate (11), converged to the central cavity (111) through the convergence channel (112), transferred through the central aperture (120) of the resonance plate (12), introduced into the first chamber (121), transferred downwardly through a vacant space (135) between the bracket (132) of the piezoelectric actuator (13), and exited from the miniature fluid control device (1A).

IPC 8 full level  
**F04B 43/04** (2006.01); **F04B 45/047** (2006.01)

CPC (source: EP US)  
**F04B 45/047** (2013.01 - EP US)

Cited by  
CN109915347A

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