

Title (en)
MINIATURE PNEUMATIC DEVICE

Title (de)
PNEUMATISCHE MINIATURVORRICHTUNG

Title (fr)
DISPOSITIF PNEUMATIQUE MINIATURE

Publication
EP 3321506 B1 20200304 (EN)

Application
EP 17200862 A 20171109

Priority
TW 105136558 A 20161110

Abstract (en)
[origin: EP3321506A1] A miniature pneumatic device (1) includes a miniature fluid control device (1A) and a miniature valve device (1B). The miniature fluid control device (1A) includes a gas inlet plate (11), a resonance plate (12), a piezoelectric actuator (13) and a gas collecting plate (16). The length and width of the gas collecting plate (16) are between 4mm and 10mm. A first chamber (121) is formed between the resonance plate (12) and the piezoelectric actuator (13). After a gas is fed into the gas inlet plate (11), the gas is transferred to the first chamber (121) through the resonance plate (12) and then transferred downwardly. Consequently, a pressure gradient is generated to continuously push the gas. The miniature valve device (1B) includes a valve film (17) and a gas outlet plate (18). After the gas is transferred from the miniature fluid control device (1A) to the miniature valve device (1B), the valve opening (170) of the valve film (17) is correspondingly opened or closed and the gas is transferred in one direction.

IPC 8 full level
F04B 43/04 (2006.01)

CPC (source: EP US)
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Cited by
CN113123947A; US11614082B2

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