

Title (en)  
Gas flow control valve.

Title (de)  
Gasstromregelventil.

Title (fr)  
Soupape de commande de l'écoulement de gaz.

Publication  
**EP 0496497 A1 19920729 (EN)**

Application  
**EP 92300137 A 19920108**

Priority  
GB 9101247 A 19910119

Abstract (en)  
A gas flow control valve has a valve housing (11) with inlet (14) and outlet (15) interconnected by a valve chamber (12), a seat being defined by the valve chamber (12) intermediate of the inlet (14) and outlet (15), the valve chamber (12) increasing in diameter away from the valve seat (13). A valve member (16) is slidably located coaxially of the valve chamber (12). A first pressure differential actuator has a diaphragm (25) secured to the valve member (16), a fluid tight chamber (30) on one side of diaphragm (25) is connected to the inlet (14), while a chamber (31) on the other side of diaphragm (25) is connected to the outlet (15). A second pressure differential actuator has a diaphragm (46) which controls movement of a plunger (49), a chamber (52) on one side of the diaphragm (46) being connected to atmosphere while chamber (53) on the other side of diaphragm (46) is connected to a controllable vacuum source, the plunger (49) abutting the end of valve member (16) to control movement of the valve member (16) with respect to the seat (13). <IMAGE>

IPC 1-7  
**F01N 3/22**; **G05D 7/00**

IPC 8 full level  
**F01N 3/22** (2006.01)

CPC (source: EP)  
**F01N 3/22** (2013.01); **F01N 3/227** (2013.01)

Citation (search report)  
• [A] US 3950943 A 19760420 - PADDOCK GORDON R, et al  
• [A] US 4037406 A 19770726 - HAERTEL GUNTER [DE]  
• [A] US 3433242 A 19690318 - VOORHEIS WYLIE J  
• [A] US 4139983 A 19790220 - SHIBATA NORIO

Cited by  
CN1100226C; CN112654768A; CN113454329A; EP0712998A1; FR2727156A1; US5699664A; US7789657B2

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