

Title (en)
DOME-LOADED PRESSURE REGULATOR

Title (de)
DOMDRUCKREGLER

Title (fr)
RÉGULATEUR DE PRESSION À DÔME

Publication
EP 3452882 A1 20190313 (DE)

Application
EP 17726837 A 20170503

Priority
• DE 102016108448 A 20160506
• EP 2017060495 W 20170503

Abstract (en)
[origin: WO2017191171A1] The invention relates to a dome-loaded pressure regulator for regulating gas pressure, having a housing (1), a fixed valve seat (10), a movable valve body (8), a closing spring (9) acting on the valve body (8), and a diaphragm (4) connected to the valve body (8), said diaphragm (4) being able to be subjected to a control pressure, settable via a gas pressure spring, in the opening direction and to a secondary pressure in the closing direction. The problem addressed by the invention is that of sensing state parameters of the system and of integrating continuous functional testing and recording of the measured parameters into the pressure regulator. To solve this problem, the invention proposes at least one position sensor (15), by way of which the travel of the valve body (8) is able to be measured, and a sensor-system evaluation unit (17) integrated into the housing.

IPC 8 full level
G05D 16/16 (2006.01); **G05D 16/18** (2006.01); **G05D 16/20** (2006.01)

CPC (source: EP US)
G05D 16/02 (2013.01 - EP US); **G05D 16/0636** (2013.01 - US); **G05D 16/185** (2013.01 - EP US)

Citation (search report)
See references of WO 2017191171A1

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)
DE 102016108448 A1 20171109; **DE 102016108448 B4 20221208**; EP 3452882 A1 20190313; US 2019146527 A1 20190516; US 2021397205 A1 20211223; WO 2017191171 A1 20171109

DOCDB simple family (application)
DE 102016108448 A 20160506; EP 17726837 A 20170503; EP 2017060495 W 20170503; US 201716098548 A 20170503; US 202117464249 A 20210901