Deutscher Verein des
Gas- und Wasserfaches e.V.

DVGW
REGELWERK

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Technical Rule – Standard
DVGW G 459-2 November 2015

Gas Pressure Regulating Installations with a Maximum Upstream Operating Pressure of 5 bar and a Maximum Design Flow Rate of 200 m^3/h under Normal Conditions on Service Lines; Functional Requirements

GAS

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Foreword

This Standard has been elaborated by the ”Gas Pressure Regulation in Service Lines“ project group of the Technical Committee on ”Plant Engineering“. It serves as a basis for the construction of gas pressure regulating systems on service lines in accordance with DVGW Standard G 459-1.

This DVGW Standard incorporates the requirements of DIN EN 12279 ”Gas supply systems – Gas pressure regulating systems on service lines – Functional requirements“.

The difference in requirements between pressure regulation in residential or similar installations on the one hand and pressure regulating plants for distribution networks or for the supply of commercial or industrial users with process gas on the other are so great that these are now covered in two separate Standards, i. e. G 459-2 and G 491, respectively.

Residential applications are dealt with in this Standard G 459-2. However, to ensure harmonisation with DIN EN 12279, the scope of this Standard has been confined to a maximum operating pressure of 5 bar and a nominal flow rate of 200 m^3 / h at the inlet side under normal conditions. Standard G 491 covers gas pressure regulating systems with operating characteristics exceeding the limits mentioned above as well as non-residential applications.

Although DIN EN 12279 has broadened the scope of pressure settings of regulating and safety devices, these are not permissible under this Standard.

Numerous stationary pressure devices in the broadest sense fall within the scope of EU Pressure Equipment Directive 97 / 23 / EC. An application of the EC Pressure Equipment Directive requires furnishing only the declarations of conformity required by the PED, which to that extent replace the tests and proofs required under this Technical Rule.

In the European Union and / or the European Economic Area the principle of equivalence applies to national technical requirements and / or approval procedures, as explicitly set forth in § 49 (3) *Energiewirtschaftsgesetz* (Energy Industry Act), covering also public gas utilities.

The principle of equivalence shall apply to this Technical Rule as a whole as well as to the national standards and declarations of conformity referenced in this document.

Amendments

The following amendments have been made compared to DVGW G 459-2:2005-05:

a) Change of title to illustrate the scope of application and to harmonise it with *NDAV* terminology

b) Update of normative references, in particular incorporation of DIN 33821 and DIN 33822 that supersede the withdrawn DIN 3381 and / or DVGW VP 200

c) Editorial changes and added terms and definitions

d) More detailed information on the possible omission of safety shut-off devices in gas pressure regulating systems with MOP_u up to and including 100 mbar

e) Emphasis on the significance of a low-pressure cut-off switch and the low-pressure cut-off of the safety shut-off device as a component facilitating the recommissioning of local grids and residential installations

f) Addition of a reference to DIN 3386 for gas filters in gas pressure regulating systems

g) Addition of a condition for the omission of function lines to the atmosphere if gas pressure regulating systems are installed in a separate junction box

h) Change of the testing and commissioning requirements for gas pressure regulating systems with external function lines (active lines) by qualified persons

i) Addition of an informative annex on function spot-checks during incoming goods inspection

j) Other editorial amendments

Earlier editions

DVGW Standard G 459 / II (Publication date 07 / 1999)

DVGW Standard 459-2 (Publication date 05 / 2005)