Profipress G gas meter ball valve with SC-Contur

Instructions for Use



for single-pipe gas meters

Model
G2112

Year built:
from 01/1990

en_INT

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1 About these instructions for use

Trade mark rights exist for this document, further information can be found at www.viega.com/legal-notices.

1.1 Target groups

The information in this instruction manual is directed at the following groups of people:

- Contract installers registered in the installers' register of a utility company
- professional specialist companies for the construction, maintenance and alteration of a natural or liquid gas system

Liquid gas systems may only be constructed, maintained or altered by companies that have the necessary qualification and experience.

It is not permitted for individuals without the abovementioned training or qualification to mount, install and, if required, service this product. This restriction does not extend to possible operating instructions.

The installation of Viega products must take place in accordance with the general rules of engineering and the Viega instructions for use.

1.2 Labelling of notes

Warning and advisory texts are set aside from the remainder of the text and are labelled with the relevant pictographs.



DANGER!
This symbol warns against possible life-threatening injury.



WARNING!
This symbol warns against possible serious injury.



CAUTION!
This symbol warns against possible injury.



NOTICE!
This symbol warns against possible damage to property.

Notes give you additional helpful tips.

1.3 About this translated version

This instruction for use contains important information about the choice of product or system, assembly and commissioning as well as intended use and, if required, maintenance measures. The information about the products, their properties and application technology are based on the current standards in Europe (e. g. EN) and/or in Germany (e. g. DIN/DVGW).

Some passages in the text may refer to technical codes in Europe/ Germany. These should serve as recommendations in the absence of corresponding national regulations. The pertinent national laws, standards, regulations and guidelines, as well as other technical guidelines, have priority over German/European guidelines in this manual: The information is not binding for other countries and territories and should, as mentioned, be considered as support.

2 Product information

2.1 Intended use

The use of the model for areas of use and media other than those described must be approved by the Viega Service Center.

2.1.1 Areas of use

Use is possible in the following areas among others:

- Gas installations
- Liquid gas systems

The general rules of engineering must be observed for planning, execution, alteration and operation gas installations.

E. g. the following regulations apply:

- DVGW-TRGI 2008 for gas installations
- DVFG-TRF 2012 for liquid gas systems

Use is possible in the gas installations described below:

- gas installations in acc. with DVGW-TRGI 2008
  - low pressure range ≤ 100 hPa (100 mbar)
  - medium pressure range from 100 hPa (100 mbar) up to 0.1 MPa (1 bar)
  - industrial, commercial and process technical systems with the corresponding DVGW instruction and engineering regulations, e. g.: DVGW Worksheet G 5614, G 462, G 459-1 and DVGW Technical information No. 10
- liquid gas installations in acc. with DVFG-TRF 2012
  - with liquid gas tank in medium pressure range behind the pressure regulating device, 1st level on the liquid gas tank > 100 hPa (100 mbar) up to a permitted operating pressure of 0.5 MPa (5 bar)
  - with liquid gas tank in low pressure range ≤ 100 hPa (100 mbar) behind the pressure regulating device, 2nd level
  - with liquid gas pressurised container (liquid gas bottles) < 16 kg behind the small bottle pressure regulating valve
  - with liquid gas tank (liquid gas bottle) ≥ 16 kg behind the large bottle pressure regulating device

2.1.2 Media

The model is suitable for the following media, amongst others:

- Gases
  in acc. with DVGW Worksheet G 260
- Liquid gases, only in the gaseous state for domestic and commercial applications
  in acc. with DVGW-AB G 260

2.2 Product description

2.2.1 Overview

Viega gas fittings conform with the requirements of DIN EN 331. The gas fittings are tested and certified in accordance with the following criteria by the DVGW:

- *leak tightness in acc. with 3537-1*
- *higher thermal resistance (HTR)*

The model is equipped as follows:

- casing made of brass
- dual-sided Profipress G press connection screw fitting with SC-Contur
- test opening < 1 mm
- test screw in the dimension G ⅛
- wall bracket with fixing set

In addition, the model is equipped with a G 2 thread, onto which the gas meter is connected.

The model is lead-sealable and, in addition, can be locked using a commercially available padlock.

The yellow protective sleeve on the actuating lever shows the medium to be gas.

The model is available in the following dimension: d 22.

2.2.2 Press connection with SC-Contur



Fig. 1: Press connection using a press connector as an example

The press connection has a circumferential bead in which the sealing element lies. The connector is deformed in front of and behind the bead and permanently connected to the pipe during pressing. The sealing element is not deformed during pressing.

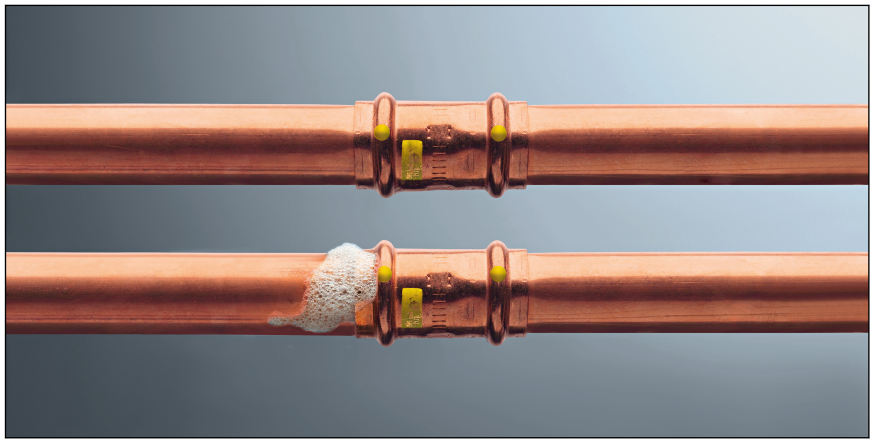


Fig. 2: SC-Contur

SC-Contur

Viega press connections are equipped with the SC-Contur. The SC-Contur is a safety technology that is certified by the DVGW and ensures that the connection is guaranteed to be leaky in an unpressed state. In this way, unpressed connections are noticed immediately during a leakage test.

Viega guarantees that unpressed connections are visible during a leakage test:

- with dry leakage test in the pressure range from 22 hPa–0.3 MPa (22 mbar–3.0 bar)

2.2.3 Sealing elements

The press connections are factory-fitted with yellow HNBR sealing elements.

Use	Gas installation	Liquid gas installation
Operating temperature	-20 °C up to +70 °C	-20 °C up to +70 °C
Operating pressure	≤ 0.5 MPa (5 bar) (MOP 5) ≤ 0.1 MPa (1 bar) (HTR / GT1)[2)]	≤ 0.5 MPa (5 bar) (MOP 5)[1)] ≤ 0.1 MPa (1 bar) (HTR / GT1)[2)]

[1)] Maximum pressure – equates to the pick-up pressure of the SAV in the pressure regulating valve

[2)] Operating pressure at HTR requirement max. 0.1 MPa (1 bar) (GT1)

in acc. with DIN EN 331 the scope of the operating temperature is between -20 °C and max. +60 °C.

2.2.4 Markings on components

The press connections are marked with a coloured dot. This identifies the SC-Contur, where the test medium would escape in the case of an inadvertently unpressed connection.

The model is marked as follows:

- MOP5 for maximum operating pressure 0.5 MPa (5 bar)
- GT1 for operating pressure with HTR requirement max. 0.1 MPa (1 bar)
- Flow direction indicator
- DWGW writing
- HTR marking
- yellow dot and yellow rectangle for gas
- Position indicator

2.2.5 Compatible components

The model is compatible with the following systems:

- Profipress G
- Sanpress Inox G

Profipress G gas fittings are equipped with press connections.

The press connections are tested and certified with the following types of pipe in accordance with DVGW Worksheet G 5614:

- Copper pipes
  - in acc. with DVGW Worksheet GW 392
  - in acc. with DIN EN 1057
- Stainless steel pipes (material 1.4401)
  - in acc. with DVGW Worksheet GW 541
  - in acc. with DIN EN 10088

Profipress G gas fittings may only be connected to the Sanpress Inox stainless steel pipe (material 1.4401) up to dimension 28 mm.

Please contact the Viega Service Center for questions on this subject.

2.2.6 Technical data

Observe the following operating conditions for the installation of the model:

Use	Gas installation	Liquid gas installation
Operating temperature	-20° C up to +70° C	-20° C up to +70° C
Operating pressure	≤ 0.5 MPa (5 bar) (MOP5) ≤ 0.1 MPa (1 bar) (HTR / GT1)[2)]	≤ 0.5 MPa (5 bar) (MOP5)[1)] ≤ 0.1 MPa (1 bar) (HTR / GT1)[2)]

[1)] Maximum pressure – equates to the pick-up pressure of the SAV in the pressure regulating valve

[2)] Operating pressure at HTR requirement max. 0.1 MPa (1 bar) (GT1)

In accordance with DIN EN 331 the scope of the operating temperature is between -20 °C and max. +60 °C.

2.3 Information for use

2.3.1 Corrosion

Depending on the area of use, corrosion protection measures may have to be taken into account.

One differentiates between external pipelines (underground and overground external pipelines), as well as internal pipelines.

The general rules of engineering must be observed for corrosion protection.

The following regulations apply, e.g.:

- DIN 30672
- DVGW-TRGI 2008, Point. 5.2.7.1 (for external pipelines)
- DVGW-TRGI 2008, Point. 5.2.7.2 (for internal pipelines)
- DVFG-TRF 2012, Point. 7.2.7.1 (for external pipelines)
- DVFG-TRF 2012, Point 7.2.7.2 (for internal pipelines)

Overground pipes and fittings in rooms do not normally require external corrosion protection.

There are exceptions in the following cases:

- There is external contact with materials containing chloride.
- Stainless steel pipes must not come into contact with building materials or mortar containing chloride.
- There is contact with aggressive building materials such as materials containing nitrite or ammonium.
- in aggressive surroundings

3 Handling

3.1 Assembly information

3.1.1 Mounting instructions

Checking system components

System components may, in some cases, become damaged through transportation and storage.

- Check all parts.
- Replace damaged components.
- Do not repair damaged components.
- Contaminated components may not be installed.

Mounting conditions

Observe the following when mounting:

- Observe flow direction indicator.
- Observe required space for the gas meters according to the manufacturer's instructions.
- Do not cover or paint the model.
- Do not install the model in heat zones (e. g. with hot emissions or strong heat radiation.
- Use suitable tools.

Exceptions, selection criteria and order of the components are described in DVGW-TRGI 2008 and DVFG-TRF 2012.

NOTICE!
Active and possibly passive protection measures are required to protect a gas installation from tampering by unauthorised persons

Active protective measures must always be taken.

Passive protective measures must be selected and employed depending on the installation.

The use of active and passive protective measures is regulated in DVGW-TRGI 2008, Point 5.3.9.

3.1.2 Required tools

The following tools are required for production of a press connection:

- Pipe cutter or a fine-toothed hacksaw
- Deburrer and coloured pen for marking
- Press machine with constant pressing force
- Press jaw or press ring with corresponding adapter jaw, suitable for the pipe diameter and suitable profile



Fig. 3: Press jaws

Recommended Viega press machines:

- Pressgun 5
- Pressgun Picco
- Pressgun 4E / 4B
- Picco
- Type PT3-AH
- Type PT3-H / EH
- Type 2 (PT2)

3.2 Mounting

3.2.1 Mounting the wall bracket

Mount the wall bracket first, then the fitting.

The model is equipped with a wall bracket and the required fixing set for mounting on masonry.

The fixing material must be adapted to the ground and to the ambient conditions.

Information about the ground and the ambient conditions are to be found in DVGW-TRGI 2008, Point 5.3.7.

- Hold the wall bracket in the correct position and mark the drill holes on the wall.
- Drill holes.
- Align the wall bracket horizontally and screw on.
- Mount the fitting on the wall bracket.

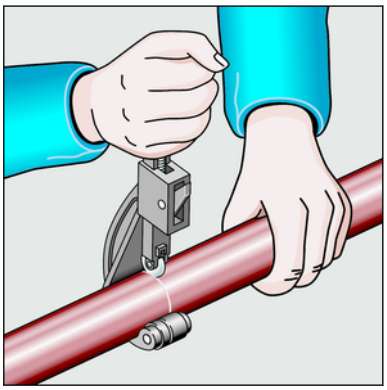
3.2.2 Shortening the pipes

NOTICE!
Leaky press connections due to pipes being too short

If two press connectors are to be mounted onto a pipe without an interval, the pipe must not be too short. If the pipe is not inserted up to the prescribed insertion depth in the press connector during pressing, the connection may become leaky.

For that reason, the length of the pipe must correspond exactly with the total insertion depth of both press connectors.

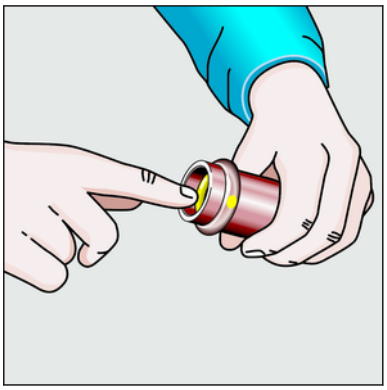
See *Chapter 3.1.2 „Required tools“ on page 12* for information about tools.



- Cut the pipe properly using a pipe cutter or fine-toothed hacksaw.

  Avoid grooves on the pipe surface.

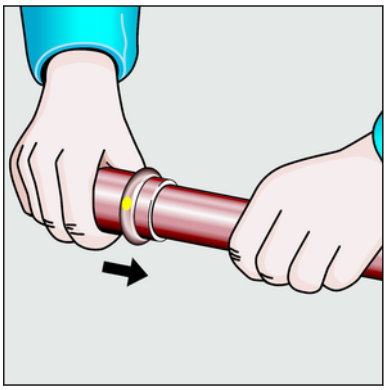
3.2.3 Pressing the connection



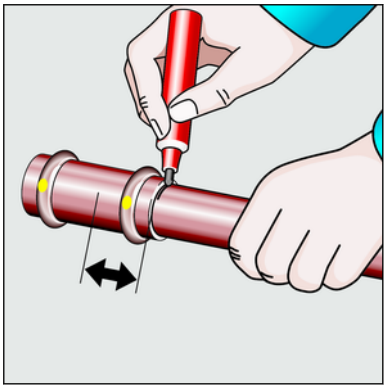
Requirements:

- The pipe end is not bent or damaged.
- The pipe is deburred.
- The correct sealing element is in the press connector.
  HNBR = yellow

- The sealing element is undamaged.
- The complete sealing element is in the bead.



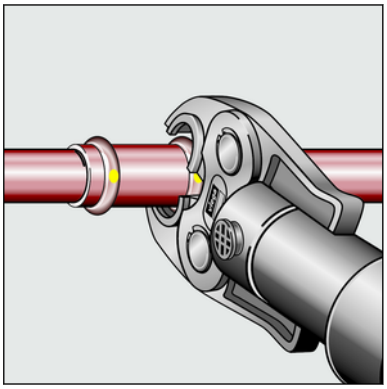
- Push the press connector onto the pipe as far as it will go.



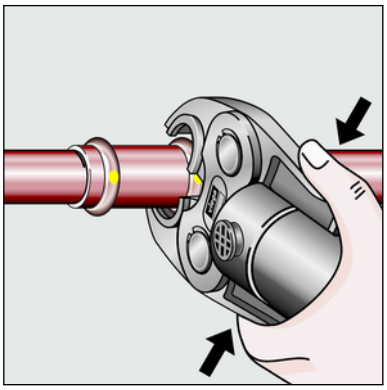
- Mark the insertion depth.

- Place the press jaw onto the press machine and push the retaining bolt in until it clicks into place.

  INFO! Observe the press tool instruction manual!



- Open press jaw and place at a right-angle onto the connector.
- Check the insertion depth using the marking.
- Ensure that the press jaw is placed centrally on the bead of the press connector.



- Complete pressing.

- Open and remove press jaw.
  - ⇨ Connection is pressed.

3.2.4 Leakage test

The installer must perform a leakage test before commissioning.

This test is carried out on a unit that is finished but not yet covered.

The general rules of engineering must be observed.

E. g. the following regulations apply:

- DVGW-TRGI 2008, Point 5.6
- DVFG-TRF 2012, Point 8 (Testing and commissioning of a liquid gas system)

The result must be documented.

By employing an overflow cap (model G2360), the continuous gas installation can also be tested without mounted gas meters.

3.3 Maintenance

The gas installation must be given a visual inspection, e. g. by the owner, once a year.

Serviceability and leak tightness must be checked every 12 years by an installation contractor.

Gas installations must be operated and maintained as intended to ensure and maintain a safe operating condition. Detailed information on this topic can be found in DVGW-TRGI 2008 appendix 5c.

3.4 Disposal

Separate the product and packaging materials (e. g. paper, metal, plastic or non-ferrous metals) and dispose of in accordance with valid national legal requirements.