

GOK

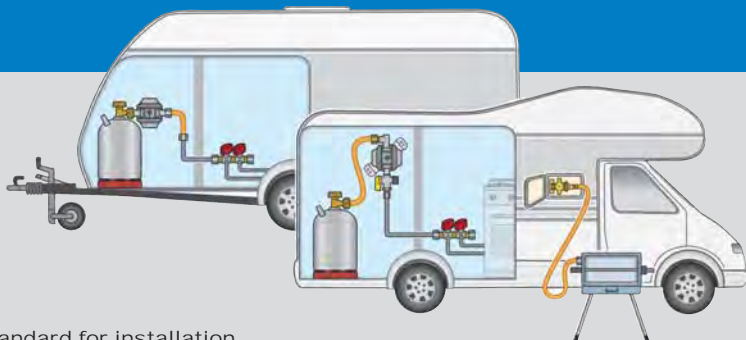


Caravan

Solutions for LPG in leisure vehicles



ONLY BEST QUALITY
FOR YOUR ABSOLUTE SAFETY



EN 1949 - the standard for installation

This standard describes the requirements for LPG installations in caravans and motor caravans throughout Europe.

The main requirements are:

1. Before a vehicle is sold to an end customer it must be fitted with a pressure regulator.
2. The pressure regulator must comply with EN 16129 Annex D.
3. The pressure regulator may be installed directly on the cylinder valve or be firmly attached to the wall of the vehicle and be connected to the LPG cylinder with a high pressure hose.
4. The leak test of the LPG installation is carried out at a test pressure of 150 mbar.
5. Outdoor LPG appliances may be connected to and supplied from the vehicle's LPG installation via a quick coupler.
6. Automatic changeover systems according to EN 16129 Annex D or manual changeover systems may be used.
7. The LPG system in the vehicle may also be operated from an external LPG supply. The connection is made using a quick coupler. In addition, a manual changeover valve must be installed before the pressure regulator to allow switching between the internal LPG cylinder and the external LPG supply.
8. The requirements for the installation of LPG tanks that are attached firmly to the vehicle were included.

EN 16129 Annex D - the standard for regulators and automatic changeover systems

The main points of this standard are:

1. The working pressure of the LPG system is 30 mbar (throughout Europe).
2. The maximum flow is 1.5 kg/h.
3. The inlet pressure range is 0.3 to 16 bar. Hence, these pressure regulators are suitable for all liquefied gases (propane, butane and mixtures of these).
4. The pressure regulator must have an integrated safety device to prevent inadmissible pressure rises to protect the consuming appliance.
 - Pressure relief valve PRV, response pressure max. 150 mbar or
 - Overpressure safety device S2SR (OPSD), protection pressure max. 150 mbar

Heating while driving

Special safety equipment, which prevents unburnt LPG escaping in the event of an accident, is required to operate LPG appliances while driving. This requirement is defined in Directive 2006/119/EC.

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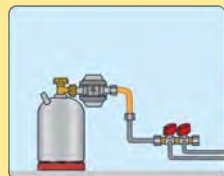
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CARAVANS AND MOTOR CARAVANS

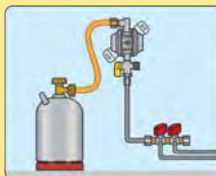
Selection of regulators

Cylinder connection



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Wall mounting



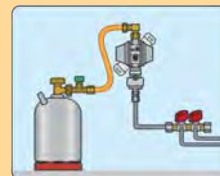
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MOTOR CARAVANS

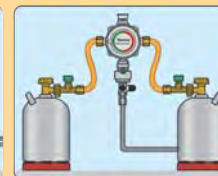
Heating while driving

Single-cylinder system



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Two-cylinder system

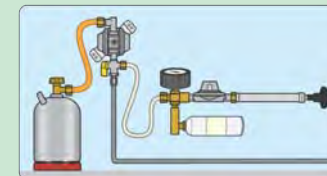


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OPERATION AND TESTING

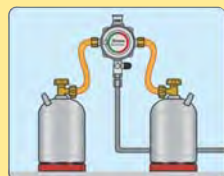
Leak testing by qualified persons



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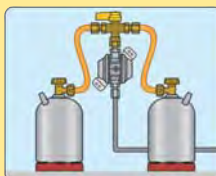
Two-cylinder system

automatic changeover



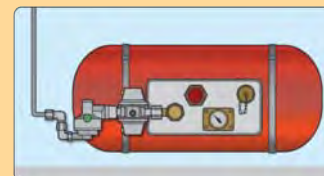
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manual changeover



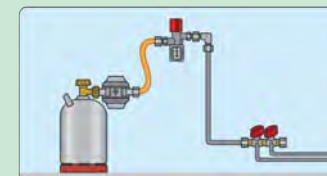
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LPG tank - heating while driving



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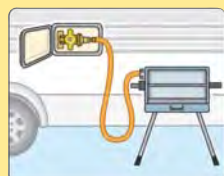
Leak testing by the operator



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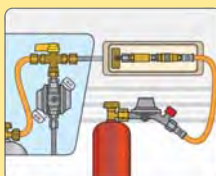
External connection

LPG withdrawal



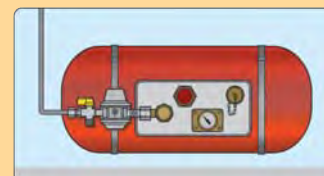
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LPG supply



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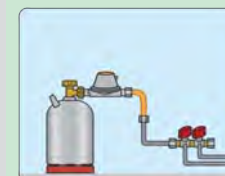
LPG tank - stationary operation



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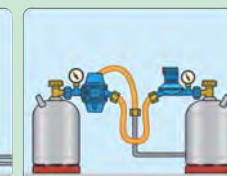
Care and maintenance

Installation 50 mbar



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Two-cylinder system



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Capacity stages of the low pressure regulator

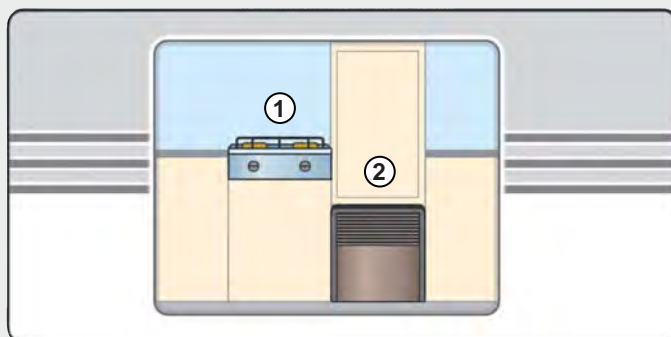
By using the calculation examples below, you can determine the correct capacity stage of the low pressure regulator for your vehicle. All you have to do is add up the required LPG volumes of the consumer devices that you have installed.

INSTALLATION EXAMPLES

Capacity stage 1 - nominal flow 0.8 kg/h

Installation example:

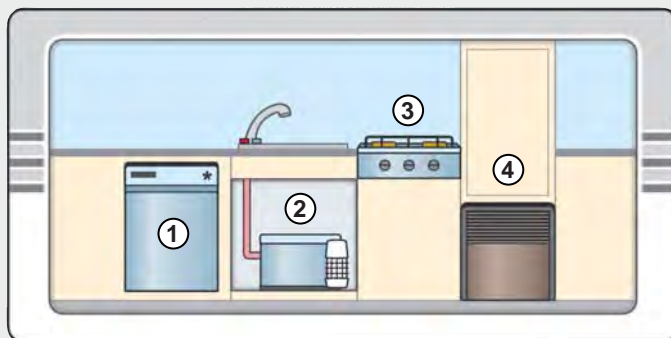
- | | |
|--------------------------|-------------------------|
| ① Stove 2 flame | = approx.194 g/h |
| ② Truma S heater 5004 | = approx.480 g/h |
| Total consumption | = approx.674 g/h |



Capacity stage 2 - nominal flow 1.2 kg/h

Installation example:

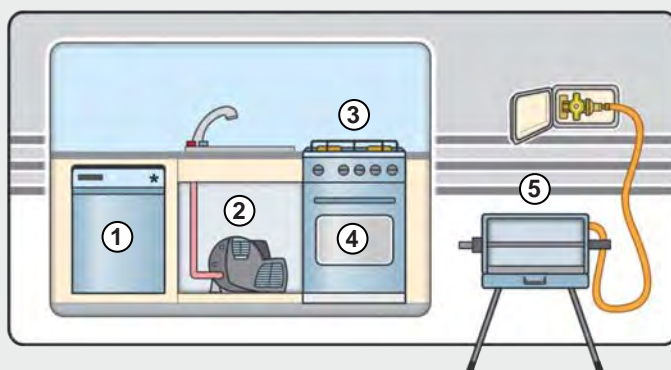
- | | |
|--------------------------|-------------------------|
| ① Cooling device | = approx. 80 g/h |
| ② Boiler | = approx.120 g/h |
| ③ Stove 3 flame | = approx.200 g/h |
| ④ Truma S heater 5004 | = approx.480 g/h |
| Total consumption | = approx.880 g/h |

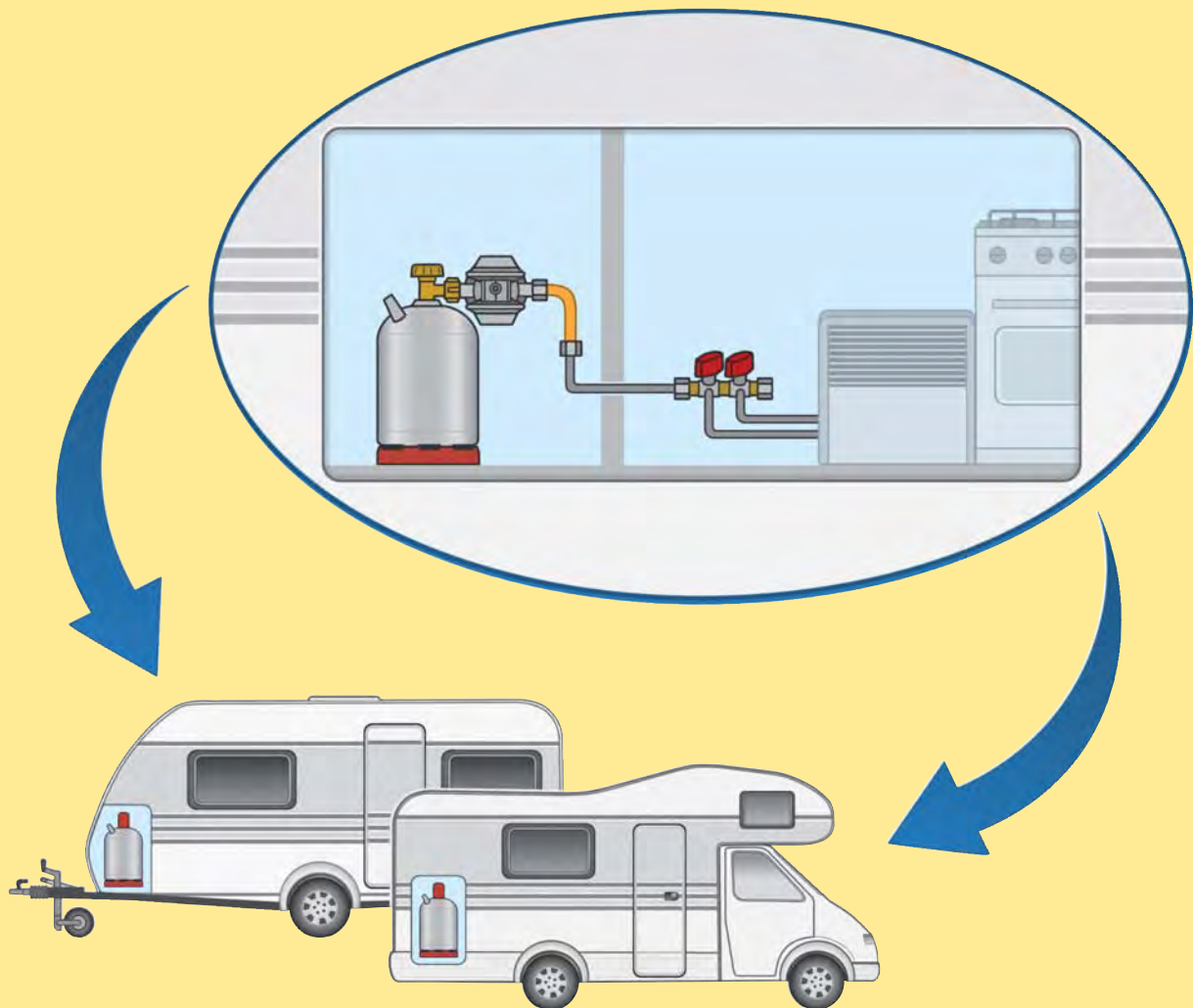


Capacity stage 3 - nominal flow 1.5 kg/h

Installation example:

- | | |
|--------------------------|--------------------------|
| ① Cooling device | = approx. 80 g/h |
| ② Truma Combi 6 | = approx. 480 g/h |
| ③ Stove 4 flame | = approx. 330 g/h |
| ④ Oven | = approx. 200 g/h |
| ⑤ Gas BBQ | = approx. 350 g/h |
| Total consumption | = approx.1440 g/h |





The classic LPG cylinder connection

The tried and tested connection solution for caravans and motor caravans is the classic method of connecting a gas cylinder to the supply line of the vehicle.

The low pressure regulator is connected directly to the LPG cylinder. The connection to the supply line of the vehicle is then made with a medium-pressure hose assembly.



Low pressure regulator PS 16 bar

for connection to LPG cylinders to regulate the pressure to the nominal pressure of the LPG appliance

consisting of: low pressure regulator with integrated safety device against overpressure

Advantages and equipment

- version with pressure gauge to check for leaks in the system
- version with extended inlet connector, 90° outlet suitable for VW camper vans with Westfalia fit-out
- type EN61-DS fulfils the requirements of the German professional association (DGUV Regulation 79) and is suitable for use in commercially used caravans and motor caravans

Approval

- EC type test according to PED (EN 16129, Annex D)

Notice

- The nominal flows of all the devices must be added together to choose the right capacity stage.
- To use the regulator de-icer, we recommend that you use the regulator with pressure gauge.

Low pressure regulator

capacity stage 1, type EN61 with pressure relief valve PRV straight outlet

| | | | | | | |
|---------|---|------------|---------|----------|---------------------|-----------|
| KLF | x | G 1/4 lh M | 30 mbar | 0.8 kg/h | | 01 280 00 |
| KLF | x | G 1/4 lh M | 30 mbar | 0.8 kg/h | with pressure gauge | 01 280 10 |
| Shell-F | x | G 1/4 lh M | 30 mbar | 0.8 kg/h | | 01 281 05 |
| Shell-F | x | G 1/4 lh M | 30 mbar | 0.8 kg/h | with pressure gauge | 01 281 15 |

90° outlet

| | | | | | | |
|---------|---|------------|---------|----------|---------------------|-----------|
| KLF | x | G 1/4 lh M | 30 mbar | 0.8 kg/h | | 01 280 09 |
| KLF | x | G 1/4 lh M | 30 mbar | 0.8 kg/h | with pressure gauge | 01 280 19 |
| Shell-F | x | G 1/4 lh M | 30 mbar | 0.8 kg/h | | 01 280 23 |
| Shell-F | x | G 1/4 lh M | 30 mbar | 0.8 kg/h | with pressure gauge | 01 280 33 |

with extended inlet connector, 90° outlet

| | | | | | | |
|-----|---|------------|---------|----------|--|-----------|
| KLF | x | G 1/4 lh M | 30 mbar | 0.8 kg/h | | 01 280 12 |
|-----|---|------------|---------|----------|--|-----------|

capacity stage 2, type EN71 with pressure relief valve PRV straight outlet

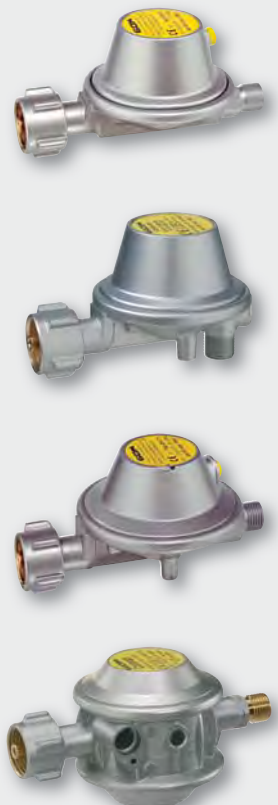
| | | | | | | |
|---------|---|------------|---------|----------|---------------------|-----------|
| KLF | x | G 1/4 lh M | 30 mbar | 1.2 kg/h | | 01 285 00 |
| KLF | x | G 1/4 lh M | 30 mbar | 1.2 kg/h | with pressure gauge | 01 285 10 |
| Shell-F | x | G 1/4 lh M | 30 mbar | 1.2 kg/h | | 01 286 05 |
| Shell-F | x | G 1/4 lh M | 30 mbar | 1.2 kg/h | with pressure gauge | 01 286 15 |

capacity stage 3, type EN61-DS with overpressure safety device S2SR straight outlet

| | | | | | | |
|---------|---|------------|---------|----------|---------------------|-----------|
| KLF | x | G 1/4 lh M | 30 mbar | 1.5 kg/h | | 01 290 00 |
| KLF | x | G 1/4 lh M | 30 mbar | 1.5 kg/h | with pressure gauge | 01 290 10 |
| Shell-F | x | G 1/4 lh M | 30 mbar | 1.5 kg/h | | 01 293 05 |
| Shell-F | x | G 1/4 lh M | 30 mbar | 1.5 kg/h | with pressure gauge | 01 293 15 |

Accessories

| | | |
|-----------------------|-------------------------------------|-----------|
| Gas remote switch GSE | G 1/4 lh nut x G 1/4 lh M, with LED | 11 031 00 |
|-----------------------|-------------------------------------|-----------|





Medium pressure rubber hose assembly PS 10 bar
to connect fittings, consumer devices and piping

Approval

- tested by the German Technical and Scientific Association for Gas and Water, DVGW

Technical data

- hose: **rubber with textile liner**
- cold resistant to -30°C

Medium pressure rubber hose assembly

hose dimensions 6.3 x 3.5 mm

connections: coupling nut x compression fitting

| | | | | | |
|--------------|---|---------------|---|--------|-----------|
| G 1/4 lh nut | x | compr. fit. 8 | x | 400 mm | 04 402 00 |
| G 1/4 lh nut | x | compr. fit. 8 | x | 450 mm | 04 401 02 |
| G 1/4 lh nut | x | compr. fit. 8 | x | 750 mm | 04 405 01 |
| G 1/4 lh nut | x | compr. fit.10 | x | 400 mm | 04 409 03 |
| G 1/4 lh nut | x | compr. fit.10 | x | 750 mm | 04 409 07 |



Medium pressure plastic hose assembly PS 10 bar
to connect fittings, consumer devices and piping

Approval

- tested by the German Technical and Scientific Association for Gas and Water, DVGW

Technical data

- hose: **plastic with textile liner**

Medium pressure plastic hose assembly

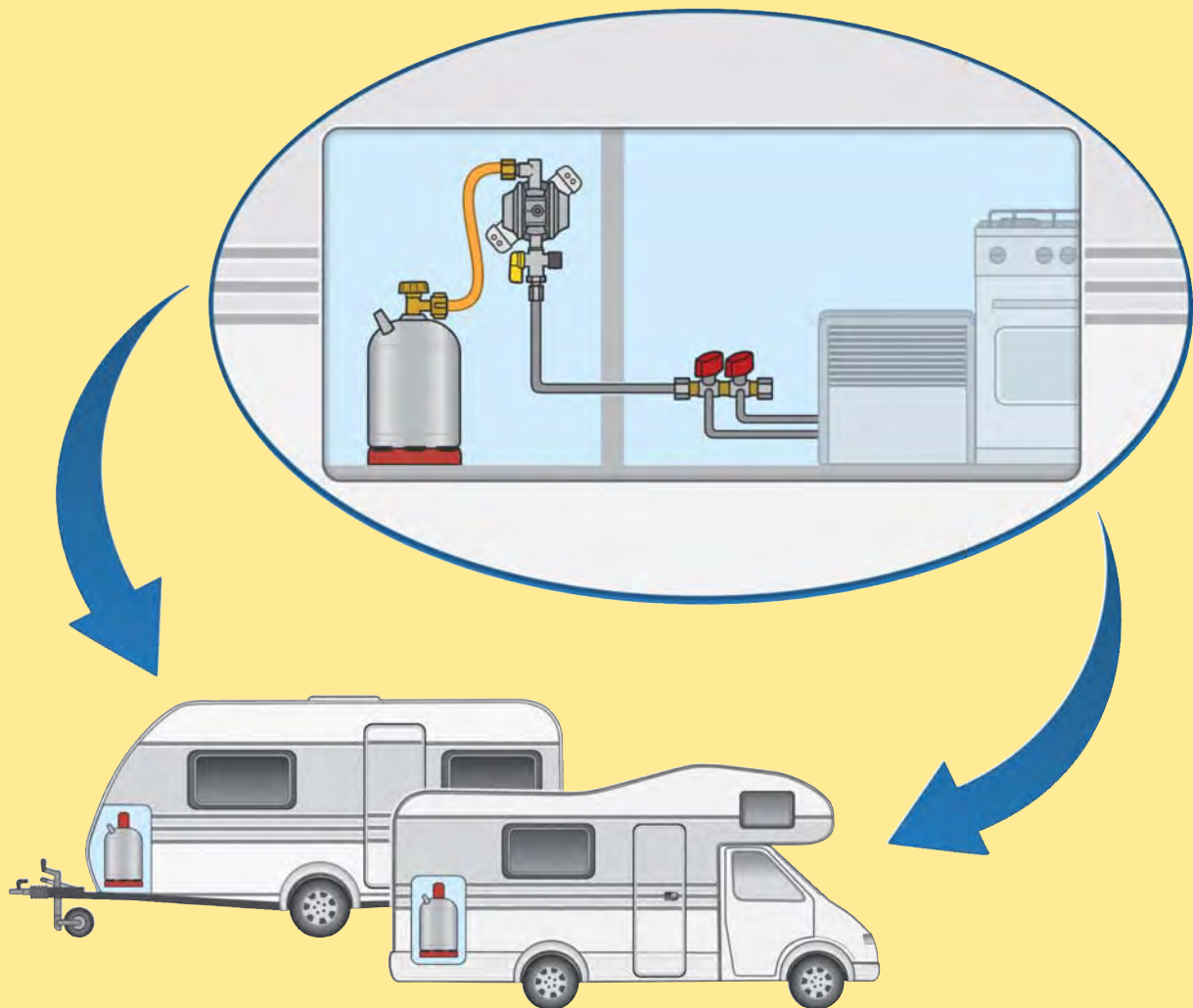
hose dimensions 6.3 x 3.5 mm

connections: coupling nut x compression fitting

| | | | | | |
|--------------|---|---------------|---|--------|-----------|
| G 1/4 lh nut | x | compr. fit. 8 | x | 400 mm | 04 402 30 |
| G 1/4 lh nut | x | compr. fit. 8 | x | 450 mm | 04 401 27 |
| G 1/4 lh nut | x | compr. fit. 8 | x | 750 mm | 04 405 31 |
| G 1/4 lh nut | x | compr. fit.10 | x | 400 mm | 04 409 31 |
| G 1/4 lh nut | x | compr. fit.10 | x | 800 mm | 04 409 33 |







Travel made easy

One Europe – many cylinder connections. Nevertheless, to make travelling simpler, we recommend a low pressure regulator with wall bracket.

The connection to the gas cylinder is made with the suitable country-specific high-pressure hose assembly without the low-pressure regulator having to be replaced.



Low pressure regulator PS 16 bar

for connection to LPG cylinders with a high pressure hose assembly to regulate the pressure to the nominal pressure of the LPG appliance

consisting of: low pressure regulator with integrated safety device against overpressure

Advantages and equipment

- with wall bracket
- version with pressure gauge to check for leaks in the system
- type EN61-DS fulfils the requirements of the German professional association (DGUV Regulation 79) and is suitable for use in commercially used caravans and motor caravans
- version with test point for simple leak checks in the LPG system without dismantling the pressure regulator

Approval

- EC type test according to PED (EN 16129, Annex D)

Notice

- The nominal flows of all the devices must be added together to choose the right capacity stage.
- To use the regulator de-icer, we recommend that you use the regulator with pressure gauge.

Low pressure regulator without test point

capacity stage 2, type EN71 with pressure relief valve PRV straight inlet

| | | | | | |
|-------------|---|---------------|---------|----------|-----------|
| M20 x 1.5 M | x | compr. fit. 8 | 30 mbar | 1.2 kg/h | 01 287 00 |
| M20 x 1.5 M | x | compr. fit.10 | 30 mbar | 1.2 kg/h | 01 287 10 |

capacity stage 3, type EN61-DS with overpressure safety device S2SR straight inlet

| | | | | | |
|-------------|---|---------------|---------|------------------------------|-----------|
| M20 x 1.5 M | x | compr. fit. 8 | 30 mbar | 1.5 kg/h | 01 291 00 |
| M20 x 1.5 M | x | compr. fit. 8 | 30 mbar | 1.5 kg/h with pressure gauge | 01 291 20 |
| M20 x 1.5 M | x | compr. fit.10 | 30 mbar | 1.5 kg/h | 01 291 10 |
| M20 x 1.5 M | x | compr. fit.10 | 30 mbar | 1.5 kg/h with pressure gauge | 01 291 30 |

Low pressure regulator with test point

capacity stage 3, type EN61-DS with overpressure safety device S2SR 90° inlet

| | | | | | |
|-------------|---|---------------|---------|----------|-----------|
| M20 x 1.5 M | x | compr. fit. 8 | 30 mbar | 1.5 kg/h | 01 294 60 |
| M20 x 1.5 M | x | compr. fit.10 | 30 mbar | 1.5 kg/h | 01 294 65 |

Accessories

| | |
|---|-----------|
| Gas remote switch GS 8 for one- and two-cylinder systems | 11 031 01 |
| Gas remote switch GS 10 for one- and two-cylinder systems | 11 031 02 |
| Elbow 90° M20 x 1.5 nut x M20 x 1.5 M | 14 509 00 |
| Gasket for M20 x 1.5 nut | 04 590 25 |





High pressure rubber hose assembly PS 30 bar
to connect the LPG cylinder and regulator

Advantages and equipment

- can be used all over Europe through the use of high pressure hose assemblies with country-specific connections

Approval

- Tested by the German Technical and Scientific Association for Gas and Water, DVGW

Technical data

- hose: **rubber with textile liner**
- cold resistant to -30°C

Note

- The 750 mm long hose assembly may only be used for cylinder brackets with a pull-out device.

High pressure rubber hose assembly
hose dimensions 6.3 x 5 mm
connections: cylinder connection x regulator connection
for Germany and Austria

| | |
|------------------------------|-----------|
| KLF x M20 x 1.5 nut x 450 mm | 04 701 11 |
| KLF x M20 x 1.5 nut x 750 mm | 04 702 11 |

for the UK

| | |
|-----------------------------------|-----------|
| Brit.POL x M20 x 1.5 nut x 450 mm | 04 585 00 |
| Brit.POL x M20 x 1.5 nut x 750 mm | 04 585 01 |

for Europe

| | |
|-----------------------------------|-----------|
| EU-Shell x M20 x 1.5 nut x 450 mm | 04 586 00 |
| EU-Shell x M20 x 1.5 nut x 750 mm | 04 586 01 |

for Italy

| | |
|--|-----------|
| Italian connector x M20 x 1.5 nut x 450 mm | 04 707 10 |
| Italian connector x M20 x 1.5 nut x 750 mm | 04 708 00 |

for the Netherlands

| | |
|---------------------------------------|-----------|
| Komb.Shell-H x M20 x 1.5 nut x 450 mm | 04 709 10 |
| Komb.Shell-H x M20 x 1.5 nut x 750 mm | 04 710 00 |

for Sweden

| | |
|---------------------------------|-----------|
| POL-WS x M20 x 1.5 nut x 450 mm | 04 714 10 |
| POL-WS x M20 x 1.5 nut x 750 mm | 04 714 00 |

for France and Switzerland

| | |
|----------------------------------|-----------|
| Shell-F x M20 x 1.5 nut x 450 mm | 04 589 00 |
| Shell-F x M20 x 1.5 nut x 750 mm | 04 591 01 |

Accessories

| | |
|---|-----------|
| Gasket for KLF, material: NBR | 10 071 22 |
| Gasket for Komb.A / Komb.Shell-H, material: plastic | 20 009 75 |
| Gasket for EU-Shell / Shell-F, material: NBR | 20 009 81 |
| Gasket for Italian connector, material: NBR | 20 011 05 |
| Gasket for M20 x 1.5 nut, material: FKM | 04 590 25 |
| Gasket for POL-WF / POL-WS, material: NBR | 02 513 37 |





Elbow 90°

to connect high pressure hose assemblies to a low pressure regulator or to combine pressure regulators with automatic changeover valves

Elbow 90°

M20 x 1.5 nut x M20 x 1.5 M 14 509 00

Accessories

Gasket for M20 x 1.5 nut 04 590 25



Test point

to check for leaks in LPG systems in vehicles

Advantages and equipment

- especially suitable for Triomatic systems and new regulators according to EN 16129 Annex D, for wall installation
- by installing the test point, it is not necessary to remove the regulator that is installed on the wall to test the system for leaks
- connecting the leak detector with a test adapter
- the access to the regulator is blocked via the ball valve

Test point

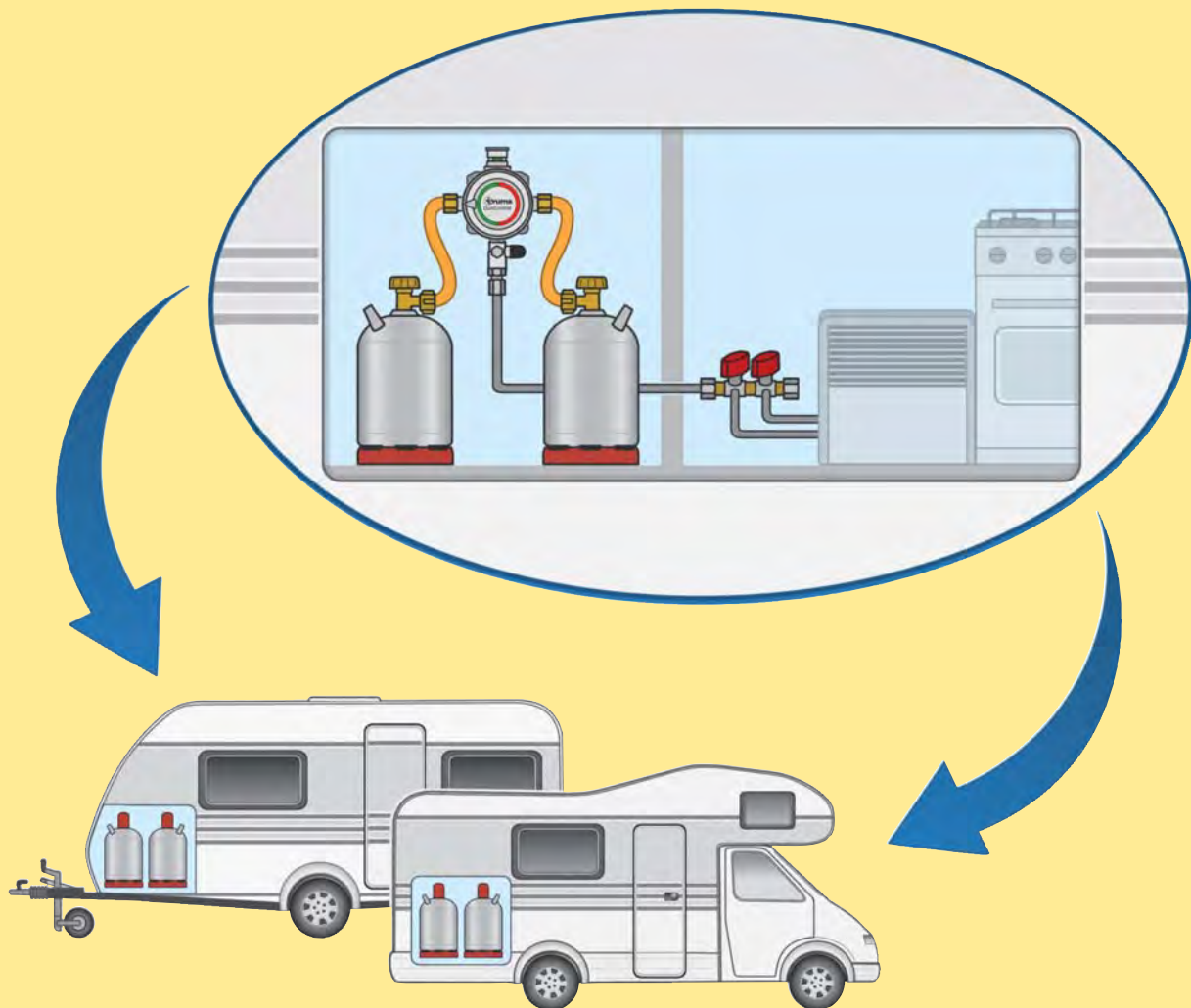
pipe socket 8 x compr. fit. 8 02 618 00

pipe socket 10 x compr. fit. 10 02 618 10

Accessories

Test hose G 1/4 lh nut x adapter for test point x 750 mm 02 618 06





Very convenient gas supply

Long operating times are possible with an automatic changeover system, as the change between the working cylinder and the spare one is automatic.

Because of the non-return valve, the LPG cylinder can be replaced without interrupting the gas supply.

If country-specific high pressure hose assemblies are used, the changeover system can be used throughout Europe with no problems.



DuoControl PS 16 bar

automatic changeover valve with integrated low pressure regulator for two-cylinder systems, for connection to LPG cylinders with a high pressure hose assembly to regulate the pressure to the nominal pressure of the LPG appliance

consisting of: changeover valve, low pressure regulator with pressure relief valve PRV, operating button, working cylinder and spare cylinder display, non-return valve and test connector

Advantages and equipment

- suitable for operation with one or two gas cylinders
- can be used all over Europe through the use of country-specific high pressure hose assemblies
- the cylinder can be replaced without interrupting operation
- non-return valve: prevents gas escaping when the cylinder is replaced
- test connector: to check for leaks in the LPG system without dismantling the pressure regulator device
- by default, the version with compression fitting 10 outlet connector is fitted with an adapter to connect 8 mm piping

Approval

- EC type test according to PED

Notice

- Can be used on old vehicles without restriction!

DuoControl

| | | | | | | |
|-----------------|---|--------------------|---------|----------|----------|-----------|
| 2 x M20 x 1.5 M | x | compr. fit. 8 | 50 mbar | 1.5 kg/h | 51510-03 | 11 493 03 |
| 2 x M20 x 1.5 M | x | compr. fit. 10 / 8 | 30 mbar | 1.5 kg/h | 51510-01 | 11 493 01 |

Accessories

| | | |
|---|-------------|-----------|
| DuoC remote display with integrated de-icer and 6 m cable harness | 50211-01 | 11 499 00 |
| Surface-mounted frame for remote display | 40000-52600 | 11 499 05 |
| De-icer 12 V | 53101-01 | 11 499 02 |
| Gas remote switch GS 8 for one and two-cylinder systems | | 11 031 01 |
| Gas remote switch GS for one and two-cylinder systems | | 11 031 02 |
| Elbow 90° M20 x 1.5 nut x M20 x 1.5 M | | 14 509 00 |
| Gasket for M20 x 1.5 nut | | 04 590 25 |
| Adapter, pipe socket 10 x compr. fit. 8 | | 07 223 00 |
| Adapter, pipe socket 8 x compr. fit. 10 | | 02 082 00 |





High pressure rubber hose assembly PS 30 bar
to connect the LPG cylinder and regulator

Advantages and equipment

- can be used all over Europe through the use of high pressure hose assemblies with country-specific connections

Approval

- Tested by the German Technical and Scientific Association for Gas and Water, DVGW

Technical data

- hose: **rubber with textile liner**
- cold resistant to -30°C

Note

- The 750 mm long hose assembly may only be used for cylinder brackets with a pull-out device.

High pressure rubber hose assembly
hose dimensions 6.3 x 5 mm
connections: cylinder connection x regulator connection
for Germany and Austria

| | |
|------------------------------|-----------|
| KLF x M20 x 1.5 nut x 450 mm | 04 701 11 |
| KLF x M20 x 1.5 nut x 750 mm | 04 702 11 |

for the UK

| | |
|-----------------------------------|-----------|
| Brit.POL x M20 x 1.5 nut x 450 mm | 04 585 00 |
| Brit.POL x M20 x 1.5 nut x 750 mm | 04 585 01 |

for Europe

| | |
|-----------------------------------|-----------|
| EU-Shell x M20 x 1.5 nut x 450 mm | 04 586 00 |
| EU-Shell x M20 x 1.5 nut x 750 mm | 04 586 01 |

for Italy

| | |
|--|-----------|
| Italian Connector x M20 x 1.5 nut x 450 mm | 04 707 10 |
| Italian Connector x M20 x 1.5 nut x 750 mm | 04 708 00 |

for the Netherlands

| | |
|---------------------------------------|-----------|
| Komb.Shell-H x M20 x 1.5 nut x 450 mm | 04 709 10 |
| Komb.Shell-H x M20 x 1.5 nut x 750 mm | 04 710 00 |

for Sweden

| | |
|---------------------------------|-----------|
| POL-WS x M20 x 1.5 nut x 450 mm | 04 714 10 |
| POL-WS x M20 x 1.5 nut x 750 mm | 04 714 00 |

for France and Switzerland

| | |
|----------------------------------|-----------|
| Shell-F x M20 x 1.5 nut x 450 mm | 04 589 00 |
| Shell-F x M20 x 1.5 nut x 750 mm | 04 591 01 |

Accessories

| | |
|---|-----------|
| Gasket for KLF, material: NBR | 10 071 22 |
| Gasket for Komb.A / Komb.Shell-H, material: plastic | 20 009 75 |
| Gasket for EU-Shell / Shell-F, material: NBR | 20 009 81 |
| Gasket for Italian connector, material: NBR | 20 011 05 |
| Gasket for M20 x 1.5 nut, material: FKM | 04 590 25 |
| Gasket for POL-WF / POL-WS, material: NBR | 02 513 37 |





Elbow 90°

to connect high pressure hose assemblies to a low pressure regulator or to combine pressure regulators with automatic changeover valves

Elbow 90°

M20 x 1.5 nut x M20 x 1.5 M

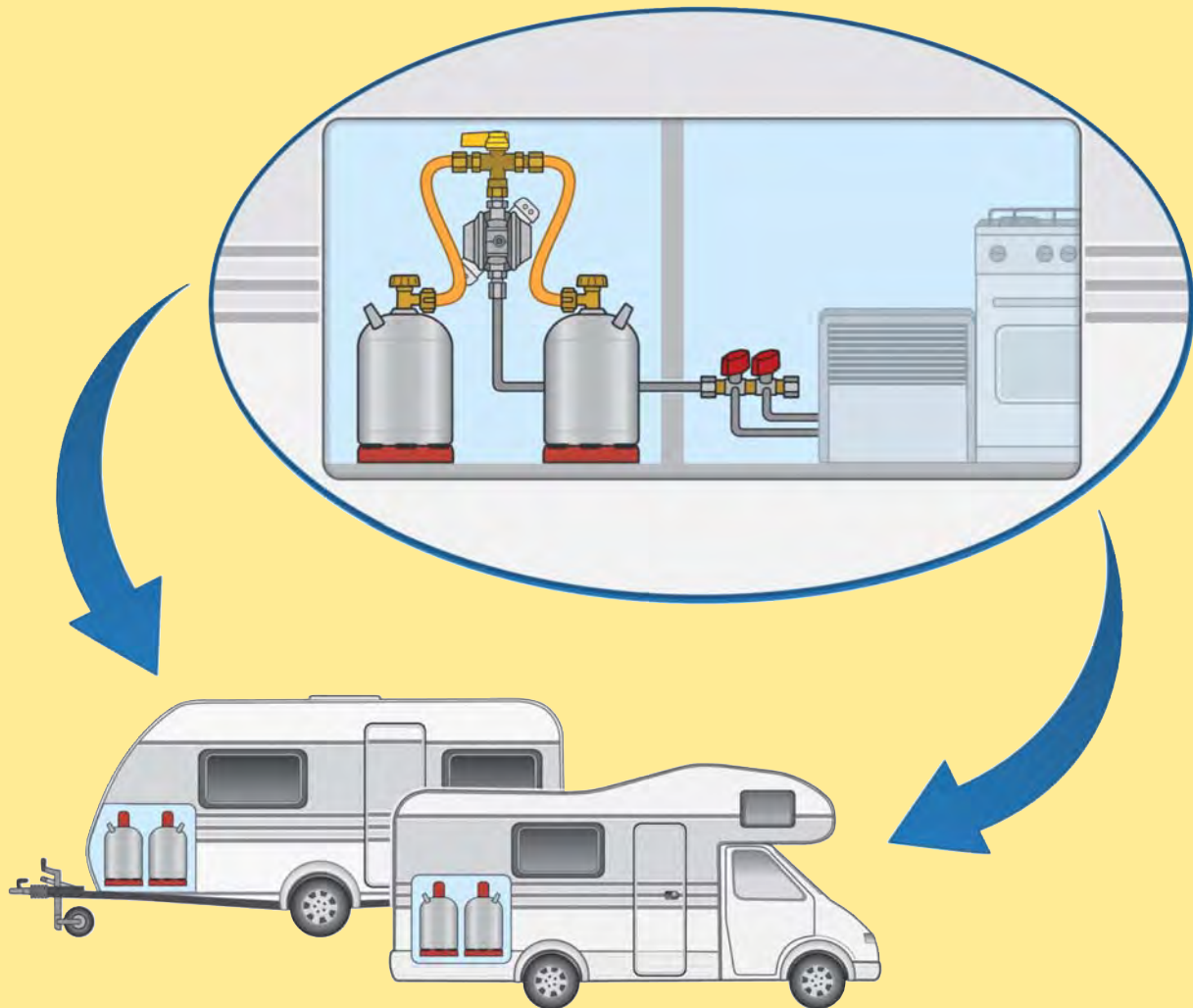
14 509 00

Accessories

Gasket for M20 x 1.5 nut

04 590 25





The manual solution for two cylinders

The manual changeover system allows long operating times and for the gas cylinder to be replaced without interrupting the gas supply. As soon as the working cylinder is empty, you change over to a full cylinder manually.

If country-specific high pressure hose assemblies are used, the changeover system can be used throughout Europe with no problems.



Manual changeover valve type MUV PS 25 bar
for manual changeover with two-cylinder systems

Advantages and equipment

- withdrawal is alternating, cylinders can be replaced while the system is operating
- simultaneous connection of two LPG cylinders

Technical data

- material: brass

Manual changeover valve type MUV

for installation upstream from the wall-mounted low pressure regulator

M20 x 1.5 M x M20 x 1.5 nut x M20 x 1.5 M 02 714 03

for installation in pipelines

compr. fit 8 x compr. fit 8 x compr. fit 8 02 714 35

compr. fit 10 x compr. fit 10 x compr. fit 10 02 714 36

Accessories

Adapter M20 x 1.5 M x KLF M 14 509 03

Gasket for M20 x 1.5 nut 04 590 25

Installation set to mount the manual changeover valve type MUV
on the wall for low pressure regulator types EN61-DS, EN71,
FL90-4 and FL91-4 02 714 28





Low pressure regulator PS 16 bar

for connection to LPG cylinders with a high pressure hose assembly to regulate the pressure to the nominal pressure of the LPG appliance

consisting of: low pressure regulator with integrated safety device against overpressure

Advantages and equipment

- with wall bracket
- version with pressure gauge to check for leaks in the system
- type EN61-DS fulfils the requirements of the German professional association (DGUV Regulation 79) (Deutsche Gesetzliche Unfallversicherung, previously BGV D 34) and is suitable for use in commercially used caravans and motor caravans
- version with test point for simple leak checks using a leak tester

Approval

- EC type test according to PED (EN 16129, Annex D)

Notice

- The nominal flows of all the devices must be added together to choose the right capacity stage.
- To use the regulator de-icer, we recommend that you use the regulator with pressure gauge.

Low pressure regulator without test point

capacity stage 2, type EN71 with pressure relief valve PRV straight inlet

| | | | | | |
|-------------|---------------|----|---------|----------|-----------|
| M20 x 1.5 M | x compr. fit. | 8 | 30 mbar | 1.2 kg/h | 01 287 00 |
| M20 x 1.5 M | x compr. fit. | 10 | 30 mbar | 1.2 kg/h | 01 287 10 |

capacity stage 3, type EN61-DS with overpressure safety device S2SR straight inlet

| | | | | | |
|-------------|---------------|----|---------|------------------------------|-----------|
| M20 x 1.5 M | x compr. fit. | 8 | 30 mbar | 1.5 kg/h | 01 291 00 |
| M20 x 1.5 M | x compr. fit. | 8 | 30 mbar | 1.5 kg/h with pressure gauge | 01 291 20 |
| M20 x 1.5 M | x compr. fit. | 10 | 30 mbar | 1.5 kg/h | 01 291 10 |
| M20 x 1.5 M | x compr. fit. | 10 | 30 mbar | 1.5 kg/h with pressure gauge | 01 291 30 |

Low pressure regulator with test point

capacity stage 3, type EN61-DS with overpressure safety device S2SR 90° inlet

| | | | | | |
|-------------|---------------|----|---------|----------|-----------|
| M20 x 1.5 M | x compr. fit. | 8 | 30 mbar | 1.5 kg/h | 01 294 60 |
| M20 x 1.5 M | x compr. fit. | 10 | 30 mbar | 1.5 kg/h | 01 294 65 |

Accessories

| | |
|--|-----------|
| Gas remote switch GS 8 for one and two-cylinder systems | 11 031 01 |
| Gas remote switch GS 10 for one and two-cylinder systems | 11 031 02 |
| Elbow 90° M20 x 1.5 nut x M20 x 1.5 M | 14 509 00 |
| Gasket for M20 x 1.5 nut | 04 590 25 |





High pressure rubber hose assembly PS 30 bar
to connect the LPG cylinder and regulator

Advantages and equipment

- can be used all over Europe through the use of high pressure hose assemblies with country-specific connections

Approval

- Tested by the German Technical and Scientific Association for Gas and Water, DVGW

Technical data

- hose: **rubber with textile liner**
- cold resistant to -30°C

Note

- The 750 mm long hose assembly may only be used for cylinder brackets with a pull-out device.

High pressure rubber hose assembly
hose dimensions 6.3 x 5 mm
connections: cylinder connection x regulator connection
for Germany and Austria

| | |
|------------------------------|-----------|
| KLF x M20 x 1.5 nut x 450 mm | 04 701 11 |
| KLF x M20 x 1.5 nut x 750 mm | 04 702 11 |

for the UK

| | |
|-----------------------------------|-----------|
| Brit.POL x M20 x 1.5 nut x 450 mm | 04 585 00 |
| Brit.POL x M20 x 1.5 nut x 750 mm | 04 585 01 |

for Europe

| | |
|-----------------------------------|-----------|
| EU-Shell x M20 x 1.5 nut x 450 mm | 04 586 00 |
| EU-Shell x M20 x 1.5 nut x 750 mm | 04 586 01 |

for Italy

| | |
|--|-----------|
| Italian connector x M20 x 1.5 nut x 450 mm | 04 707 10 |
| Italian connector x M20 x 1.5 nut x 750 mm | 04 708 00 |

for the Netherlands

| | |
|---------------------------------------|-----------|
| Komb.Shell-H x M20 x 1.5 nut x 450 mm | 04 709 10 |
| Komb.Shell-H x M20 x 1.5 nut x 750 mm | 04 710 00 |

for Sweden

| | |
|---------------------------------|-----------|
| POL-WS x M20 x 1.5 nut x 450 mm | 04 714 10 |
| POL-WS x M20 x 1.5 nut x 750 mm | 04 714 00 |

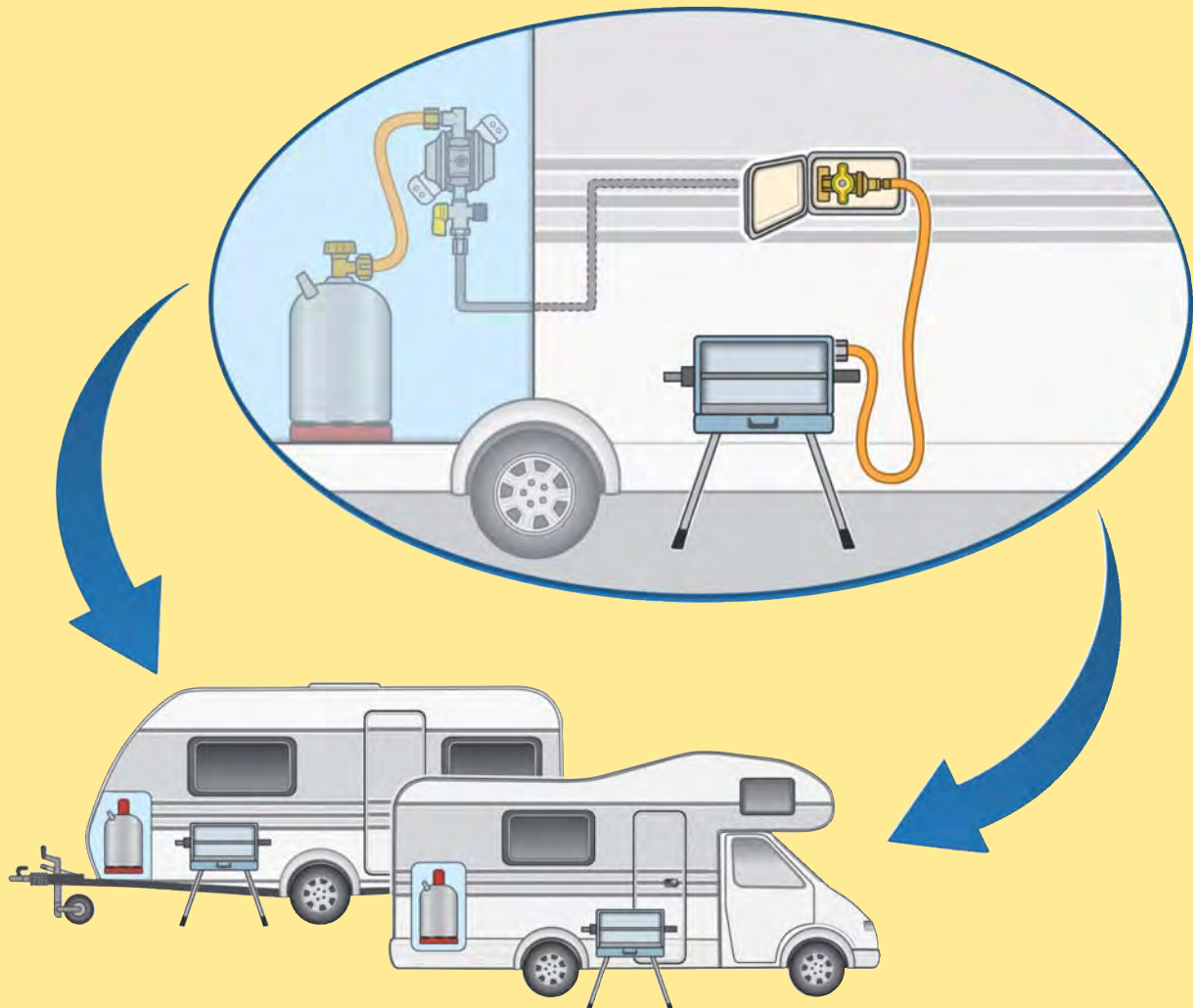
for France and Switzerland

| | |
|----------------------------------|-----------|
| Shell-F x M20 x 1.5 nut x 450 mm | 04 589 00 |
| Shell-F x M20 x 1.5 nut x 750 mm | 04 591 01 |

Accessories

| | |
|---|-----------|
| Gasket for KLF, material: NBR | 10 071 22 |
| Gasket for Komb.A / Komb.Shell-H, material: plastic | 20 009 75 |
| Gasket for EU-Shell / Shell-F, material: NBR | 20 009 81 |
| Gasket for Italien connector, material: NBR | 20 011 05 |
| Gasket for M20 x 1.5 nut, material: FKM | 04 590 25 |
| Gasket for POL-WF / POL-WS, material: NBR | 02 513 37 |





LPG supply also outside the vehicle

With a Variant outlet box, gas appliances, such as BBQs and stoves outside the vehicle can also be supplied via the internal LPG installation.

The connection to the LPG appliance is made simply and safely with a medium pressure hose assembly and a quick coupler on the vehicle.

Consequently, you no longer have to carry additional LPG cylinders.



Variant outlet box

depending on the version, to connect additional gas appliances, such as a stove, BBQ, lights, etc. To be used outdoors or to connect an outside shower or the vehicle to a water supply.

The valve can be opened only when the hose is connected.

SKU quick couplers for gas and water in distinctive designs.

The different Variant outlet boxes are available in the following versions:

External connection for LPG:

- connection to the internal LPG line, pipe socket 8 mm

External connection for LPG and water:

with SKU quick coupler and flip switch (on and off switch) for submerged pump operation (6.3 mm plug-in connection)

materials: Suitable for drinking water

- LPG safety connection and brass water connection
- connection to the internal LPG line, pipe socket 8 mm
- connection to the internal water line, 9 and 10 mm nozzle

External connection for LPG and water:

with SKU quick coupler for pressure pump operation

materials: Suitable for drinking water

- LPG safety connection and brass water connection
- connection to the internal LPG line, pipe socket 8 mm
- connection to the internal water line, 9 and 10 mm nozzle

Note

- To install the outlet box on the outside of the vehicle a 155 x 65 mm cut-out in the vehicle body is required.

Variant outlet box

external connection for LPG

with cylinder lock 21 731 05

without cylinder lock 21 731 00

External connection for LPG and water

with flip switch

with cylinder lock 21 733 05

without cylinder lock 21 733 00

without flip switch

with cylinder lock 21 737 05

without cylinder lock 21 737 00

Accessories

Medium pressure hose assembly G 1/4 lh nut x plug-in fitting x 1500 mm 04 224 00

Hose nozzle compr. fit. 8 x 6 mm 14 468 00





Medium pressure rubber hose assembly PS 10 bar
to connect fittings, consumer devices and piping

Approval

- tested by the German Technical and Scientific Association for Gas and Water, DVGW

Technical data

- hose: **rubber with textile liner**
- cold resistant to -30°C

Medium pressure rubber hose assembly

hose dimensions 6.3 x 3.5 mm

connections: coupling nut x plug-in fitting

| | | | | | |
|--------------|---|-----------------|---|---------|-----------|
| G 1/4 lh nut | x | plug-in fitting | x | 400 mm | 04 221 00 |
| G 1/4 lh nut | x | plug-in fitting | x | 800 mm | 04 222 00 |
| G 1/4 lh nut | x | plug-in fitting | x | 1000 mm | 04 223 00 |
| G 1/4 lh nut | x | plug-in fitting | x | 1500 mm | 04 224 00 |
| G 1/4 lh nut | x | plug-in fitting | x | 2000 mm | 04 225 00 |
| G 1/4 lh nut | x | plug-in fitting | x | 2500 mm | 04 226 00 |
| G 1/4 lh nut | x | plug-in fitting | x | 3000 mm | 04 227 00 |
| G 1/4 lh nut | x | plug-in fitting | x | 5000 mm | 04 227 05 |





Coupling valve type SKU PS 5 bar

quick-acting fitting with safety coupling according to DIN 4815-5, only fully open or fully closed

Advantages and equipment

- the shut-off valve can be opened or closed only when the LPG hose is connected
- a special device makes the quick coupler tamper-proof - it can be unlocked only with the STN plug-in fitting

Approval

- tested by the German Technical and Scientific Association for Gas and Water, DVGW

Technical data

- material: brass

Coupling valve

type SKU 03 415 with straight-way valve

compr. fit. 8 x quick coupler

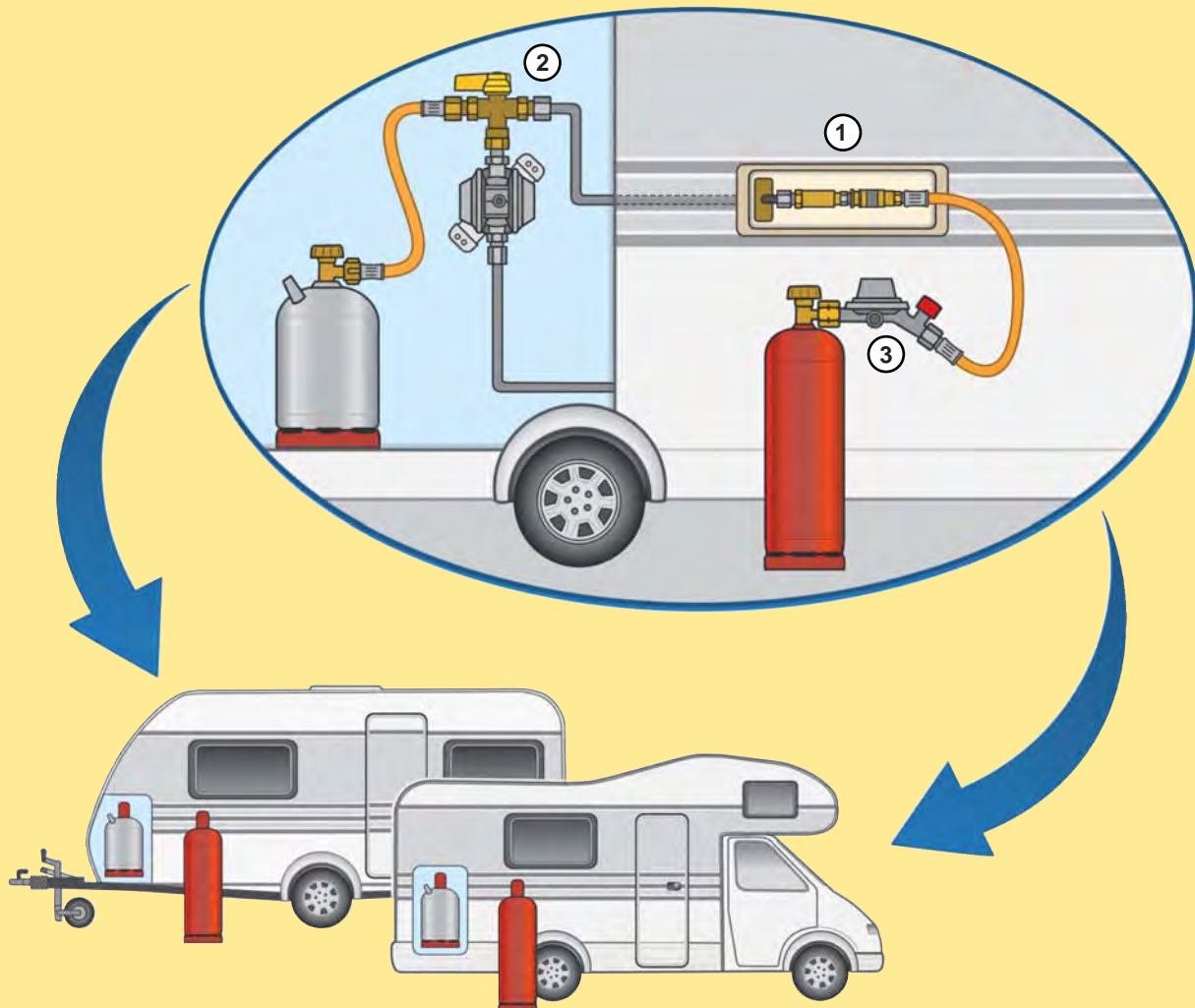
03 415 00

type SKU 03 420 with branch stop valve

compr. fit. 8 x compr. fit. 8 x quick coupler

03 420 00





For permanent campers - the external LPG feed for vehicles

Using an external supply to feed LPG to the supply line enables LPG appliances to be operated reliably even for long periods.

The connection between the external LPG cylinder and the supply line is created quickly and safely via a quick coupler ①. A manual changeover ② valve is used to switch from the internal LPG cylinder to the external gas supply. To do this, the manual changeover valve is installed in front of the low pressure regulator.

To safeguard the external hose assembly an excess flow device is integrated into the medium pressure regulator ③.



External LPG feed for leisure vehicles

to connect an external gas supply (gas cylinder) for caravans and camper vans with single-cylinder systems

The connection between the external LPG cylinder and the vehicle's supply line is created quickly and safely via a quick coupler.

With the manual changeover valve, you can switch between the internal LPG cylinder and the external gas feed.

Advantages and equipment

- medium pressure regulator Type M50-F/SBS Komb.W x G 3/8 lh M, 0.5 bar, 1.5 kg/h with 35° outlet and excess flow device (EFV) with manual opening, blocks the gas supply if the hose is damaged
- combination connection with options to connect to 5, 11 or 33 kg gas cylinders
- medium pressure hose assembly (rubber with textile lining; cold resistant to -30°C; hose dimensions 6.3 x 3.5 mm) G 3/8 lh nut x quick coupler type DKG x 3000 mm
- LPG outlet box for installation on the outer wall of the vehicle with plug-in fitting to connect the medium pressure hose assembly; connection to internal supply line, pipe socket 8
- the integrated gas non-return valve stops unwanted gas flows
- manual changeover valve Type MUV compr. fit. 8 x M20 x 1.5 x M20 x 1.5 M for alternating withdrawal from external and internal LPG supply
- MiniTool to connect and disconnect the regulator

Note

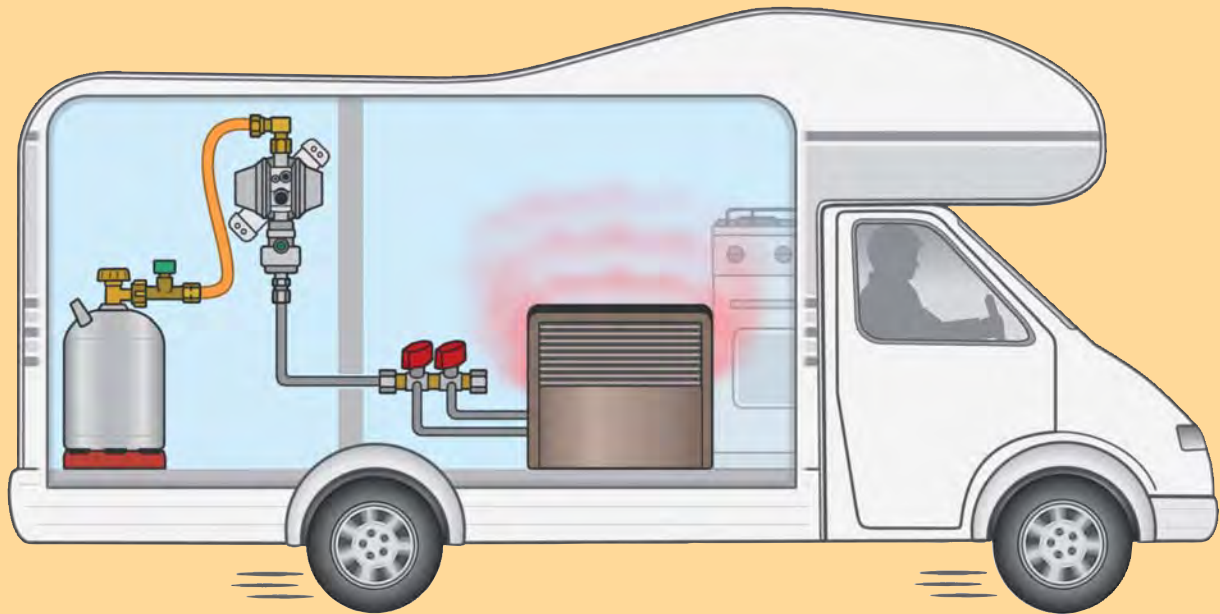
- The gas regulator in the vehicle must be attached to the wall of the vehicle and have an M20 x 1.5 M inlet connector.
- To install the outlet box on the outside of the vehicle a 155 x 65 mm cut-out in the vehicle body is required.

External LPG feed for leisure vehicles

complete

21 735 00





Safe heating while driving

If the on-board LPG heating is also to be used to heat the vehicle while driving, special safety facilities must be installed to stop the gas flow in the event of an accident.

The LPG installation is monitored continuously with the combination of an excess flow device for the high pressure hose assembly and a mechanical crash sensor for the piping.

The connection to the LPG cylinder is made with the suitable country-specific excess flow valve and a high pressure hose assembly without the low pressure regulator having to be replaced.



MonoControl CS PS 16 bar

safety gas pressure regulator system for operation of single-cylinder systems in caravans and motor caravans while driving

consisting of: low pressure regulator with S2SR overpressure safety device, wall bracket, test point and mechanical crash sensor

Advantages and equipment

- especially suitable to retrofit older vehicles
- heating while driving through the integrated mechanical crash sensor, which blocks the gas flow in case of an accident with deceleration of $3.5 \text{ g} \pm 0.5 \text{ g}$ directly affecting the trigger element; with an average vehicle weight this corresponds to crashing into a solid obstacle at about 15 to 20 km/h
- can be used all over Europe through the use of country-specific high pressure hose assemblies
- test point: to check for leaks in the LPG system without dismantling the pressure regulator
- by default, the version with compression fitting 10 outlet connector is fitted with an adapter to connect 8 mm piping

Approval

- EC type examination according to PED and the Heating Appliance Directive

MonoControl CS vertical installation

| | | | | | | |
|-------------|---|--------------------|---------|----------|----------|-----------|
| M20 x 1.5 M | x | compr. fit. 8 | 50 mbar | 1.5 kg/h | 52410-02 | 11 491 02 |
| M20 x 1.5 M | x | compr. fit. 10 / 8 | 30 mbar | 1.5 kg/h | 52410-01 | 11 491 00 |

Horizontal installation

| | | | | | | |
|-------------|---|--------------------|---------|----------|----------|-----------|
| M20 x 1.5 M | x | compr. fit. 8 | 50 mbar | 1.5 kg/h | 52420-02 | 11 491 03 |
| M20 x 1.5 M | x | compr. fit. 10 / 8 | 30 mbar | 1.5 kg/h | 52420-01 | 11 491 01 |

Accessories

| | | | | | | |
|--|--|--|--|--|--|-----------|
| 12-volt de-icer | | | | | | 11 499 02 |
| Gas remote switch GS 8 for one and two-cylinder systems | | | | | | 11 031 01 |
| Gas remote switch GS 10 for one and two-cylinder systems | | | | | | 11 031 02 |
| Elbow 90° M20 x 1.5 nut x M20 x 1.5 M | | | | | | 14 509 00 |
| Gasket for M20 x 1.5 nut | | | | | | 04 590 25 |





High pressure hose assembly with excess flow valve
to connect the SecuMotion or MonoControl CS regulators or the DuoControl or DuoComfort changeover systems to the LPG cylinder valve

Advantages and equipment

- heating while driving
- can be used all over Europe through the use of high pressure hose assemblies with country-specific connections
- excess flow valve prevents gas escaping in case of damage or if the hose becomes detached, and blocks the gas flow as soon as the nominal flow is exceeded by 10%
- manual excess flow valve:
no delay or leakage volume, but manual opening required

Approval

- EC type examination according to PED and the Heating Appliance Directive

Technical data

- hose: **rubber with textile liner**
- cold resistant to -30°C

Note

- The 750 mm long hose assembly may only be used for cylinder brackets with a pull-out device.

High pressure hose assembly with excess flow valve PS 30 bar connections: cylinder connection x regulator connection for Germany and Austria

| | | |
|------------------------------|----------|-----------|
| KLF x M20 x 1.5 nut x 450 mm | 50410-01 | 11 494 01 |
| KLF x M20 x 1.5 nut x 750 mm | 50420-01 | 11 495 01 |

for the UK

| | | |
|-----------------------------------|----------|-----------|
| Brit.POL x M20 x 1.5 nut x 450 mm | 50410-02 | 11 494 02 |
| Brit.POL x M20 x 1.5 nut x 750 mm | 50420-02 | 11 495 02 |

for Europe

| | | |
|-----------------------------------|----------|-----------|
| EU-Shell x M20 x 1.5 nut x 450 mm | 50410-06 | 11 494 06 |
| EU-Shell x M20 x 1.5 nut x 750 mm | 50420-06 | 11 495 06 |

for Italy

| | | |
|--|----------|-----------|
| Italian connector x M20 x 1.5 nut x 450 mm | 50410-04 | 11 494 04 |
| Italian connector x M20 x 1.5 nut x 750 mm | 50420-04 | 11 495 04 |

for Sweden

| | | |
|---------------------------------|----------|-----------|
| POL-WS x M20 x 1.5 nut x 450 mm | 50410-05 | 11 494 05 |
| POL-WS x M20 x 1.5 nut x 750 mm | 50420-05 | 11 495 05 |

for France and Switzerland

| | | |
|----------------------------------|----------|-----------|
| Shell-F x M20 x 1.5 nut x 450 mm | 50410-03 | 11 494 03 |
| Shell-F x M20 x 1.5 nut x 750 mm | 50420-03 | 11 495 03 |

Accessories

| | |
|---|-----------|
| Gasket for KLF, material: NBR | 10 071 22 |
| Gasket for Komb.A / Komb.Shell-H, material: plastic | 20 009 75 |
| Gasket for EU-Shell / Shell-F, material: NBR | 20 009 81 |
| Gasket for Italian connector, material: NBR | 20 011 05 |
| Gasket for M20 x 1.5 nut, material: FKM | 04 590 25 |
| Gasket for POL-WF / POL-WS, material: NBR | 02 513 37 |





Elbow 90°

to connect high pressure hose assemblies to a low pressure regulator or to combine pressure regulators with automatic changeover valves

Elbow 90°

M20 x 1.5 nut x M20 x 1.5 M

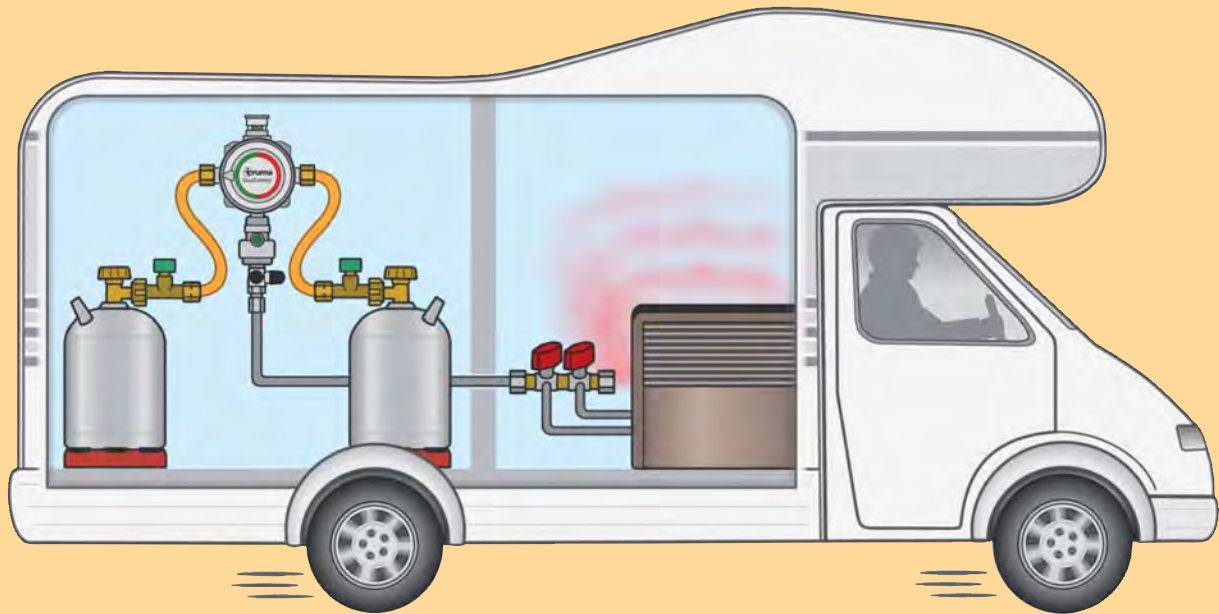
14 509 00

Accessories

Gasket for M20 x 1.5 nut

04 590 25





Comfort and safety for heating while driving

If the on-board LPG heating is also to be used to heat the vehicle while driving, special safety facilities must be installed to stop the gas flow in the event of an accident.

Comfort together with a high level of safety through the combination of automatic changeover system with a mechanical crash sensor and the use of excess flow valves.

The connection to the LPG cylinder is made with the suitable country-specific excess flow valve and a high pressure hose without the automatic changeover system having to be replaced.



DuoControl CS PS 16 bar

safety gas pressure regulator system with automatic changeover valve for operation of two-cylinder systems in caravans and motor caravans while driving

consisting of: automatic changeover valve, low pressure regulator with pressure relief valve, wall bracket, test point and mechanical crash sensor

Advantages and equipment

- especially suitable to retrofit older vehicles
- heating while driving through the integrated mechanical crash sensor, which blocks the gas flow in case of an accident with deceleration of $3.5 \text{ g} \pm 0.5 \text{ g}$ directly affecting the trigger element; with an average vehicle weight this corresponds to crashing into a solid obstacle at about 15 to 20 km/h
- automatic changeover from the empty working cylinder to the full spare cylinder
- can be used all over Europe through the use of country-specific high pressure hose assemblies
- the cylinder can be replaced without interrupting operation
- non-return valve: prevents gas escaping when the cylinder is replaced
- integrated operating cylinder and spare cylinder display (green/red)
- test point: to check for leaks in the LPG system without dismantling the pressure regulator device
- by default, the version with compression fitting 10 outlet connector is fitted with an adapter to connect 8 mm piping

Approval

- EC type examination according to PED and the Heating Appliance Directive

DuoControl CS

Vertical installation

| | | | | | | |
|-----------------|---|--------------------|---------|----------|----------|-----------|
| 2 x M20 x 1.5 M | x | compr. fit. 8 | 50 mbar | 1.5 kg/h | 51610-02 | 11 591 02 |
| 2 x M20 x 1.5 M | x | compr. fit. 10 / 8 | 30 mbar | 1.5 kg/h | 51610-01 | 11 591 00 |

Horizontal installation

| | | | | | | |
|-----------------|---|--------------------|---------|----------|----------|-----------|
| 2 x M20 x 1.5 M | x | compr. fit. 8 | 50 mbar | 1.5 kg/h | 51620-02 | 11 591 03 |
| 2 x M20 x 1.5 M | x | compr. fit. 10 / 8 | 30 mbar | 1.5 kg/h | 51620-01 | 11 591 01 |

Accessories

DuoC remote display with integrated de-icer and

6 m cable harness 50211-01 11 499 00

Surface-mounted frame for remote display 40000-52600 11 499 05

De-icer 12 V 53101-01 11 499 02

Gas remote switch GS 8 for one and two-cylinder systems 11 031 01

Gas remote switch GS 10 for one and two-cylinder systems 11 031 02

Elbow 90° M20 x 1.5 nut x M20 x 1.5 M 14 509 00

Gasket for M20 x 1.5 nut 04 590 25





High pressure hose assembly with excess flow valve to connect the SecuMotion or MonoControl CS regulators or the DuoControl or DuoComfort changeover systems to the LPG cylinder valve

Advantages and equipment

- heating while driving
- can be used all over Europe through the use of high pressure hose assemblies with country-specific connections
- excess flow valve prevents gas escaping in case of damage or if the hose becomes detached, and blocks the gas flow as soon as the nominal flow is exceeded by 10%
- manual excess flow valve:
no delay or leakage volume, but manual opening required

Approval

- EC type examination according to PED and the Heating Appliance Directive

Technical data

- hose: **rubber with textile liner**
- cold resistant to -30°C

Note

- The 750 mm long hose assembly may only be used for cylinder brackets with a pull-out device.

High pressure hose with excess flow valve PS 30 bar connections: cylinder connection x regulator connection for Germany and Austria

| | | |
|------------------------------|----------|-----------|
| KLF x M20 x 1.5 nut x 450 mm | 50410-01 | 11 494 01 |
| KLF x M20 x 1.5 nut x 750 mm | 50420-01 | 11 495 01 |

for the UK

| | | |
|-----------------------------------|----------|-----------|
| Brit.POL x M20 x 1.5 nut x 450 mm | 50410-02 | 11 494 02 |
| Brit.POL x M20 x 1.5 nut x 750 mm | 50420-02 | 11 495 02 |

for Europe

| | | |
|-----------------------------------|----------|-----------|
| EU-Shell x M20 x 1.5 nut x 450 mm | 50410-06 | 11 494 06 |
| EU-Shell x M20 x 1.5 nut x 750 mm | 50420-06 | 11 495 06 |

for Italy

| | | |
|--|----------|-----------|
| Italian connector x M20 x 1.5 nut x 450 mm | 50410-04 | 11 494 04 |
| Italian connector x M20 x 1.5 nut x 750 mm | 50420-04 | 11 495 04 |

for Sweden

| | | |
|---------------------------------|----------|-----------|
| POL-WS x M20 x 1.5 nut x 450 mm | 50410-05 | 11 494 05 |
| POL-WS x M20 x 1.5 nut x 750 mm | 50420-05 | 11 495 05 |

for France and Switzerland

| | | |
|----------------------------------|----------|-----------|
| Shell-F x M20 x 1.5 nut x 450 mm | 50410-03 | 11 494 03 |
| Shell-F x M20 x 1.5 nut x 750 mm | 50420-03 | 11 495 03 |

Accessories

| | |
|---|-----------|
| Gasket for KLF, material: NBR | 10 071 22 |
| Gasket for Komb.A / Komb.Shell-H, material: plastic | 20 009 75 |
| Gasket for EU-Shell / Shell-F, material: NBR | 20 009 81 |
| Gasket for Italian connector, material: NBR | 20 011 05 |
| Gasket for M20 x 1.5 nut, material: FKM | 04 590 25 |
| Gasket for POL-WF / POL-WS, material: NBR | 02 513 37 |





Elbow 90°

to connect high pressure hose assemblies to a low pressure regulator or to combine pressure regulators with automatic changeover valves

Elbow 90°

M20 x 1.5 nut x M20 x 1.5 M

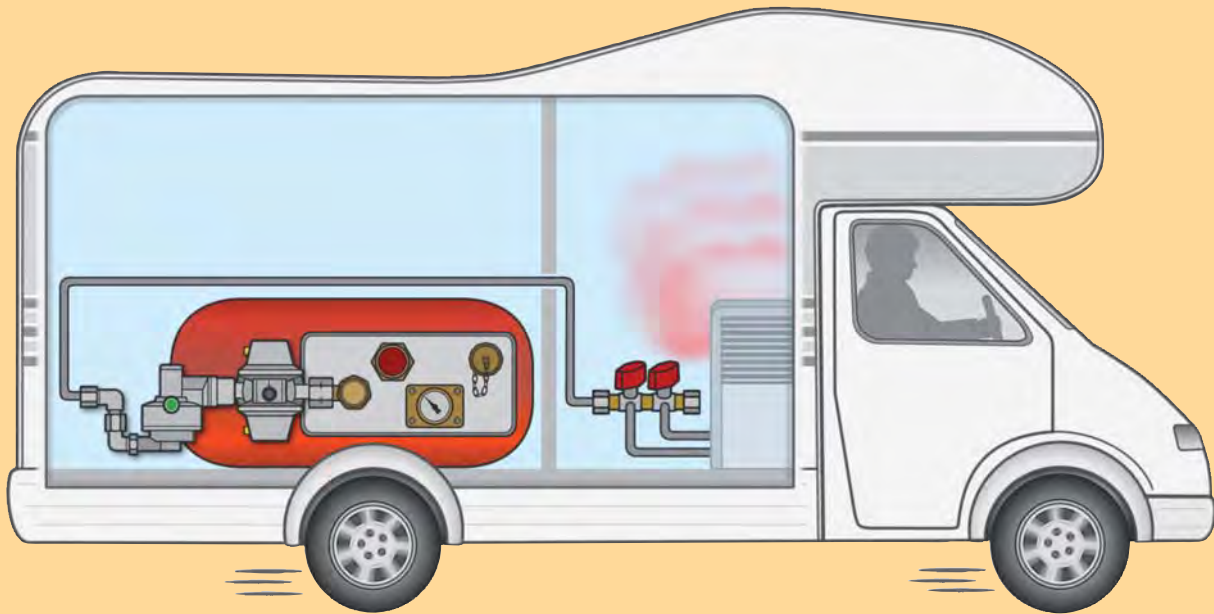
14 509 00

Accessories

Gasket for M20 x 1.5 nut

04 590 25





Safe heating while driving - with an LPG tank

If the on-board LPG heating is also to be used to heat the vehicle while driving, special safety facilities must be installed to stop the gas flow in the event of an accident. This also applies to vehicles that are fitted with an LPG tank.

For safe operation of these vehicles, a combination of low pressure regulator and mechanical crash sensor is connected directly to the LPG tank.



MonoControl CS PS 16 bar

safety gas pressure regulator system for operation of single-cylinder systems in caravans and motor caravans while driving

consisting of: low pressure regulator S2SR with overpressure safety device, wall bracket, test point and mechanical crash sensor

Advantages and equipment

- especially suitable to retrofit older vehicles
- heating during the journey with an integrated, mechanical crash sensor that blocks the gas feed in case of an accident with deceleration of $3.5 \text{ g} \pm 0.5 \text{ g}$ directly affecting the trigger element With an average vehicle weight this corresponds to crashing into a solid obstacle at about 15 to 20 km/h
- can be used all over Europe through the use of country-specific high pressure hose assemblies
- test point: to check for leaks in the LPG system without dismantling the pressure regulator
- by default, the version with compression fitting 10 outlet connector is fitted with an adapter to connect 8 mm piping

Approval

- EC type examination according to PED and the Heating Appliance Directive

MonoControl CS

for LPG tank with 90° tank panel

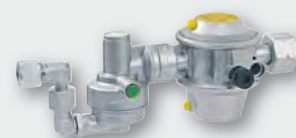
| | | | | | | | |
|--------|---|-------------|----|---------|----------|----------|-----------|
| Komb.A | x | compr. fit. | 8 | 50 mbar | 1.5 kg/h | 52420-22 | 11 491 05 |
| Komb.A | x | compr. fit. | 10 | 30 mbar | 1.5 kg/h | 52420-21 | 11 491 04 |

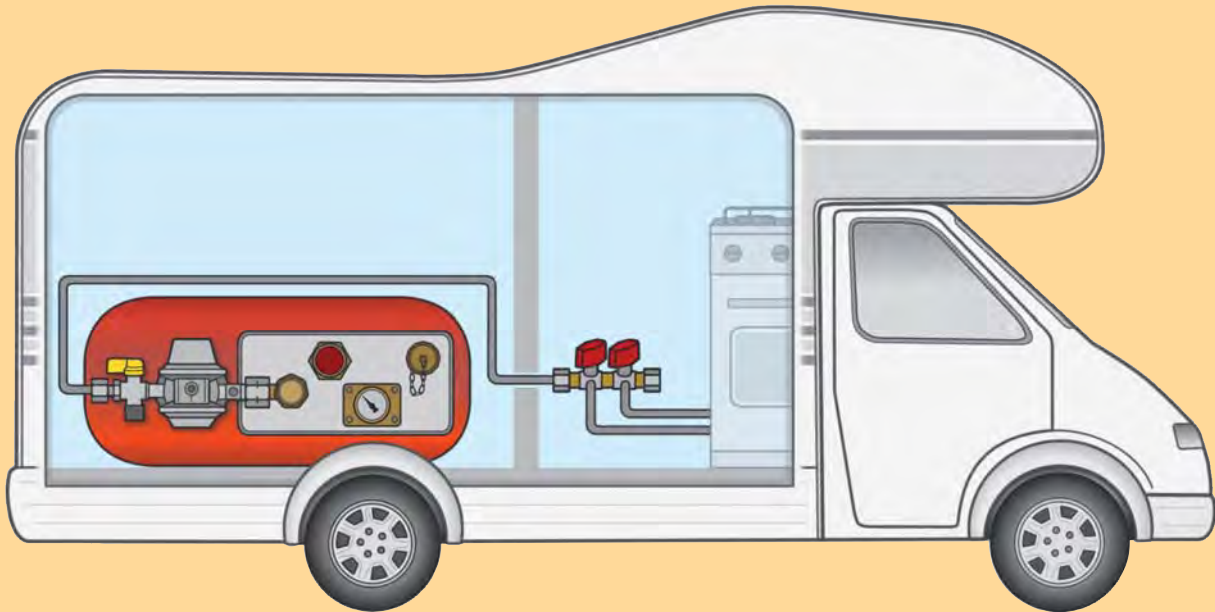
for LPG tank with 105° tank panel

| | | | | | | | |
|--------|---|-------------|----|---------|----------|----------|-----------|
| Komb.A | x | compr. fit. | 10 | 30 mbar | 1.5 kg/h | 52420-31 | 11 491 06 |
|--------|---|-------------|----|---------|----------|----------|-----------|

Accessories

| | | | | | | | |
|--|--|--|--|--|--|----------|-----------|
| De-icer 12 V | | | | | | 53101-01 | 11 499 02 |
| Gas remote switch GS 8 for one and two-cylinder systems | | | | | | | 11 031 01 |
| Gas remote switch GS 10 for one and two-cylinder systems | | | | | | | 11 031 02 |
| Elbow 90° M20 x 1.5 nut x M20 x 1.5 M | | | | | | | 14 509 00 |
| Gasket for M20 x 1.5 nut | | | | | | | 04 590 25 |





The classic connection for an LPG tank

A low pressure regulator with integrated test point and ball valve is used to supply LPG installations with an LPG tank.



Low pressure regulator type EN61-DS PS 16 bar

for connection to LPG tanks installed in the vehicle to regulate the pressure to the nominal pressure of the LPG appliance

Advantages and equipment

- S2SR overpressure safety device to protect connected consumer devices against inadmissible high pressures
- integrated test point to check for leaks in the LPG system, the cylinder system does not have to be dismantled
- suitable for connecting a regulator de-icer

Approval

- EC type test according to PED

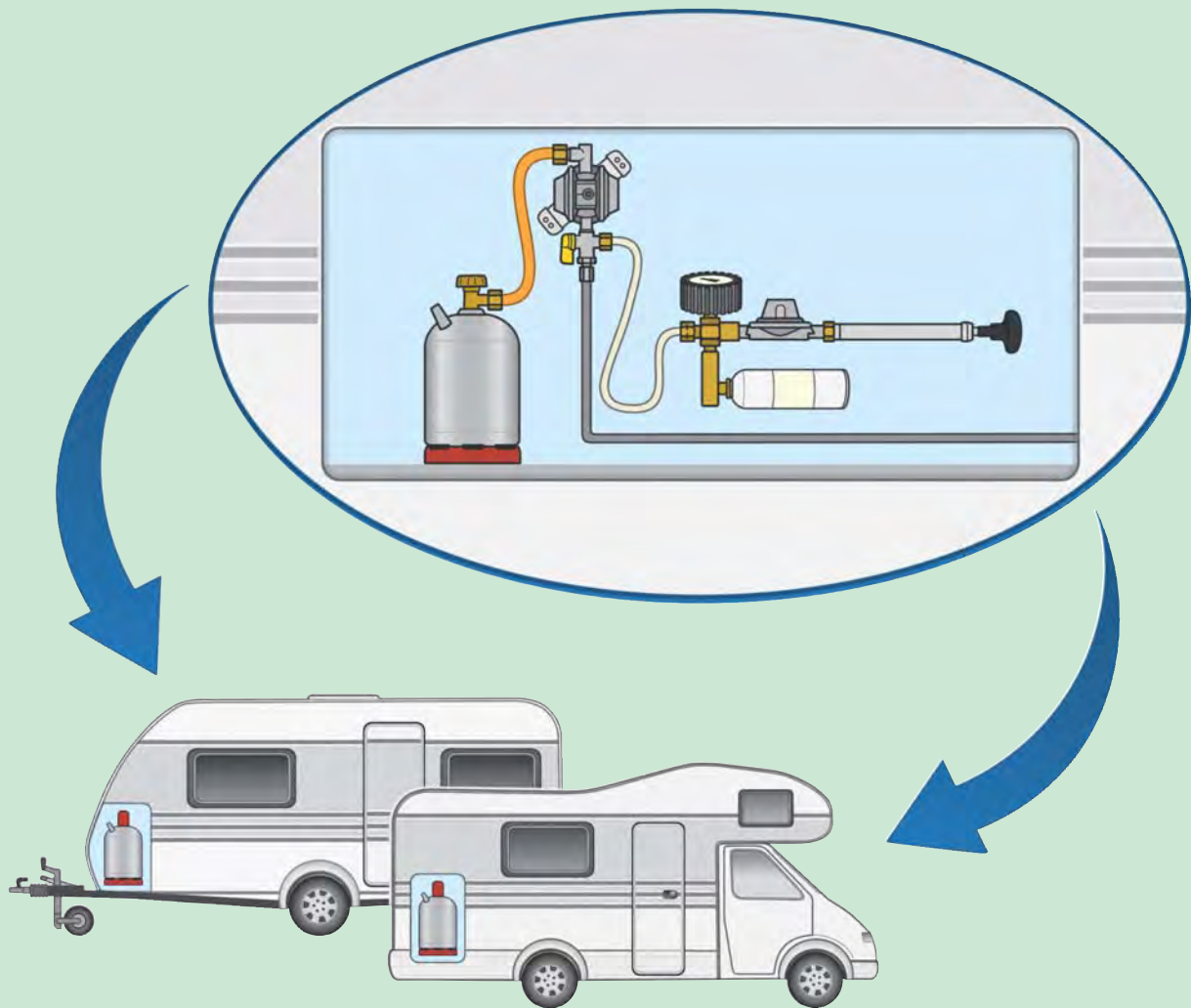
Low pressure regulator type EN61-DS

| | | | | | |
|---------------|---|---------------|---------|----------|-----------|
| Komb.A | x | compr. fit. 8 | 30 mbar | 1.5 kg/h | 01 293 21 |
| compr. fit. 8 | x | compr. fit. 8 | 30 mbar | 1.5 kg/h | 01 293 22 |

Accessories

| | |
|---|-----------|
| Gas remote switch GS 8 for one and two-cylinder systems | 11 031 01 |
| Adapter 1/2 UNF F x pipe socket 8 | 02 523 00 |
| Adapter 1/2 UNF F x compr. fit. 8 | 02 527 00 |
| Adapter 1/2 UNF F x GF M | 02 528 00 |
| Adapter GF F x compr. fit. 8 | 02 531 00 |





Leak testing by qualified persons

LPG systems in vehicles are subjected to dynamic loads while driving.

A high-quality leak tester was developed for leak testing by qualified persons. For vehicles with a line volume of less than 700 cm³ an additional volume can be used.

With this test device leaks can be checked in accordance with the requirements of EN 1949 and German DVGW worksheet G 607.



Test device Leak Check LPG BASIC for caravan and marine

with all the necessary parts to check for leaks in LPG installations in leisure vehicles according to German DVGW G 607 and in small boats according to German DVGW G 608

consisting of:

- 1 x leak tester type 150 with pressure limiter
- 1 x test hose for the test point
- 1 x medium pressure hose assembly for LPG lines
- 1 x hand grip for the test valve
- 1 x stainless steel plug-in fitting (plug-in fitting x pipe socket 8) to connect the test device to the SKU quick coupler
- 1 x straight reducer insert type RED pipe socket 8 x compr. fit 10
- 10 x gaskets for outlet socket G 1/4 lh M
- 1 x leak detector spray can 125 ml
- 1 x MiniTool to connect and loosen small cylinder regulators
- 1 x double open-end spanner in each of the following sizes: 10/11; 12/13; 14/15; 17/19 and 20/22
- 1 x system case

Advantages and equipment

- all the necessary parts for testing and assembly arranged neatly in one system case
- efficiently arranged compartments with protective insert
- system case (H/W/D: approx. 105 x 396 x 296 mm) made from high-quality ABS-plastic
- the system case can be combined, stacked and connected, for example with assembly cases G 607 (caravan) and G 608 (marine)

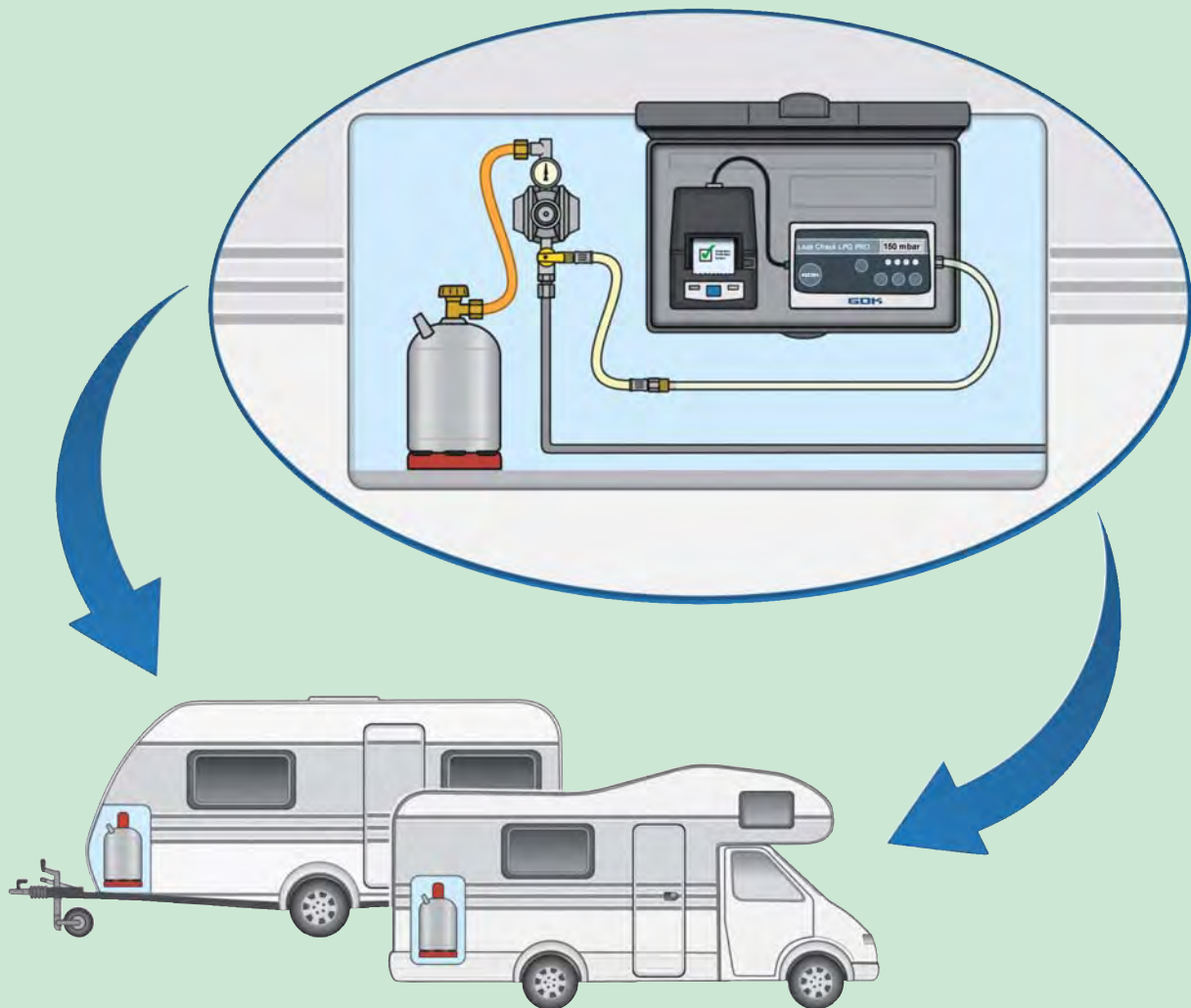
Test device Leak Check LPG BASIC for caravan and marine

| | |
|----------|-----------|
| complete | 27 100 00 |
|----------|-----------|

Accessories

| | |
|-------------------------------|-----------|
| Assembly case G 607 (caravan) | 27 120 00 |
| Assembly case G 608 (marine) | 27 110 00 |





Next generation leak check

With the electronic test device Leak Check LPG PRO, checking for leaks in leisure vehicles couldn't be simpler. Everything you need is arranged efficiently in a system case.

The electronic test device Leak Check LPG PRO checks for leaks in the LPG system automatically and with no further effort. The printer that is included with the delivery can be used to document the test result, which can be attached to the test certificate.



Electronic test device Leak Check LPG PRO for caravan and marine

with all the necessary parts to check for leaks in LPG installations in leisure vehicles according to German DVGW G 607 and in small boats according to German DVGW G 608

When the Leak Check LPG PRO is connected to the supply line using the enclosed commonly used connection parts, it checks for leaks automatically. After a positive check, a log with the test result is printed, which can be attached to the test certificate of the LPG system. If there is a leak in the supply line, the pump can generate the test pressure continuously, which considerably simplifies searching for the leak.

consisting of:

- 1 x Leak Check LPG PRO including mains adapter and battery
- 1 x printer with connection cable and spare roll of paper
- 1 x connection hose for the test point G 1/4 lh M
- 1 x test hose G 1/4 lh nut x adapter for test point x 750 mm
- 1 x medium pressure hose assembly for LPG lines
- 1 x additional volume vessel 600 cm³
- 1 x hand grip for the test valve
- 1 x plug-in fitting (plug-in fitting x pipe socket 8) for connection to the SKU quick coupler
- 1 x straight reducer insert type RED pipe socket 8 x compr. fit 10
- 2 x adapters for all common test connections
- 10 x gaskets for outlet socket G 1/4 lh M
- 1 x leak detector spray can 125 ml
- 1 x MiniTool to connect and loosen small cylinder regulators
- 1 x double open-end spanner in each of the following sizes: 10/11; 12/13; 14/15; 17/19 and 20/22
- 1 x system case

Advantages and equipment

- clear operating panel for easy handling
- all necessary parts for testing and assembly in one system case
- efficiently arranged compartments with protective insert
- system case (H/W/D: approx. 210 x 496 x 296 mm) made from high-quality ABS-plastic; can be combined, for example, with assembly cases G 607 (caravan, see part no. 27 120 00) and G 608 (marine, see part no. 27 110 00)
- self-contained with an efficient battery
- test result printed out (long-life paper - keeps up to 10 years)
- continuous pump function for leak checks
- automatic zero point correction when it is switched on

Technical data

- measurement range: 0 to 200 mbar
- pressure resistance: 1000 mbar
- measuring accuracy: ± 2 mbar (in measuring range 140 to 160 mbar)

Electronic test device Leak Check LPG PRO for caravan and marine

| | |
|----------|-----------|
| complete | 27 105 00 |
|----------|-----------|

Accessories

| | |
|--|-----------|
| Spare roll of paper, longlife VPE: 5 units | 27 107 25 |
| Spare roll of paper, longlife VPE: 100 units | 27 107 26 |





Leak tester type 150Z

to check for leaks in LPG systems in vehicles, with additional test volume according to EN 1949 and EN ISO 10239

consisting of: pressure limiter, test pressure gauge 0 to 250 mbar quality class 1.0 (pressure resistant to 2.5 bar), hand pump, plastic case and additional volume vessel 600 cm³

Advantages and equipment

- for vehicles with a line test volume of less than 700 cm³ the test can be carried out with the additional volume of 600 cm³
- pressure limiter prevents damage to the pressure gauge

Leak tester type 150Z

complete

02 611 10

Accessories

Test hose G 1/4 lh nut x adapter for test point x 750 mm

02 618 06

Test pressure gauge 0-250 mbar, quality class 1.0

02 616 26

Gasket for pressure gauge

55 211 60

Retrofit kit for additional volume vessel 600 cm³

02 611 06

Additional volume vessel 600 cm³

02 611 40

Gasket for additional volume

02 611 27

Gasket for outlet connector G 1/4 lh M on leak tester

02 600 59

Set consisting of: Adapter G 1/4 lh F x G 3/8 lh M

02 617 22

and G 1/4 lh F x G 1/2 lh M brass



Leak tester type 150

to check for leaks in LPG systems in leisure vehicles or in small boats

consisting of: pressure limiter, test pressure gauge 0 to 250 mbar, quality class 1.0 (pressure resistant to 2.5 bar), hand pump, transport bag and one connection fitting each G 1/4 lh F x G 3/8 lh M and G 1/4 lh F x G 1/2 lh M

Advantages and equipment

- pressure limiter prevents damage to the pressure gauge

Leak tester type 150

with hand pump and transport bag

02 611 00

like 02 611 00, but with leak detector spray 125 ml

02 611 01

Accessories

Test hose G 1/4 lh nut x adapter for test point x 750 mm

02 618 06

Test pressure gauge 0-250 mbar, quality class 1.0

02 616 26

Gasket pressure gauge

55 211 60

Retrofit kit for additional volume vessel 600 cm³

02 611 06

Additional volume vessel 600 cm³

02 611 40

Gasket for additional volume

02 611 27

Gasket for outlet connector G 1/4 lh M on leak tester

02 600 59

Set consisting of: Adapter G 1/4 lh F x G 3/8 lh M

02 617 22

and G 1/4 lh F x G 1/2 lh M brass





Assembly case G 607

for LPG systems in leisure vehicles

with all the necessary components and spare parts for assembly and maintenance work on LPG installations in caravans and motor caravans according to German DVGW worksheet G 607

consisting of:

- 15 x straight compression fitting, type G 8 mm
- 5 x straight compression fitting, type G 10 mm
- 15 x elbow compression fitting, type W 8 mm
- 5 x elbow compression fitting, type W 10 mm
- 5 x T-shape compression fitting, each types T 8 and 10 mm
- 4 x straight reducing compression fitting, type GR 10 x 8 mm
- 4 x straight bulkhead compression fitting, type SV 8 mm
- 5 x elbow bulkhead compression fitting, type WSV 8 mm
- 15 x coupling nut, type M 8 mm
- 10 x coupling nut, type M 10 mm
- 40 x olive type D 8 mm
- 10 x olive type D 10 mm
- 10 x blind plug for distributor valve, each 8 and 10 mm
- 20 x pipe clamps, metal with rubber profile, each 8 and 10 mm
- 1 x pre-assembly socket type VOMO each 8 and 10 mm
- 5 x protective caps for test valve
- 1 x Truma paste 400, tube 25 g
- 1 x system case

Advantages and equipment

- all the components that you need for assembly and maintenance, arranged neatly in one system case
- efficiently arranged, different coloured compartments
- system case (H/W/D: approx. 105 x 396 x 296 mm) made from high-quality ABS-plastic
- the system case can be combined, stacked and connected, for example with assembly case G 608 (marine) and Leak Check LPG PRO

Assembly case G 607

for LPG systems in leisure vehicles

complete

27 120 00

Accessories

Electronic test device Leak Check LPG PRO

27 105 00

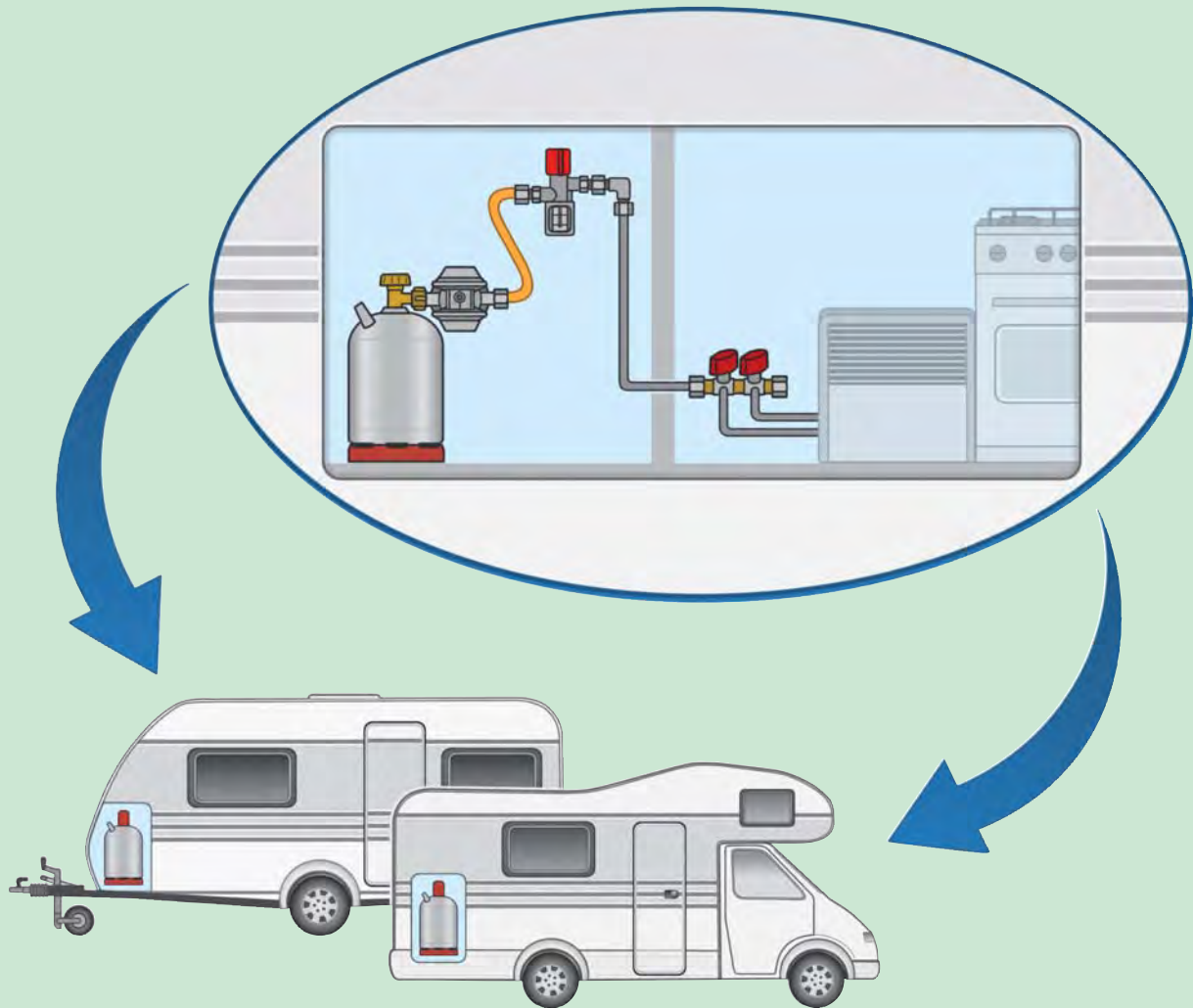
Test device Leak Check LPG BASIC

27 100 00

Assembly case G 608 (marine)

27 110 00





Leak testing by the operator

Regular leak tests by the operator increase the safety of the LPG system.

With the leak tester, a reliable leak test can be carried out at any time at the press of a button. A special glycol mixture also allows leak tests at temperatures below freezing.

Can be retrofitted without any problem.



Leak tester type 4071

enables a quick and sound leak test of the LPG system at the press of a button

Advantages and equipment

- with fixing screws
- with reinforcement rings
- including glycol mixture to check at temperatures below freezing
- bubbles can be seen in the inspection glass if there is a leak in the LPG system

Approval

- EC type test according to GAD

Technical data

- maximum working pressure: 2 bar
- pressure loss: < 1 mbar

Note

- Can be installed in all low pressure LPG systems in caravans and motor caravans.

Leak tester type 4071

straight outlet

compr. fit. 8 x compr. fit. 10

02 004 62

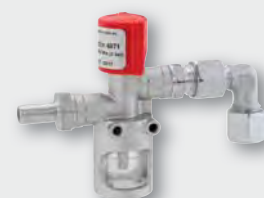
compr. fit. 10 x compr. fit. 10

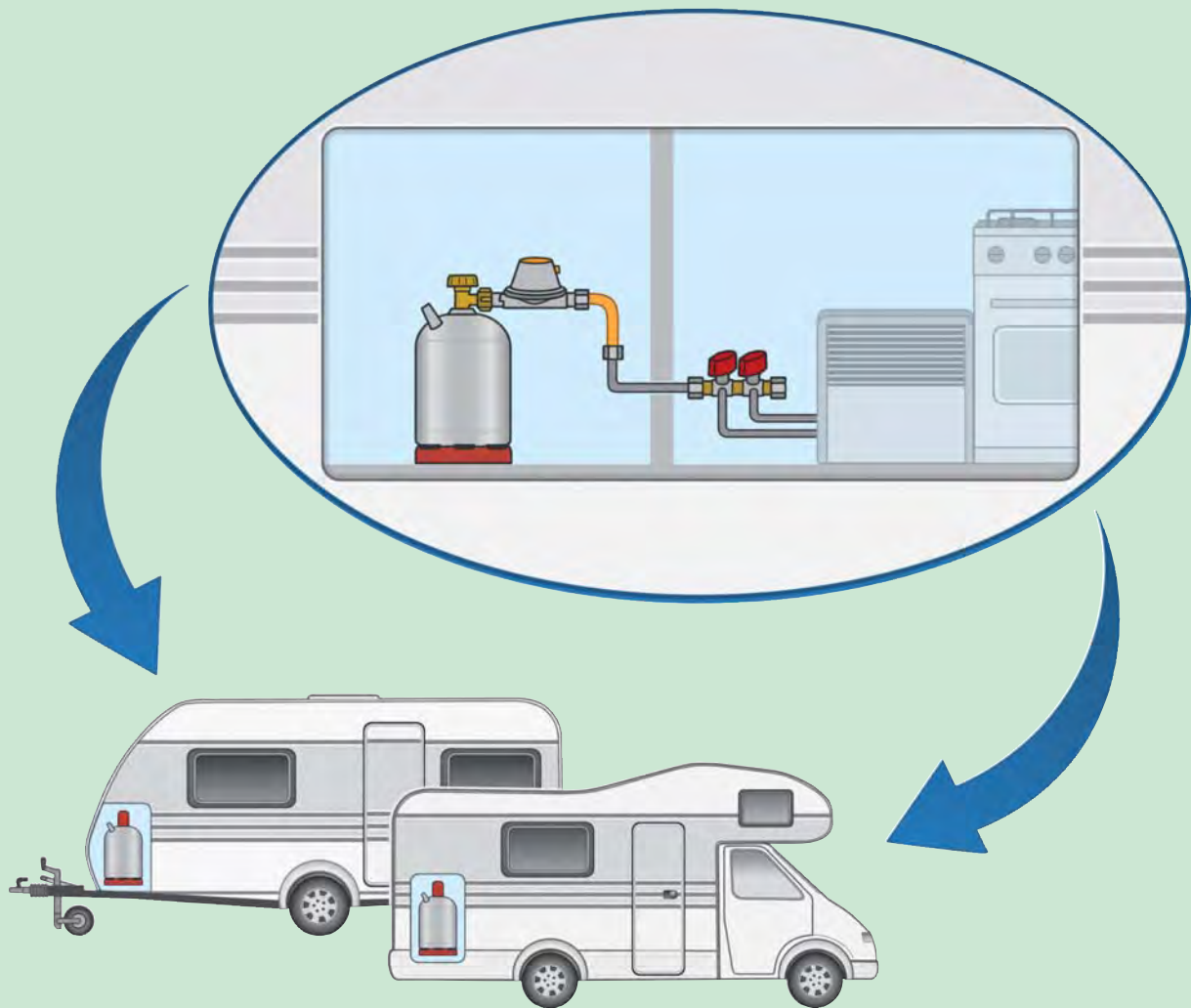
02 004 63

90° outlet

pipe socket 8 x compr. fit. 8

02 004 64





Care and maintenance of LPG systems

All LPG systems in vehicles must be checked regularly according to German DVGW G 607. Pressure regulators and hose assemblies have to be replaced every 10 years at the latest.

Older LPG installations in vehicles with a working pressure of 50 mbar do not have to be converted to 30 mbar.



Low pressure regulator type EN61 PS 16 bar

for connection to LPG cylinders to regulate the pressure to the nominal pressure of the LPG appliance

Advantages and equipment

- with pressure relief valve PRV
- vent plug that also prevents moisture, such as rainwater, getting inside the regulator
- version with extended inlet connector, 90° outlet suitable for VW motor caravans with Westfalia fit-out

Approval

- EC type test according to PED

Note

- Pressure regulators with outlet pressure 29 mbar are not suitable for use in Germany.
- To use the regulator de-icer, we recommend that you use the regulator with pressure gauge.

Low pressure regulator type EN61

straight outlet

| | | | | | | |
|---------|---|------------|---------|----------|---------------------|-----------|
| KLF | x | G 1/4 lh M | 50 mbar | 1.5 kg/h | | 01 113 00 |
| KLF | x | G 1/4 lh M | 50 mbar | 1.5 kg/h | with pressure gauge | 01 113 05 |
| Shell-F | x | G 1/4 lh M | 50 mbar | 1.5 kg/h | | 01 113 08 |
| Shell-F | x | G 1/4 lh M | 50 mbar | 1.5 kg/h | with pressure gauge | 01 113 13 |

90° outlet

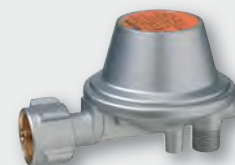
| | | | | | | |
|-----|---|------------|---------|----------|---------------------|-----------|
| KLF | x | G 1/4 lh M | 50 mbar | 0.8 kg/h | | 01 113 41 |
| KLF | x | G 1/4 lh M | 50 mbar | 0.8 kg/h | with pressure gauge | 01 113 43 |

with extended inlet connector, 90° outlet

| | | | | | | |
|-----|---|------------|---------|----------|--|-----------|
| KLF | x | G 1/4 lh M | 50 mbar | 0.8 kg/h | | 01 113 42 |
|-----|---|------------|---------|----------|--|-----------|

Accessories

| | | |
|-----------------------|-------------------------------------|-----------|
| Gas remote switch GSE | G 1/4 lh nut x G 1/4 lh M, with LED | 11 031 00 |
|-----------------------|-------------------------------------|-----------|





Medium pressure rubber hose assembly PS 10 bar
to connect fittings, consumer devices and piping

Approval

- tested by the German Technical and Scientific Association for Gas and Water, DVGW

Technical data

- hose: **rubber with textile liner**
- cold resistant to -30°C

Medium pressure rubber hose assembly

hose dimensions 6.3 x 3.5 mm

connections: coupling nut x compression fitting

| | | | |
|--------------|---|------------------------|-----------|
| G 1/4 lh nut | x | compr. fit. 8 x 400 mm | 04 402 00 |
| G 1/4 lh nut | x | compr. fit. 8 x 450 mm | 04 401 02 |
| G 1/4 lh nut | x | compr. fit. 8 x 750 mm | 04 405 01 |
| G 1/4 lh nut | x | compr. fit.10 x 400 mm | 04 409 03 |
| G 1/4 lh nut | x | compr. fit.10 x 750 mm | 04 409 07 |

connections: coupling nut x plug-in fitting

| | | | |
|--------------|---|---------------------------|-----------|
| G 1/4 lh nut | x | plug-in fitting x 400 mm | 04 221 00 |
| G 1/4 lh nut | x | plug-in fitting x 800 mm | 04 222 00 |
| G 1/4 lh nut | x | plug-in fitting x 1000 mm | 04 223 00 |
| G 1/4 lh nut | x | plug-in fitting x 1500 mm | 04 224 00 |
| G 1/4 lh nut | x | plug-in fitting x 2000 mm | 04 225 00 |
| G 1/4 lh nut | x | plug-in fitting x 2500 mm | 04 226 00 |
| G 1/4 lh nut | x | plug-in fitting x 3000 mm | 04 227 00 |
| G 1/4 lh nut | x | plug-in fitting x 5000 mm | 04 227 05 |



Medium pressure plastic hose assembly PS 10 bar
to connect fittings, consumer devices and piping

Approval

- tested by the German Technical and Scientific Association for Gas and Water, DVGW

Technical data

- hose: **plastic with textile liner**

Medium pressure plastic hose assembly

hose dimensions 6.3 x 3.5 mm

connections: coupling nut x compression fitting

| | | | |
|--------------|---|------------------------|-----------|
| G 1/4 lh nut | x | compr. fit.8 x 400 mm | 04 402 30 |
| G 1/4 lh nut | x | compr. fit.8 x 450 mm | 04 401 27 |
| G 1/4 lh nut | x | compr. fit.8 x 750 mm | 04 405 31 |
| G 1/4 lh nut | x | compr. fit.10 x 400 mm | 04 409 31 |
| G 1/4 lh nut | x | compr. fit.10 x 800 mm | 04 409 33 |





Supply pressure regulator type VDR 50/30 PS 1 bar

for safe, compliant integration of 30 mbar devices in 50 mbar LPG systems in vehicles and boats

Advantages and equipment

- including 1 m plastic ventilation line
- easy to install in the respective appliance line
- integrated bypass bore ensures a leak check to the appliance
- ideal if the LPG system is retrofitted or if defective appliances are being replaced

Approval

- EC type test according to GAD

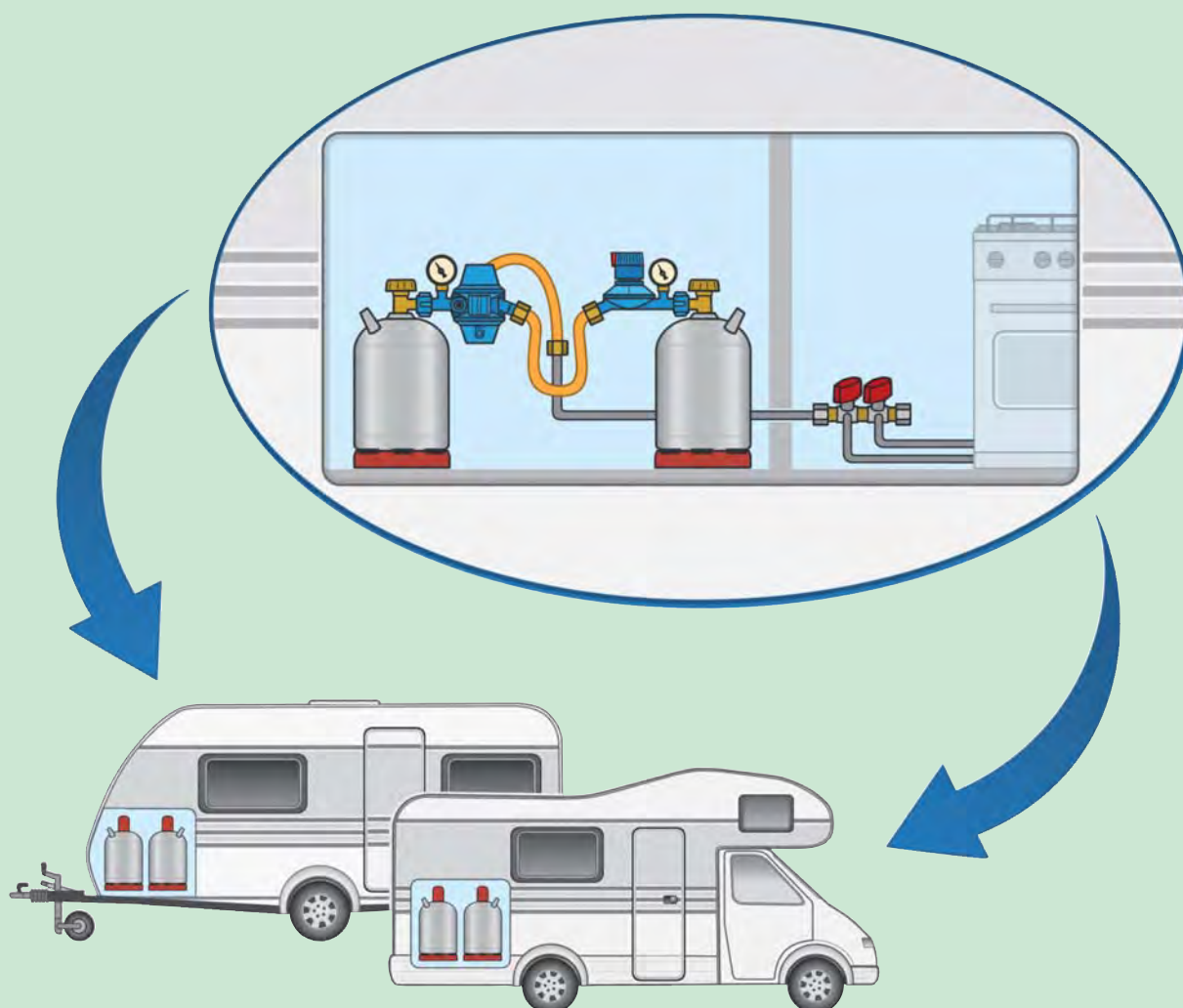
Supply pressure regulator type VDR 50/30

| | | | | |
|-------------------------------|---------|----------|----------|-----------|
| compr. fit. 8 x compr. fit. 8 | 30 mbar | 0.8 kg/h | 52150-01 | 11 445 00 |
|-------------------------------|---------|----------|----------|-----------|

Accessories

| | |
|---|-----------|
| Hull/wall duct for wall thicknesses to 8 mm | 11 445 08 |
| Hull/wall duct for wall thicknesses 6 to 20 mm | 11 445 20 |
| Hull/wall duct for wall thicknesses 15 to 40 mm | 11 445 40 |





Care and maintenance of LPG systems

Two-cylinder systems

If two-cylinder systems have to be replaced after 10 years, the Caramatic® automatic changeover system is the perfect replacement to ensure that you retain the level of comfort you are used to.

The set, consisting of a central and a changeover regulator, hose assemblies and all connection parts, allows the replacement to be carried out quickly and easily.



Two-cylinder system Caramatic® PS 16 bar

automatic regulator changeover for connection to LPG cylinders to regulate the pressure to the nominal pressure of the LPG appliance

consisting of: central and changeover regulator, pressure gauge and hose assemblies

Advantages and equipment

- with pressure relief valve PRV
- automatic changeover from the empty working cylinder to the full spare cylinder
- pressure gauge shows operation from working or spare cylinders
- changeover option (without replacing the regulator) from working to spare cylinder and vice versa
- non-return valve: prevents escape of gas when the cylinder is replaced
- version with combination connection with options to connect to 5, 11 or 33 kg gas cylinders
- suitable for connecting a regulator de-icer
- medium pressure hose assembly (hose dimensions 6.3 x 3.5 mm)
G 3/8 lh nut x G 3/8 lh nut x 400 mm to connect the two regulators, connections brass, compressive sleeves stainless steel
- medium pressure hose assembly (hose dimensions 6.3 x 3.5 mm)
G 1/4 lh nut x compr. fit. 8 x 400 mm to connect the system to the piping, connections brass, compressive sleeves stainless steel
- adapters for 8 and 10 mm

Approval

- EC type test according to PED

Technical data

- | | | |
|--------------------|-----------------------|----------------------------------|
| • connections: | inlet: | Komb.W |
| | outlet: | Central regulator: G 1/4 lh M |
| | | Changeover regulator: G 3/8 lh M |
| • outlet pressure: | central regulator: | 30 or 50 mbar |
| | changeover regulator: | 100 or 220 mbar |

Two-cylinder system Caramatic®

| | | |
|---------|----------|-----------|
| 30 mbar | 1.5 kg/h | 02 018 02 |
| 50 mbar | 1.5 kg/h | 02 018 01 |

FA+ with remote display

| | | |
|---------|----------|-----------|
| 30 mbar | 1.5 kg/h | 02 018 12 |
| 50 mbar | 1.5 kg/h | 02 018 11 |

Accessories

| | |
|--|-----------|
| De-icer 12 V | 10 075 00 |
| Gas remote switch GSE G 1/4 lh nut x G 1/4 lh M, with LED | 11 031 00 |
| Medium pressure hose assembly G 3/8 lh nut x 400 mm, brass parts | 04 504 01 |
| Medium pressure hose assembly G 3/8 lh nut x 1500 mm, brass parts | 04 504 02 |
| Medium pressure hose assembly G 1/4 lh nut x compr. fit. 8 x 400 mm, brass parts | 04 440 01 |



Accessories for LPG systems in caravans and motor caravans

With individual accessories comfort and safety as well as the reliability of your LPG installation are increased in excess of the standard.

The following GOK products are the ideal extras for caravan owners who enjoy comfort and convenience.

Gas filter

prevents contamination in the LPG installation

protects the pressure regulator and the automatic changeover valve against contamination from oily aerosols and evaporation residues

Advantages and equipment

- for all wall-mounted pressure regulators and automatic changeover valves
- high degree of separation - 99%
- integrated saturation display
- easy to change filter cartridge

Gas filter

| | | |
|-----------------------------|----------|-----------|
| M20 x 1.5 M x M20 x 1.5 nut | 50600-01 | 11 781 00 |
|-----------------------------|----------|-----------|

Accessories

| | | |
|---------------------------------------|-------------|-----------|
| Replacement cartridge | 50680-01 | 11 781 20 |
| Additional mounting angle | 50020-87000 | 11 781 22 |
| Elbow 90° M20 x 1.5 nut x M20 x 1.5 M | | 14 509 00 |

Elbow 90°

to connect high pressure hose assemblies to a low pressure regulator or to combine pressure regulators with automatic changeover valves

Elbow 90°

| | |
|-----------------------------|-----------|
| M20 x 1.5 nut x M20 x 1.5 M | 14 509 00 |
|-----------------------------|-----------|

Accessories

| | |
|--------------------------|-----------|
| Gasket for M20 x 1.5 nut | 04 590 25 |
|--------------------------|-----------|

Click-on adapter

to connect a pressure regulator with a German connection to LPG cylinders with a clip-on connection

Advantages and equipment

- integrated shut-off valve
- the shut-off valve can be opened or closed only when the adapter is connected

Click-on adapter

21 mm version

for Denmark, UK and Ireland

| | |
|-------------------------|-----------|
| Click-on (G.53) x KLF M | 20 036 30 |
|-------------------------|-----------|

JUMBO 35 mm version

for Denmark, UK, Finland, France, Ireland, Portugal, Scandinavia, Spain and Cyprus

| | |
|-------------------------|-----------|
| Click-on (G.56) x KLF M | 20 036 35 |
|-------------------------|-----------|





Euro set

to connect a pressure regulator with a German connection to LPG cylinders that are common in the European market

Euro set

comprising adapters 1 to 4

09 735 00

Individual adapters

Adapter 1: Italy, Switzerland

KLF M x M 10 x 1 M

09 735 31

Adapter 2: Greece, Italy, Austria, Slovenia

KLF M x Italian conn. F

09 735 32

Adapter 3: UK, Finland, Iceland, Norway, Portugal, Sweden

KLF M x Primus M

09 735 33

Adapter 4: Belgium, UK, France, Ireland, Croatia, Latvia, Luxembourg, Macedonia, Montenegro, Netherlands, Switzerland, Serbia, Slovakia, Slovenia, Spain, Czech Republic

KLF M x W 21.8 x 1/14 lh F

09 735 34

Euro filling set D

for filling German gas cylinders through authorised European filling stations

Euro filling set D

comprising adapters D1 to D4

09 738 00

Individual adapters

Filling adaptor D1: Italy, Switzerland

M10 x 1 F x KLF F

09 738 31

Filling adaptor D2: Greece, Italy, Austria, Slovenia

Italian conn. M x KLF F

09 738 32

Filling adaptor D3: UK, Finland, Iceland, Norway, Portugal, Sweden

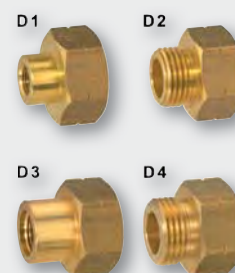
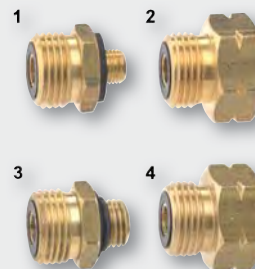
Primus F x KLF F

09 738 33

Filling adaptor D4: Belgium, UK, France, Ireland, Croatia, Latvia, Luxembourg, Macedonia, Montenegro, Netherlands, Switzerland, Serbia, Slovakia, Slovenia, Spain, Czech Republic

W 21.8 x 1/14 lh M x KLF F

09 738 34





Leak detector spray

allows safe and reliable leak detection in pipe systems

Approval

- DIN-DVGW tested

Note

- Because of hazardous materials regulations, only the following quantities are permitted per package:
Leak detector spray 125 ml part no. 02 601 01 / 72 cans
Leak detector spray 400 ml part no. 02 601 00 / 24 cans
For larger quantities dispatched by mail, shipping costs increase in accordance with the number of packages.

Leak detector spray

| | |
|------------------|-----------|
| Spray can 125 ml | 02 601 01 |
| Spray can 400 ml | 02 601 00 |



Leak detector spray frostproof

allows safe and reliable leak detection in pipe systems also at low temperatures

Advantages and equipment

- can be used to -15 °C

Approval

- DIN-DVGW tested

Note

- Because of hazardous materials regulations, only the following quantities are permitted per package:
Leak detector spray 400 ml part no. 02 602 00 / 24 cans
For larger quantities dispatched by mail, shipping costs increase in accordance with the number of packages.

Leak detector spray frostproof

| | |
|------------------|-----------|
| Spray can 400 ml | 02 602 00 |
|------------------|-----------|



LevelCheck

to easily check the level of LPG cylinders

The mobile LevelCheck indicates the level in LPG cylinders quickly and reliably by means of an LED display. To do this, simply place the LevelCheck on the gas cylinder horizontally.

Advantages and equipment

- LED display of the level: green = gas / red = no gas
- reliable measurement with ultrasound
- integrated LED torch
- suitable for commonly used steel and aluminium LPG cylinders Ø 200 to 350 mm (not for plastic, tank and Campingaz® cylinders or gas tanks)

LevelCheck

| | | |
|----------|----------|-----------|
| complete | 50500-01 | 11 700 00 |
|----------|----------|-----------|





Test point

to check for leaks in LPG systems in vehicles

Advantages and equipment

- especially suitable for Triomatic systems and new regulators according to EN 16129 Annex D, for wall installation
- by installing the test point, it is not necessary to remove the regulator that is installed on the wall to test the system for leaks.
- leak tester connection (see, for example part no. 02 611 10) with test adapter
- the inlet to the regulator is blocked via the ball valve

Test point

| | |
|---------------------------------|-----------|
| pipe socket 8 x compr. fit. 8 | 02 618 00 |
| pipe socket 10 x compr. fit. 10 | 02 618 10 |

Accessories

| | |
|--|-----------|
| Test hose G 1/4 lh nut x adapter for test point x 750 mm | 02 618 06 |
|--|-----------|



MiniTool

to connect and loosen small cylinder regulators on the cylinder valve with no effort

Advantages and equipment

- suitable for small cylinder connections with wing nuts

Technical data

- material: Special polyamide with glass fibre reinforcement (developed for tools)

MiniTool

35 in presentation box

| | | |
|---------------------------------|------------------------------------|-----------|
| unicoloured, 35 pieces: | blue | 21 100 70 |
| various colours, each 7 pieces: | orange, red, blue, green and black | 21 100 71 |

Replenishment pack

| | | |
|--------------------------------------|------------------------------------|-----------|
| unicoloured, 50 pieces: | blue | 21 100 80 |
| various colours, each 5 x 10 pieces: | orange, red, blue, green and black | 21 100 85 |





EuroTool

for effortless connection and disconnection of cylinder regulators to the cylinder valve
With new exchangeable system for simple and safe replacement of the inserts.

Advantages and equipment

- just one tool with seven different exchangeable inserts
- six inserts (orange) suitable for European cylinder connections
- one insert (green) suitable for small cylinder sealing nut (cap)
- simple and safe exchangeable system
- tool case with foam insert (H/W/D: 140 x 153 x 49 mm)

Technical data

- material: Special polyamide with glass fibre reinforcement (developed for tools)

EuroTool
in toolbox
complete

21 100 30



red dot award 2014
honourable mention



EuroTool-MiniTool set

for effortless connection and disconnection of cylinder regulators to cylinder valves.
consisting of: presentation box with 2 EuroTools in a toolbox and 21 MiniTools
unicoloured, blue

Advantages and equipment

- EuroTool with simple, safe exchangeable system
- EuroTool with six exchangeable inserts (orange) suitable for European cylinder connections and an exchangeable insert (green) suitable for small cylinder sealing nut (cap)
- EuroTool in toolbox with foam insert (H/W/D: 140 x 153 x 49 mm)
- suitable for small cylinder connections with wing nuts

Technical data

- material: Special polyamide with glass fibre reinforcement (developed for tools)

EuroTool-MiniTool set
in presentation box
complete

21 100 72





EuroTool exchangeable inserts with assignment to European cylinder connections

55

Maintenance and inspection

Technical rules define the test intervals and content of the tests for all LPG systems in leisure vehicles. In Germany, the worksheet G 607 (A) issued by the German Technical and Scientific Association for Gas and Water (DVGW) applies.

Inspecting the LPG system

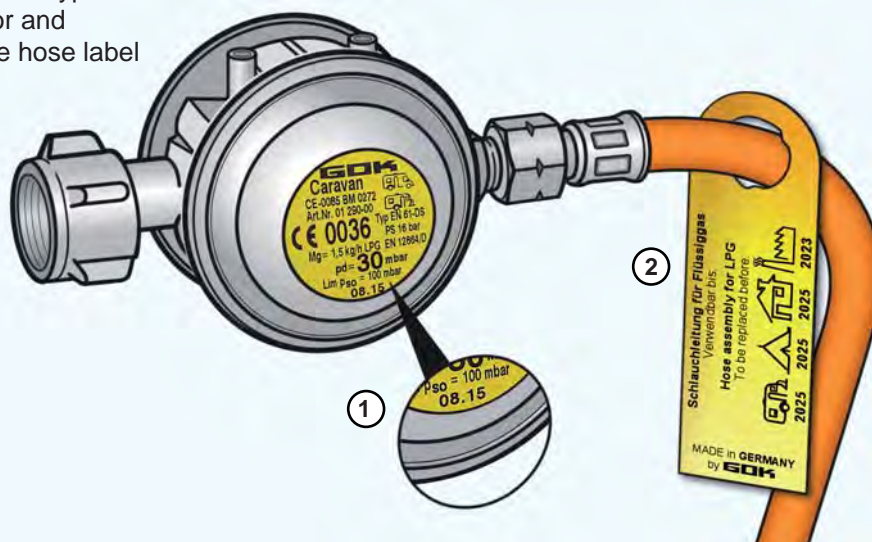
- Every LPG system must be inspected by a recognised specialist, such as from the German LPG Association (DVFG).
- The first inspection is carried out before start-up by a DVFG recognised specialist, for example, for compliance with EN 1949 in conjunction with G 607 (A) and is usually done by the manufacturer.
- The next inspection must be carried out by a specialist at the latest 24 months after the initial inspection.
- The condition of the LPG system must be recorded in an inspection certificate. If no defects are found, the LPG system can be used and an inspection plate is issued.

Replacement deadline for system components

- Pressure regulators and hose assemblies have to be replaced every 10 years at the latest.
- The date of manufacture printed on the fittings and hoses is what matters, not the date of installation or the start-up date.
- In the case of pressure regulators the decisive date is the date printed on the type label ①. The relevant date is printed on the type label of the pressure regulators. You have to distinguish between two ways of indicating the date of manufacture:
 - a) On pressure regulators with older date of manufacture, the first two numbers are the month of manufacture and the next two are the year of manufacture, e.g. 08.15.
 - b) On pressure regulators with a more recent date of manufacture, only the year of manufacture is shown as four digits, e.g. 2015.
- GOK offers a special service for hoses. They have a yellow label ② showing the year in which the hose should be replaced in relation to where it is used. If the yellow label is torn or no longer attached, the year of manufacture is also printed on the hose.

Replacement deadline

Year of manufacture on the type label of the pressure regulator and replacement year on the hose label



Leak check when replacing cylinders

For your safety, each time you replace or connect a cylinder check the connection between the cylinder valve and the pressure regulator ③ or high pressure hose assembly for leaks with a foaming agent (e.g. leak detector spray). Alternatively, with suitably equipped pressure regulators, you can use the pressure gauge in the inlet to check for leaks.

Leak checks of pressure regulators with no pressure gauge

1. Close all shut-off fittings on the consumer devices.
2. Slowly open the cylinder valve.
3. Spray all connections with a foaming agent according to EN 14291 (e.g. leak detector spray, part no. 02 601 00).
4. Do not use an open flame to check for leaks.
5. Bubbles will form in the foaming agent if there are any leaks.
6. If bubbles form continuously, do not start the LPG system. Find and rectify the cause of the leak. This should be done by a specialist.

Leak checks of pressure regulators with pressure gauge

Notice: The complete LPG system to the shut-off fittings is tested.

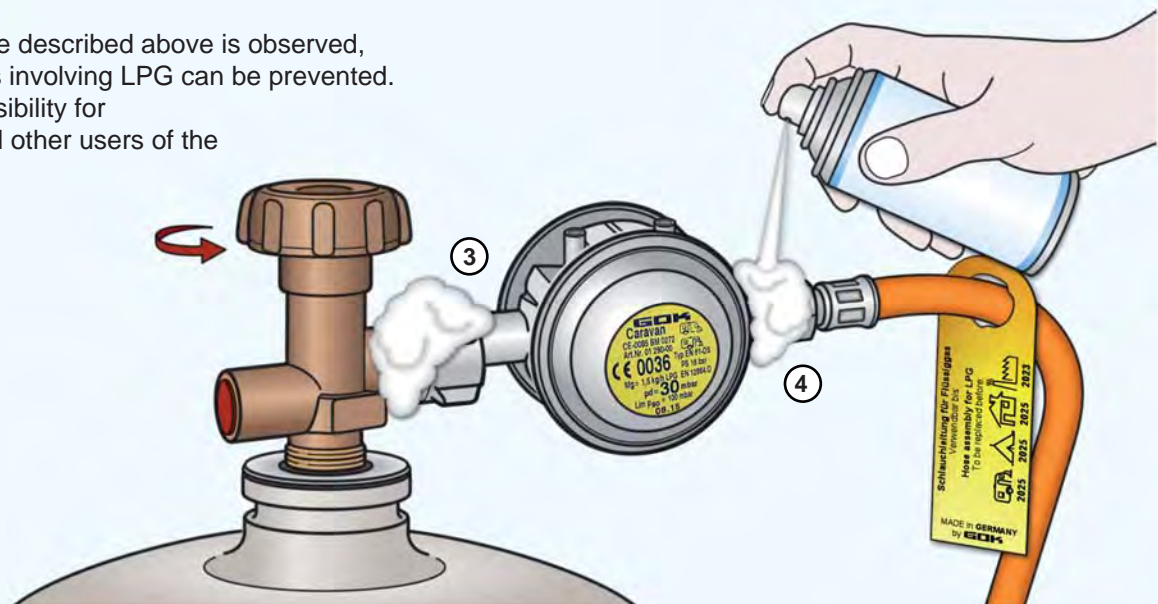
1. Close all shut-off fittings on the consumer devices.
2. Slowly open the cylinder valve.
3. - For pressure gauges with no red pointer: Mark the position of the black pointer (shows the current cylinder pressure).
- For pressure gauges with a red pointer: Turn the red pointer to the exact position of the black pointer to mark the current cylinder pressure.
4. Close the cylinder valve. Waiting time: 2 minutes to allow the temperature to balance out.
5. Adjust the mark or the red pointer if necessary. Testing time: 10 minutes.
6. The gas pressure must not decrease during the testing time. If the pressure decreases, the entire LPG system must be checked for leaks.

Note:

All other detachable connections (e.g. hose connection at the outlet of the pressure regulator ④, compression fittings in the piping) should also be checked regularly for leaks (e.g. with a foaming agent).

Leak check

If the procedure described above is observed, most accidents involving LPG can be prevented. Accept responsibility for yourself and all other users of the leisure vehicle.



Function of safety devices

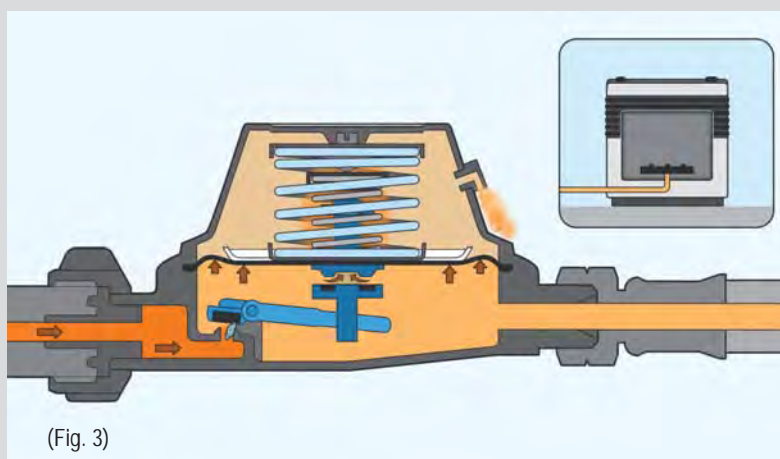
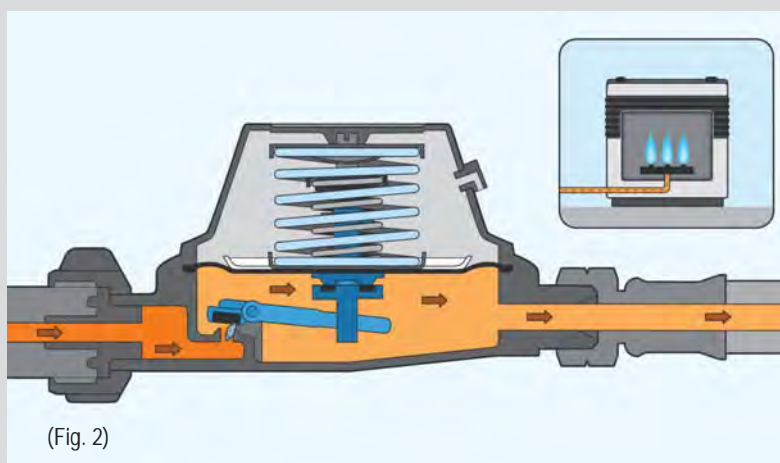
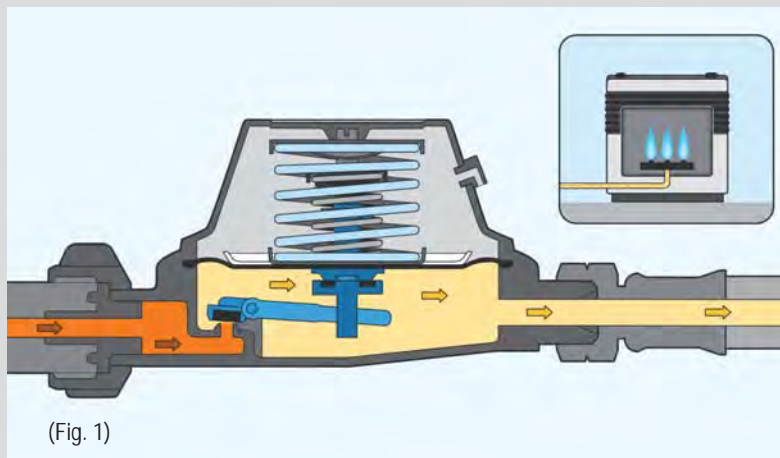
You will find animations for all safety devices on our YouTube channel www.youtube.de

Safety pressure relief valve PRV

The safety pressure relief valve (PRV) is a safety device integrated in the regulator. It acts automatically and is intended to protect the connected consumer devices against inadmissible high pressure. **(Fig. 1)**

If inadmissible high pressure occurs at the outlet side, for example, because of dirt, **(Fig. 2)**, the membrane is pressed upward. The safety pressure relief valve opens and blows the excess pressure off to the ambient air **(Fig. 3)**.

When the pressure falls, the PRV closes again automatically.

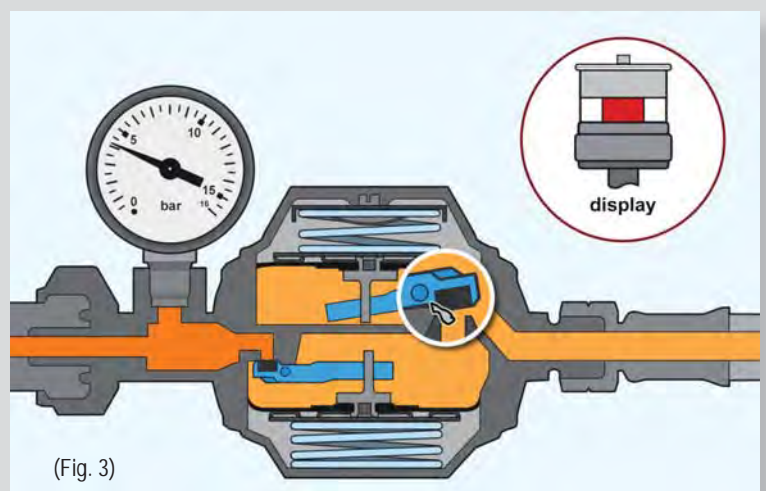
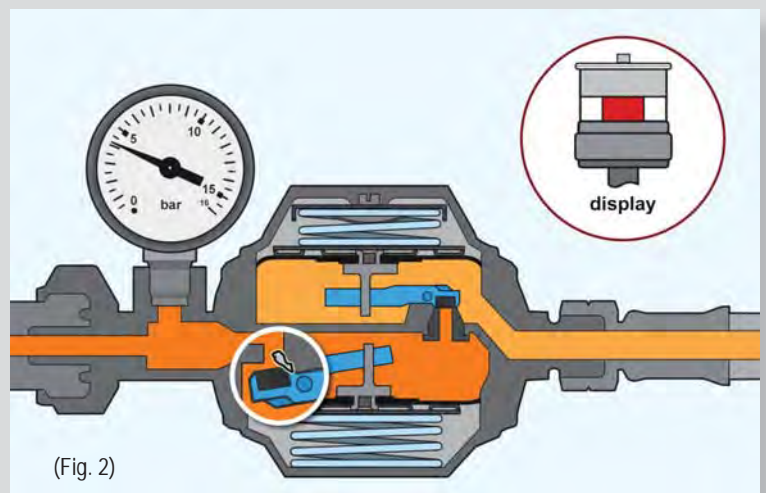
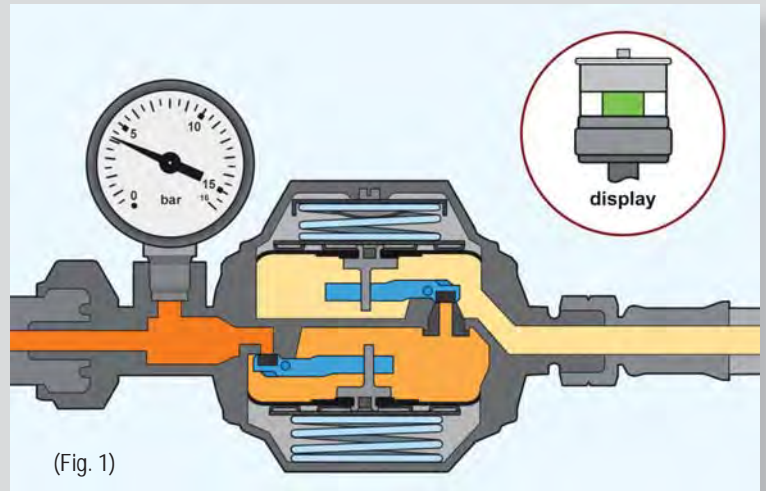


Overpressure safety device S2SR (OPSD)

Regulators with an S2SR overpressure safety device (OPSD) are two-stage regulators (**Fig. 1**).

If one of the two regulator stages fails, e.g. because of dirt or other foreign bodies in the valve, the other regulator stage reduces the pressure to maximum 150 mbar. This can be seen by the red field in the visual indicator (**Figs. 2 and 3**).

With the visual indicator users can see when the outlet pressure is above 80 mbar and when the low pressure regulator has to be replaced.



Excess flow valve EFV

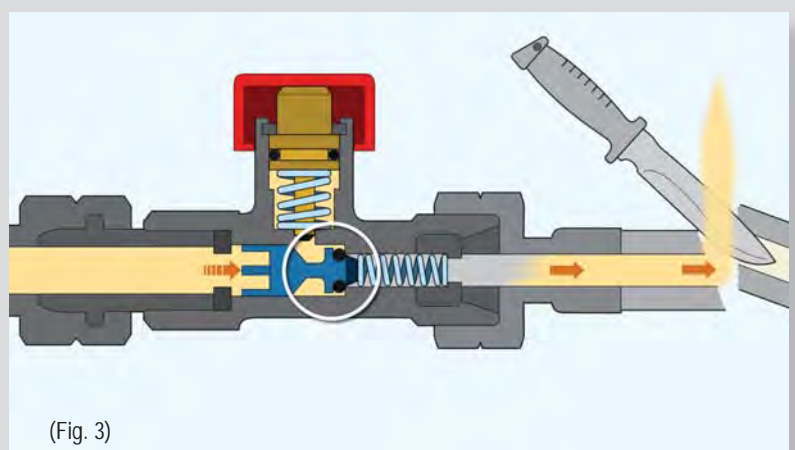
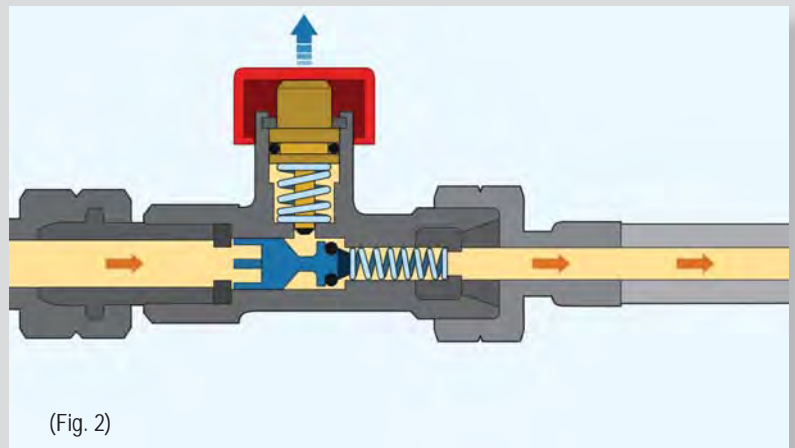
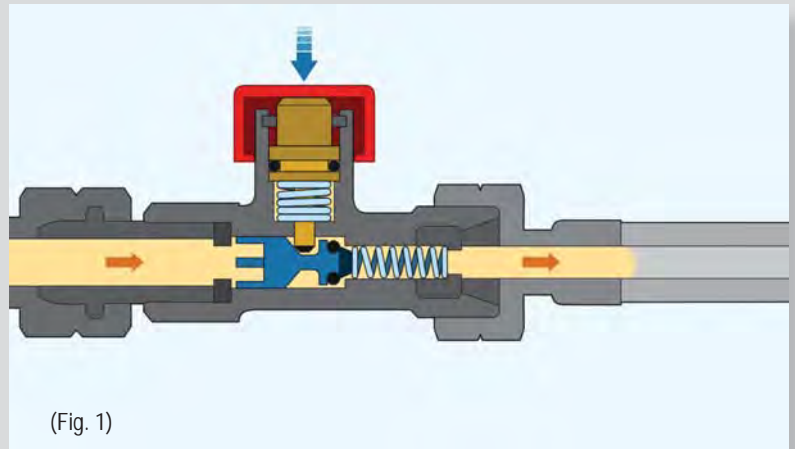
The excess flow valve EFV prevents gas escaping uncontrollably if the hose is damaged.

Press the button to put the excess flow valve EFV into service. This opens the closing taper and the connected hose assembly fills with gas (**Fig. 1**).

When the pressure has equalised, the closing taper remains open and gas can be consumed (**Fig. 2**).

If the hose assembly is damaged, the pressure drops suddenly and the closing taper is pressed on to the valve seat. The gas feed is interrupted. Consequently, unused gas cannot escape (**Fig. 3**).

In the automatic version, the excess flow valve EFV is started up via a pulse bore. The closing taper opens automatically when the pressure has equalised.



Crash sensor

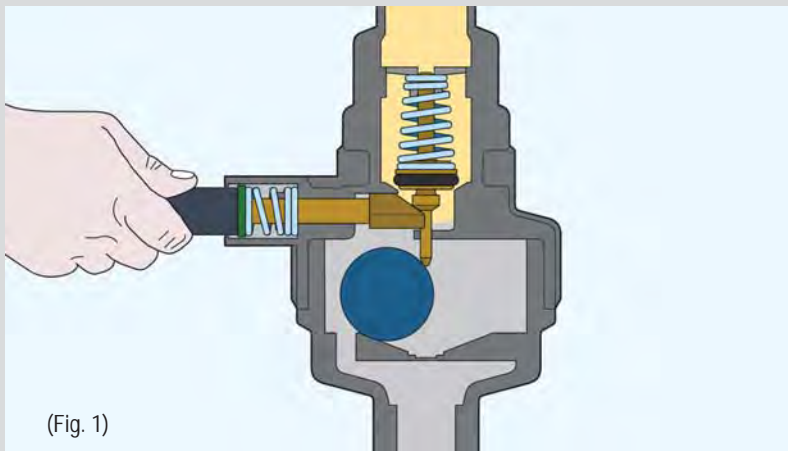


Many leisure vehicles are also heated with LPG while driving. The mechanical crash sensor was developed to prevent uncontrolled release of LPG in case of a traffic accident.

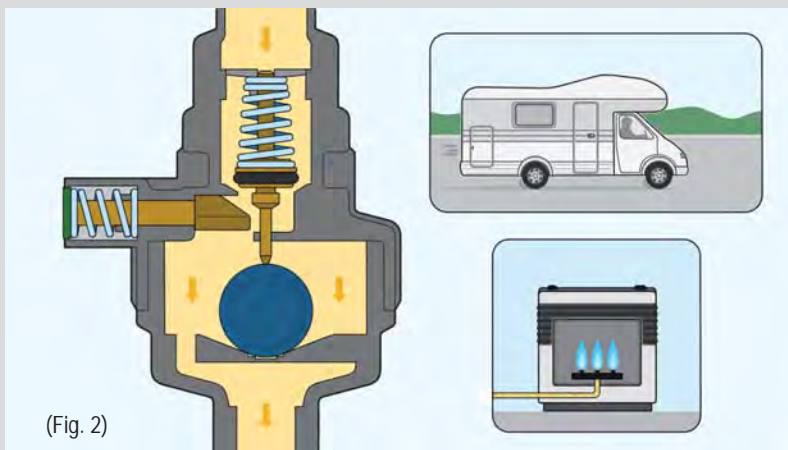
This is a component of the regulator system and is activated manually. To start up, press the reset button, which opens the spring-loaded sealing unit (**Fig. 1**).

The sphere rolls into its resting position and stops the sealing unit closing. This ensures that gas can flow. The reset button is relieved. Heating can now be used safely while driving (**Fig. 2**).

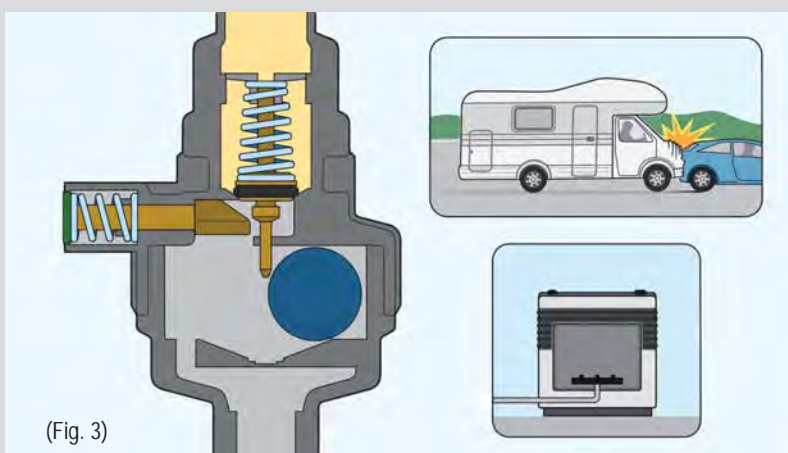
If the leisure vehicle is involved in an accident, the crash sensor directly blocks the flow of gas. From a crash speed of about 15 to 20 km/h, the sphere changes its position and releases the spring-loaded sealing unit. The gas flow is reliably closed (**Fig. 3**) and remains in this state until it is opened again manually via the reset button.



(Fig. 1)



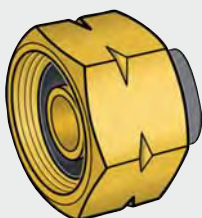
(Fig. 2)



(Fig. 3)

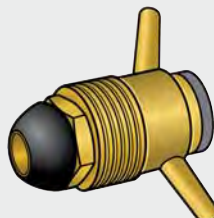
Inlet connections

Italian connector (Ital.A)



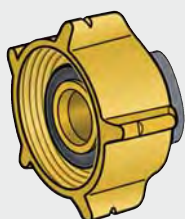
| | |
|------------------------|-------------------|
| Name acc. to standard* | G.1 |
| Country | AT, GR, IT |
| Material gasket | NBR |

Soft POL (POL-WF)



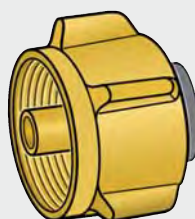
| | |
|------------------------|-------------|
| Name acc. to standard* | G.10 |
| Country | SE |
| Material gasket | NBR |

FR Shell (Shell-F)



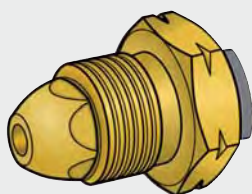
| | |
|------------------------|-----------------------|
| Name acc. to standard* | G.2 |
| Country | BE, CH, FR, RU |
| Material gasket | NBR |

Small cylinder (KLF)



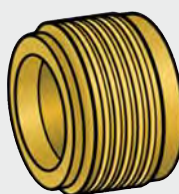
| | |
|------------------------|-----------------------|
| Name acc. to standard* | G.12 |
| Country | AT, DE, PL, RU |
| Material gasket | -- |

British POL (Brit.POL)



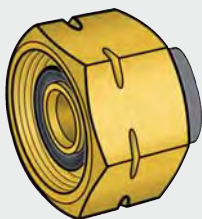
| | |
|------------------------|------------|
| Name acc. to standard* | G.7 |
| Country | GB |
| Material gasket | -- |

M M20 x 1.5



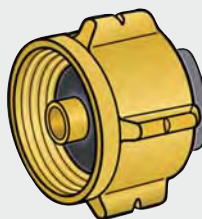
| | |
|---------------------------------------|-------------------|
| Name acc. to standard* | G.13 |
| Country | CH, ES, FR |
| throughout Europe for caravans | |

Shell Butane Nut (EU-Shell)



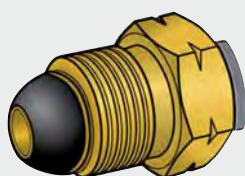
| | |
|------------------------|-------------------|
| Name acc. to standard* | G.8 |
| Country | GB, IE, RU |
| Material gasket | NBR |

Kombi Soft (Komb.W)



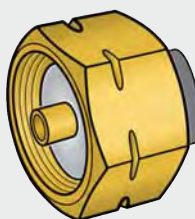
| | |
|------------------------|-------------------|
| Name acc. to standard* | G.19 |
| Country | DE, ES, RU |
| Material gasket | NBR |

Soft POL (POL-WS)



| | |
|------------------------|-----------------------|
| Name acc. to standard* | G.10 |
| Country | BE, NO, PT, SE |
| Material gasket | NBR |

Shell Kombi Hard (Komb.Shell-H)

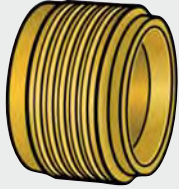


| | |
|------------------------|------------|
| Name acc. to standard* | X.3 |
| Country | RU |
| Material gasket | PA |

*Name according to EN 16129 Annex G and EN 15202 / **Name GOK factory standard

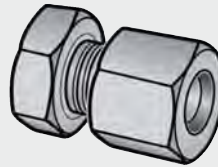
Outlet connections

M20 x 1.5 M



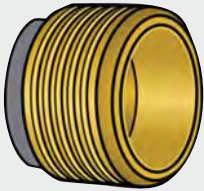
| | |
|------------------------|----------------------------------|
| Name acc. to standard* | H.1 |
| Country | CH, ES FR, GB, PT |

Compression fitting



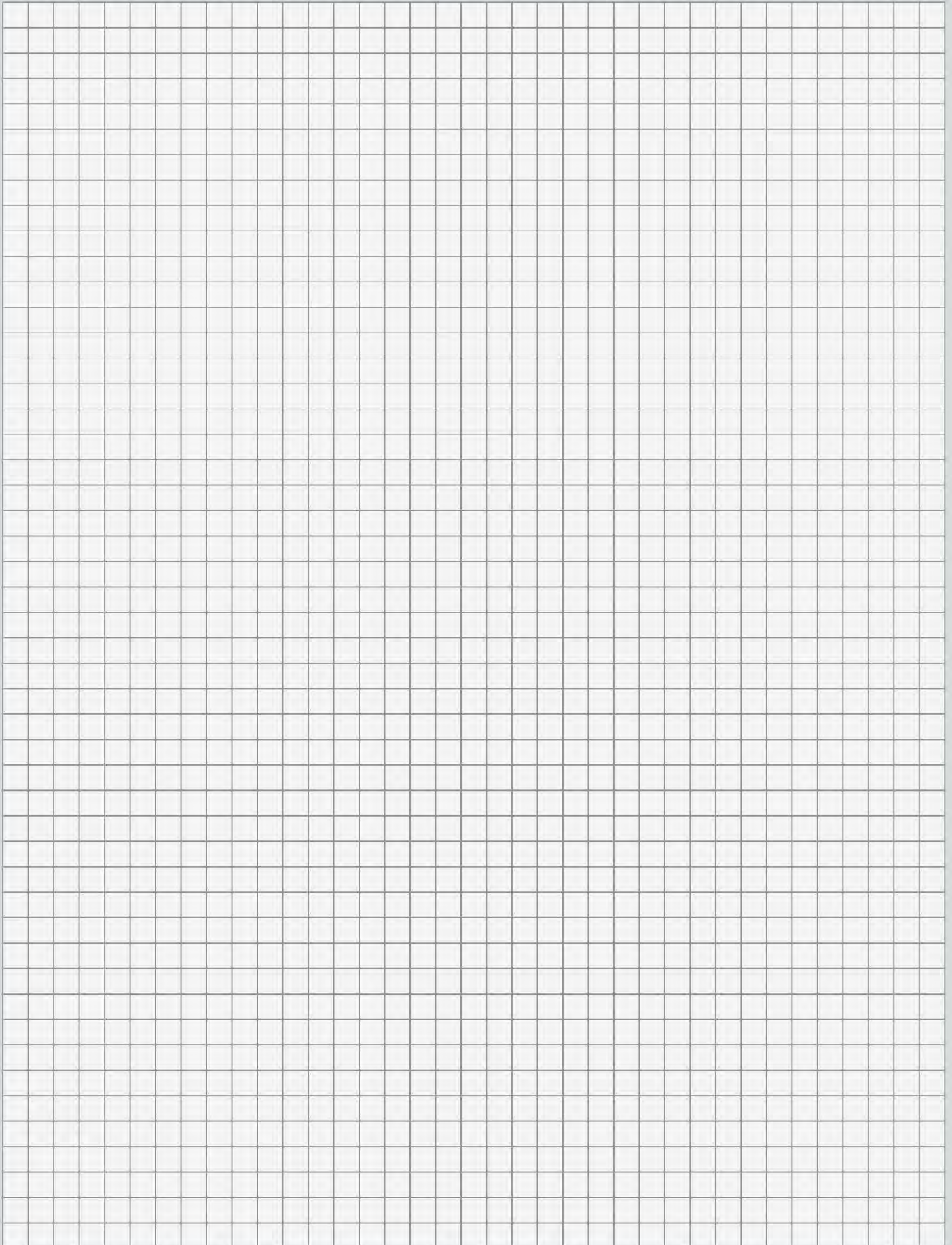
| | |
|------------------------|----------------------------|
| Name acc. to standard* | H.8 H.9 |
| Country | inter- national |

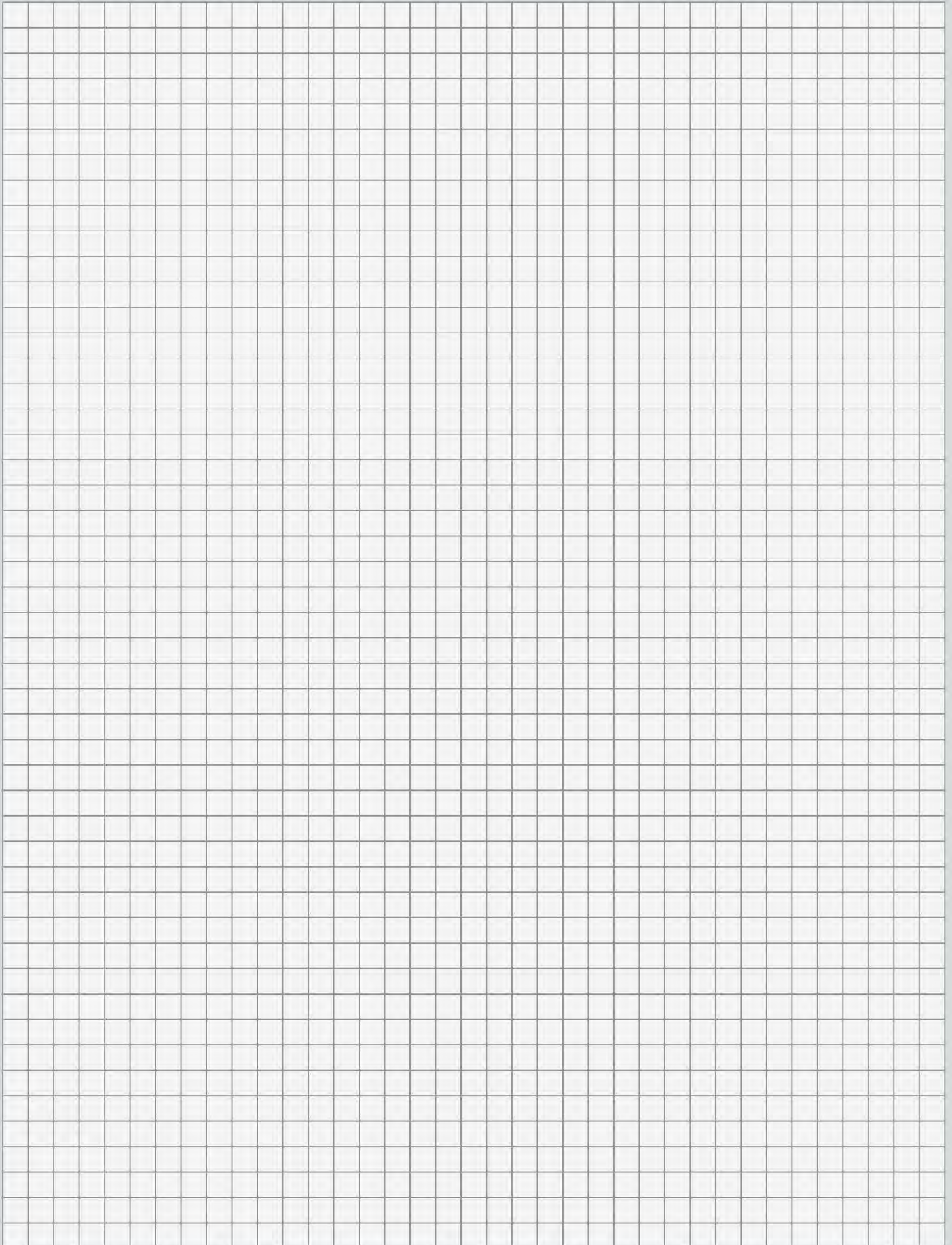
Ball-cone connector



| | |
|------------------------|-----------------------------------|
| Name acc. to standard* | H.4, H.5, H.6 |
| Country | AT, CH, CZ, DE, SI |

*Name according to EN 16129 Annex H







Caravan

GOK

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