

Components * Solutions * Systems



for LPG systems in leisure vehicles

Made in **GERMANY**



CONTENTS

Regulations

Solutions for LPG in leisure vehicles

Capacity stages of the	1
low pressure regulator	

Caravan and motor caravan	2 - 25
Choice of regulators	
Cylinder connection	2
Wall assembly	6
Two-cylinder system	
automatic changeover	10
manual changeover	16
External connection	
LPG withdrawal	20
LPG feed	24
Motor caravans	26 - 41

Heating while driving (caravans and motor caravans)

Single-cylinder system	20
Two-cylinder system	32
100.	

LPG tank

LPG tank – heating while driving	38
LPG tank – stationary operation	40

Accessories for LPG systems in 42 – 53 caravans and motor caravans

Operation and testing	54 – 69
-----------------------	---------

Leak test

Leak test by qualified persons	54
Leak test by the operator	62

Care and maintenance

Installation 50 mbar	64
Two-cylinder system	68

Information and service	70 – 80
Maintenance and inspection	70
Functions of the safety devices	72
Inlet connectors	78
Outlet connectors	79

Shop packaging – Systematic benefits for the world of retail 80

Chrome 6

Product information:

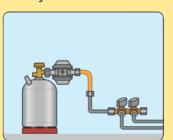
We deliver exclusively products that do not contain chromium VI.



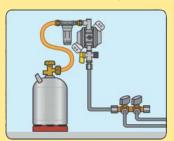
CARAVAN AND MOTOR CARAVAN

Choice of pressure regulators

Cylinder connection



Wall assembly

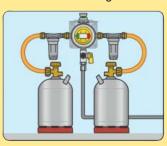


... from page 2

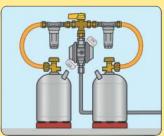
... from page 6

Two-cylinder system

automatic changeover



manual changeover

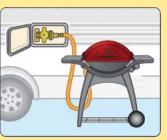


... from page 10

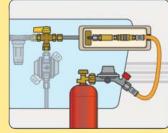
... from page 16

External connection

LPG withdrawal



LPG feed



... from page 20

... from page 24

ONS FOR LPG IN LEISURE VEHICLES



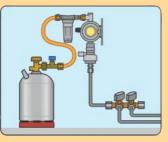
MOTOR CARAVANS

OPERATION AND TESTING

Heating while driving (caravans and motor caravans)

Single-cylinder system

Two-cylinder system

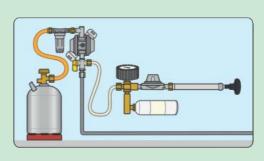




... from page 26

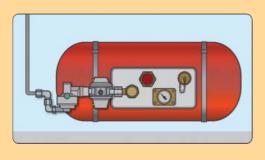
... from page 32

Leak test by qualified persons



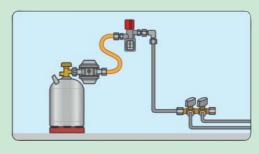
... from page 54

LPG tank - heating while driving



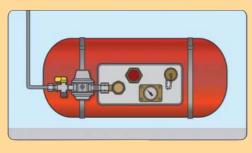
... from page 38

Leak test by the operator



... from page 62

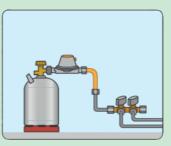
LPG tank - stationary operation



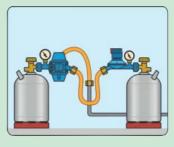
... from page 40

Care and maintenance

Installation 50 mbar



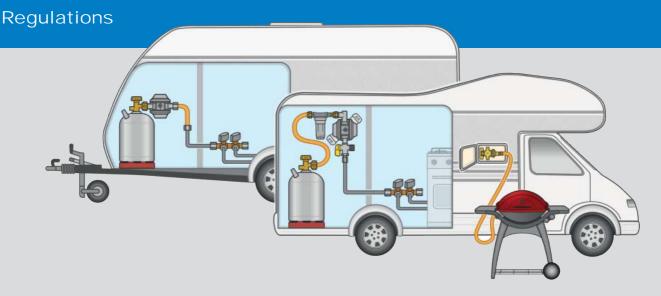
Two-cylinder system



... from page 64

... from page 68





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.
- The pressure regulator can be installed directly onto the cylinder valve or it is attached permanently to the vehicle wall and connected to the gas cylinder by means of a high pressure hose assembly.
- 4. A test pressure of 150 mbar is used to check for leaks in the LPG installation.
- 5. External gas equipment can be connected to the vehicle's LPG installation and supplied by means of 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 gas supply. The connection is made using a quick coupler. Additionally, a manual changeover valve must be installed before the pressure regulator that can be used to switch between the internal gas cylinder and the external LPG feed.
- 8. The requirements for the installation of LPG cylinders that are attached firmly to the vehicle were included.

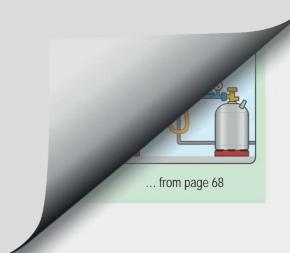
Heating while driving

For the operation of gas equipment while driving, directive 2006/119/EC requires special safety devices that prevent non-combusted LPG from leaking in the event of an accident.

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 rate is 1.5 kg/h.
- 3. The inlet pressure range is 0.3 to 16 bar. Hence, these pressure regulators are suitable for all LPGs (propane, butane and mixtures of these).
- 4. The pressure regulator must have an integrated safety device to prevent inadmissible pressure increases to protect the consumption device:
 - pressure relief valve (PRV), response pressure max. 150 mbar or
 - over-pressure safety device S2SR (OSD), protection pressure max. 150 mbar





Regulations

Capacity stages of low pressure regulators

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 equipment that you have installed.

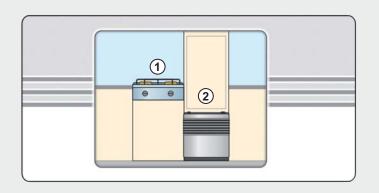


INSTALLATION EXAMPLES

Capacity stage 1 - nominal flow rate 0.8 kg/h

Installation example:

① Stove 2 flame = approx. 194 g/h ② Caravan heating = approx. 480 g/h Total consumption = approx. 674 g/h

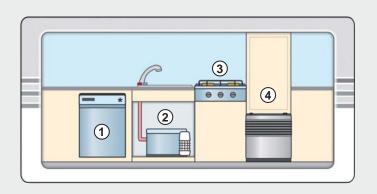


Capacity stage 2 - nominal flow rate 1.2 kg/h

Installation example:

1 Cooling device = approx. 80 g/h
2 Boiler = approx. 120 g/h
3 Stove 3 flame = approx. 200 g/h
4 Caravan heating = approx. 480 g/h

Total consumption = approx. 880 g/h



Capacity stage 3 - nominal flow rate 1.5 kg/h

Installation example:

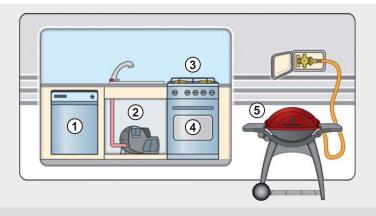
1 Cooling device = approx. 80 g/h

2 Heater and water heating device = approx. 480 g/h

3 Stove 4 flame = approx. 330 g/h
 4 Oven = approx. 200 g/h

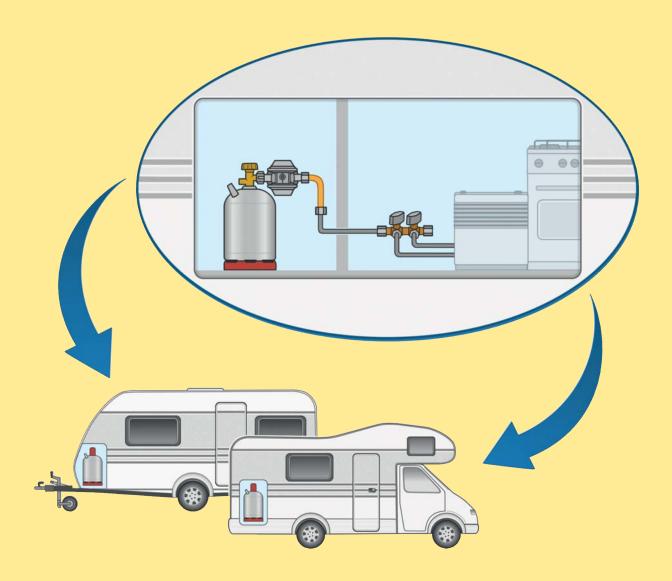
(5) Gas barbecue = approx. 350 g/h

Total consumption = approx. 1440 g/h





Caravan and motor caravan – regulator selection



Classic connection to gas cylinders

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

The Caramatic BasicOne low pressure regulator is installed directly onto the gas cylinder. The connection to the supply line of the vehicle is made with a medium pressure hose assembly.



Products for connection to cylinders



Caramatic BasicOne

for connection to gas cylinders to regulate the pressure to the nominal pressure of the gas equipment consisting of: low pressure regulator with integrated safety device against over-pressure

Advantages and equipment

- version with pressure gauge to check for leaks e.g. when the cylinder is replaced
- · version with extended inlet connector, 90° outlet suitable for VW camper vans with Westfalia fit-out

Conformity

• EC type approval according to PED (EN 16129, annex D)

Technical data

• maximum admissible pressure: PS 16 bar

Note

- The nominal flows of all the devices must be added together to choose the right capacity stage.
- Version type EN61-DS fulfils the requirements of DGUV Regulation 79 (German statutory accident insurance, previously BGV D 34) and is suitable for use in commercially used caravans and motor caravans!

Caramatic BasicOne

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

Straight outlet					
KLF x G 1/4 lh M	30 mbar	0.8 kg/h	with pressure gauge	61 280 27 🗀	
KLF x G 1/4 lh M	30 mbar	0.8 kg/h		61 280 00	
Shell-F x G 1/4 lh M	30 mbar	0.8 kg/h	with pressure gauge	61 281 00	
Shell-F x G 1/4 lh M	30 mbar	0.8 kg/h		61 281 05	
90° outlet	0011100	oro rigiri		0.20.00	
KLF x G 1/4 lh M	30 mbar	0.8 kg/h	with pressure gauge	61 280 30	
KLF x G 1/4 lh M	30 mbar	•	with pressure gauge	61 280 15	
		0.8 kg/h	with property gaves		
Shell-F x G 1/4 lh M	30 mbar	0.8 kg/h	with pressure gauge	61 280 33	
Shell-F x G 1/4 lh M	30 mbar	0.8 kg/h		61 280 32	
with extended inlet con	nector				
90° outlet					
KLF x G 1/4 lh M	30 mbar	0.8 kg/h		61 280 14	
Shell-F x G 1/4 lh M	30 mbar	0.8 kg/h		61 280 34	
U-shape					
KLF x G 1/4 lh M	30 mbar	0.8 kg/h		61 280 05	
Shell-F x G 1/4 lh M	30 mbar	0.8 kg/h		61 280 28 🗀	
		Ü			
capacity stage 2, type E	EN71 with press	sure relief valv	re PRV		
straight outlet					
KLF x G 1/4 lh M	30 mbar	1.2 kg/h	with pressure gauge	61 285 02	
KLF x G 1/4 lh M	30 mbar	1.2 kg/h		61 285 00	
Shell-F x G 1/4 lh M	30 mbar	1.2 kg/h	with pressure gauge	61 286 02	
Shell-F x G 1/4 lh M	30 mbar	1.2 kg/h		61 286 00	
		Ü			
capacity stage 3,					
type EN61-DS with over	r-pressure safe	ty device S2S	R		
straight outlet					
KLF x G 1/4 lh M	30 mbar	1.5 kg/h	with pressure gauge	61 290 03	
KLF x G 1/4 lh M	30 mbar	1.5 kg/h		61 290 05	
Shell-F x G 1/4 lh M	30 mbar	1.5 kg/h	with pressure gauge	61 293 04	
Shell-F x G 1/4 lh M	30 mbar	1.5 kg/h	, ,	61 293 03	
90° outlet		3			
KLF x G 1/4 lh M	30 mbar	1.5 kg/h		61 290 11	



















Products for connection to cylinders



Medium pressure hose assembly rubber

to connect fittings, consumer equipment and piping

Conformity

· DVGW approved

Technical data

- · maximum admissible pressure: PS 10 bar
- · hose: rubber with textile lining
- · cold resistant up to -30 °C

Note

• Our hose assemblies are supplied with a tag and notice of the year of replacement.

Medium pressure hose assembly rubber

hose dimensions 6.3 x 3.5 mm

connections: coupling nut x compression fitting

with coupling nut type M and olive type D

G 1/4 lh nut x compr. fit. 8 x 400 mm G 1/4 lh nut x compr. fit. 8 x 750 mm G 1/4 lh nut x compr. fit 10 x 400 mm G 1/4 lh nut x compr. fit 10 x 750 mm 



Medium pressure hose assembly plastic

to connect fittings, consumer equipment and piping

Conformity

· DVGW approved

Technical data

- · maximum admissible pressure: PS 10 bar
- · hose: plastic with textile lining

Note

• Our hose assemblies are supplied with a tag and notice of the year of replacement.

Medium pressure hose assembly plastic

hose dimensions 6.3 x 3.5 mm

connections: coupling nut x compression fitting

with coupling nut type M and olive type D

G 1/4 lh nut x compr. fit. 8 x 400 mm G 1/4 lh nut x compr. fit. 8 x 450 mm G 1/4 lh nut x compr. fit. 8 x 750 mm G 1/4 lh nut x compr. fit. 8 x 750 mm G 1/4 lh nut x compr. fit 10 x 400 mm 64 402 02 CD 64 401 05 CD 64 405 07 CD 64 409 09 CD 64 400 00 CD 64 40





Products for connection to cylinders



Locking screw

as a secure cover to protect against damage or contamination of the inlet connector of pressure regulators or high pressure hose assemblies

useful if the connection between the gas cylinders and fittings is disconnected or the gas system is at a standstill for a long period of time

Advantages and equipment

with fastening clip

Technical data

- · material: plastic
- male thread: W21.8 x 1/14 lh

- The locking screw must not be used on regulators with a gas non-return valve, such as Caramatic BasicTwo!
- The pressure regulator is not included in the scope of delivery!

Locking screw

for KLF, GF, Kombi and Shell coupling nuts

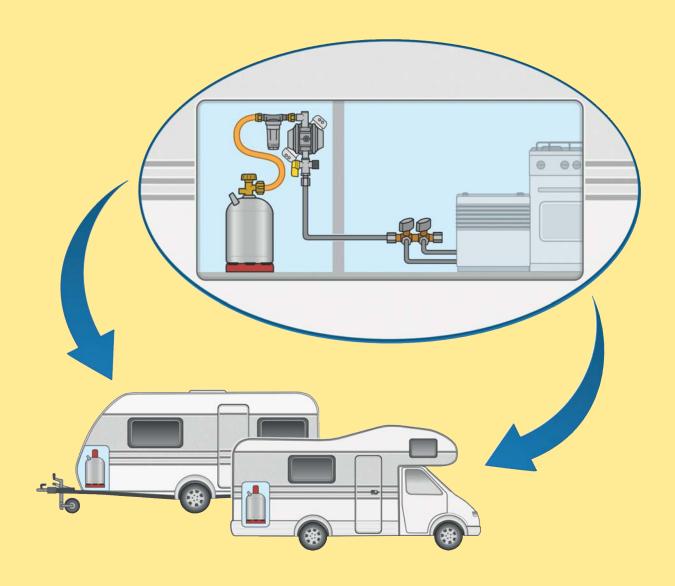
60 300 92







Caravan and motor caravan – regulator selection



Travel made easy

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

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



Products for wall assembly



Caramatic BasicOne

for connection to gas cylinders with a high pressure hose assembly to regulate the pressure to the nominal pressure of the gas equipment

consisting of: low pressure regulator with integrated safety device against over-pressure and wall bracket

Advantages and equipment

- compression fitting with coupling nut type M and olive type D-MS
- · version with pressure gauge to check for leaks e.g. when the cylinder is replaced
- version with test point suitable for connection of an Eis-Ex
- version with test point for leak testing the LPG system without disassembling the pressure regulating device

Conformity

• EC type approval according to PED (EN 16129, annex D)

Technical data

· maximum admissible pressure: PS 16 bar

- The nominal flows of all the devices must be added together to choose the right capacity stage.
- The gas filter Caramatic ConnectClean (part no. 71 781 01) is recommended to protect the LPG system in the vehicle from oily aerosols and evaporation residues!
- Version type EN61-DS fulfils the requirements of DGUV Regulation 79 (German statutory accident insurance, previously BGV D 34) and is suitable for use in commercially used caravans and motor caravans!

Caramatic BasicOne without test point capacity stage 2, type EN71 with pressure relief valve PRV straight inlet

without pressure gauge							
M20 x 1.5 M	Χ	compr. fit.	8 3	0 mbar	1.2 kg/h	61 287 05	
M20 x 1.5 M	Χ	compr. fit. 10	0 3	0 mbar	1.2 kg/h	61 287 06	

capacity stage 3,

type EN61-DS with over-pressure safety device S2SR

straight inlet

with pressure gauge

without press	sure	gauge					
M20 x 1.5 M	Χ	compr. fit.	8	30 mbar	1.5 kg/h	61 291 01	
M20 x 1.5 M	Х	compr. fit.	10	30 mbar	1.5 kg/h	61 291 02	

1.5 kg/h

61 291 03

30 mbar

Caramatic BasicOne with test point

M20 x 1.5 M x compr. fit. 10

capacity stage 3,

type EN61-DS with over-pressure safety device S2SR

90° inlet

without pressure gauge

	compr. fit. 8 compr. fit. 10	30 mbar 30 mbar	1.5 kg/h 1.5 kg/h	61 294 02 61 294 03	

Accessories	
Caramatic TwoControl with regulator heating Eis-Ex	71 300 20
Gasket for M20 x 1.5 nut, material: FKM	04 590 25











Products for wall assembly



Caramatic ConnectBasic

to connect the gas cylinder and regulator

Advantages and equipment

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

Conformity

version PS 30 bar: DVGW approvedversion PS 20 bar: NF approved

Technical data

- · hose: rubber with textile lining
- cold resistant up to -30 °C

Note

- The 750 mm long hose assembly may only be used for cylinder brackets with a pull-out device.
- Our hose assemblies are supplied with a tag and notice of the year of replacement.

Caramatic ConnectBasic PS 30 bar

hose dimensions 6.3 x 5.0 mm

	and different lands			
connections:	CVIINGER	connection v	requilator	CONNECTION
COLLICCTIONS.	Cyllillaci	COLLICCTION	. i cquiatoi	COLLICCTION

connections, cylina	ici ci	connections. Cylinaci connection x regulator connection								
G.12 (KLF)	Χ	M20 x 1.5 nut	Χ	450 mm	DE / AT / PL	71	684 12			
G.12 (KLF)	Χ	M20 x 1.5 nut	Χ	750 mm	DE / AT / PL	71	687 12			
G.7 (Brit.POL)	Χ	M20 x 1.5 nut	Χ	450 mm	GB propane	71	684 07			
G.7 (Brit.POL)	Χ	M20 x 1.5 nut	Χ	750 mm	GB propane	71	687 07			
G.8 (EU-Shell)	Χ	M20 x 1.5 nut	Χ	450 mm	GB butane	71	684 08			
G.8 (EU-Shell)	Χ	M20 x 1.5 nut	Χ	750 mm	GB butane	71	687 08			
G.1 (Ital.A)	Χ	M20 x 1.5 nut	Χ	450 mm	IT / GR / CY	71	684 01			
G.1 (Ital.A)	Χ	M20 x 1.5 nut	Χ	750 mm	IT / GR / CY	71	687 01			
G.10 (POL-WS)	Χ	M20 x 1.5 nut	Χ	450 mm	SE	71	684 10			
G.10 (POL-WS)	Χ	M20 x 1.5 nut	Χ	750 mm	SE	71	687 10			
X.3 (Komb.Shell-H)	Χ	M20 x 1.5 nut	Χ	450 mm	NL / RU	71	684 23			
X.3 (Komb.Shell-H)	Χ	M20 x 1.5 nut	Χ	750 mm	NL / RU	71	687 23			

Caramatic ConnectBasic PS 20 bar

hose dimensions 6.6 x 4.0 mm

connections: cylinder connection x regulator connection

G.2 (Shell-F)	Χ	M20 x 1.5 nut	Χ	450 mm	FR/CH/BE	71 684 02	
G.2 (Shell-F)	Χ	M20 x 1.5 nut	Χ	750 mm	FR/CH/BE	71 687 02	

Spare Part

Spare Part	
Gasket for KLF, material: NBR / packaging unit: 5 units	80 016 00
Gasket for Komb.A / Komb.Shell-H, material: plastic	20 009 75
Gasket for EU-Shell / Shell-F, material: NBR	80 009 00
Gasket for Ital.A, 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









Products for wall assembly



Caramatic ConnectClean

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 of 99%
- · easy to change the filter cartridge

Technical data

· maximum admissible pressure: PS 25 bar

Caramatic ConnectClean Packaging unit: 1 unit

M20 x 1.5 M x M20 x 1.5 nut 71 781 01 Packaging unit: 2 units M20 x 1.5 M x M20 x 1.5 nut 71 781 02 Spare Part Replacement cartridge

Accessories

Additional fixing bracket 71 781 81 90° elbow M20 x 1.5 M x M20 x 1.5 nut 71 509 00



90° elbow

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

90° elbow

male thread x coupling nut M20 x 1.5 M x M20 x 1.5 nut

71 509 00 _

71 781 80





Test point

for leak testing the piping of LPG systems

Advantages and equipment

- especially suitable for e.g. wall-mounted low pressure regulators according to EN 16129, annex D in leisure vehicles
- if the test point is used, the dismantling of the wall-mounted pressure regulator for the leak testing of the LPG system is not required
- leak tester (for example, part no. 02 611 10) is connected with test adapter
- the inlet to the pressure regulator is blocked via the ball valve

with coupling nut type M and olive type D-MS

		, p o aa o o ., p o 2		
Pipe socket 8	Χ	compr. fit. 8	62 618 02	
Pipe socket 10	Χ	compr. fit. 10	62 618 04	

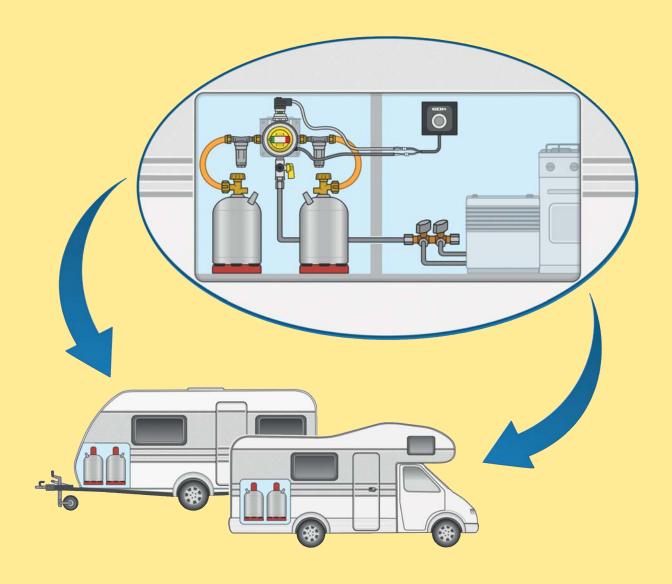
Accessories

Test hose G 1/4 lh nut x adapter for test point x 750 mm 62 618 03





Caravan and motor caravan - two-cylinder system



Very convenient gas supply

With an automatic Caramatic ProTwo changeover system with integrated low pressure regulator, the camper can achieve long operating times without interruption, as the changeover between operating and reserve cylinder is automatic.

Due to the gas non-return valve, the empty gas cylinder can be swapped without interrupting the gas supply.

By using country-specific Caramatic ConnectBasic high pressure hose assemblies, it is possible to use the Caramatic ProTwo changeover system across Europe without a problem.





Caramatic ProTwo

automatic changeover valve with integrated low pressure regulator for two-cylinder systems, for connection to gas cylinders with high pressure hose assemblies, to regulate the pressure to the nominal pressure of the gas equipment

consisting of: automatic changeover valve, low pressure regulator with pressure relief valve PRV, control knob, operation and reserve display, gas non-return valve, test point and wall bracket

Advantages and equipment

- automatic changeover to the gas cylinder on the reserve side as soon as the gas cylinder on the operating side is empty
- the cylinder can be replaced without operational interruption
- gas non-return valve: prevents the escape of gas when the cylinder is replaced
- · even gas supply through the optimum use of the gas cylinder content
- · displays which gas cylinder gas is being taken from
- can be used all over Europe through the use of country-specific high pressure hose assemblies (not included in delivery)
- test point for leak testing the LPG system without disassembling the pressure regulating device
- · suitable for connection to an Eis-Ex
- by default, the version with compression fitting 10 / 8 at the outlet is fitted with an adapter to connect 8 mm piping

Conformity

· EC type approval according to GAR

2 x M20 x 1.5 M x compr. fit. 8

2 x M20 x 1.5 M x compr. fit. 10 / 8

Technical data

· maximum admissible pressure: PS 16 bar

Note

- · Can be used on end-of-life vehicles without restriction!
- The gas filter Caramatic ConnectClean (part no. 71 781 02 / packaging unit: 2 units) is recommended to protect the LPG system in the vehicle from oily aerosols and evaporation residue!

50 mbar

30 mbar

1.5 kg/h

1.5 kg/h

71 925 13

71 923 13

Caramatic ProTwo

Spare Part Sealing nut with fastening clip M20 x 1.5 nut	71 509 30
Accessories	
Caramatic TwoControl with transmitter for remote display and Eis-Ex regulator heating	71 300 00
Caramatic ConnectClean M20 x 1.5 M x M20 x 1.5 nut / packaging unit: 2 units	71 781 02
90° elbow M20 x 1.5 M x M20 x 1.5 nut	71 509 00
Connection set M20 x 1.5 M x compr. fit. 10 / M20 x 1.5 F x compr. fit. 10	71 509 20 🗀
Fitting pipe socket 8 x compr. fit. 10	62 082 00
Fitting pipe socket 10 x compr. fit. 8	67 223 00









Caramatic SwitchTwo

automatic changeover valve for two-cylinder systems, for connection to gas cylinders with high pressure hose assemblies

consisting of: automatic changeover valve, control knob, operation and reserve display, gas non-return valve and wall bracket

Advantages and equipment

- automatic changeover to the gas cylinder on the reserve side as soon as the gas cylinder on the operating side is empty
- the cylinder can be replaced without operational interruption
- gas non-return valve: prevents the escape of gas when the cylinder is replaced
- · even gas supply through the optimum use of the gas cylinder content
- · displays which gas cylinder gas is being taken from
- can be used all over Europe through the use of country-specific high pressure hose assemblies (not included in delivery)
- makes it possible to convert a one-cylinder system to a two-cylinder system
- · suitable for connection to an Eis-Ex

Conformity

· EC type approval according to GAR

Technical data

• maximum admissible pressure: PS 16 bar

Note

- A downstream pressure regulator with outlet pressure of 30 or 50 mbar is required to operate the LPG system, for example type EN61, EN71 or EN61-DS (not included in delivery).
- The gas filter Caramatic ConnectClean (part no. 71 781 02 / packaging unit: 2 units) is recommended to protect the LPG system in the vehicle from oily aerosols and evaporation residue!

Caramatic SwitchTwo

2 x M20 x 1.5 M x M20 x 1.5 nut	0.75 bar	1.5 kg/h	71 828 46	
Spare Part Sealing nut with fastening clip M20 x	ι 1.5 nut		71 509 30	
Accessories				
Caramatic TwoControl with transmit	ter for remote of	display and Eis-Ex regulator heating	71 300 00	
Caramatic ConnectClean M20 x 1.5			71 781 02	
90° elbow M20 x 1.5 M x M20 x 1.5	nut		71 509 00	
Connection set M20 x 1.5 M x comp	r. fit. 10 / M20	x 1.5 F x compr. fit. 10	71 509 20	
Adapter M20 x 1.5 M x KLF M		·	71 508 00	
Adapter M20 x 1.5 M x Shell-F M			71 508 04	
Adapter M20 x 1.5 M x Brit.POL F			71 508 05	
Adapter M20 x 1.5 M x Ital.A. M			71 508 06	









Caramatic ConnectBasic

to connect the gas cylinder and regulator

Advantages and equipment

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

Conformity

· version PS 30 bar: DVGW approved · version PS 20 bar: NF approved

Technical data

- · hose: rubber with textile lining
- cold resistant up to -30 °C

Note

- The 750 mm long hose assembly may only be used for cylinder brackets with a pull-out device.
- Our hose assemblies are supplied with a tag and notice of the year of replacement.

Caramatic ConnectBasic PS 30 bar

hose dimensions 6.3 x 5.0 mm

G.12 (KLF)	Χ	M20 x 1.5 nut	Χ	450 mm	DE / AT / PL	71 684 12	
G.12 (KLF)	Χ	M20 x 1.5 nut	Χ	750 mm	DE / AT / PL	71 687 12	
G.7 (Brit.POL)	Χ	M20 x 1.5 nut	Χ	450 mm	GB propane	71 684 07	
G.7 (Brit.POL)	Χ	M20 x 1.5 nut	Χ	750 mm	GB propane	71 687 07	
G.8 (EU-Shell)	Χ	M20 x 1.5 nut	Χ	450 mm	GB butane	71 684 08	
G.8 (EU-Shell)	Χ	M20 x 1.5 nut	Χ	750 mm	GB butane	71 687 08	
G.1 (Ital.A)	Χ	M20 x 1.5 nut	Χ	450 mm	IT / GR / CY	71 684 01	
G.1 (Ital.A)	Χ	M20 x 1.5 nut	Χ	750 mm	IT / GR / CY	71 687 01	
G.10 (POL-WS)	Χ	M20 x 1.5 nut	Χ	450 mm	SE	71 684 10	
G.10 (POL-WS)	Χ	M20 x 1.5 nut	Χ	750 mm	SE	71 687 10	
X.3 (Komb.Shell-H)	Χ	M20 x 1.5 nut	Χ	450 mm	NL/RU	71 684 23	
X.3 (Komb.Shell-H)	Χ	M20 x 1.5 nut	Χ	750 mm	NL/RU	71 687 23	

Caramatic ConnectBasic PS 20 bar

hose dimensions 6.6 x 4.0 mm

connections: cylinder connection x regulator connection

G.2 (Shell-F)	Χ	M20 x 1.5 nut	Χ	450 mm	FR/CH/BE	71 684 02	
G.2 (Shell-F)	Χ	M20 x 1.5 nut	Χ	750 mm	FR/CH/BE	71 687 02	

Spare Part	
Gasket for KLF, material: NBR / packaging unit: 5 units	80 016 00
Gasket for Komb.A / Komb.Shell-H, material: plastic	20 009 75
Gasket for EU-Shell / Shell-F, material: NBR	80 009 00
Gasket for Ital.A, 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











Caramatic ConnectClean

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 of 99%
- · easy to change the filter cartridge

Technical data

· maximum admissible pressure: PS 25 bar

Caramatic ConnectClean Packaging unit: 1 unit

M20 x 1.5 M x M20 x 1.5 nut 71 781 01 Packaging unit: 2 units
M20 x 1.5 M x M20 x 1.5 nut 71 781 02
Spare Part

Replacement cartridge

Accessories
Additional fixing bracket
71 781 81
90° elbow M20 x 1.5 M x M20 x 1.5 nut
71 509 00

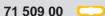


90° elbow

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

90° elbow

male thread x coupling nut
M20 x 1.5 M x M20 x 1.5 nut



71 781 80



Connection set

to connect a high pressure hose assembly e.g. Caramatic ConnectDrive via piping with a Caramatic SwitchTwo or Caramatic ProTwo

consisting of: M20 x 1.5 M x compr. fit. 10 (fitting for hose assembly) / M20 x 1.5 F x compr. fit. 10 (fitting for Caramatic SwitchTwo or Caramatic ProTwo)

Connection set

complete 71 509 20 C











Caramatic TwoControl - Remote display and regulator heating

is the convenient information and control unit in a leisure vehicle for monitoring the operating and reserve cylinder in two-cylinder systems as well as the Eis-Ex regulator heating

consisting of: information and control unit including 6 m connection cable, cover frame, transmitter for remote display including 2 m connection cable and Eis-Ex regulator heating including 2 m connection cable

Advantages and equipment

- central control unit to switch on/off the remote display and the Eis-Ex regulator heating
- remote indication of the operating status through various colours of LEDs
- can be easily installed in new systems or retrofitted in existing systems
- can be used with the models of the Caramatic line: DriveTwo, ProTwo, SwitchTwo and the Truma models DuoControl CS and DuoComfort in silver colour
- connection of all components by using a plug system, no soldering necessary

Conformity

· conformity assessment procedure according to ATEX

Caramatic TwoControl - Remote display and regulator heating

· CE marking according to EMC

Technical data

· supply voltage: 12 V

Information and control unit with transmitter for remote display and Eis-Ex regulator heating	71 300 00
Spare Part cover frame, colour: anthracite	71 391 00
Accessories Information and control unit, 6 m connection cable Transmitter for remote display, 2 m connection cable Eis-Ex regulator heating, 2 m connection cable	71 391 20 71 390 00 71 390 20





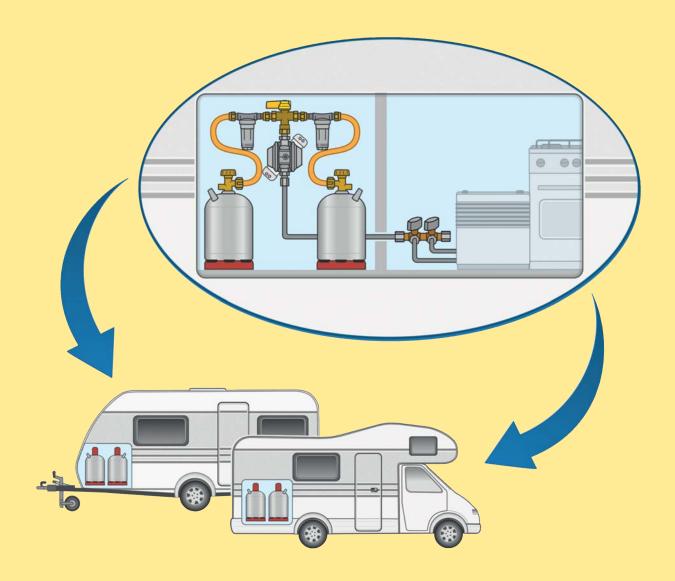








Caravan and motor caravan - two-cylinder system



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. When the operating cylinder becomes empty, the camper must change over manually to a full cylinder.

By using country-specific Caramatic ConnectBasic high pressure hose assemblies, it is possible to use the changeover system across Europe without a problem.



Products for manual changeover



Manual changeover valve type MUV

for manual changeover with two-cylinder systems

Advantages and equipment

- · withdrawal takes place on an alternating basis
- the cylinder can be replaced without operational interruption
- M20 x 1.5 version with installation set to mount the manual changeover valve type MUV for low pressure regulators type EN61-DS, EN71, FL90-4 and FL91-4

Conformity

· EC type approval according to GAD

Technical data

- · maximum admissible pressure: PS 25 bar
- · material: brass

Manual changeover valve type MUV

for installation in piping

with coupling nut type M and olive type D

compr.	fit.	8	Χ	compr. fit. 8	Х	compr. fit. 8	62 714 02	
compr.	fit.	10	Χ	compr. fit. 10	Χ	compr. fit. 10	62 714 03	
for ins	tall	atio	n upsi	tream from the	wall-	mounted low pressure regulator		
M20 x	1.5	M	Χ	M20 x 1.5 nut	Х	M20 x 1.5 M	62 714 06	

Accessories

Gasket for M20 x 1.5 nut, material: FKM	04 590 25
Installation set to mount the manual changeover valve type MUV	02 714 28
on the wall for low pressure regulators type EN61-DS, EN71, FL90-4 and FL91-4	

Caramatic ConnectClean

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 of 99%
- · easy to change the filter cartridge

Technical data

· maximum admissible pressure: PS 25 bar

Caramatic ConnectClean Packaging unit: 1 unit

M20 x 1.5 M x M20 x 1.5 nut	71 781 01	
Packaging unit: 2 units M20 x 1.5 M x M20 x 1.5 nut	71 781 02	0
Spare Part Replacement cartridge	71 781 80	0

Accessories

Additional fixing bracket	71 781 81	
90° elbow M20 x 1.5 M x M20 x 1.5 nut	71 509 00	









Products for manual changeover



Caramatic BasicOne

for connection to gas cylinders with a high pressure hose assembly to regulate the pressure to the nominal pressure of the gas equipment

consisting of: low pressure regulator with integrated safety device against over-pressure and wall bracket

Advantages and equipment

- compression fitting with coupling nut type M and olive type D-MS
- · version with pressure gauge to check for leaks e.g. when the cylinder is replaced
- version with test point suitable for connection of an Eis-Ex
- · version with test point for leak testing the LPG system without disassembling the pressure regulating device

Conformity

• EC type approval according to PED (EN 16129, annex D)

Technical data

· maximum admissible pressure: PS 16 bar

Note

- The nominal flows of all the devices must be added together to choose the right capacity stage.
- The gas filter Caramatic ConnectClean (part no. 71 781 01) is recommended to protect the LPG system in the vehicle from oily aerosols and evaporation residues!
- Version type EN61-DS fulfils the requirements of DGUV Regulation 79 (German statutory accident insurance, previously BGV D 34) and is suitable for use in commercially used caravans and motor caravans!

Caramatic Ba	sic(One without test po	oint
capacity stag	e 2,		
type EN71 wi	th p	ressure relief valve	e PRV
straight inlet			
without press	sure	gauge	
M20 x 1.5 M	Χ	compr. fit. 8	30
1400 4 5 14		Ct 40	0.0

M20 x 1.5 M	Χ	compr. fit. 8	30 mbar	1.2 kg/h	61 287 05	
M20 x 1.5 M	Χ	compr. fit. 10	30 mbar	1.2 kg/h	61 287 06	
capacity stag	ie 3.					

type EN61-DS with over-pressure safety device S2SR

straight inlet with pressure gauge

IVIZU X 1.3 IVI	Х	compr. iii.	10	ou ilibai	1.5 kg/11	01 291 03	
without press	sure	gauge					
M20 x 1.5 M	Χ	compr. fit.	8	30 mbar	1.5 kg/h	61 291 01	
M20 x 1.5 M	Χ	compr. fit.	10	30 mbar	1.5 kg/h	61 291 02	

64 204 02

Caramatic BasicOne with test point capacity stage 3,

type EN61-DS with over-pressure safety device S2SR

90° inlet

without press	suie	gauge				
M20 x 1.5 M	Χ	compr. fit. 8	30 mbar	1.5 kg/h	61 294 02	
M20 x 1.5 M	Χ	compr. fit. 10	30 mbar	1.5 kg/h	61 294 03	

Accessories	
Caramatic TwoControl with regulator heating Eis-Ex	71 300 20
Gasket for M20 x 1.5 nut, material: FKM	04 590 25











Products for manual changeover



Caramatic ConnectBasic

to connect the gas cylinder and regulator

Advantages and equipment

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

Conformity

version PS 30 bar: DVGW approvedversion PS 20 bar: NF approved

Technical data

- · hose: rubber with textile lining
- cold resistant up to -30 °C

Note

- The 750 mm long hose assembly may only be used for cylinder brackets with a pull-out device.
- Our hose assemblies are supplied with a tag and notice of the year of replacement.

Caramatic ConnectBasic PS 30 bar

hose dimensions 6.3 x 5.0 mm

connections. Cylina	CI CC	milection x regi	aiutt	or cornicction	•		
G.12 (KLF)	Χ	M20 x 1.5 nut	Χ	450 mm	DE / AT / PL	71 684 12	
G.12 (KLF)	Χ	M20 x 1.5 nut	Χ	750 mm	DE / AT / PL	71 687 12	
G.7 (Brit.POL)	Χ	M20 x 1.5 nut	Χ	450 mm	GB propane	71 684 07	
G.7 (Brit.POL)	Χ	M20 x 1.5 nut	Χ	750 mm	GB propane	71 687 07	
G.8 (EU-Shell)	Χ	M20 x 1.5 nut	Χ	450 mm	GB butane	71 684 08	
G.8 (EU-Shell)	Χ	M20 x 1.5 nut	Χ	750 mm	GB butane	71 687 08	
G.1 (Ital.A)	Χ	M20 x 1.5 nut	Χ	450 mm	IT / GR / CY	71 684 01	
G.1 (Ital.A)	Χ	M20 x 1.5 nut	Χ	750 mm	IT / GR / CY	71 687 01	
G.10 (POL-WS)	Χ	M20 x 1.5 nut	Χ	450 mm	SE	71 684 10	
G.10 (POL-WS)	Χ	M20 x 1.5 nut	Χ	750 mm	SE	71 687 10	
X.3 (Komb.Shell-H)	Χ	M20 x 1.5 nut	Χ	450 mm	NL/RU	71 684 23	
X.3 (Komb.Shell-H)	Χ	M20 x 1.5 nut	Χ	750 mm	NL/RU	71 687 23	

Caramatic ConnectBasic PS 20 bar

hose dimensions 6.6 x 4.0 mm

connections: cylinder connection x regulator connection

G.2 (Shell-F)	Χ	M20 x 1.5 nut	Χ	450 mm	FR/CH/BE	71 684 02	
G.2 (Shell-F)	Χ	M20 x 1.5 nut	Χ	750 mm	FR/CH/BE	71 687 02	

Spare Part

Gasket for KLF, material: NBR / packaging unit: 5 units	80 016 00
Gasket for Komb.A / Komb.Shell-H, material: plastic	20 009 75
Gasket for EU-Shell / Shell-F, material: NBR	80 009 00
Gasket for Ital.A, 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

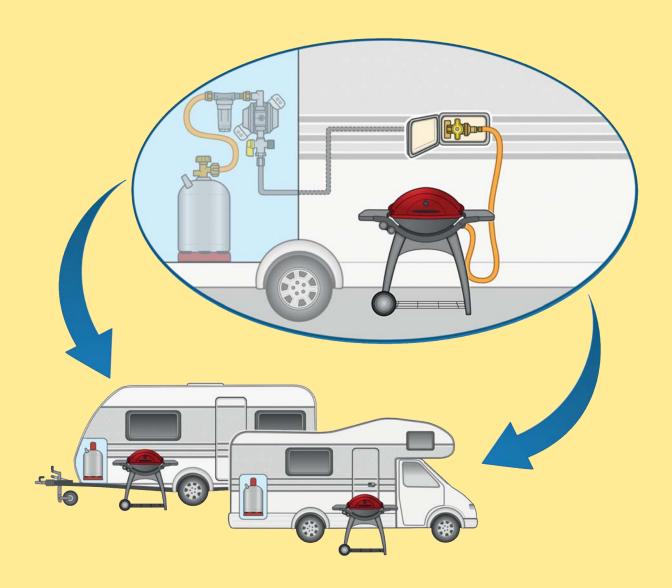








Caravan and motor caravan - external connection



Gas supply also outside the vehicle

With a Variant outlet box, caravanners and motor caravanners can also operate gas equipment, such as barbecues and stoves, outside the vehicle via the internal LPG installation.

The connection to the gas equipment is made simply and securely with a medium pressure hose assembly and a quick coupler on the vehicle.

You no longer need to bring additional gas cylinders.



Products for LPG withdrawal



Variant outlet box

to connect additional gas equipment, such as stoves, barbecues, lights, etc., depending on the version. For outdoor use or to connect an external shower or the vehicle to a water supply.

The valve can be opened only when the hose assembly is connected. Quick couplers for gas and water in distinctive designs.

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

Outside connection for LPG

Outside connection for LPG and water

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

materials: suitable for drinking water

· brass gas safety coupling and water connection

Outside connection for LPG and water

with quick coupler for pressure pump operation

materials: suitable for drinking water

· brass gas safety coupling and water connection

Note

• To install the outlet box on the outside of the vehicle a 155 x 65 mm cutout in the vehicle body is required!

Variant	OUITIAL	hnv

ı	۸ı	ıtc	idα	COI	nnc	cti	nη	for	I PG
ı	. ,,	111	1016		11116	(11	α	1()1	I Pla

10/11	2 (1)	lina	n	-	1
VVIII	1 CV		161		N

gas line: quick coupler x pipe socket 8	81 731 03	
without cylinder lock		
gas line: quick coupler x pipe socket 8	81 731 02	



with tilp Switch		
with cylinder lock		
gas line: quick coupler x pipe socket 8 / water line: 9/10 mm nozzle x 9/10 mm nozzle	81 733 03	
without cylinder lock		
gas line: quick coupler x pipe socket 8 / water line: 9/10 mm nozzle x 9/10 mm nozzle	81 733 06	
without flip switch		
·		
with cylinder lock		
gas line: quick coupler x pipe socket 8 / water line: 9/10 mm nozzle x 9/10 mm nozzle	81 737 01	
without cylinder lock		

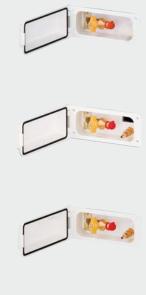
Accessories

Medium pressure hose assembly rubber PS 10 bar,	64 224 00	
hose dimensions 6.3 x 3.5 mm, G 1/4 lh nut x plug-in fitting x 1500 mm		

gas line: quick coupler x pipe socket 8 / water line: 9/10 mm nozzle x 9/10 mm nozzle

74 468 00 Hose nozzle compr. fit. 8 x 6 mm

81 737 00





Products for LPG withdrawal



Medium pressure hose assembly rubber

to connect fittings, consumer equipment and piping

Conformity

DVGW approved

Technical data

- maximum admissible pressure: PS 10 bar
- · hose: rubber with textile lining
- cold resistant up to -30 °C

Note

• Our hose assemblies are supplied with a tag and notice of the year of replacement.

Medium pressure hose assembly rubber

hose dimensions 6.3 x 3.5 mm

connections: coupling nut x plug-in fitting

connections	. COL	ipiing nut x piu	ıg-ını ı	ittirig			
G 1/4 Ih nut	Χ	plug-in fitting	Χ	400 mm		64 221 01	(
G 1/4 Ih nut	Χ	plug-in fitting	Χ	800 mm		64 222 00	
G 1/4 Ih nut	Χ	plug-in fitting	Χ	1000 mm		64 223 00	
G 1/4 Ih nut	Χ	plug-in fitting	Χ	1500 mm		64 224 00	
G 1/4 Ih nut	Χ	plug-in fitting	Χ	2000 mm		64 225 00	
G 1/4 Ih nut	Χ	plug-in fitting	Χ	2500 mm		64 226 00	
G 1/4 Ih nut	Χ	plug-in fitting	Χ	3000 mm		64 227 01	
G 1/4 Ih nut	Χ	plug-in fitting	Χ	5000 mm		64 227 00	







Products for LPG withdrawal



Coupling valve type SKU SSV-K

ball valve as shut-off valve with safety coupling

for assembly into the piping as an option to connect transportable gas equipment such as gas cookers or gas grills

Advantages and equipment

- · shut-off valve can be opened or closed only when a hose assembly is connected
- · only completely open or closed setting
- a special device makes the quick coupler SKU tamper-proof decoupling is only possible with the plug-in fitting STN
- · low pressure loss thanks to optimised function
- · mounting bracket for safe assembly

Conformity

DVGW approved

Technical data

- · maximum admissible pressure: PS 5 bar
- · material: brass, bright

Coupling valve type SKU SSV-K straight-way version with coupling nut type M and olive type DU Compr. fit. 8 x quick coupler branch version with coupling nut type M and olive type DU Compr. fit. 8 x compr. fit. 8 x quick coupler

81 315 02





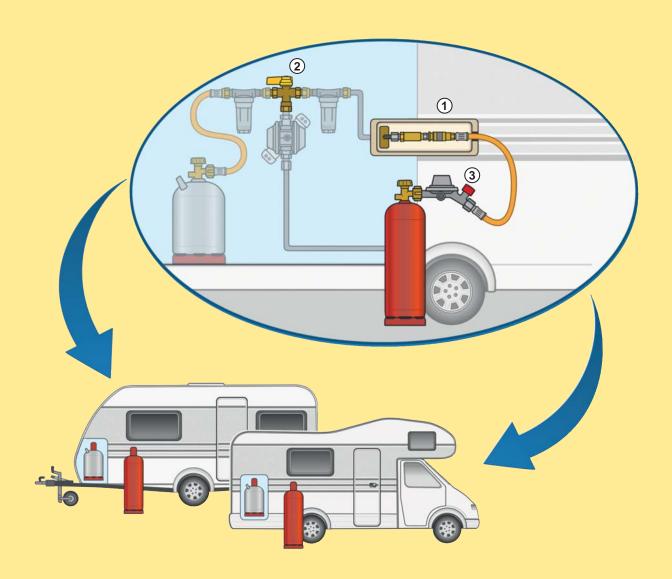








Caravan and motor caravan - external connection



For permanent campers - the external LPG feed for vehicles

An external gas supply to feed LPG to the supply line enables gas equipment to be operated reliably even for long standing times.

The connection between the external gas cylinder and the supply line is created quickly and safely via a quick coupler ①.

A manual changeover valve ② is used to switch from the internal gas 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 valve 3 is integrated into the medium pressure regulator.



Products for LPG feed



External LPG feed for leisure vehicles

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

The connection between the external gas 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 gas 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
 integrated excess flow valve (EFV) with manual opening, blocks the gas supply if the hose is damaged
- combined fitting for optional connection to 5, 11 or 33 kg gas cylinders
- medium pressure hose assembly (rubber with textile lining; cold resistant up to -30 °C; hose dimensions 6.3 x 3.5 mm) G 3/8 lh nut x quick coupler type DKG x 3000 mm
- gas outlet box for installation in 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 prevents unwanted escape of gas
- 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 gas supply
- · including MiniTool to connect and disconnect regulators

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 cutout in the vehicle body is required!

External LPG feed for leisure vehicles

complete **21 735 00**

Locking screw

as a secure cover to protect against damage or contamination of the inlet connector of pressure regulators or high pressure hose assemblies

useful if the connection between the gas cylinders and fittings is disconnected or the gas system is at a standstill for a long period of time

Advantages and equipment

· with fastening clip

Technical data

- · material: plastic
- male thread: W21.8 x 1/14 lh

Note

- The locking screw must not be used on regulators with a gas non-return valve, such as Caramatic BasicTwo!
- The pressure regulator is not included in the scope of delivery!

Locking screw

for KLF, GF, Kombi and Shell coupling nuts

60 300 92





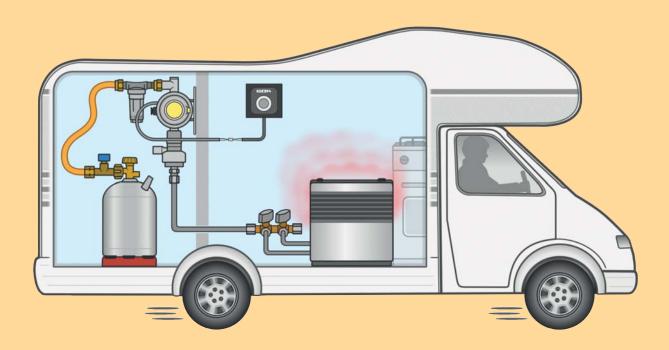








Caravan and motor caravan - Heating while driving



Safe heating while driving

If the on-board gas heating is also to be used to heat the vehicle while driving, special safety devices must be installed to prevent gas leakage in the event of a traffic accident.

The combination of an excess flow valve for the high pressure hose assembly and a mechanical crash sensor for the piping monitors the LPG installation continuously.

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

Between the hose assembly and the low pressure regulator is a gas filter, which protects the connected fittings and devices from soiling.



Products for single-cylinder systems



Caramatic DriveOne

safety gas pressure regulation device for operating single-cylinder systems in caravans and motor caravans while driving

consisting of: low pressure regulator with over-pressure safety device S2SR, mechanical crash sensor new with pendulum and test device

Advantages and equipment

- heating while driving using the integrated mechanical crash sensor new with pendulum, which blocks the
 gas flow in case of an accident with deceleration of 3.5 g ± 0.5 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
- · Advantages new crash sensor with pendulum:
 - faster and easier start-up and reset after response
 - more precise performance and therefore less interference from incorrect response behaviour
 - start-up possible with no problem, even if the leisure vehicle is in an inclined position
- can be used all over Europe through the use of country-specific high pressure hose assemblies Caramatic ConnectDrive (not included in delivery)
- test point for leak testing the LPG system without disassembling the pressure regulating device
- · suitable for connection of a de-icer
- by default, the version with compression fitting 10 / 8 at the outlet is fitted with an adapter to connect 8 mm piping

Conformity

· EC type approval according to PED

Technical data

· maximum admissible pressure: PS 16 bar

90° elbow M20 x 1.5 M x M20 x 1.5 nut

Caramatic TwoControl with regulator heating Eis-Ex

Note

- Fulfils the requirements of DGUV (German statutory accident insurance, previously BGV D 34) Regulation 79 and is suitable for use in commercially used caravans and motor caravans!
- The gas filter Caramatic ConnectClean (part no. 71 781 01) is recommended to protect the LPG system in the vehicle from oily aerosols and evaporation residues!

Caramatic DriveOne horizontal installation straight inlet

straight inlet M20 x 1.5 M M20 x 1.5 M	X X	compr. fit. 8 compr. fit. 10 / 8	50 mbar 30 mbar	1.5 kg/h 1.5 kg/h	71 815 21 71 813 23				
vertical installation 90° inlet									
	X X	compr. fit. 8 compr. fit. 10 / 8	50 mbar 30 mbar	1.5 kg/h 1.5 kg/h	71 815 11 71 813 13				
Accessories Caramatic ConnectClean M20 x 1.5 M x M20 x 1.5 nut / packaging unit: 1 unit 71 781 01									







71 509 00

71 300 20



Products for single-cylinder systems



Caramatic ConnectDrive

high pressure hose assembly with excess flow valve for connection to all wall-mounted low pressure regulators with inlet M20 x 1.5 M, in particular for heating while driving and to the gas 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 escape in case of damage or if the hose assembly becomes detached, and blocks the gas flow, as soon as the nominal flow rate is exceeded by 10%
- manual excess flow valve EFV:
 no delay or leakage volume, but manual opening required

Conformity

- individual parts: DIN-DVGW or DVGW approved
- · version PS 20 bar: NF approved

Technical data

- · hose: rubber with textile lining
- cold resistant up to -30 °C

Note

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

Caramatic ConnectDrive PS 30 bar

hose dimensions 6.3 x 5.0 mm

			~ 5 ~		 			
G.12 (KLF)	Χ	M20 x 1.5 nut	Χ	450 mm	DE / AT / PL	7	l 884 12	
G.12 (KLF)	Χ	M20 x 1.5 nut	Χ	750 mm	DE / AT / PL	7	l 887 12	
G.7 (Brit.POL)	Χ	M20 x 1.5 nut	Χ	450 mm	GB propane	7	1 884 07	
G.7 (Brit.POL)	Χ	M20 x 1.5 nut	Χ	750 mm	GB propane	7	1 887 07	
G.8 (EU-Shell)	Χ	M20 x 1.5 nut	Χ	450 mm	GB butane	7	1 884 08	
G.8 (EU-Shell)	Χ	M20 x 1.5 nut	Χ	750 mm	GB butane	7	887 08	
G.1 (Ital.A)	Χ	M20 x 1.5 nut	Χ	450 mm	IT / GR / CY	7	1 884 01	
G.1 (Ital.A)	Χ	M20 x 1.5 nut	Χ	750 mm	IT / GR / CY	7	1 887 01	
G.10 (POL-WS)	Χ	M20 x 1.5 nut	Χ	450 mm	SE	7	I 884 10	
G.10 (POL-WS)	Χ	M20 x 1.5 nut	Χ	750 mm	SE	7	I 887 10	
X.3 (Komb.Shell-H)	Χ	M20 x 1.5 nut	Χ	450 mm	NL/RU	7	1 884 23	
X.3 (Komb.Shell-H)	Χ	M20 x 1.5 nut	Χ	750 mm	NL/RU	7	1 887 23	
X.7 (Shell)	Χ	M20 x 1.5 nut	Х	450 mm	SI/CZ/HR/SK/RS	7	884 27	
X.7 (Shell)	Χ	M20 x 1.5 nut	Χ	750 mm	SI/CZ/HR/SK/RS	7	1 887 27	

Caramatic ConnectDrive PS 20 bar

hose dimensions 6.6 x 4.0 mm

connections: c	vlinder	connection	x regulator	connection

G.2 (Shell-F)	Χ	M20 x 1.5 nut	Χ	450 mm	FR/CH/BE	71 884 02	
G.2 (Shell-F)	Χ	M20 x 1.5 nut	Χ	750 mm	FR/CH/BE	71 887 02	

Spare Part

Spare rait		
Gasket for KLF, material: NBR / packaging unit: 5 units	80 016 00	
gasket for EU-Shell / Shell-F, material: NBR / packaging unit: 5 units	80 009 00	
Gasket for Ital.A, 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	











Caramatic ConnectClean

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 of 99%
- · easy to change the filter cartridge

Technical data

· maximum admissible pressure: PS 25 bar

Caramatic ConnectClean Packaging unit: 1 unit

M20 x 1.5 M x M20 x 1.5 nut 71 781 01 Packaging unit: 2 units M20 x 1.5 M x M20 x 1.5 nut 71 781 02 Spare Part

Replacement cartridge

Accessories Additional fixing bracket 71 781 81



90° elbow

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

90° elbow

male thread x coupling nut M20 x 1.5 M x M20 x 1.5 nut

90° elbow M20 x 1.5 M x M20 x 1.5 nut

71 509 00

71 781 80

71 509 00





Locking screw

as a secure cover to protect against damage or contamination of the inlet connector of pressure regulators or high pressure hose assemblies

useful if the connection between the gas cylinders and fittings is disconnected or the gas system is at a standstill for a long period of time

Advantages and equipment

· with fastening clip

Technical data

- · material: plastic
- male thread: W21.8 x 1/14 lh

- The locking screw must not be used on regulators with a gas non-return valve, such as Caramatic BasicTwo!
- The pressure regulator is not included in the scope of delivery!

Locking screw

for KLF, GF, Kombi and Shell coupling nuts

60 300 92





Products for single-cylinder systems



Caramatic TwoControl - Regulator heating

is the convenient information and control unit of the Eis-Ex regulator heating in a leisure vehicle consisting of: information and control unit including 6 m connection cable, cover frame and Eis-Ex regulator heating including 2 m connection cable

Advantages and equipment

- · central control unit to switch on/off the Eis-Ex regulator heating
- remote indication of the operating status through various colours of LEDs
- · can be easily installed in new systems or retrofitted in existing systems
- can be used with the models of the Caramatic line: DriveOne, BasicOne with test point as well as the Truma model MonoControl CS in silver
- connection of all components by using a plug system, no soldering necessary

- conformity assessment procedure according to ATEX
- · CE marking according to EMC

Technical data

· supply voltage: 12 V

Caramatic TwoControl – Regulator heating						
information and control unit with Eis-Ex regulator heating						

Spare Part

71 391 00 cover frame, colour: anthracite

Accessories

Information and control unit, 6 m connection cable 71 391 20 Eis-Ex regulator heating, 2 m connection cable 71 390 20









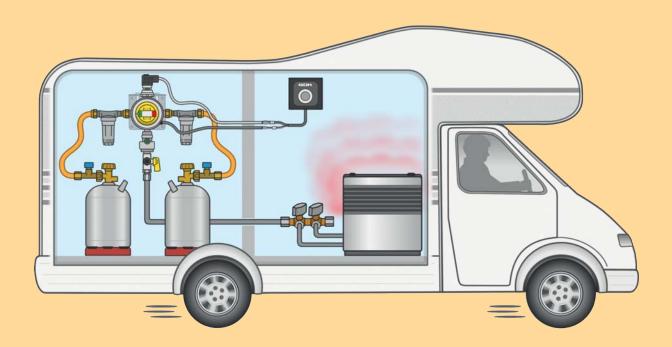
71 300 20 🧲



Notes



Caravan and motor caravan - Heating while driving



Comfort and safety for heating while driving

If the on-board gas heating is also to be used to heat the vehicle while driving, special safety devices must be installed to prevent gas leakage in the event of an accident.

The combination of an automatic changeover system with a mechanical crash sensor and excess flow valves unites comfort with maximum safety.

The system is monitored particularly conveniently with the Caramatic TwoControl. With this information and control unit, the camper always has an eye on which gas cylinder gas is currently being taken from and can operate the Eis-Ex regulator heating remotely.

The connection to the gas cylinder is made with the suitable country-specific excess flow valves and the Caramatic ConnectDrive high pressure hose assemblies without the Caramatic DriveTwo automatic changeover system having to be replaced.

Between the hose assemblies and the Caramatic DriveTwo are gas filters, which protect the connected fittings and devices from soiling.



Products for two-cylinder systems



Caramatic DriveTwo

safety gas pressure regulation device with automatic changeover valve for the operation of two-cylinder systems in caravans and motor caravans while driving, for connection to gas cylinders with high pressure hose assemblies to regulate the pressure to the nominal pressure of the gas equipment

consisting of: automatic changeover valve, low pressure regulator with pressure relief valve PRV, mechanical crash sensor new with pendulum, control knob, operation and reserve display, non-return gas valve, test device and wall bracket

Advantages and equipment

- heating while driving using the integrated mechanical crash sensor new with pendulum, which blocks the
 gas flow in case of an accident with deceleration of 3.5 g ± 0.5 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
- · Advantages new crash sensor with pendulum:
 - faster and easier start-up and reset after response
 - more precise performance and therefore less interference from incorrect response behaviour
 - start-up possible with no problem, even if the leisure vehicle is in an inclined position
- automatic changeover to the gas cylinder on the reserve side as soon as the gas cylinder on the operating side is empty
- the cylinder can be replaced without operational interruption
- gas non-return valve: prevents the escape of gas when the cylinder is replaced
- even gas supply through the optimum use of the gas cylinder content
- · displays which gas cylinder gas is being taken from
- can be used all over Europe through the use of country-specific high pressure hose assemblies -Caramatic ConnectDrive (not included in delivery)
- test point for leak testing the LPG system without disassembling the pressure regulating device
- · suitable for connection of a de-icer
- suitable for connection of a remote display
- by default, the version with compression fitting 10 / 8 at the outlet is fitted with an adapter to connect 8 mm piping

Conformity

EC type approval according to PED

Technical data

· maximum admissible pressure: PS 16 bar

Note

• The gas filter Caramatic ConnectClean (part no. 71 781 02 / packaging unit: 2 units) is recommended to protect the LPG system in the vehicle from oily aerosols and evaporation residue!

Caramatic DriveTwo

horizontal installation

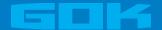
2 x M20 x 1.5 M	Χ	compr. fit. 8	50 mbar	1.5 kg/h	71 825 21 🗀
2 x M20 x 1.5 M	Χ	compr. fit. 10 / 8	30 mbar	1.5 kg/h	71 823 23 🗀
vertical installati	on				
2 x M20 x 1.5 M	Χ	compr. fit. 8	50 mbar	1.5 kg/h	71 825 11 🗀
2 x M20 x 1.5 M	Χ	compr. fit. 10 / 8	30 mbar	1.5 kg/h	71 823 13 🗀
		•		Ŭ	
Spare Part					
Sealing nut with fa	aste	ning clip M20 x 1.5 nu	ıt		71 509 30
Accessories					
	ctCl	ean M20 x 1.5 M x M2	20 x 1.5 nut / pac	kaging unit: 2 units	71 781 02 🗀
90° elbow M20 x			zo x mo mat / pac	magning anno 2 anno	71 509 00
		(1.5 M x compr. fit. 10) / M20 x 1.5 F x	compr. fit. 10	71 509 20
Fitting pipe socke	62 082 00				
Fitting pipe socke	67 223 00 🗀				
011		•	emote display and	d Eis-Ex regulator heating	71 300 00 🗀







vertical



Products for two-cylinder systems



Caramatic ConnectDrive

high pressure hose assembly with excess flow valve for connection to all wall-mounted low pressure regulators with inlet $M20 \times 1.5 M$, in particular for heating while driving and to the gas 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 escape in case of damage or if the hose assembly becomes detached, and blocks the gas flow, as soon as the nominal flow rate is exceeded by 10%
- manual excess flow valve EFV:
 no delay or leakage volume, but manual opening required

Conformity

- individual parts: DIN-DVGW or DVGW approved
- · version PS 20 bar: NF approved

Technical data

- · hose: rubber with textile lining
- cold resistant up to -30 °C

Note

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

Caramatic ConnectDrive PS 30 bar

hose dimensions 6.3 x 5.0 mm

ooimioononoi ojimio		ooimioodion A i	994	iator ooriir	 			
G.12 (KLF)	Χ	M20 x 1.5 nut	Χ	450 mm	DE / AT / PL	71	884 12	
G.12 (KLF)	Χ	M20 x 1.5 nut	Χ	750 mm	DE / AT / PL	71	887 12	
G.7 (Brit.POL)	Χ	M20 x 1.5 nut	Χ	450 mm	GB propane	71	884 07	
G.7 (Brit.POL)	Χ	M20 x 1.5 nut	Χ	750 mm	GB propane	71	887 07	
G.8 (EU-Shell)	Χ	M20 x 1.5 nut	Χ	450 mm	GB butane	71	884 08	
G.8 (EU-Shell)	Χ	M20 x 1.5 nut	Χ	750 mm	GB butane	71	887 08	
G.1 (Ital.A)	Χ	M20 x 1.5 nut	Χ	450 mm	IT / GR / CY	71	884 01	
G.1 (Ital.A)	Χ	M20 x 1.5 nut	Χ	750 mm	IT / GR / CY	71	887 01	
G.10 (POL-WS)	Χ	M20 x 1.5 nut	Χ	450 mm	SE	71	884 10	
G.10 (POL-WS)	Χ	M20 x 1.5 nut	Χ	750 mm	SE	71	887 10	
X.3 (Komb.Shell-H)	Χ	M20 x 1.5 nut	Χ	450 mm	NL/RU	71	884 23	
X.3 (Komb.Shell-H)	Χ	M20 x 1.5 nut	Χ	750 mm	NL/RU	71	887 23	
X.7 (Shell)	Χ	M20 x 1.5 nut	Χ	450 mm	SI/CZ/HR/SK/RS	71	884 27	
X.7 (Shell)	Χ	M20 x 1.5 nut	Χ	750 mm	SI/CZ/HR/SK/RS	71	887 27	

Caramatic ConnectDrive PS 20 bar

hose dimensions 6.6 x 4.0 mm

connections: cylinder connection x regulator connection

G.2 (Shell-F)	Χ	M20 x 1.5 nut	Χ	450 mm	FR/CH/BE	71 884 02	
G.2 (Shell-F)	Χ	M20 x 1.5 nut	Χ	750 mm	FR/CH/BE	71 887 02	

Spare Part

Spare rait		
Gasket for KLF, material: NBR / packaging unit: 5 units	80 016 00	
gasket for EU-Shell / Shell-F, material: NBR / packaging unit: 5 units	80 009 00	
Gasket for Ital.A, 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	











Caramatic ConnectClean

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 of 99%
- · easy to change the filter cartridge

Technical data

· maximum admissible pressure: PS 25 bar

Caramatic ConnectClean Packaging unit: 1 unit

M20 x 1.5 M x M20 x 1.5 nut 71 781 01 Packaging unit: 2 units M20 x 1.5 M x M20 x 1.5 nut 71 781 02 Spare Part

Replacement cartridge

Accessories Additional fixing bracket 71 781 81 90° elbow M20 x 1.5 M x M20 x 1.5 nut 71 509 00



90° elbow

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

90° elbow

male thread x coupling nut M20 x 1.5 M x M20 x 1.5 nut



71 781 80



Locking screw

as a secure cover to protect against damage or contamination of the inlet connector of pressure regulators or high pressure hose assemblies

useful if the connection between the gas cylinders and fittings is disconnected or the gas system is at a standstill for a long period of time

Advantages and equipment

· with fastening clip

Technical data

- material: plastic
- male thread: W21.8 x 1/14 lh

- The locking screw must not be used on regulators with a gas non-return valve, such as Caramatic BasicTwo!
- The pressure regulator is not included in the scope of delivery!

Locking screw

for KLF, GF, Kombi and Shell coupling nuts

60 300 92





Products for two-cylinder systems



Caramatic TwoControl - Remote display and regulator heating

is the convenient information and control unit in a leisure vehicle for monitoring the operating and reserve cylinder in two-cylinder systems as well as the Eis-Ex regulator heating

consisting of: information and control unit including 6 m connection cable, cover frame, transmitter for remote display including 2 m connection cable and Eis-Ex regulator heating including 2 m connection cable

Advantages and equipment

- central control unit to switch on/off the remote display and the Eis-Ex regulator heating
- remote indication of the operating status through various colours of LEDs
- can be easily installed in new systems or retrofitted in existing systems
- can be used with the models of the Caramatic line: DriveTwo, ProTwo, SwitchTwo and the Truma models DuoControl CS and DuoComfort in silver colour
- connection of all components by using a plug system, no soldering necessary

Conformity

- · conformity assessment procedure according to ATEX
- · CE marking according to EMC

Technical data

· supply voltage: 12 V

Caramatic TwoControl – Remote display and regulator heating Information and control unit with transmitter for remote display and Eis-Ex regulator heating	71 300 00
Spare Part cover frame, colour: anthracite	71 391 00
Accessories Information and control unit, 6 m connection cable Transmitter for remote display, 2 m connection cable Eis-Ex regulator heating, 2 m connection cable	71 391 20 71 390 00 71 390 20









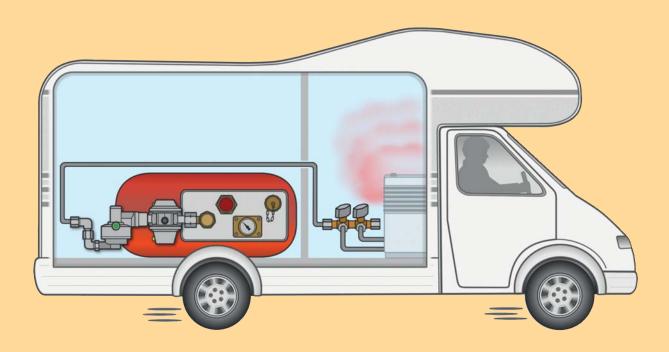




Notes



Motor caravan - LPG tank - heating while driving



Safe heating while driving - with an LPG tank

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

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



Products to connect to an LPG tank



Caramatic DriveOne

safety gas pressure regulation device for operating single-cylinder systems in caravans and motor caravans while driving

consisting of: low pressure regulator with over-pressure safety device S2SR, mechanical crash sensor new with pendulum and test device

Advantages and equipment

- · heating while driving using the integrated mechanical crash sensor new with pendulum, which blocks the gas flow in case of an accident with deceleration of 3.5 g \pm 0.5 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
- · Advantages new crash sensor with pendulum:
 - faster and easier start-up and reset after response
 - more precise performance and therefore less interference from incorrect response behaviour
 - start-up possible with no problem, even if the leisure vehicle is in an inclined position
- can be used all over Europe through the use of country-specific high pressure hose assemblies -Caramatic ConnectDrive (not included in delivery)
- test point for leak testing the LPG system without disassembling the pressure regulating device
- · suitable for connection of a de-icer
- by default, the version with compression fitting 10 / 8 at the outlet is fitted with an adapter to connect 8 mm piping

Conformity

· EC type approval according to PED

Technical data

maximum admissible pressure: PS 16 bar

Note

- Fulfils the requirements of DGUV (German statutory accident insurance, previously BGV D 34) egulation 79 and is suitable for use in commercially used caravans and motor caravans!
- The gas filter Caramatic ConnectClean (part no. 71 781 01) is recommended to protect the LPG system in the vehicle from oily aerosols and evaporation residues!

30 mbar

30 mbar

Caramatic DriveOne horizontal installation straight inlet

Komb.A x compr. fit. 10

Komb.A x compr. fit. 10

for LPG tank with 90° tank panel

1.5 kg/h

1.5 kg/h

for LPG tank with 105° tank panel

Accessories

Caramatic TwoControl with regulator heating Eis-Ex 71 300 20 ____



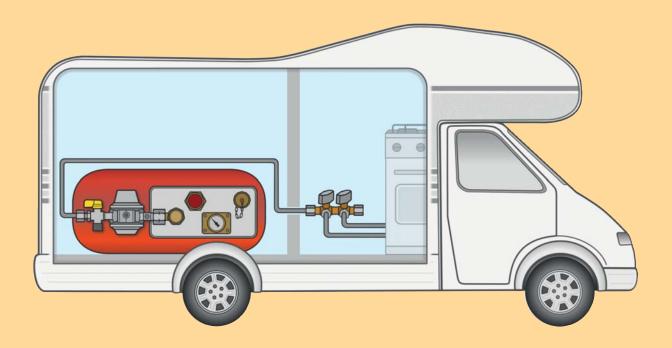


71 813 34 🧲

71 813 35



Motor caravans - LPG tank - Stationary operation



The classic connection for the LPG tank

A low pressure regulator with an over-pressure safety device S2SR (OSD), integrated test point and ball valve is used to supply the LPG installation with an LPG tank.





Low pressure regulator type EN61-DS

for connection to LPG tanks firmly installed on the vehicle to regulate the pressure to the nominal pressure of the gas equipment

Advantages and equipment

- over-pressure safety device S2SR (OSD) to protect consumer equipment against inadmissible high pressures
- test point for leak testing the LPG system without disassembling the pressure regulating device

30 mbar

Conformity

EC type approval according to PED

Technical data

Komb.A

• maximum admissible pressure: 16 bar

Low pressure regulator type EN61-DS with coupling nut type M and olive type D-MS x compr. fit. 8

Compr. fit. 8 x compr. fit. 8	30 mbar	1.5 kg/h	61 293 05	
Accessories				
Fitting 1/2 UNF F x GF M			62 528 00	
Fitting GF F x compr. fit. 8			62 531 00	
Fitting 1/2 UNF F x pipe socket 8			62 523 00	
Fitting 1/2 UNF F x compr. fit. 8			62 527 00	

1.5 kg/h

61 293 06







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.

Quick-acting stop valve type DSV

quick-closing valve, only completely open or closed setting

Advantages and equipment

- includes symbol stickers
- · activation element: twist grip
- · low pressure loss thanks to optimised function
- · only completely open or closed setting
- · mounting bracket for safe assembly

Conformity

· DIN DVGW approved

Technical data

• maximum admissible pressure: PS 5 bar

• material: housing: brass, bright

gaskets: NBR twist grip: PA6 GB15

Quick-acting stop valve type DSV with mounting bracket with coupling nut type M and olive type D

with coupling nut type M and olive type D-MS

Compr. fit 0 y compr. fit 0

Compr. fit. 8 x compr. fit. 8

Compr. fit. 8 x compr. fit. 8

63 711 00

63 711 06 🧲









Distributor valve type DSV-AB

quick-closing valve, only completely open or closed setting

Advantages and equipment

- with mounting bracket
- · includes a blind plug in the outlet
- · includes symbol stickers
- · activation element: twist grip
- · low pressure loss thanks to optimised function

Conformity

DIN DVGW approved

Technical data

• maximum admissible pressure: PS 5 bar

· material: housing: brass, bright gaskets: NBR

twist grip: PA6 GB15

/e

type DSV-AB2

with coupling	nut type M	and olive type D
---------------	------------	------------------

with coupling nut type M and olive type D								
Compr. fit. 8	Χ	2 x compr. fit. 8	Χ	compr. fit. 8	63 750 00			
Compr. fit. 10	Χ	2 x compr. fit. 8	Χ	compr. fit. 10	63 760 00			
type DSV-AB3								
with coupling	nut	type M and olive t	ype l)				
Compr. fit. 8	Χ	3 x compr. fit. 8	Χ	compr. fit. 8	63 751 00			
Compr. fit. 10	Χ	3 x compr. fit. 8	Χ	compr. fit. 10	63 761 00			
type DSV-AB4								
with coupling nut type M and olive type D								
Compr. fit. 8	Χ	4 x compr. fit. 8	Χ	compr. fit. 8	63 752 00			
Compr. fit. 10	Χ	4 x compr. fit. 8	Χ	compr. fit. 10	63 762 00			



set of symbols / packaging unit: 5 units



63 750 01





Caramatic TwoControl - Remote display and regulator heating

is the convenient information and control unit in a leisure vehicle for monitoring the operating and reserve cylinder in two-cylinder systems as well as the Eis-Ex regulator heating

consisting of: information and control unit including 6 m connection cable, cover frame, transmitter for remote display including 2 m connection cable and Eis-Ex regulator heating including 2 m connection cable

Advantages and equipment

- central control unit to switch on/off the remote display and the Eis-Ex regulator heating
- remote indication of the operating status through various colours of LEDs
- · can be easily installed in new systems or retrofitted in existing systems
- can be used with the models of the Caramatic line: DriveTwo, ProTwo, SwitchTwo and the Truma models DuoControl CS and DuoComfort in silver colour
- · connection of all components by using a plug system, no soldering necessary

Conformity

- conformity assessment procedure according to ATEX
- · CE marking according to EMC

Technical data

supply voltage: 12 V

Caramatic TwoControl – Remote of	display and	regulator	heating
----------------------------------	-------------	-----------	---------

Information and control unit with transmitter for remote display and 71 300 00 (Eis-Ex regulator heating

Spare Part

cover frame, colour: anthracite 71 391 00

Accessories

Information and control unit, 6 m connection cable 71 391 20 71 390 00 Transmitter for remote display, 2 m connection cable Eis-Ex regulator heating, 2 m connection cable 71 390 20

Caramatic TwoControl - Regulator heating

is the convenient information and control unit of the Eis-Ex regulator heating in a leisure vehicle consisting of: information and control unit including 6 m connection cable, cover frame and Eis-Ex regulator heating including 2 m connection cable

Advantages and equipment

- · central control unit to switch on/off the Eis-Ex regulator heating
- remote indication of the operating status through various colours of LEDs
- can be easily installed in new systems or retrofitted in existing systems
- can be used with the models of the Caramatic line: DriveOne, BasicOne with test point as well as the Truma model MonoControl CS in silver
- connection of all components by using a plug system, no soldering necessary

- conformity assessment procedure according to ATEX
- · CE marking according to EMC

Technical data

· supply voltage: 12 V

Caramatic TwoControl - Regulator heating

information and control unit with Eis-Ex regulator heating Spare Part

cover frame, colour: anthracite 71 391 00

Accessories

Information and control unit, 6 m connection cable 71 391 20 Eis-Ex regulator heating, 2 m connection cable 71 390 20



















71 300 20 🧲





Caramatic ConnectClean

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 of 99%
- · easy to change the filter cartridge

Technical data

· maximum admissible pressure: PS 25 bar

Caramatic ConnectClean Packaging unit: 1 unit

 M20 x 1.5 M
 x
 M20 x 1.5 nut
 71 781 01

 Packaging unit: 2 units

 M20 x 1.5 M
 x
 M20 x 1.5 nut
 71 781 02

 Spare Part

 Replacement cartridge
 71 781 80

Accessories

Additional fixing bracket 71 781 81 90° elbow M20 x 1.5 M x M20 x 1.5 nut 71 509 00



90° elbow

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

90° elbow

male thread x coupling nut
M20 x 1.5 M x M20 x 1.5 nut

M20 x 1.5 M x M20 x 1.5 nut **71 509 00**







Clip-on adapter

for connecting a pressure regulator with a German connection to gas cylinders with 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

Clip-on adapter, JUMBO 35 mm version for Cyprus, Denmark, Finland, France, Ireland, Norway, Portugal, Spain, Sweden, UK Clip-on (G.56) x KLF M

Clip-on adapter, 21 mm version for Denmark, Ireland, UK

Clip-on (G.53) x KLF M

20 036 35

80 036 00





Euro filling set D

for filling German gas cylinders through authorised European filling stations

Euro filling set D

consisting of filling adapters D1 to D4 69 738 00

Individual nozzle

Filling adapter D1: Italy, Switzerland

M10 x 1 F xKLF F 69 738 07

Filling adapter D2: Austria, Greece, Italy, Slovenia

69 738 08 Ital.A M xKLF F

Filling adapter D3: Finland, Iceland, Norway, Portugal, Sweden, UK Primus F xKLF F 69 738 09

Filling adapter D4: Belgium, Croatia, Czech Republic, France,

Ireland, Latvia, Luxembourg, Macedonia, Montenegro, Netherlands,

Serbia, Slovakia, Slovenia, Spain, Switzerland, UK

W21.8 x 1/14 lh M x KIFF 69 738 02













Euro set D Professional

for connecting a pressure regulator with a German connection to gas cylinders with common European connections

consisting of: EuroTool in toolbox with 3 inserts and adapters 1 to 4 from Euro set D

Advantages and equipment

- just one tool with three different exchangeable inserts, suitable for European cylinder connections
- simple and safe exchangeable system
- toolbox with foam insert (H/W/D: 140 x 153 x 49 mm)
- adapter 1: Italy, Switzerland (KLF M x M10 x 1 M)
- adapter 2: Austria, Greece, Italy, Slovenia (KLF M x Ital.A F)
- adapter 3: Finland, Iceland, Norway, Portugal, Sweden, UK (KLF M x Primus M)
- adapter 4: Belgium, Croatia, Czech Republic, France, Ireland, Latvia, Luxembourg, Macedonia, Montenegro, Netherlands, Serbia, Slovakia, Slovenia, Spain, Switzerland, UK (KLF M x W21.8 x 1/14 lh F)



 material: EuroTool: special polyamide with glass fibre reinforcement (developed for tools) inserts: special polyamide with glass fibre reinforcement (developed for tools)

Euro set D Professional

in toolbox

complete

KLF M x W21.8 x 1/14 lh F

69 735 10

69 735 07



Euro set D

for connecting a pressure regulator with a German connection to gas cylinders with common European connections

_			_
	ırΛ	set	ı١
Lu	II U	SCL	$\boldsymbol{\nu}$

consisting of adapters 1 to 4	69 735 00	
Individual nozzle		
Adapter 1: Italy, Switzerland		
KLFM x M10 x 1 M	69 735 21	
Adapter 2: Austria, Greece, Italy, Slovenia		
KLF M x Ital.A F	69 735 22	
Adapter 3: Finland, Iceland, Norway, Portugal, Sweden, UK		
KLF M x Primus M	69 735 23	
Adapter 4: Belgium, Croatia, Czech Republic, France, Ireland,		
Latvia, Luxembourg, Macedonia, Montenegro, Netherlands,		
Serbia, Slovakia, Slovenia, Spain, Switzerland, UK		
KLF M x W21.8 x 1/14 lh F	69 735 03	
Long version (total length: 40 mm)		











Euro set CH/FR Professional

for connecting a pressure regulator with a Shell-F connection to gas cylinders with common European connections

consisting of: EuroTool in toolbox with 3 exchangeable inserts and adapters FR1 to 4 from Euro set CH/FR

Advantages and equipment

- just one tool with three different exchangeable inserts, suitable for European cylinder connections
- simple and safe exchangeable system
- toolbox with foam insert (H/W/D: 140 x 153 x 49 mm)
- · adapter FR1: Italy, Switzerland (Shell-F M x M10 x 1 M)
- adapter FR2: Austria, Greece, Italy, Slovenia (Shell-F M x Ital.A F)
- · adapter FR3: Finland, Iceland, Norway, Portugal, Sweden, UK (Shell-F M x Primus M)
- adapter FR4: Croatia, Czech Republic, Germany, Ireland, Latvia, Luxembourg, Macedonia, Montenegro, Netherlands, Serbia, Slovakia, Slovenia, Spain, Switzerland, UK (Shell-F M x W21.8 x 1/14 lh F)

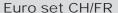
Technical data

 material: EuroTool: special polyamide with glass fibre reinforcement (developed for tools) inserts: special polyamide with glass fibre reinforcement (developed for tools)

Euro set CH/FR Professional

in toolbox

complete 69 739 10 C



for connecting a pressure regulator with a Shell-F connection to gas cylinders with common European connections

Euro set CH/FR

consisting of adapters FR1 to FR4

Individual nozzle

Adapter FR4: Austria, Croatia, Czech Republic, Germany, Ireland, Latvia, Luxembourg, Macedonia, Montenegro, Netherlands, Poland, Russia, Serbia, Slovakia, Slovenia, Spain, UK

Shell-F M x W21.8 x 1/14 lh F

69 739 04

69 739 00















Leak detector spray

allows safe and reliable leak detection in pipe systems

Conformity

DIN DVGW approved

Note

- Because of hazardous materials regulations, only the following quantities are permitted per package: Leak detector spray 125 ml / 72 units
 Leak detector spray 400 ml / 24 units
 For larger quantities despatched by mail, shipping costs increase in accordance with the number of
- Foaming agent for leak detection pursuant to EN 14291.

Leak detector spray

spray can 125 ml spray can 400 ml

packages.

62 601 00

02 601 00



Leak detector spray, frostproof

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

Advantages and equipment

· can be used to -15 °C

Conformity

· DIN DVGW approved

Note

- Because of hazardous materials regulations, only the following quantities are permitted per package: Leak detector spray 400 ml / 24 units
 - For larger quantities despatched by mail, shipping costs increase in accordance with the number of packages.
- Foaming agent for leak detection pursuant to EN 14291.

Leak detector spray, frostproof

spray can 400 ml **02 602 00**







Test point

for leak testing the piping of LPG systems

Advantages and equipment

- especially suitable for e.g. wall-mounted low pressure regulators according to EN 16129, annex D in leisure vehicles
- if the test point is used, the dismantling of the wall-mounted pressure regulator for the leak testing of the LPG system is not required
- · leak tester (for example, part no. 02 611 10) is connected with test adapter
- the inlet to the pressure regulator is blocked via the ball valve

Test point

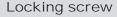
with coupling nut type M and olive type D-MS

Pipe socket 8 x compr. fit. 8 62 618 02 Pipe socket 10 x compr. fit. 10 62 618 04

Accessories

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





as a secure cover to protect against damage or contamination of the inlet connector of pressure regulators or high pressure hose assemblies

useful if the connection between the gas cylinders and fittings is disconnected or the gas system is at a standstill for a long period of time

Advantages and equipment

· with fastening clip

Technical data

- · material: plastic
- male thread: W21.8 x 1/14 lh

Note

- The locking screw must not be used on regulators with a gas non-return valve, such as Caramatic BasicTwo!
- The pressure regulator is not included in the scope of delivery!

Locking screw

for KLF, GF, Kombi and Shell coupling nuts

60 300 92











Senso4s PLUS level gauge for gas cylinders

with app for smartphones and tablets

Digital level gauge for gas cylinders – e.g. for use in leisure vehicles or on the gas barbecue, with Bluetooth remote transmission of the measurement and message data to a smartphone or tablet.

The Senso4s PLUS level gauge (A) measures the weight of the gas cylinder and transmits this value to the app (B) via Bluetooth. The app automatically calculates the content and creates a consumption forecast.

Advantages and equipment

- simple installation; switch Bluetooth on, place gas cylinder on the adjustable feet of the Senso4s level gauge, measure and read the values in the app
- suitable for common steel, aluminium and plastic gas cylinders with a filling weight of 5, 8 and 11 kg, for instance
- Bluetooth connection between Senso4s and the smartphone / tablet
- app menu language in German, English, French, Italian, Spanish and Slovenian
- · recording the parameters for the filling and tare weight of the respective gas cylinder
- · use of several gas cylinders of different sizes
- the app will determine a long-term forecast of the gas consumption after a short operating time
- due to its ATEX certification, Senso4s PLUS may also be used e.g. in gas cylinder cases of leisure vehicles
- · Senso4s PLUS is specially designed for operation in leisure vehicles thanks in part to its motion sensor, which interrupts the measurement while driving and thus prevents wrong measurement results

Technical data

- measuring accuracy: ± 1%
- · protection type: IP44
- supply voltage: 3 type AAA batteries, LR03 1.5 V Alkali (not included in delivery)

- To ensure an error-free measurement, the Senso4s level gauge must be placed on a flat and firm surface.
- The "Senso4s" app can be downloaded for free in the Apple App Store or in the Google Play Store for your respective operating system.

Senso4s PLUS level gauge

for gas cylinders

91 902 00



















MiniTool

to connect and disconnect small cylinder regulators on the gas 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 units in presentation box

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

replenishment pack, 50 units

unicoloured, blue	21 100 80
various colours, each 10 pieces: orange, red, blue, green and black	21 100 85



to connect and loosen cylinder regulators on the gas cylinder valve with no effort for filling German gas cylinders through authorised European filling stations 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 (protective cap)
- · simple and safe exchangeable system
- toolbox 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 **81 100 0**



EuroTool MiniTool set

to connect and loosen cylinder regulators on the gas cylinder valve with no effort consisting of: presentation box with 2 EuroTools in the toolbox and 21 MiniTools unicoloured, blue

Advantages and equipment

- EuroTool with simple and 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 (protective cap)
- EuroTool in toolbox with foam insert (H/W/D: 140 x 153 x 49 mm)
- · MiniTool suitable for small cylinder connections with wing nuts

Technical data

• material: special polyamide with glass fibre reinforcement (developed for tools)

EuroTool MiniTool set in the presentation box complete

21 100 72















EuroTool exchangeable inserts with assignment to European cylinder connections

Wing nut	SW 23	SW 24	SW 25	SW 27	SW 30
₹	4	4	4		く
BE, CH, FR, RU	EU, CH, RU	CZ, DE, DK, NO, PL, PT, RU, SE	AT, GR, IT	CS, CZ, RU	AT, CZ, DE, DK, FI, PL, RU, SI
Shell-F - G.2	M20 x 1.5 nut – G.36	POL – G.9	Ital.A – G.1	Shell – X.7	GF – G.4
AT, DE, PL, RU		BE, NO, PT, SE		PL	AT, BE, CZ, DE, NL, PL, RU, SI
KLF – G.12		POL-WS – G.10		Shell-PL - X.10	Komb.A – G.5
DE, ES, RU		NO, PT, SE		NL, RU	GB, IE, RU
Komb.W – G.19		POL-O – X.4		Komb.Shell-WS – X.2	EU-Shell – G.8
RU					RU
Komb.Shell-WF – X.2					Komb.Shell-H – X.3
			NF		



DE		
Knurled nut	Small cylinder sealing nut	
く		



GB

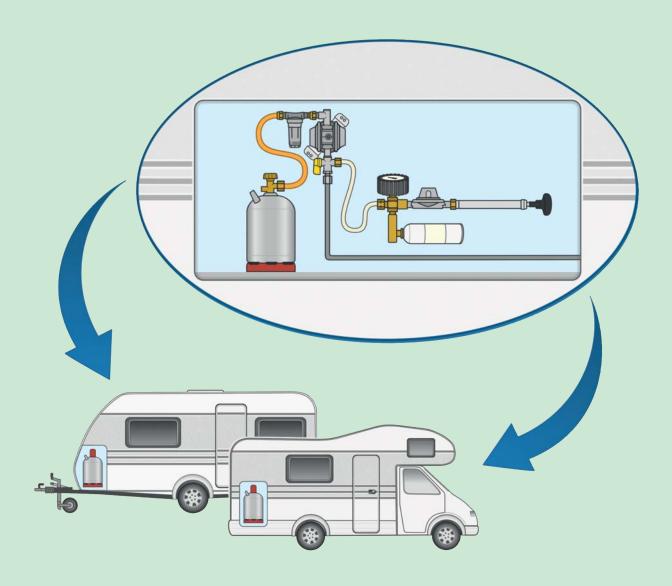
Brit.POL – G.7





GOK

Operation and testing



Leak test by qualified persons

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

GOK developed a high-quality leak tester for qualified persons to check for leaks. For vehicles with a line volume of less than 700 cm³, the tester can use an additional volume.

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





Test device Leak Check LPG BASIC

with all the necessary assembly parts to check for leaks in LPG systems in leisure vehicles according to DVGW worksheet G 607, ÖVGW worksheet G 107 and EN 1949 and in small water crafts according to DVGW worksheet G 608 and EN ISO 10239.

consisting of:

- 1 x leak tester type 150 with pressure limiter
- 1 x test hose for test point
- 1 x medium pressure hose assembly for LPG lines
- 1 x hand grip for the test point
- 1 x stainless steel plug-in fitting x pipe socket 8 to connect the test device to the quick coupler
- 1 x straight reducer insert type RED pipe socket 8 x compr. fit 10
- 10 x gaskets for outlet nozzle G 1/4 lh M
- 1 x leak detector spray can 125 ml
- 1 x MiniTool to connect and disconnect 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 with carrying strap

Advantages and equipment

- · all necessary parts for testing and assembly 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 is combinable, stackable and connectible e.g. with the camping and caravan or marine assembly case

Test device Leak Check LPG BASIC for caravan and marine complete

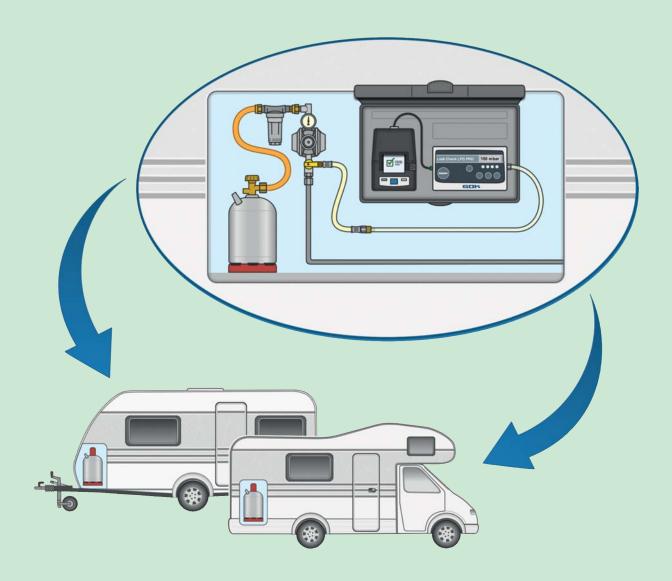
Accessories	
retrofit kit for additional volume can 600 cm ³	02 611 06
camping and caravan assembly case	27 120 00

27 100 00









Next generation leak check

With the electronic test device Leak Check LPG PRO, checking for leaks in leisure vehicles couldn't be simpler.

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 part of the test device can be used to document the test result, which can be attached to the test certificate. All components are arranged efficiently in the system case.

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





Electronic test device Leak Check LPG PRO

with all the necessary assembly parts to check for leaks in LPG systems in leisure vehicles according to DVGW worksheet G 607, ÖVGW worksheet G 107 and EN 1949 and in small water crafts according to DVGW worksheet G 608 and EN ISO 10239.

When the Leak Check LPG PRO is connected to the supply line using the included common fitting, 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 rechargeable battery
- 1 x printer with connection cable and spare paper roll
- 1 x connection hose for 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 can 600 cm³
- 1 x hand grip for the test point
- 1 x plug-in fitting x pipe socket 8 to connect to 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 nozzle G 1/4 lh M
- 1 x leak detector spray can 125 ml
- 1 x MiniTool to connect and disconnect 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
- the system case is combinable, stackable and connectible e.g. with the camping and caravan or marine assembly case
- · self-contained with an efficient rechargeable battery
- test result printed out (long-life paper keeps up to 10 years, approx. 35 printouts possible per paper roll)
- continuous pump function for leak detection
- · automatic zero-point correction when switched on

Technical data

measurement range: 0 to 200 mbarpressure resistance: 1000 mbar

• measuring accuracy: ± 2 mbar (in the measurement range 140 to 160 mbar)

Electronic test device Leak Check LPG PRO

for caravan and marine

complete **27 105 00**

Spare Part

spare paper roll, long-life, packaging unit: 5 units
spare paper roll, long-life, packaging unit: 100 units

27 107 25
27 107 26

Accessories

calibration of the test device 58 803 00







Electronic test device Leak Check LPG PRO BT

with all the necessary assembly parts to check for leaks in LPG systems in leisure vehicles according to DVGW worksheet G 607, ÖVGW worksheet G 107 and EN 1949 and in small water crafts according to DVGW worksheet G 608 and EN ISO 10239.

The Leak Check LPG PRO BT carries out the required test automatically and transfers the result into an app (Android) installed on a mobile end device by means of Bluetooth.

The tester records the data of the integrated gas equipment/components in the app under the vehicle identification number (VIN). After the test, a test log can be created, saved locally, printed (PDF) or exported.

In the case of a repeat test, already recorded gas equipment/components can be assumed by means of the local memory or by importing the last test log using the QR code.

consisting of:

- 1 x Leak Check LPG PRO including mains adapter and rechargeable battery
- 1 x Bluetooth adapter
- 1 x connection hose for 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 can 600 cm³
- 1 x hand grip for the test point
- 1 x plug-in fitting x pipe socket 8 to connect to 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 nozzle G 1/4 lh M
- 1 x leak detector spray can 125 ml
- 1 x MiniTool to connect and disconnect 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
- the system case is combinable, stackable and connectible e.g. with the camping and caravan or marine assembly case
- · self-contained with an efficient rechargeable battery
- · continuous pump function for leak detection
- · automatic zero-point correction when switched on
- the integrated gas equipment/components can be traced using the VIN
- test log can be saved locally, printed (PDF) or exported

Technical data

measurement range: 0 to 200 mbarpressure resistance: 1000 mbar

• measuring accuracy: ± 2 mbar (in the measurement range 140 to 160 mbar)

Electronic test device Leak Check LPG PRO BT for caravan and marine

complete **27 108 00**

Accessories

calibration of the test device 58 803 00







Leak tester type 150Z

to check for leaks in LPG systems in leisure vehicles according to DVGW worksheet G 607, ÖVGW worksheet G 107 and EN 1949 and in small water crafts according to DVGW worksheet G 608 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 can 600 cm³

Advantages and equipment

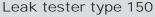
- for vehicles with a line test volume of less than 700 cm³ the test can be carried out with the additional volume of 600 cm³
- · pressure limiter prevents damage to the pressure gauge

Leak tester type 150Z

complete	02 611 10
Spare Part test pressure gauge 0-250 mbar, quality class 1.0 pressure gauge gasket retrofit kit for additional volume can 600 cm³ additional volume can 600 cm³ gasket for additional volume gasket for outlet nozzle G 1/4 lh M on the leak tester set consisting of: fitting G 1/4 lh F x G 3/8 lh M and G 1/4 lh F x G 1/2 lh M brass	62 616 00 55 211 60 02 611 06 02 611 40 02 611 27 02 600 59 02 617 22

Accessories

Accessories		
Test hose G 1/4 lh nut x adapter for test point x 750 mm	62 618 01	



to check for leaks in LPG systems in leisure vehicles according to DVGW worksheet G 607, ÖVGW worksheet G 107 and EN 1949 and in small water crafts according to DVGW worksheet G 608 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, transport bag and two fittings 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

		_	
I Aak	tester	tyno	150
LCan	1C21CI	LANC	130

with hand pump and transport bag	02 611 00
Spare Part test pressure gauge 0-250 mbar, quality class 1.0 pressure gauge gasket gasket for outlet nozzle G 1/4 lh M on the leak tester set consisting of: fitting G 1/4 lh F x G 3/8 lh M and G 1/4 lh F x G 1/2 lh M brass	62 616 00 55 211 60 02 600 59 02 617 22
Accessories Test hose G 1/4 lh nut x adapter for test point x 750 mm retrofit kit for additional volume can 600 cm³ additional volume can 600 cm³ gasket for additional volume leak detector spray can 125 ml	62 618 01











Function check set

for a simple and fast function check in LPG systems in leisure vehicles according to DVGW worksheet G 607, ÖVGW worksheet G 107 and EN 1949 and in small water crafts according to DVGW worksheet G 608 and EN ISO 10239

Following the final assembly of the LPG systems at the vehicle manufacturer, the function of the gas equipment as well as the function of the installed low pressure regulator can be checked in one operation.

Country-specific inlet connectors on the low pressure regulator can be connected to the check set using the adapters (plug-in fitting or Euro filling set D) included in the scope of delivery.

Advantages and equipment

- medium pressure regulator type M50-F/SBS KLF x G 3/8 lh M, 2.0 bar, 2 kg/h with 35° outlet and integrated excess flow valve (EFV) with manual opening, blocks the gas supply if the hose is damaged
- medium pressure hose (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 2000 mm
- Euro filling set D (consisting of filling adapters D1 to D4)
- plug-in fitting type D1, plug-in fitting x KLF M
- plug-in fitting type D1, plug-in fitting x Brit.POL F
- plug-in fitting type D1, plug-in fitting x Chin.POL F

Function check set for caravan and marine complete

'	
Spare Part	
Medium pressure hose assembly rubber PS 10 bar,	27 101 04
hose dimensions 6.3 x 3.5 mm, G 3/8 lh nut x quick coupler x 2000 mm	
Euro filling set D, consisting of filling adapters D1 to D4	09 738 00
plug-in fitting type D1 plug-in fitting x KLF M	27 101 01
plug-in fitting type D1 plug-in fitting x Brit.POL F	27 101 02
plug-in fitting type D1 plug-in fitting x Chin.POL F	27 101 03



27 101 00





Camping and caravan assembly case

containing all the necessary components and spare parts for assembly and maintenance work on LPG systems in caravans and motor caravans according to DVGW worksheet G 607, ÖVGW worksheet G 107 and EN 1949

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 metal pipe clamp with rubber profile, each 8 and 10 mm
- 1 x pre-assembly key, type VOMO, 8 and 10 mm
- 5 x protective cap for test point
- 5 x gas valve grease tube 5 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 is combinable, stackable and connectible e.g. with the test devices Leak Check LPG PRO and BASIC as well as the marine assembly case

Camping and caravan assembly case for LPG systems in leisure vehicles complete

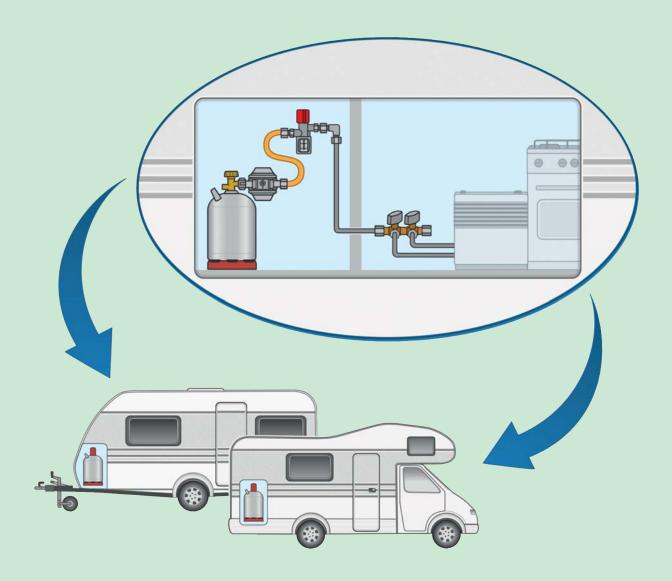
Accessories	
electronic test device Leak Check LPG PRO	27 105 00
test device Leak Check LPG BASIC	27 100 00

27 120 00





60K



Leak test by the operator

A regular check for leaks by the operator increases the safety of the LPG system.

With the leak tester, the camper can check the system at any time with the push of a button.

A special glycol mixture allows you to check for leaks at temperatures below zero.

Can be retrofitted without any problem.



Products for leak tests by the operator



Leak tester type 4071

enables quick and sound leak checking of the LPG system at any time at the press of a button

Advantages and equipment

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

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
compression fitting x compression fitting
with coupling nut type M and olive type D-MS
Compr. fit. 8 x compr. fit. 10

Compr. fit. 8 x compr. fit. 10 Compr. fit. 10 x compr. fit. 10

90° outlet
pipe socket x compression fitting
with coupling nut type M and olive type D-MS
Pipe socket 8 x compr. fit. 8



62 004 00

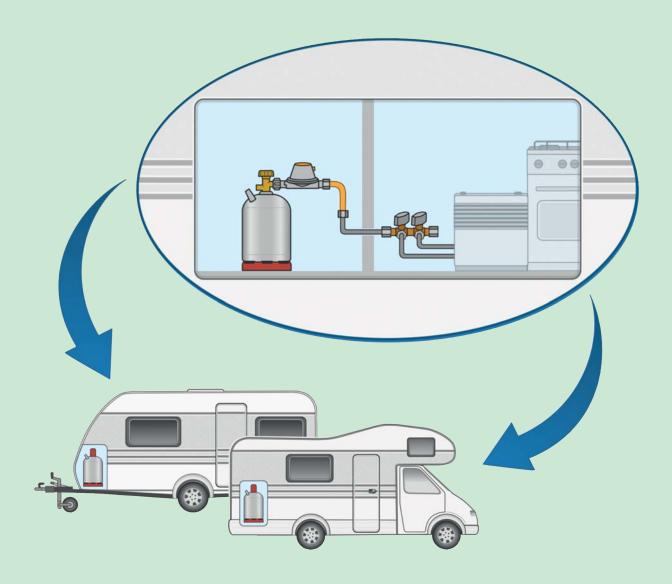
62 004 01







Operating and testing - care and maintenance



Care and maintenance of LPG installations

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

The vehicle owner must not retrofit older LPG installations in vehicles with a working pressure of 50 mbar to 30 mbar – the status quo is to be preserved.



Products for 50 mbar installations



Caramatic BasicOne type EN61

for connection to gas cylinders to regulate the pressure to the nominal pressure of the gas equipment

Advantages and equipment

- with pressure relief valve PRV
- · vent plug that also prevents moisture, such as rainwater, getting inside the regulator

50 mbar

50 mbar

· version with extended inlet connector, 90° outlet suitable for VW camper vans with Westfalia fit-out

Conformity

· EC type approval according to PED

Technical data

• maximum admissible pressure: 16 bar

Caramati	c BasicOne	e type	EN61
straight (nutlat		

KLF x G 1/4 lh M

Shell-F x G 1/4 lh M

straight outlet						
with pressure gauge						
KLF x G 1/4 lh M	50 mbar	1.5 kg/h	61 113 03			
Shell-F x G 1/4 lh M	50 mbar	1.5 kg/h	61 113 12			
without pressure gauge						
KLF x G 1/4 lh M	50 mbar	1.5 kg/h	61 113 00			
Shell-F x G 1/4 lh M	50 mbar	1.5 kg/h	61 113 11			
000 autlat						
90° outlet						
with pressure gauge						
KLF x G 1/4 lh M	50 mbar	0.8 kg/h	61 113 18			
Shell-F x G 1/4 lh M	50 mbar	0.8 kg/h	61 113 29			
without pressure gauge						
KLF x G 1/4 lh M	50 mbar	0.8 kg/h	61 113 25			
Shell-F x G 1/4 lh M	50 mbar	0.8 kg/h	61 113 27			
with extended inlet connector, 90° outlet without pressure gauge						

0.8 kg/h

0.8 kg/h









61 113 13

61 113 28



Products for 50 mbar installations



Medium pressure hose assembly rubber

to connect fittings, consumer equipment and piping

Conformity

· DVGW approved

Technical data

- · maximum admissible pressure: PS 10 bar
- · hose: rubber with textile lining
- cold resistant up to -30 °C

Note

• Our hose assemblies are supplied with a tag and notice of the year of replacement.

Medium pressure hose assembly rubber

hose dimensions 6.3 x 3.5 mm

connections: coupling nut x compression fitting

with coupling nut type M and olive type D G 1/4 lh nut x compr. fit. 8 x 400 mm

G 1/4 In nut	Х	compr. tit. 8	Χ	450 mm
G 1/4 lh nut	Χ	compr. fit. 8	Χ	750 mm
G 1/4 lh nut	Χ	compr. fit 10	Χ	400 mm
G 1/4 Ih nut	Χ	compr. fit 10	Χ	750 mm
connections	: cou	ıpling nut x plu	g-in	fitting
G 1/4 Ih nut	Χ	plug-in fitting	Χ	400 mm
G 1/4 lh nut	Χ	plug-in fitting	Χ	800 mm
G 1/4 lh nut	Χ	plug-in fitting	Χ	1000 mm
G 1/4 Ih nut	Χ	plug-in fitting	Χ	1500 mm
G 1/4 Ih nut	Χ	plug-in fitting		2000 mm
G 1/4 Ih nut	Χ	plug-in fitting	Χ	2500 mm
G 1/4 Ih nut	Χ	plug-in fitting	Χ	3000 mm



64 402 00

64 227 00





Medium pressure hose assembly plastic

x plug-in fitting x 5000 mm

to connect fittings, consumer equipment and piping

Conformity

G 1/4 lh nut

· DVGW approved

Technical data

- · maximum admissible pressure: PS 10 bar
- hose: plastic with textile lining

Note

• Our hose assemblies are supplied with a tag and notice of the year of replacement.

Medium pressure hose assembly plastic

hose dimensions 6.3 x 3.5 mm

connections: coupling nut x compression fitting

with coupling nut type M and olive type D

	J					
G 1/4 Ih nut	Χ	compr. fit. 8	Χ	400 mm	64 402 02	
G 1/4 lh nut	Χ	compr. fit. 8	Χ	450 mm	64 401 05	
G 1/4 lh nut	Χ	compr. fit. 8	Χ	750 mm	64 405 07	
G 1/4 lh nut	Χ	compr. fit 10	Х	400 mm	64 409 09	









Pre-pressure regulator type DE 50/30 S

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

Advantages and equipment

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

30 mhar

Conformity

· EC type approval according to GAR

Compr fit 8 x compr fit 8

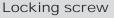
Technical data

· maximum admissible pressure: PS 1 bar

Pre-pressure regulator type DE 50/30 S with coupling nut type M-MS and olive type D-MS

Compr. III. O X Compr. III. O	30 mbai	0.0 kg/m	71 440 00
Accessories			
hull/wall duct for wall thicknesses	of 6 to 20 mm		11 445 20
hull/wall duct for wall thicknesses	to 8 mm		11 445 08
hull/wall duct for wall thicknesses	of 15 to 40 mm		11 445 40

0.8 kg/h



as a secure cover to protect against damage or contamination of the inlet connector of pressure regulators or high pressure hose assemblies

useful if the connection between the gas cylinders and fittings is disconnected or the gas system is at a standstill for a long period of time

Advantages and equipment

· with fastening clip

Technical data

- · material: plastic
- male thread: W21.8 x 1/14 lh

Note

- The locking screw must not be used on regulators with a gas non-return valve, such as Caramatic BasicTwo!
- The pressure regulator is not included in the scope of delivery!

Locking screw

for KLF, GF, Kombi and Shell coupling nuts

60 300 92

71 446 00

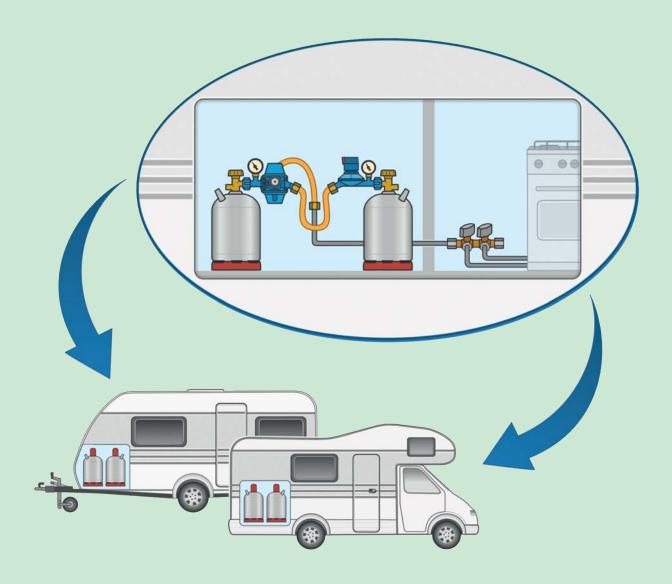








Operating and testing - care and maintenance



Care and maintenance of LPG installations

Two-cylinder systems

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

The set, which consists of a central and changeover regulator, hose assemblies and all connection parts, allows the replacement to take place quickly and without a problem.



Products for two-cylinder systems



Two-cylinder system Caramatic BasicTwo

Automatic regulator changeover, for connection to gas cylinders to regulate the pressure to the nominal pressure of the gas equipment.

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

Advantages and equipment

- · with pressure relief valve PRV
- gas non-return valve: prevents the escape of gas when the cylinder is replaced
- medium pressure hose assembly (rubber with textile lining; cold resistant up to -30 °C; 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, brass connections, stainless steel compressive sleeves
- medium pressure hose assembly (rubber with textile lining; cold resistant up to -30 °C; 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, brass connections, stainless steel compressive sleeves
- fittings for 8 and 10 mm
- combined fitting for optional connection to 5, 11 or 33 kg gas cylinders

Conformity

· EC type approval according to PED

Technical data

· maximum admissible pressure: PS 16 bar

· connections: inlet: Komb.W

> output: 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 BasicTwo

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

Accessories medium pressure hose assembly rubber PS 10 bar, hose dimensions 6.3 x 3.5 mm, 64 440 02 G 1/4 lh nut x compr. fit. 8 x 400 mm, brass parts medium pressure hose assembly rubber PS 10 bar, hose dimensions 6.3 x 3.5 mm, 64 504 01 G 3/8 lh nut x G 3/8 lh nut x 400 mm, brass parts medium pressure hose assembly rubber PS 10 bar, hose dimensions 6.3 x 3.5 mm, 64 504 02 G 3/8 lh nut x G 3/8 lh nut x 1500 mm, brass parts









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

- Each LPG system is to be inspected by a recognised expert.
- The first inspection is carried out before start-up by a recognised specialist for compliance with EN 1949 in conjunction with worksheet G 607 (A) and is usually done by the manufacturer.
- The next inspection should be carried out by a specialist 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 system can be used and an inspection plate is issued.

Replacement deadline for system components

- Pressure regulators, automatic changeover systems and hose assemblies have to be replaced every 10 years at the latest.
- The date of manufacture printed on the fittings and hose assemblies is what matters, not the date of installation or the start-up date.
- In the case of pressure regulators, the date in question is printed on the type label 1. Two basic formats in which the date of manufacture may be indicated are to be distinguished:
 - a) On pressure regulators with an older date of manufacture, the first two digits indicate the month of manufacture, while the two following digits indicate the year. The abbreviation 08/20 means that the pressure regulator was manufactured in August 2020.
 - b) On pressure regulators with a more recent date of manufacture, only the year of manufacture with four digits is indicated, e.g. 2021.
- GOK offers a special service for hose assemblies. They have a yellow label (2) showing the year in which the hose assembly should be replaced in relation to the field of application. If the yellow label is torn or no longer attached, the year of manufacture is also printed on the hose assembly.

Replacement period



Checking for leaks when replacing cylinders

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

Checking for leaks in pressure regulators without pressure gauge

- 1. Close all shut-off fittings on the consumer equipment.
- 2. Slowly open the gas cylinder valve.
- 3. Spray all connections with 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. Check the leak-tightness by seeing whether bubbles form in the foaming agent.
- 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.

Checking for leaks in pressure regulators with pressure gauge

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

- 1. Close all shut-off fittings on the consumer equipment.
- 2. Slowly open the gas cylinder valve.
- 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.

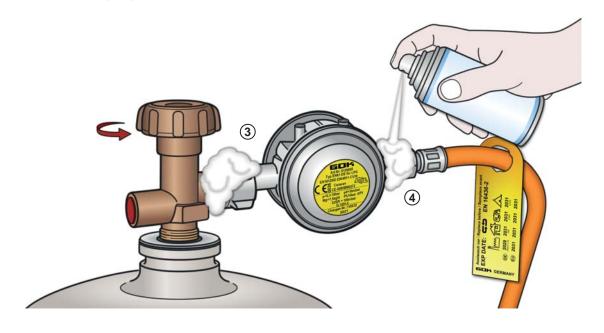
- 4. Close the gas cylinder valve.
 Waiting time: 2 minutes to allow temperature equalisation.
- 5. Adjust the mark or the red pointer if necessary. Testing time: 10 minutes.
- The gas pressure must not decrease during the testing time. If the pressure decreases, the entire LPG system must be checked for leaks.

Notice:

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 for leak-tightness (e.g. with a foaming agent) before each use.

Leak test

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





Functions of the safety devices

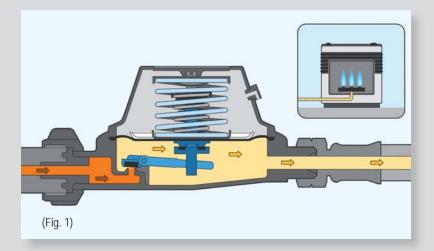
You can find animations of all the safety devices on our YouTube channel www.youtube.com/c/GOK-ReglerundArmaturen

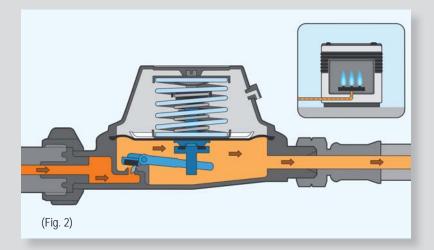
Pressure relief valve PRV

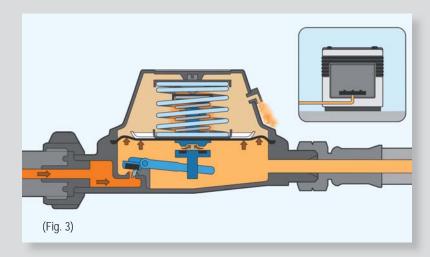
The pressure relief valve **(PRV)** is a safety device integrated in the pressure regulator. It acts automatically and protects the connected consumer equipment against inadmissible high pressure **(Fig. 1)**.

If inadmissible high pressure occurs at the outlet, e.g. because of dirt, (Fig. 2), the diaphragm is pressed upward. The pressure relief valve opens and blows the excess pressure off to the ambient air (Fig. 3).

When the pressure falls, the pressure relief valve PRV closes again automatically.









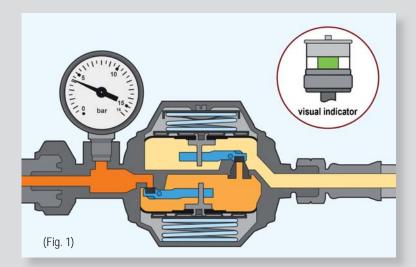
Over-pressure safety device S2SR (OSD)

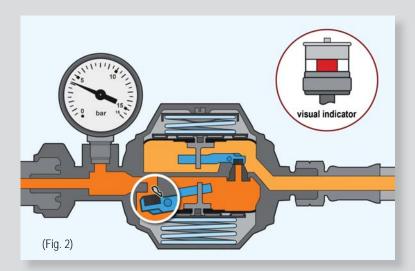
Regulators with an over-pressure safety device S2SR (OSD) are two-stage pressure regulators (Fig. 1).

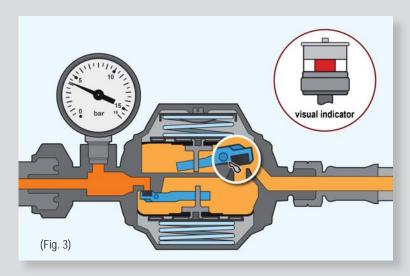
If one of the two controller stages fails, e.g. because of dirt and other foreign bodies in the valve, respectively, the other controller stage reduces the pressure to maximum 150 mbar.

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 from escaping on an uncontrolled basis in the event of hose damage.

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

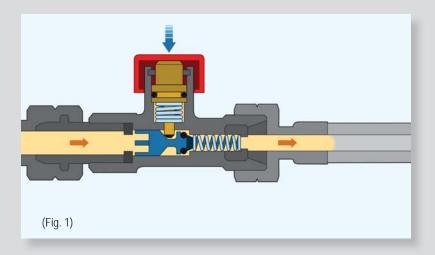
When the pressure has equalised, the closing taper remains open and gas can be consumed (Fig. 2).

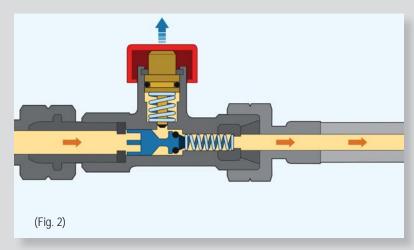
If the hose assembly is damaged, the pressure drops suddenly and the closing taper is pressed onto the valve seat. The gas supply is interrupted. Unused gas cannot escape (Fig. 3).

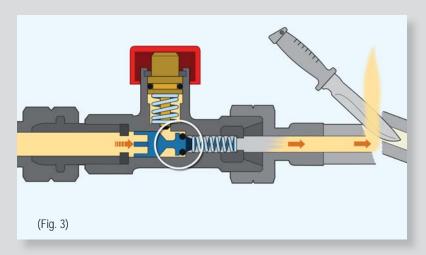
The automatically opening version of the excess flow valve EFV is started up via a pulse bore. The closing taper is opened automatically after the pressure compensation.

An excess flow valve (EFV) is integrated into the pressure regulator.

The EFV works in the same way as excess flow valves connected to the pressure regulator.









Crash sensor



The crash sensor is an automatic safety device and is part of the regulator system.

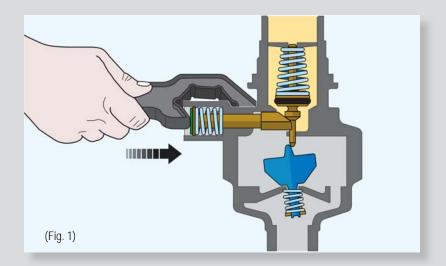
If heaters are operated in leisure vehicles while driving as well, the crash

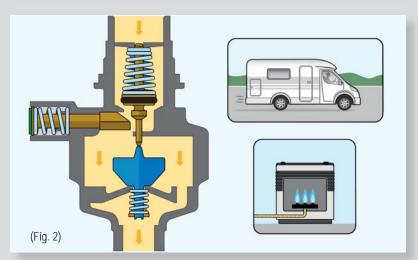
sensor provides protection from uncontrolled escape of LPG, e.g. in the event of a traffic accident.

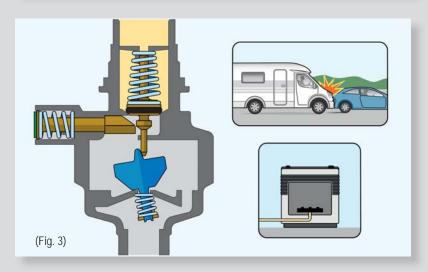
To start up, press the reset button, which opens the spring-loaded sealing unit (Fig. 1).

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

For example, if the leisure vehicle is involved in a traffic accident, the crash sensor directly blocks the gas flow. 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 closed (Fig. 3) and remains in this state until it is opened again manually via the reset button.









Leak tester type 4071

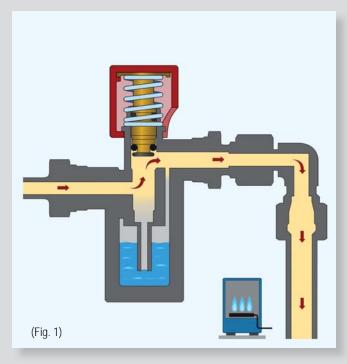
The leak tester enables quick and sound leak checking of the LPG system at any time.

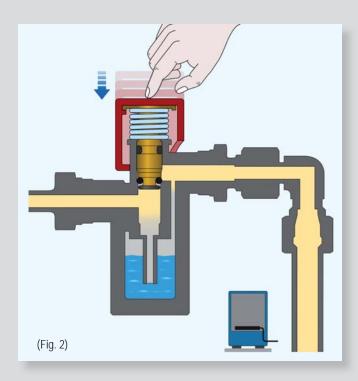
In normal operations, the gas flows through the leak tester without hindrance (Fig. 1).

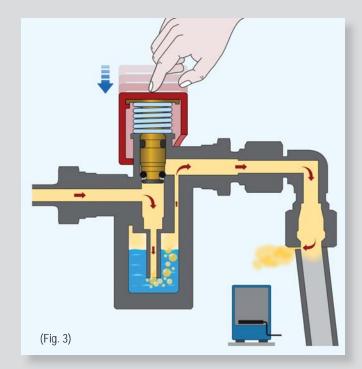
Continuous pressure on the test button blocks the normal gas flow. If the line is tight, no bubbles form in the inspection glass (Fig. 2).

On the other hand, if there is a leak in the line, the gas flows through the vessel with a glycol mixture. Bubbles form in the inspection glass (Fig. 3).











Notes



Inlet connectors

Italian connection (Ital.A) Name acc. to standard* Country AT, GR, IT Gasket material

FR Shell (Shell-F)		
	Name acc. to standard*	G.2
	Country	BE, CH, FR, RU
	Gasket material	NBR

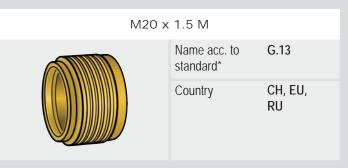


Shell Butane Nut (EU-Shell)		
	Name acc. to standard*	G.8
	Country	GB, IE, RU
	Gasket material	NBR

Soft POL (POL-WS)		
	Name acc. to standard*	G.10
	Country	BE, NO, PT, SE
	Gasket material	NBR

Soft POL wing (POL-WF)		
	Name acc. to standard*	G.10
	Country	SE
	Gasket material	NBR





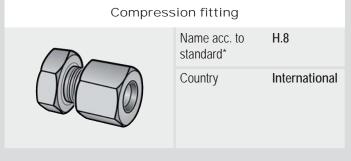
Kombi Soft (Komb.W)		
	Name acc. to standard*	G.19
	Country	DE, ES, RU
	Gasket material	NBR

Shell Combi Hard (Komb.Shell-H)		
Carlo	Name acc. to standard**	X.3
	Country	RU
	Gasket material	PA
	atoria.	



Outlet connectors









Systematic benefits for the world of retail

Design and quality

Designs and shapes that are colourful, different and sometimes very individual are attractive – but in the world of retail, the opposite holds the cards. "Corporate design" and "visual merchandising" are keywords which are repeatedly used in the world of the media when it comes to successful brand philosophies and sales presentations. Trend studies also demonstrate that: buying behaviour is shifting away from "cheap is king!" to brand quality. GOK manufactures high-quality, precision products exclusively in Germany. We are proud to do this because it distinguishes the brand and the shop packaging supports the aspirations for both quality and design. Why?

- Direct perception of the "GOK" brand by the end consumer at the point of sale (POS)
- · Compliance with the GOK corporate design
- · Uniform design with all sizes, shapes and individual solutions
- Presentation of the quality brand and the clear notice provided of "Made in Germany"
- The consumer can ascertain and/or visually check the value of the products
- Sales and presentation optimisation also with small products

Protection and safety

Time is money, which is why these days, products are being transported more and more quickly – frequently at the expense of care. The GOK shop packaging system protects products from damage all the way from the factory to the retail shelf in the best possible way, and reduces the risk of theft at the POS. At the same time the shop packaging makes the sale more legally secure – with these being the keywords: product safety laws as well as assembly and operating manual.

- All the sensitive parts of the product are protected
- Safety tag as patented sealing system provides protection against loss, damage and theft
- Dimensionally stable packaging from high-quality plastic
- Identification of the products according to the product safety laws (frequently lost when repackaging the products)
- The assembly and operating manual is integrated in the shop packaging – so it can't be lost

Process optimisation

It's an age-old saying in the world of retail – half of the profit is in the purchase itself. But it isn't just the price of the product that is the deciding factor. The process along the supply chain should also be cost-efficient. With the GOK packaging system, this requirement is satisfied.

- Optimised receipt of goods due to individual labelling with a GTIN code
- Storage capacity and places of storage can be planned more easily due to defined sizes, weights and packaging units
- Huge potential savings with materials and working hours because the product doesn't need to be repackaged
- · Rapid equipping of the POS system
- · Products stay up-to-date thanks to optimised inventory turnover

Design and quality

• Small components in visually appealing packaging







Protection and safety

- Shop packaging with integrated assembly and operating manual
- Patented sealing system the so-called "safety tag"



Shop packaging with Euro slots

All the items marked with this symbol are delivered in shop packaging.



- **✓** Good price-performance ratio
- **✓** 100 per cent Made in Germany
- Simple integration and replacement







Only the BEST QUALITY for your ABSOLUTE SAFETY

Made in **GERMANY**