

**BROEN  
UNIFLEX™  
FITTINGS FOR  
BURNING  
GASES**

**BROEN UNIFLEX™ FITTINGS FOR BURNING GASES**








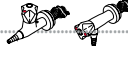
**BROEN UNIFLEX™ FITTINGS FOR BURNING GASES**

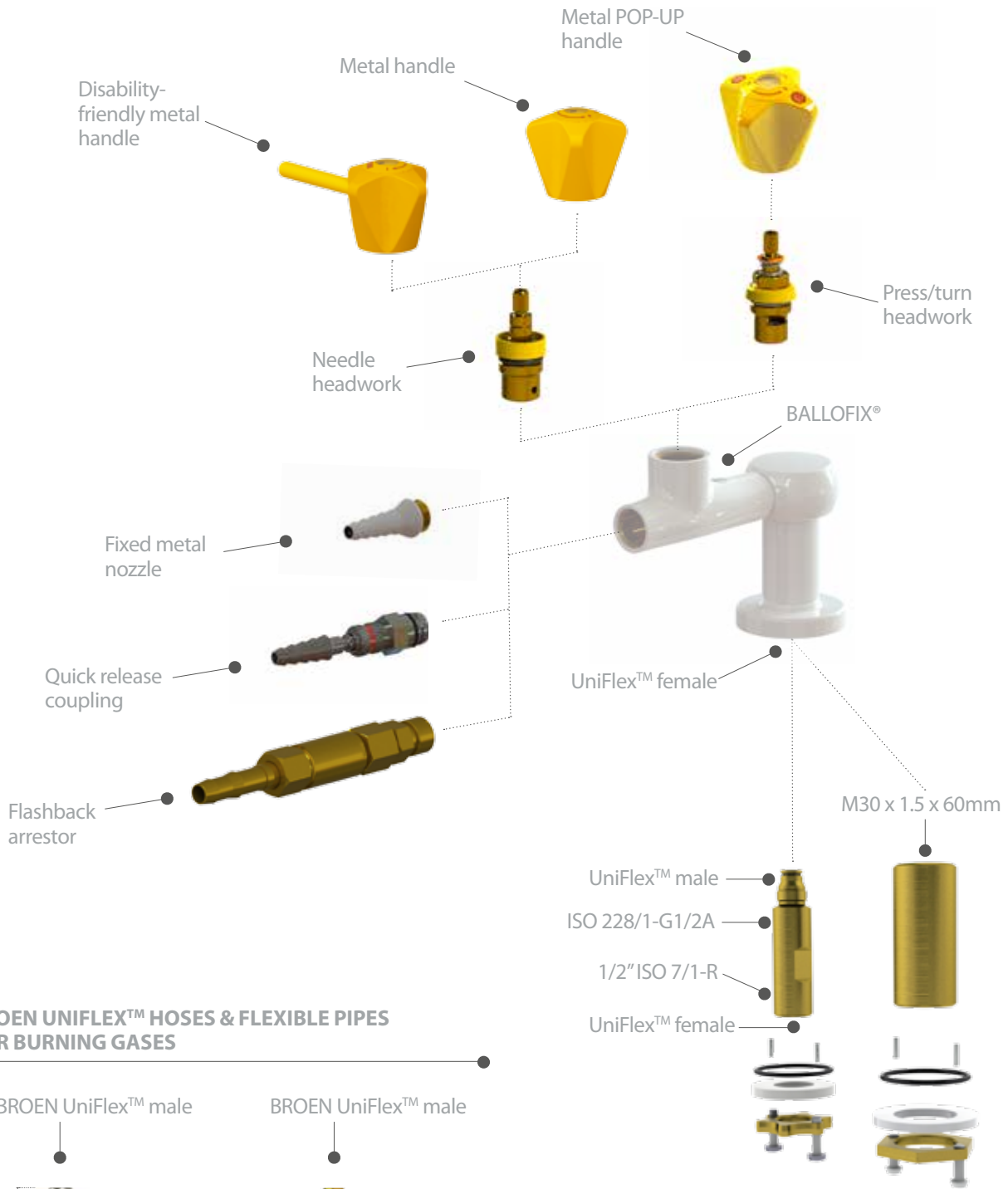


**PREMIUM**

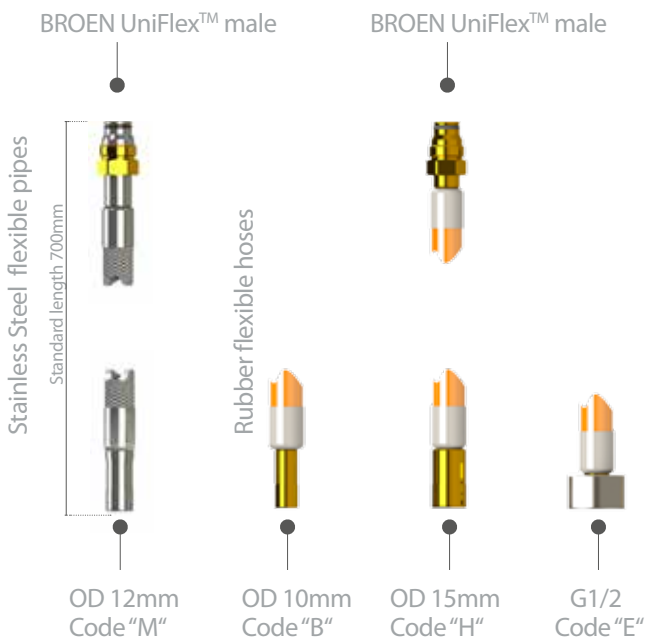
**BROEN**

INTELLIGENT FLOW SOLUTIONS

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**BROEN UNIFLEX™ HOSES & FLEXIBLE PIPES FOR BURNING GASES**



BROEN UNIFLEX™ FITTINGS FOR BURNING GASES

**THIS IS BROEN UNIFLEX™ PREMIUM**

BROEN UniFlex™ PREMIUM line offers a very high quality and durability combined with the complete program, which adds up to low LCC (Life Cycle Costs). Our PREMIUM line takes the standards in the market to a higher level.

**BROEN UNIFLEX™ FITTINGS FOR BURNING GASES**



BROEN UniFlex™ PREMIUM fittings for burning gases are designed for laboratory use. The operation and the configuration of the fittings are highly adapted to the requirements of a modern laboratory. The fittings are surface treated with BROEN POLYCOAT powder coating, which is highly resistant to most chemicals, UV fading and heat (for more information please refer to "BROEN POLYCOAT" brochure).

All BROEN UniFlex™ PREMIUM fittings are delivered with a powder coated metal handle with "POP-UP" indication buttons that make it possible visually to observe if the valve is open. Media indication is according to EN13792. Ceramic press/turn headwork prevents from unintentional opening of the valve.

All BROEN UniFlex™ PREMIUM fittings for burning gases incorporate a BALLOFIX® ball valve, which offers a number of advantages such as local shut-off (e.g. in connection with product service) and pre-setting for experimental purposes. As standard fittings are delivered with a fixed metal nozzle or a quick release coupling for easy and immediate connection and safe disconnection.

**THIS IS BROEN UNIFLEX™**

BROEN UniFlex™ is a unique and patented connection, which allows customers to choose from various connection methods, such as hoses, Cu, PEX of Stainless Steel pipes, without changing the valve itself. It provides unique flexibility, not only for the installer, but also for the end-user. Due to the flexibility of the system, the quick installation and savings on fittings, this system offers lower TIC (Total Installed Costs).

## WHAT IS BURNING GAS?

Burning or flammable gases are gases that burn or explode in presence of air or oxygen.

BROEN UniFlex™ fittings for burning gases can be used for natural gas (G), liquefied petroleum gas (LPG) as well as low pressure bottle gases such as:

- propane
- butane
- methane
- acetylene
- hydrogen

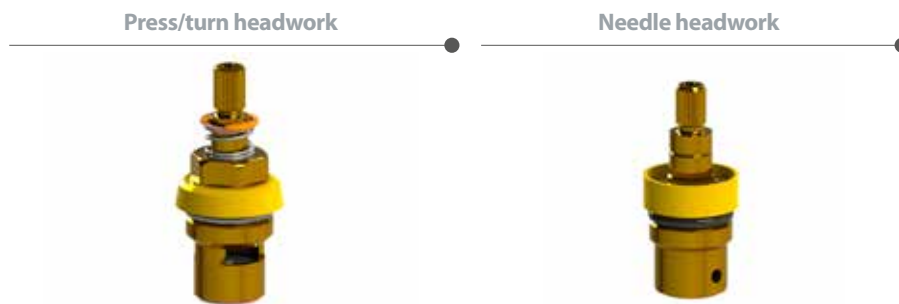
These gases are typically commercially manufactured and sold to be used in applications within:

- laboratory and instrumentation
- chemical and petrochemical industry
- semiconductor industry
- welding, etc.

*Please always refer to local regulations when installing the products for burning gases!*

## OUR HEADWORKS

BROEN UniFlex™ PREMIUM fittings for burning gases can be delivered with 2 different types of headworks depending on the requirements set by applications with regards to safety and/or regulation of media flow.



As standard all BROEN UniFlex™ BASIC fittings for burning gases are delivered with a ceramic press/turn safety headwork with 90° opening/closing function, which prevents unintentional opening of the valve.

If there is a need for fine regulation of media flow then it is possible to get a fitting with a needle headwork that has 3x360° opening/closing function.

For more information about BROEN headworks and technical details please refer to page 21 in this catalogue.

## FLASHBACK ARRESTOR

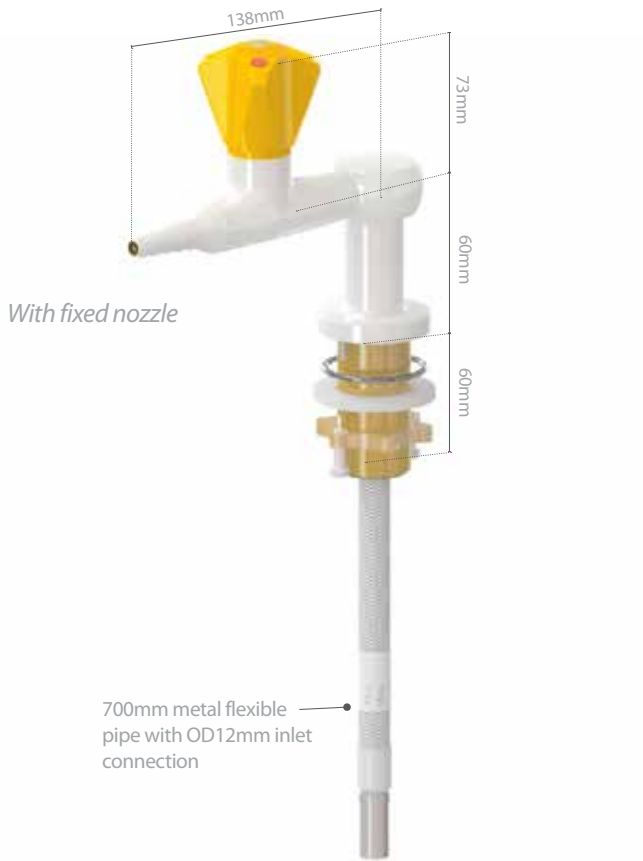
Flashback arrestor ensures reliable protection against dangerous gas backflow and flashback. It is recommended to use a flashback arrestor for burning gases, such as Acetylene, Town gas, Methane, LPG, etc.

***Please always refer to local regulations when installing the products for burning gases.***

Please contact your BROEN LAB sales representative for ordering information.

## HOSES & FLEXIBLE PIPES

BROEN UniFlex™ PREMIUM fittings for burning gases can be delivered either with stainless steel flexible pipes or rubber hoses depending on the type of application and customer requirements. For more information about hoses please refer to pages 18-20 in this catalogue.



## SPECIFICATIONS

The fitting is delivered with an integrated BALLOFIX® ball valve.

**Handle:** Metal, "POP-UP", BROEN POLYCOAT powder coated with media indication according to EN13792

**Hose nozzle:** Metal, fixed

**Headwork:** Ceramic, press/turn

**Opening/closing function:** 90°

**Max. working pressure:** 7 bar / 102 psi

**Allowable test pressure after installation:**  
10 bar without function of the valve

## MATERIALS WITH MEDIA CONTACT

**Metals:** Brass, SS AISI 316L (flexible SS pipe)

**Sealing:** Nitrile (NBR)

**Lubricant:** Mineral oil based

## ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- different media
- flashback arrestor
- needle headwork
- disability-friendly handle (for needle headwork only)
- alternative hose type and inlet connection
- other inlet options (type, length)
- national approvals

**Model:** with fixed nozzle



Media	1-valve	2-valve 90°	2-valve 180°	4-valve
Natural gas	2532 026 1010-52M	2532 034 1010-52M	2532 030 1010-52M	2532 038 1010-52M
Liquefied petroleum gas	2532 026 1012-52M	2532 034 1012-52M	2532 030 1012-52M	2532 038 1012-52M
Butane	2532 026 1014-52M	2532 034 1014-52M	2532 030 1014-52M	2532 038 1014-52M
Propane	2532 026 1016-52M	2532 034 1016-52M	2532 030 1016-52M	2532 038 1016-52M
Acetylene	2532 026 1018-52M	2532 034 1018-52M	2532 030 1018-52M	2532 038 1018-52M
Hydrogen	2532 026 1020-52M	2532 034 1020-52M	2532 030 1020-52M	2532 038 1020-52M
Methane	2532 026 1046-52M	2532 034 1046-52M	2532 030 1046-52M	2532 038 1046-52M

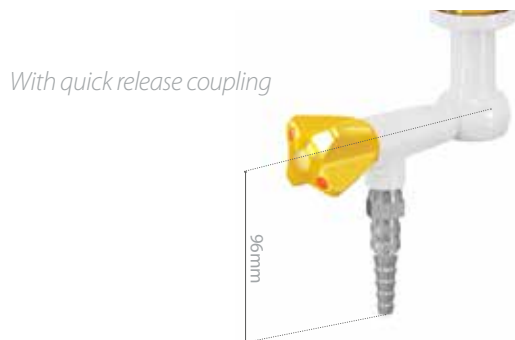
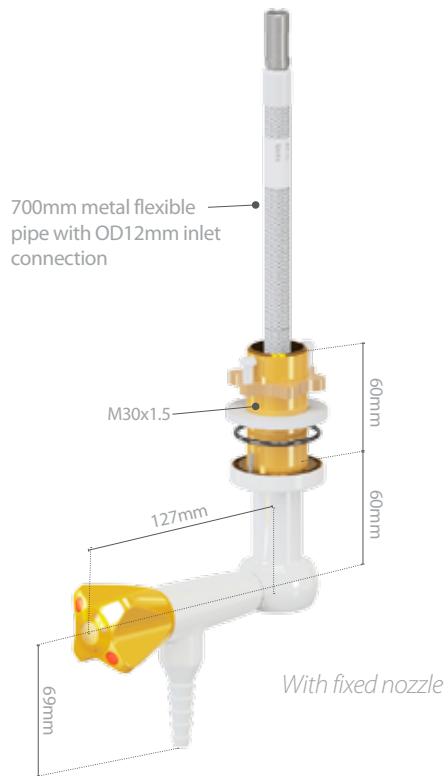
Fittings are delivered with a 700mm SS flexible pipe with OD12mm inlet connecton.  
For other options please refer to page 23 or contact your local BROEN LAB representative.

**Model:** with quick release coupling



Media	1-valve	2-valve 90°	2-valve 180°	4-valve
Natural gas	2532 070 1010-52M	2532 095 1010-52M	2532 096 1010-52M	2532 097 1010-52M
Liquefied petroleum gas	2532 070 1012-52M	2532 095 1012-52M	2532 096 1012-52M	2532 097 1012-52M
Butane	2532 070 1014-52M	2532 095 1014-52M	2532 096 1014-52M	2532 097 1014-52M
Propane	2532 070 1016-52M	2532 095 1016-52M	2532 096 1016-52M	2532 097 1016-52M
Acetylene	2532 070 1018-52M	2532 095 1018-52M	2532 096 1018-52M	2532 097 1018-52M
Hydrogen	2532 070 1020-52M	2532 095 1020-52M	2532 096 1020-52M	2532 097 1020-52M
Methane	2532 070 1046-52M	2532 095 1046-52M	2532 096 1046-52M	2532 097 1046-52M

Fittings are delivered with a 700mm SS flexible pipe with OD12mm inlet connecton.  
For other options please refer to page 23 or contact your local BROEN LAB representative.



## SPECIFICATIONS

The fitting is delivered with an integrated BALLOFIX® ball valve.

**Handle:** Metal, "POP-UP", BROEN POLYCOAT powder coated with media indication according to EN13792

**Hose nozzle:** Metal, fixed

**Headwork:** Ceramic, press/turn

**Opening/closing function:** 90°

**Max. working pressure:** 7 bar / 102 psi

**Allowable test pressure after installation:**  
10 bar without function of the valve

## MATERIALS WITH MEDIA CONTACT

**Metals:** Brass, SS AISI 316L (flexible SS pipe)

**Sealing:** Nitrile (NBR)

**Lubricant:** Mineral oil based

## ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- different media
- flashback arrestor
- needle headwork
- alternative hose type and inlet connection
- other inlet options (type, length)
- national approvals



Model: with fixed nozzle



Media

1-valve

2-valve 90°

2-valve 180°

4-valve

	Natural gas	2530 041 1010-52M	2530 077 1010-52M	2530 036 1010-52M	2530 137 1010-52M
	Liquefied petroleum gas	2530 041 1012-52M	2530 077 1012-52M	2530 036 1012-52M	2530 137 1012-52M
	Butane	2530 041 1014-52M	2530 077 1014-52M	2530 036 1014-52M	2530 137 1014-52M
	Propane	2530 041 1016-52M	2530 077 1016-52M	2530 036 1016-52M	2530 137 1016-52M
	Acetylene	2530 041 1018-52M	2530 077 1018-52M	2530 036 1018-52M	2530 137 1018-52M
	Hydrogen	2530 041 1020-52M	2530 077 1020-52M	2530 036 1020-52M	2530 137 1020-52M
	Methane	2530 041 1046-52M	2530 077 1046-52M	2530 036 1046-52M	2530 137 1046-52M

Fittings are delivered with a 700mm SS flexible pipe with OD12mm inlet connector.

For other options please refer to page 23 or contact your local BROEN LAB representative.

Model: with quick release coupling



Media

1-valve

2-valve 90°

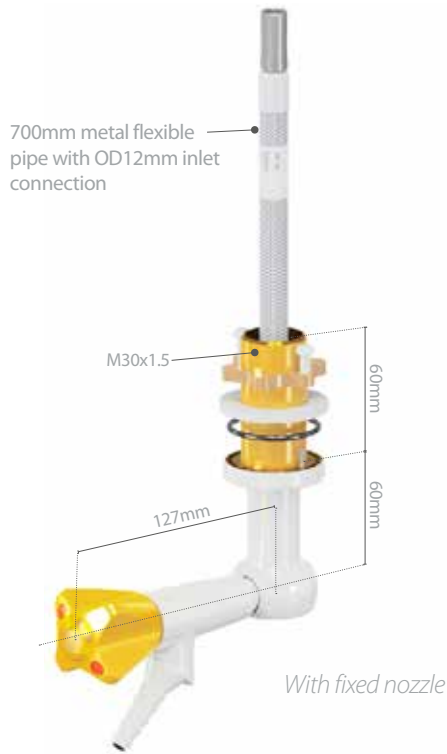
2-valve 180°

4-valve

	Natural gas	2530 138 1010-52M	2530 139 1010-52M	2530 140 1010-52M	2530 141 1010-52M
	Liquefied petroleum gas	2530 138 1012-52M	2530 139 1012-52M	2530 140 1012-52M	2530 141 1012-52M
	Butane	2530 138 1014-52M	2530 139 1014-52M	2530 140 1014-52M	2530 141 1014-52M
	Propane	2530 138 1016-52M	2530 139 1016-52M	2530 140 1016-52M	2530 141 1016-52M
	Acetylene	2530 138 1018-52M	2530 139 1018-52M	2530 140 1018-52M	2530 141 1018-52M
	Hydrogen	2530 138 1020-52M	2530 139 1020-52M	2530 140 1020-52M	2530 141 1020-52M
	Methane	2530 138 1046-52M	2530 139 1046-52M	2530 140 1046-52M	2530 141 1046-52M

Fittings are delivered with a 700mm SS flexible pipe with OD12mm inlet connector.

For other options please refer to page 23 or contact your local BROEN LAB representative.



## SPECIFICATIONS

The fitting is delivered with an integrated BALLOFIX® ball valve.

**Handle:** Metal, "POP-UP", BROEN POLYCOAT powder coated with media indication according to EN13792

**Hose nozzle:** Metal, fixed

**Headwork:** Ceramic, press/turn

**Opening/closing function:** 90°

**Max. working pressure:** 7 bar / 102 psi

**Allowable test pressure after installation:**  
10 bar without function of the valve

## MATERIALS WITH MEDIA CONTACT

**Metals:** Brass, SS AISI 316L (flexible SS pipe)

**Sealing:** Nitrile (NBR)

**Lubricant:** Mineral oil based

## ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- different media
- flashback arrestor
- needle headwork
- alternative hose type and inlet connection
- other inlet options (type, length)
- national approvals

Model: with fixed nozzle



Media	1-valve	2-valve 90°	2-valve 180°	4-valve
Natural gas	2530 127 1010-52M	2530 148 1010-52M	2530 043 1010-52M	2530 143 1010-52M
Liquefied petroleum gas	2530 127 1012-52M	2530 148 1012-52M	2530 043 1012-52M	2530 143 1012-52M
Butane	2530 127 1014-52M	2530 148 1014-52M	2530 043 1014-52M	2530 143 1014-52M
Propane	2530 127 1016-52M	2530 148 1016-52M	2530 043 1016-52M	2530 143 1016-52M
Acetylene	2530 127 1018-52M	2530 148 1018-52M	2530 043 1018-52M	2530 143 1018-52M
Hydrogen	2530 127 1020-52M	2530 148 1020-52M	2530 043 1020-52M	2530 143 1020-52M
Methane	2530 127 1046-52M	2530 148 1046-52M	2530 043 1046-52M	2530 143 1046-52M

Fittings are delivered with a 700mm SS flexible pipe with OD12mm inlet connector.  
For other options please refer to page 23 or contact your local BROEN LAB representative.

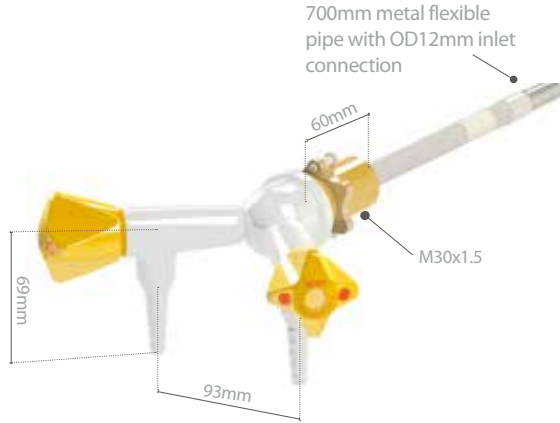
Model: with quick release coupling



Media	1-valve	2-valve 90°	2-valve 180°	4-valve
Natural gas	2530 144 1010-52M	2530 142 1010-52M	2530 145 1010-52M	2530 146 1010-52M
Liquefied petroleum gas	2530 144 1012-52M	2530 142 1012-52M	2530 145 1012-52M	2530 146 1012-52M
Butane	2530 144 1014-52M	2530 142 1014-52M	2530 145 1014-52M	2530 146 1014-52M
Propane	2530 144 1016-52M	2530 142 1016-52M	2530 145 1016-52M	2530 146 1016-52M
Acetylene	2530 144 1018-52M	2530 142 1018-52M	2530 145 1018-52M	2530 146 1018-52M
Hydrogen	2530 144 1020-52M	2530 142 1020-52M	2530 145 1020-52M	2530 146 1020-52M
Methane	2530 144 1046-52M	2530 142 1046-52M	2530 145 1046-52M	2530 146 1046-52M

Fittings are delivered with a 700mm SS flexible pipe with OD12mm inlet connector.  
For other options please refer to page 23 or contact your local BROEN LAB representative.

With fixed nozzle



**SPECIFICATIONS**

The fitting is delivered with an integrated BALLOFIX® ball valve.

**Handle:** Metal, "POP-UP", BROEN POLYCOAT powder coated with media indication according to EN13792

**Hose nozzle:** Metal, fixed

**Headwork:** Ceramic, press/turn

**Opening/closing function:** 90°

**Max. working pressure:** 7 bar / 102 psi

**Allowable test pressure after installation:** 10 bar without function of the valve

**MATERIALS WITH MEDIA CONTACT**

**Metals:** Brass, SS AISI 316L (flexible SS pipe)

**Sealing:** Nitrile (NBR)

**Lubricant:** Mineral oil based

With quick release coupling



**ORDERING INFORMATION**

For standard configuration please refer to the item numbers below.

Other options:

- different media
- flashback arrestor
- needle headwork
- disability-friendly handle (for needle headwork only)
- alternative hose type and inlet connection
- other inlet options (type, length)
- national approvals

BROEN UNIFLEX™ FITTINGS FOR BURNING GASES

**Models**



**Media**

**with fixed nozzle**

**with quick release coupling**



Natural gas

2530 040 1010-52M

2530 147 1010-52M



Liquefied petroleum gas

2530 040 1012-52M

2530 147 1012-52M



Butane

2530 040 1014-52M

2530 147 1014-52M



Propane

2530 040 1016-52M

2530 147 1016-52M



Acetylene

2530 040 1018-52M

2530 147 1018-52M



Hydrogen

2530 040 1020-52M

2530 147 1020-52M



Methane

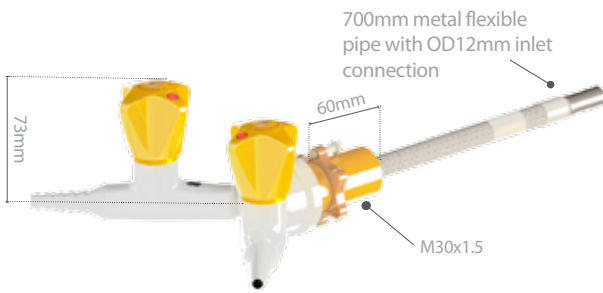
2530 040 1046-52M

2530 147 1046-52M

Fittings are delivered with a 700mm SS flexible pipe with OD12mm inlet connection.

For other options please refer to page 23 or contact your local BROEN LAB representative.

With fixed nozzle



**SPECIFICATIONS**

The fitting is delivered with an integrated BALLOFIX® ball valve.

**Handle:** Metal, "POP-UP", BROEN POLYCOAT powder coated with media indication according to EN13792

**Hose nozzle:** Metal, fixed

**Headwork:** Ceramic, press/turn

**Opening/closing function:** 90°

**Max. working pressure:** 7 bar / 102 psi

**Allowable test pressure after installation:** 10 bar without function of the valve

**MATERIALS WITH MEDIA CONTACT**

**Metals:** Brass, SS AISI 316L (flexible SS pipe)

**Sealing:** Nitrile (NBR)

**Lubricant:** Mineral oil based

**ORDERING INFORMATION**

For standard configuration please refer to the item numbers below.

Other options:

- different media
- flashback arrestor
- needle headwork
- alternative hose type and inlet connection
- other inlet options (type, length)
- national approvals

With quick release coupling



BROEN UNIFLEX™ FITTINGS FOR BURNING GASES

**Models**

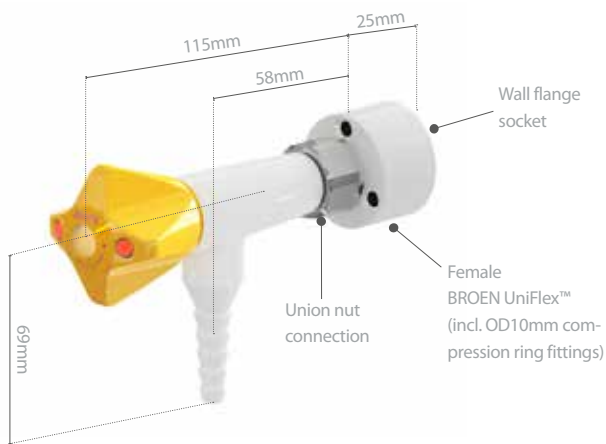


Media	with fixed nozzle	with quick release coupling
Natural gas	2532 065 1010-52M	2532 098 1010-52M
Liquefied petroleum gas	2532 065 1012-52M	2532 098 1012-52M
Butane	2532 065 1014-52M	2532 098 1014-52M
Propane	2532 065 1016-52M	2532 098 1016-52M
Acetylene	2532 065 1018-52M	2532 098 1018-52M
Hydrogen	2532 065 1020-52M	2532 098 1020-52M
Methane	2532 065 1046-52M	2532 098 1046-52M

Fittings are delivered with a 700mm SS flexible pipe with OD12mm inlet connection.

For other options please refer to page 23 or contact your local BROENLAB representative.

With fixed nozzle



With quick release coupling



**BROEN UNIFLEX™ FITTINGS FOR BURNING GASES**

**SPECIFICATIONS**

The fitting is delivered with an integrated BALLOFIX® ball valve.

**Handle:** Metal, "POP-UP", BROEN POLYCOAT powder coated with media indication according to EN13792

**Hose nozzle:** Metal, fixed

**Headwork:** Ceramic, press/turn

**Opening/closing function:** 90°

**Max. working pressure:** 7 bar / 102 psi

**Allowable test pressure after installation:**  
10 bar without function of the valve

**MATERIALS WITH MEDIA CONTACT**

**Metals:** Brass

**Sealing:** Nitrile (NBR)

**Lubricant:** Mineral oil based

**ORDERING INFORMATION**

For standard configuration please refer to the item numbers below.

Other options:

- different media
- flashback arrestor
- needle headwork
- disability-friendly handle (for needle headwork only)
- other inlet options (compression ring fittings, flexible SS pipe / rubber hose)
- wall flange socket for built-in installation
- national approvals

**Models**

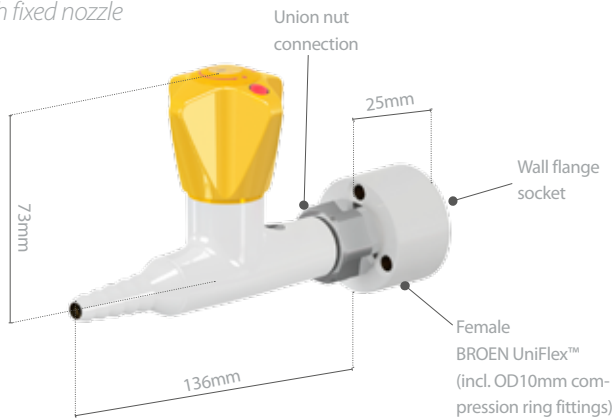


Media	with fixed nozzle	with quick release coupling
Natural gas	2530 149 1010-T	2530 150 1010-T
Liquefied petroleum gas	2530 149 1012-T	2530 150 1012-T
Butane	2530 149 1014-T	2530 150 1014-T
Propane	2530 149 1016-T	2530 150 1016-T
Acetylene	2530 149 1018-T	2530 150 1018-T
Hydrogen	2530 149 1020-T	2530 150 1020-T
Methane	2530 149 1046-T	2530 150 1046-T

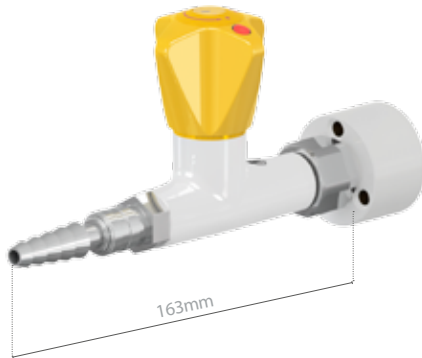
Delivered with wall flange socket and compression ring fitting for OD10mm Cu-pipe

For other options please refer to pages 18-20 or contact your local BROEN LAB representative.

With fixed nozzle



With quick release coupling



**SPECIFICATIONS**

The fitting is delivered with an integrated BALLOFIX® ball valve.

**Handle:** Metal, "POP-UP", BROEN POLYCOAT powder coated with media indication according to EN13792

**Hose nozzle:** Metal, fixed

**Headwork:** Ceramic, press/turn

**Opening/closing function:** 90°

**Max. working pressure:** 7 bar / 102 psi

**Allowable test pressure after installation:**  
10 bar without function of the valve

**MATERIALS WITH MEDIA CONTACT**

**Metals:** Brass

**Sealing:** Nitrile (NBR)

**Lubricant:** Mineral oil based

**ORDERING INFORMATION**

For standard configuration please refer to the item numbers below.

Other options:

- different media
- flashback arrestor
- needle headwork
- disability-friendly handle (for needle headwork only)
- other inlet options (compression ring fittings, flexible SS pipe / rubber hose)
- wall flange socket for built-in installation
- national approvals

**Models**



Media	with fixed nozzle	with quick release coupling
Natural gas	2532 105 1010-T	2532 106 1010-T
Liquefied petroleum gas	2532 105 1012-T	2532 106 1012-T
Butane	2532 105 1014-T	2532 106 1014-T
Propane	2532 105 1016-T	2532 106 1016-T
Acetylene	2532 105 1018-T	2532 106 1018-T
Hydrogen	2532 105 1020-T	2532 106 1020-T
Methane	2532 105 1046-T	2532 106 1046-T

Delivered with wall flange socket and compression ring fitting for OD10mm Cu-pipe  
For other options please refer to pages 18-20 or contact your local BROEN LAB representative.

**PREMIUM**

**BROEN UNIFLEX™ FITTINGS FOR BURNING GASES**





SPECIFICATIONS

The fitting is delivered with an integrated BALLOFIX® ball valve.

**Handle:** Metal, "POP-UP", BROEN POLYCOAT powder coated with media indication according to EN13792

**Hose nozzle:** Metal, fixed

**Headwork:** Ceramic, press/turn

**Opening/closing function:** 90°

**Max. working pressure:** 7 bar / 102 psi

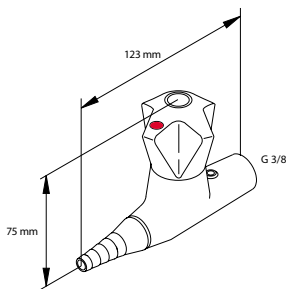
**Allowable test pressure after installation:**  
10 bar without function of the valve

MATERIALS WITH MEDIA CONTACT

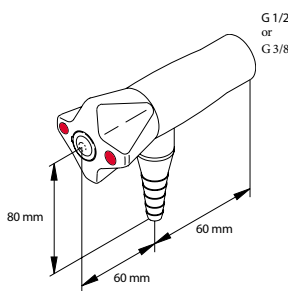
**Metals:** Brass

**Sealing:** Nitrile (NBR)

**Lubricant:** Mineral oil based

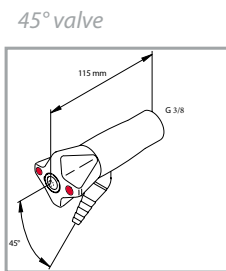


2532 238 10xx - Fitting for burning gases, straight valve

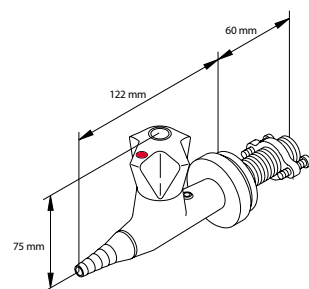


2530 541 10xx - Fitting for burning gases, 90° valve  
(Inlet: female G1/2)

2530 563 10xx - Fitting for burning gases, 90° valve  
(Inlet: female G3/8)

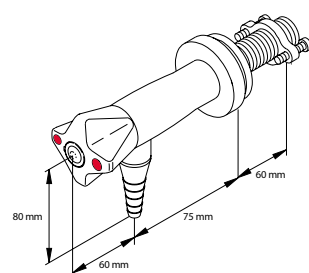


2530 542 10xx - Fitting for burning gases, 45° valve  
(Inlet: female G3/8)



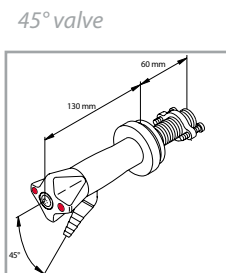
2532 173 10xx-14 - Fitting for burning gases with lead-in, straight valve

*Fitting is delivered with 1/2" ISO 7/1-R and female BROEN UniFlex™ connection. For other options please contact your local BROEN LAB representative.*



2530 323 10xx-14 - Fitting for burning gases with lead-in, 90° valve

2530 341 10xx-14 - Fitting for burning gases with lead-in, 45° valve



*Fittings are delivered with 1/2" ISO 7/1-R and female BROEN UniFlex™ connection. For other options please contact your local BROEN LAB representative.*

BROEN LAB offers BROEN UniFlex™ hoses and flexible Stainless Steel pipes as an easy way to make the installation in the laboratory where safety and efficiency are required. BROEN UniFlex™ hoses are the ideal solution where there is a higher requirement for flexibility. Installation with flexible hoses saves time and labour - in other words - reduced installation costs.

**Select the right product to ensure safe installation and long service life!**



The total design of the system must be taken into consideration when selecting the type of BROEN UniFlex™ flexible hose or pipe for specific media. Only then products will provide safe, trouble-free operation.

**Please always check local requirements/regulations regarding installation and maintenance of hoses/flexible pipes!**

A very high quality of materials applied for production of hoses and Stainless Steel flexible pipes, which are supplied by BROEN LAB, and a long-time experience in making installations worldwide, combined with optimal installation conditions, may assure a lifetime for a hose to be more than 10 years. Expected lifetime can only be achieved under normal use and proper installation methods, which are described in technical specifications, i.e. max. working pressure, max. temperature, physical installation methods and other. Any nonconformity to specifications decreases the lifetime of a hose/flexible pipe.

**Which hose/flexible pipe to select?**

In the table below you find the summary of the factors that are necessary to consider when selecting a BROEN UniFlex™ flexible hoses/pipes for burning gases.

Factors*	 Rubber hose (polyester reinforced)	 Metal flexible pipe
Inner hose material	Nitrile (NBR)	Stainless Steel AISI 316L
Outer hose material / braiding	EPDM	Stainless Steel AISI 304
Hose materials with media contact	Brass, Nitrile (NBR) and mineral oil based lubricant	SS AISI 316L, NBR and mineral oil based lubricant
Sealing material	Nitrile (NBR)	Nitrile (NBR)
Inside diameter	6.3mm	8.2mm
Outside diameter	12.9mm	12.2mm
Max. working pressure	10 bar	132 bar (at 20°C)
Max. working temperature	60°C	600°C
Min. bending radius	40mm	32mm
UV resistance	+	+++
Range of connections	+++	+

\* Values shown in the table are valid for rubber hoses and flexible Stainless Steel pipes only.

For further information and mounting instructions please refer to [www.BROEN.com](http://www.BROEN.com) or contact your local BROEN LAB representative.

**INLET CONNECTIONS**

93 M XX XX XXXX

G1/2" union connection (Code 40)



OD12mm connection (Code 12)



Straight BROEN UniFlex™ connection with NBR O-ring (Code 20)



**OUTLET CONNECTIONS**

93 M XX XX XXXX

Straight BROEN UniFlex connection with NBR O-ring (Code 20)



**HOSE**

93 M XX XX XXXX

Flexible SS pipe with braiding in stainless steel



Marking for burning gases with Part no. and Media indication

**HOSE LENGTHS**

Definition of length (L)



\*Standard lengths of hoses (L):

0500 = 500mm

0700 = 700mm

1000 = 1000mm

1200 = 1200mm

1500 = 1500mm

2000 = 2000mm

2500 = 2500mm

3000 = 3000mm

Length tolerance of hoses:

L ≤ 400mm (-0, +10mm)

L = 401mm to 1000mm (-0, +20mm)

L > 1000mm (-0, +30mm)

\*All O-rings are lubricated with mineral oil based lubricant

BROEN UNIFLEX™ FITTINGS FOR BURNING GASES

**SPECIFICATIONS**

**Inner hose material:**

Stainless Steel AISI 316L

**Braiding:** Stainless steel AISI 304

**Hose materials with media contact:**

SS AISI 316L, NBR and mineral oil based lubricant

**Inside diameter:** 8.2 mm

**Outside diameter:** 12.2 mm

**Max. working pressure at 20°C:** 132 bar

**Max. working temperature:** 600°C

**Bending radius (inner):**

≥ 32 mm (static)

≥ 124 mm (dynamic)

**Min. length with connections:** 350mm

**EXAMPLE OF HOSE CONFIGURATION**


1200mm hose with OD 12mm inlet connection and straight UniFlex™ outlet connection





**93M12201200**


\* Other lengths are available on request


**INLET CONNECTIONS**  
93 G XX XX XXXX


G3/8"A fixed connection (Code 32)  



G1/2"A fixed connection (Code 31)  



G1/2" union connection (Code 40)  



OD10mm connection for compression fittings (Code 10)  


OD12mm connection for compression fittings (Code 12)  



OD15mm connection for compression fittings (Code 15)  



Straight BROEN UniFlex™ connection with NBR O-ring (Code 20)  



45° BROEN UniFlex™ connection with NBR O-ring (Code 25)  


90° BROEN UniFlex™ connection with NBR O-ring (Code 30)  


**OUTLET CONNECTIONS**  
93 G XX XX XXXX


Straight BROEN UniFlex connection with NBR O-ring (Code 20)  


45° BROEN UniFlex connection with NBR O-ring (Code 25)  


90° BROEN UniFlex connection with NBR O-ring (Code 30)  


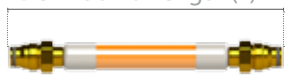
\*All O-rings are lubricated with mineral oil based lubricant


**HOSE**  
93 G XX XX XXXX

Rubber hose (polyester reinforced)  


Marking for burning gases with Part no. and Media indication

**HOSE LENGTHS**

Definition of length (L)  


Definition of length (L)  


If 45° and 90° elbows occur on the same hose, it will as default be mounted in U-form

\*Standard lengths of hoses (L):

- 0500 = 500mm
- 0700 = 700mm
- 1000 = 1000mm
- 1200 = 1200mm
- 1500 = 1500mm
- 2000 = 2000mm
- 2500 = 2500mm
- 3000 = 3000mm

Length tolerance of hoses:  
L ≤ 400mm (- 0, +10mm)  
L = 401mm to 1000mm (- 0, + 20mm)  
L > 1000mm (- 0, + 30mm)

**SPECIFICATIONS**

- Inner hose material:** Nitrile (NBR)
- Outer hose material:** EPDM
- Hose materials with media contact:** brass, NBR and mineral oil based lubricant
- Sealing material:** Nitrile (NBR)
- Inside diameter:** 6.3mm
- Outside diameter:** 12.9mm
- Max. working pressure:** 10 bar
- Max. working temperature:** 60°C
- Bending radius (inner):** ≥ 40mm
- Min. length with connections:** 160mm

**EXAMPLE OF HOSE CONFIGURATION**

1200mm hose with OD 12mm inlet connection and straight UniFlex™ outlet connection



**93G12201200**

\* Other lengths are available on request

**SPECIFICATIONS**

BROEN UniFlex™ PREMIUM fittings for burning gases are as a standard delivered with a safety press/turn headwork.

**Opening/closing function:** 90° turn

**Media:** Burning gases

**Max. working pressure:** 7 bar / 102 psi

**Allowable test pressure after installation:**  
10 bar without function of the valve



Press/turn headwork

**MATERIALS WITH MEDIA CONTACT**

**Metals:** Brass

**Sealing:** Nitrile (NBR)

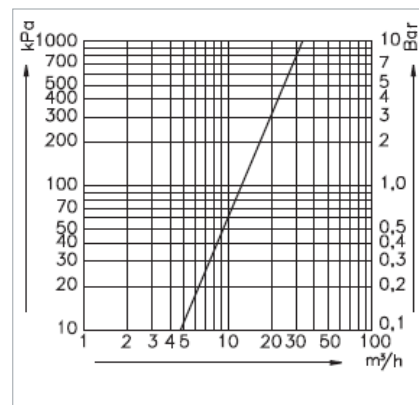
**Lubricant:** Mineral oil based

**ORDERING INFORMATION**

**Press/turn headwork**

Not available as a spare part (for safety reasons)

**FLOW CHART**



**NEEDLE HEADWORK**

**SPECIFICATIONS**

BROEN UniFlex™ fittings for burning gases can be also delivered with a needle headwork where fine regulation of flow is required.

**Opening/closing function:** 3 x 360° turn

**Media:** Burning gases

**Max. working pressure:** 16 bar / 232 psi

**Allowable test pressure after installation:**  
1.5 x max. working pressure without function of the valve



1. Yellow plastic ring

2. Needle headwork

**MATERIALS WITH MEDIA CONTACT**

**Metals:** Brass

**Sealing:** Nitrile (NBR)

**Lubricant:** Mineral oil based

**ORDERING INFORMATION**

**1. Yellow plastic ring**

No. 0255035-4059

**2. Needle headwork**

Not available as a spare part (for safety reasons)

**FLOW CHART**

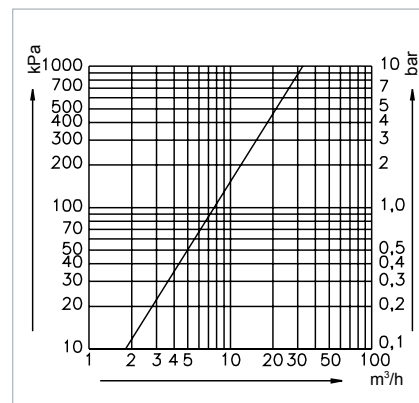


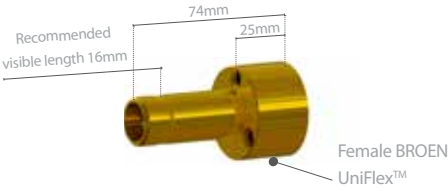


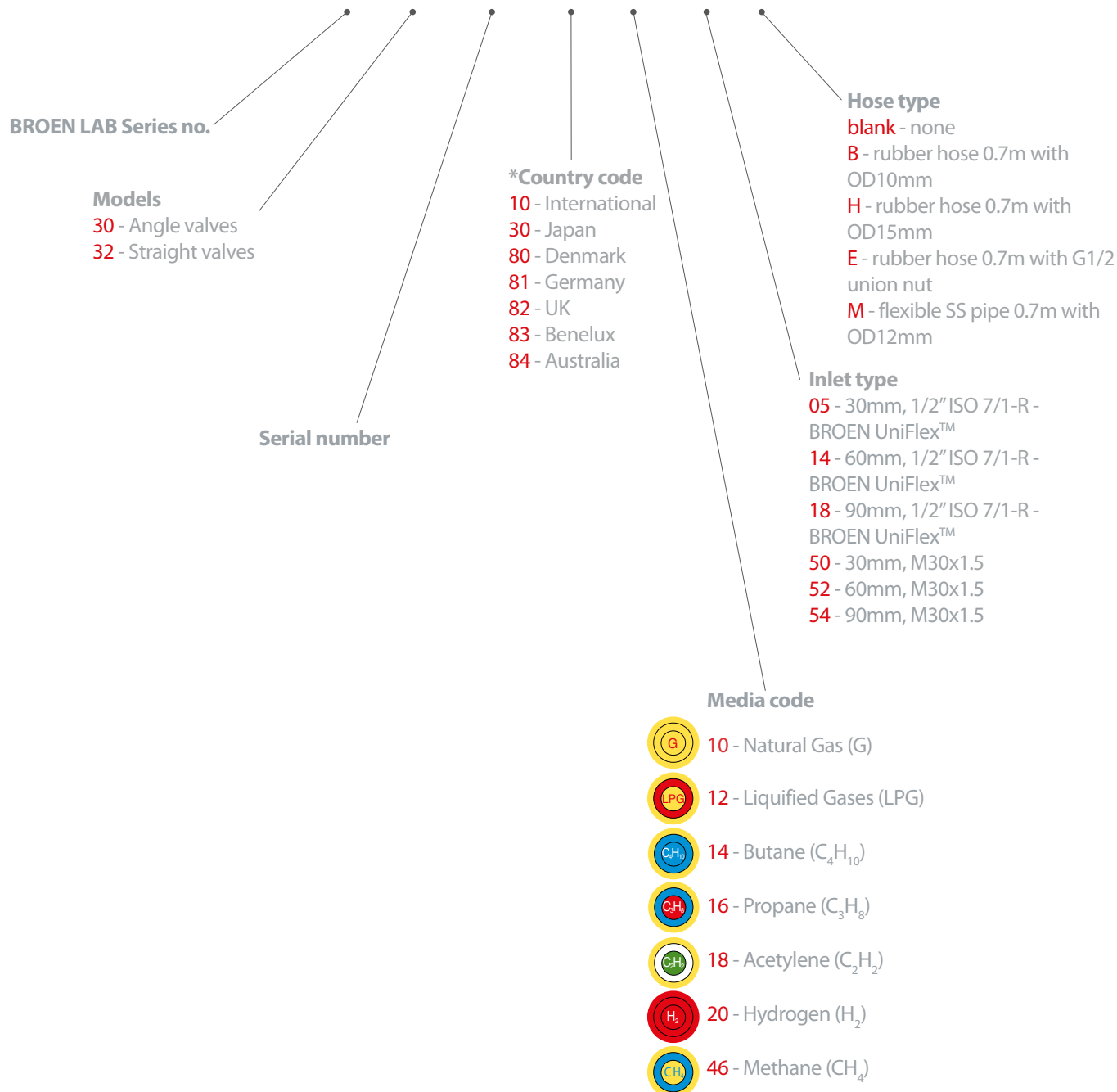


Illustration	Description	BROEN item No.
	Mounting set for G1/2 connection Mounting set for M30x1.5 connection	19 141 000 19 190 000
	Threaded inlet pipe M30x1,5 L=30mm L=60mm L=90mm	19 190 03 19 190 02 19 190 04
	Wall flange socket (for exposed piping)	02 101 30G
	Wall flange socket (for built-in installation)	02 101 31
	Cover flange for 02 101 31	1492304G
	Hose nozzle for quick release coupling	96C0030

Generally, item number for BROEN UniFlex fittings has the following structure:

**25 XX XXX 10 XX-XX X**



**BROEN UNIFLEX™ FITTINGS FOR BURNING GASES**

For installation with Cu- and Stainless Steel BROEN LAB offers a wide range of connection fittings and adapters for pipes of different dimensions. Please request document No. 99G0004 for a complete range of BROEN UniFlex™ compression ring fittings.

\* For burning gases some national standards may apply, therefore contact your BROEN LAB representative for more information.

BROEN LAB develops, manufactures and delivers complete range of fittings for professional laboratories. Our know-how and our quality products ensure the precise flow of water, gases and air, from source to user.

BROEN LAB solutions are used by professional users in many kinds of laboratories, from the education and health sectors to industry in general. Our products are already an integrated part of many workplaces. From fittings for purified water, nitrogen, vacuum and compressed air, to the control and regulation of pure gases in critical applications such as a gas chromatography and spectrometry.

Our extensive knowledge allows us to continually develop and optimize our products so that they meet customer needs and specifications. Safety, functionality and quality are an integral part of product design and flexibility. Our insight and understanding of working environments and safety in laboratories allow us to develop custom solutions for projects around the world. Use us to plan your project so we can advise you on laboratory layout and design.

#### HEAD OFFICE

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##### **BROEN LAB GROUP ISO 9001 certification**

In September 1991 BROEN LAB GROUP was certified according to ISO 9001 as one of the first Danish companies. The certification was carried out by Bureau Veritas, Denmark, for our Danish site at Assens.

The quality management system of BROEN LAB GROUP now complies with detailed specifications laid down by the internationally acknowledged EN ISO 9001:2008. This certification will further contribute to BROEN LAB GROUP's reputation for quality and reliability.

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