

**BROEN-LAB**

Drejervaenget 2, 5610 Assens, Denmark

Phone: +45 6376 6376

E-mail: [lab@broen-lab.com](mailto:lab@broen-lab.com)

Web : [broen-lab.com](http://broen-lab.com)



# FITTINGS FOR BURNING GAS

**PREMIUM range**

99B0061 Rev. 3 - 14.12.2023

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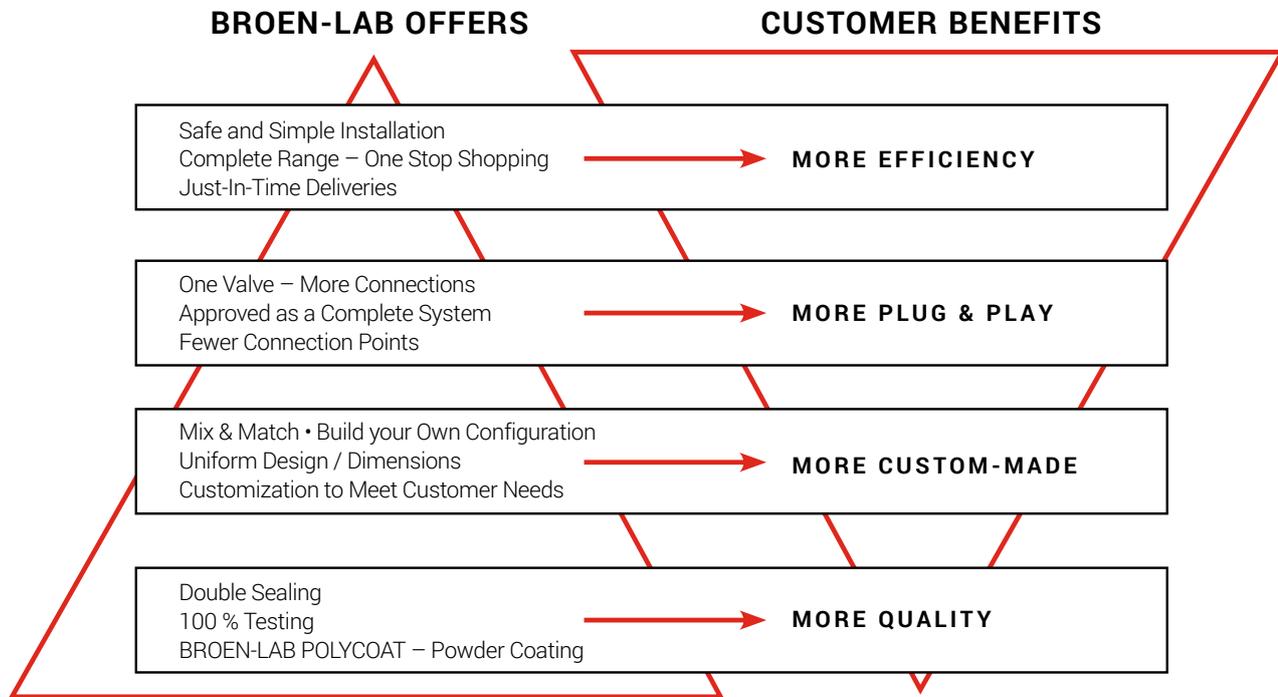
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## BROEN-LAB UNIFLEX™ PREMIUM

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### THIS IS BROEN-LAB UNIFLEX™ PREMIUM

BROEN-LAB 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-LAB 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-LAB POLYCOAT powder coating, which is highly resistant to most chemicals, UV fading and heat (for more information please refer to "BROEN-LAB POLYCOAT" brochure).

All BROEN-LAB 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-LAB 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.

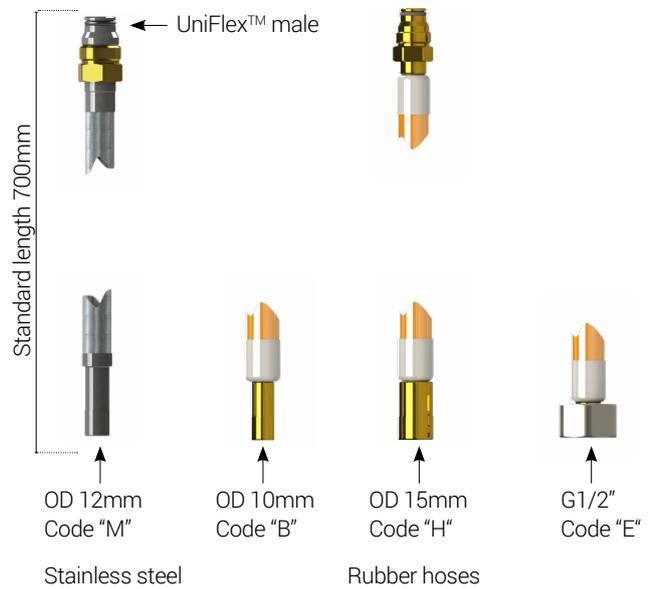
### THIS IS BROEN-LAB UNIFLEX™

BROEN-LAB UniFlex™ is a unique and patented connection, which allows customers to choose from various connection methods, such as hoses, Cu, PEX or 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).

# PRODUCT OVERVIEW



## Optional flexible pipes and hoses to add



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## BROEN-LAB UNIFLEX™ PREMIUM

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### What is burning gas?

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

BROEN-LAB 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.

### Our headworks

BROEN-LAB UniFlex™ fittings for burning gases can be delivered with 3 different types of headworks depending on the requirements set by applications with regards to safety and/or regulation of media flow.

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**Press/turn headwork**



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**Needle headwork**



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**1/4-turn headwork**



As standard all BROEN-LAB UniFlex™ 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.

If there is a need for disability friendly and safe operation that we recommend use of 1/4-turn headwork.

For more information about BROEN-LAB headworks and technical details please refer to page 16-17 in this catalogue.

### Hoses & flexible pipes

BROEN-LAB UniFlex™ 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 13-15 in this catalogue.

## BENCH MOUNTED FITTING

### Specifications

The fitting is delivered with an integrated BALLOFIX® ball valve.  
 Max. working pressure: 7 bar / 700 kPa / 102 psi  
 Temperature limits: 5-60° C / 41-140° F  
 Handle: Metal, "POP-UP", BROEN-LAB POLYCOAT powder coated with media indication according to EN13792  
 Hose nozzle: Metal, fixed  
 Headwork: Ceramic, press/turn  
 Opening/closing function: 90°  
 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  
 Ceramics: Al2O3 96%

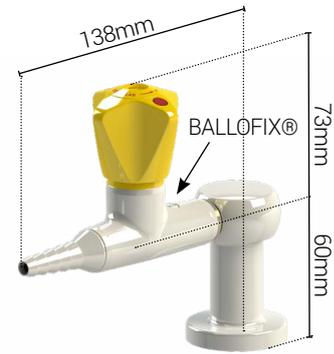
### Ordering information

For standard configuration please refer to the item numbers below.

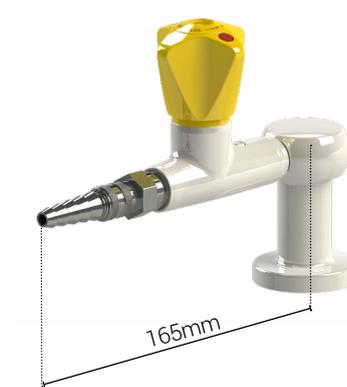
Other options:

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

### With fixed nozzle



### With quick release coupling



### Configuration options

**Burning gases:** Choose outlet connection, number of valves and media type:



	1-way valve	2-way 90° valve	2-way 180° valve	4-way valve
Fixed nozzle	2532 026 10XX - YY	2532 034 10XX - YY	2532 030 10XX - YY	2532 038 10XX - YY
Quick release nozzle	2532 070 10XX - YY	2532 095 10XX - YY	2532 096 10XX - YY	2532 097 10XX - YY

Replace **XX** with one of these media types:



10 • Natural Gas



12 • Liquefied Gases



14 • Butane



16 • Propane



18 • Acetylene



20 • Hydrogen



46 • Methane

Replace **YY** with the inlet type you need on page 25

## SUSPENDED FITTING WITH 90° VALVES

### Specifications

The fitting is delivered with an integrated BALLOFIX® ball valve.  
 Max. working pressure: 7 bar / 700 kPa / 102 psi  
 Temperature limits: 5-60° C / 41-140° F  
 Handle: Metal, "POP-UP", BROEN-LAB POLYCOAT powder coated with media indication according to EN13792  
 Hose nozzle: Metal, fixed  
 Headwork: Ceramic, press/turn  
 Opening/closing function: 90°  
 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  
 Ceramics: Al2O3 96%

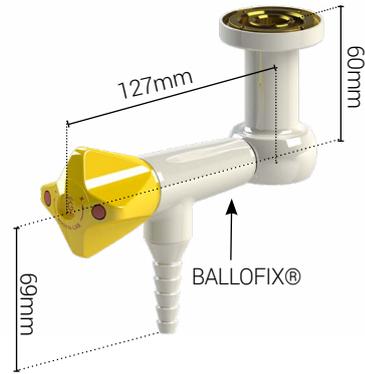
### Ordering information

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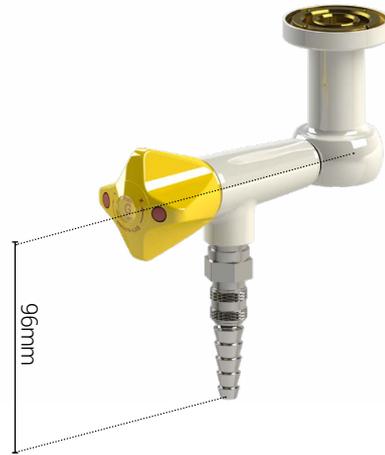
Other options:

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

### With fixed nozzle



### With quick release coupling



### Configuration options

**Burning gases:** Choose outlet connection, number of valves and media type:



	1-way valve	2-way 90° valve	2-way 180° valve	4-way valve
Fixed nozzle	2530 041 10XX - YY	2530 077 10XX - YY	2530 036 10XX - YY	2530 137 10XX - YY
Quick release nozzle	2530 138 10XX - YY	2530 139 10XX - YY	2530 140 10XX - YY	2530 141 10XX - YY

Replace **XX** with one of these media types:



**10** • Natural Gas



**12** • Liquefied Gases



**14** • Butane



**16** • Propane



**18** • Acetylene



**20** • Hydrogen



**46** • Methane

Replace **YY** with the inlet type you need on page 25

## SUSPENDED FITTING WITH 45° VALVES

### Specifications

The fitting is delivered with an integrated BALLOFIX® ball valve.  
 Max. working pressure: 7 bar / 700 kPa / 102 psi  
 Temperature limits: 5-60° C / 41-140° F  
 Handle: Metal, "POP-UP", BROEN-LAB POLYCOAT powder coated with media indication according to EN13792  
 Hose nozzle: Metal, fixed  
 Headwork: Ceramic, press/turn  
 Opening/closing function: 90°  
 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  
 Ceramics: Al2O3 96%

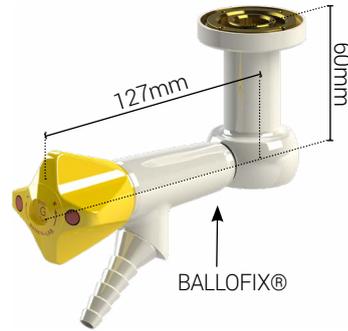
### Ordering information

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 fixed nozzle



### With quick release coupling



### Configuration options

**Burning gases:** Choose outlet connection, number of valves and media type:



	1-way valve	2-way 90° valve	2-way 180° valve	4-way valve
Fixed nozzle	2530 127 10XX - YY	2530 148 10XX - YY	2530 043 10XX - YY	2530 143 10XX - YY
Quick release nozzle	2530 144 10XX - YY	2530 142 10XX - YY	2530 145 10XX - YY	2530 146 10XX - YY

Replace **XX** with one of these media types:



**10** • Natural Gas



**12** • Liquefied Gases



**14** • Butane



**16** • Propane



**18** • Acetylene



**20** • Hydrogen



**46** • Methane

Replace **YY** with the inlet type you need on page 25

## WALL MOUNTED DOUBLE FITTING WITH 90° VALVES

### Specifications

Handle: Metal, BROEN-LAB POLYCOAT powder coated with media indication according to EN13792  
 Hose nozzle: Metal, fixed  
 Headwork: Needle  
 Opening/closing function: 3 x 360°  
 Max. working pressure:  
 16 bar / 232 psi  
 Allowable test pressure after installation:  
 1.5 x max working pressure without function of the valve

### Materials with media contact

Metals: Brass  
 Sealing: Nitrile (NBR)  
 Lubricant: Mineral oil based  
 Ceramics: Al2O3 96%

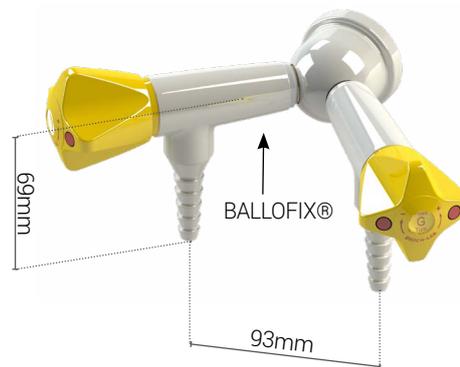
### Ordering information

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 fixed nozzle



### With quick release coupling



### Configuration options

**Burning gases:** Choose outlet connection and media type:

	2-way 90° valve
Fixed nozzle	2530 040 10XX - YY
Quick release nozzle	2530 147 10XX - YY

Replace **XX** with one of these media types:



**10** • Natural Gas



**12** • Liquefied Gases



**14** • Butane



**16** • Propane



**18** • Acetylene



**20** • Hydrogen



**46** • Methane

Replace **YY** with the inlet type you need on page 25

## WALL MOUNTED DOUBLE FITTING WITH STRAIGHT VALVES

### Specifications

The fitting is delivered with an integrated BALLOFIX® ball valve.  
 Max. working pressure: 7 bar / 700 kPa / 102 psi  
 Temperature limits: 5-60° C / 41-140° F  
 Handle: Metal, "POP-UP", BROEN-LAB POLYCOAT powder coated with media indication according to EN13792  
 Hose nozzle: Metal, fixed  
 Headwork: Ceramic, press/turn  
 Opening/closing function: 90°  
 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  
 Ceramics: Al2O3 96%

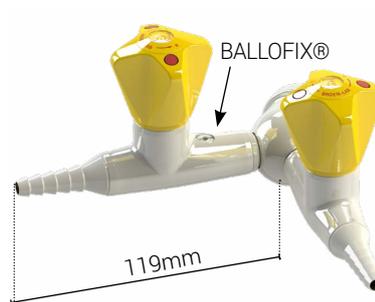
### Ordering information

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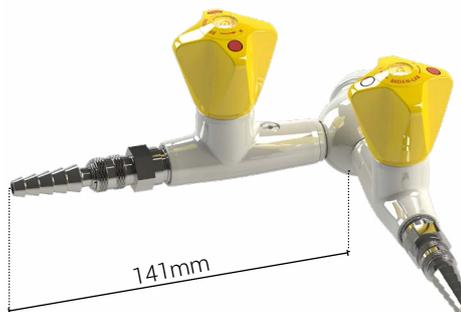
Other options:

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

### With fixed nozzle



### With quick release coupling

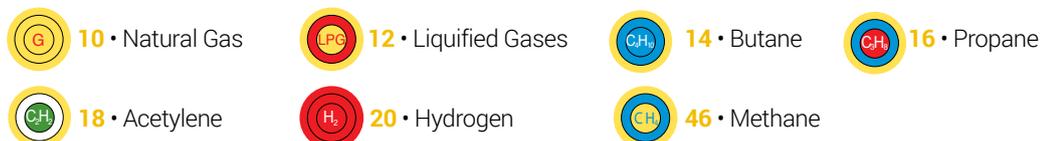


### Configuration options

**Burning gases:** Choose outlet connection and media type:

	2-way 90° valve
Fixed nozzle	2532 065 10XX - YY
Quick release nozzle	2532 098 10XX - YY

Replace **XX** with one of these media types:



Replace **YY** with the inlet type you need on page 25

## WALL MOUNTED FITTING WITH 90° VALVES FOR EXPOSED PIPING

### Specifications

The fitting is delivered with an integrated BALLOFIX® ball valve.  
 Max. working pressure: 7 bar / 700 kPa / 102 psi  
 Temperature limits: 5-60° C / 41-140° F  
 Handle: Metal, "POP-UP", BROEN-LAB POLYCOAT powder coated with media indication according to EN13792  
 Hose nozzle: Metal, fixed  
 Headwork: Ceramic, press/turn  
 Opening/closing function: 90°  
 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  
 Ceramics: Al2O3 96%

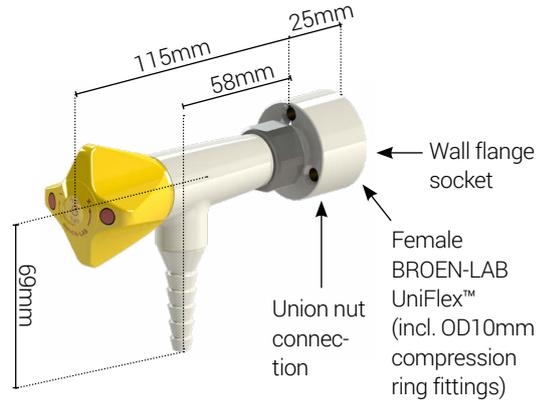
### Ordering information

For standard configuration please refer to the item numbers below.

Other options:

- different media
- flashback arrestor
- needle headwork
- disability-friendly handle (for needle and 1/4-turn headworks only)
- other inlet options (compression ring fittings, flexible SS pipe / rubber hose)
- wall flange socket for built-in installation
- national approvals

### With fixed nozzle



### With quick release coupling

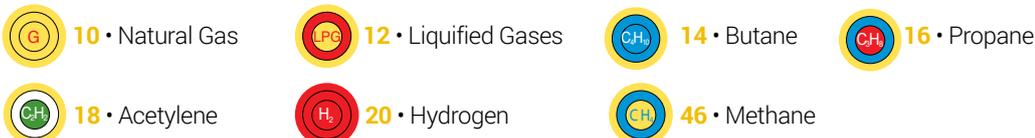


### Configuration options

**Burning gases:** Choose outlet connection and media type:

	1-way valve
Fixed nozzle	2530 149 10XX - T
Quick release nozzle	2530 150 10XX - T

Replace **XX** with one of these media types:



## WALL MOUNTED FITTING WITH STRAIGHT VALVES FOR EXPOSED PIPING

### Specifications

The fitting is delivered with an integrated BALLOFIX® ball valve.  
 Max. working pressure: 7 bar / 700 kPa / 102 psi  
 Temperature limits: 5-60° C / 41-140° F  
 Handle: Metal, "POP-UP", BROEN-LAB POLYCOAT powder coated with media indication according to EN13792  
 Hose nozzle: Metal, fixed  
 Headwork: Ceramic, press/turn  
 Opening/closing function: 90°  
 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  
 Ceramics: Al2O3 96%

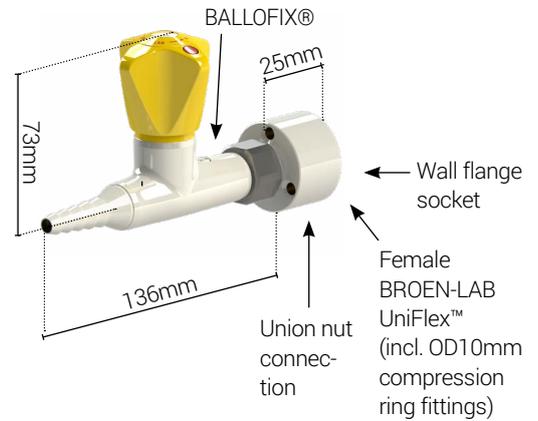
### Ordering information

For standard configuration please refer to the item numbers below.

Other options:

- different media
- flashback arrestor
- needle headwork
- disability-friendly handle (for needle and 1/4-turn headworks only)
- other inlet options (compression ring fittings, flexible SS pipe / rubber hose)
- wall flange socket for built-in installation
- national approvals

### With fixed nozzle



### With quick release coupling



### Configuration options

**Burning gases:** Choose outlet connection and media type:

	1-way valve
Fixed nozzle	2532 105 10XX - T
Quick release nozzle	2532 106 10XX - T

Replace **XX** with one of these media types:



**10** • Natural Gas



**12** • Liquefied Gases



**14** • Butane



**16** • Propane



**18** • Acetylene



**20** • Hydrogen



**46** • Methane

## BENCH OR WALL MOUNTED 90° FITTING WITH LEAD-IN

### Specifications

The fitting is delivered with an integrated BALLOFIX® ball valve.  
 Max. working pressure: 7 bar / 700 kPa / 102 psi  
 Temperature limits: 5-60° C / 41-140° F  
 Handle: Metal, "POP-UP", BROEN-LAB POLYCOAT powder coated with media indication according to EN13792  
 Hose nozzle: Metal, fixed  
 Headwork: Ceramic, press/turn  
 Opening/closing function: 90°  
 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  
 Ceramics: Al2O3 96%

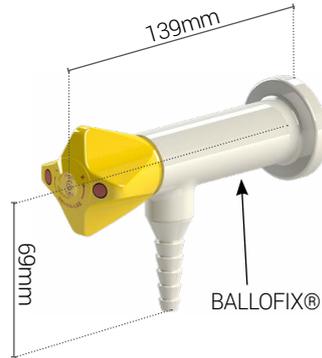
### Ordering information

For standard configuration please refer to the item numbers below.

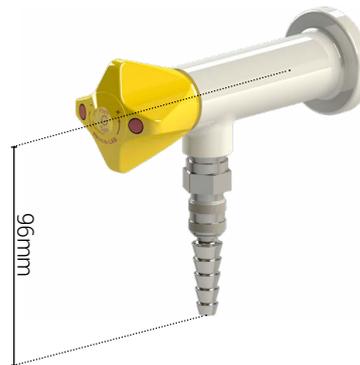
Other options:

- different media
- flashback arrestor
- needle headwork
- disability-friendly handle (for needle and 1/4-turn headworks only)
- alternative hose type and inlet connection
- other inlet options (type, length)
- national approvals

### With fixed nozzle



### With quick release coupling

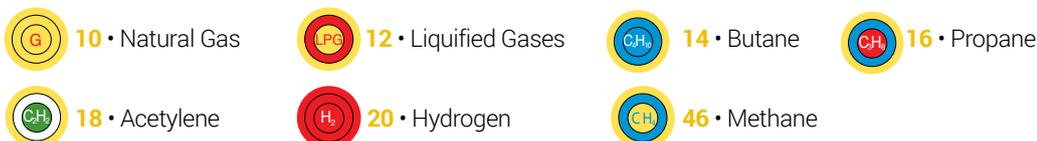


### Configuration options

**Burning gases:** Choose outlet connection and media type:

	1-way valve
Fixed nozzle	2530 323 10XX - YY
Quick release nozzle	2530 324 10XX - YY

Replace **XX** with one of these media types:



Replace **YY** with the inlet type you need on page 25

## BENCH OR WALL MOUNTED 45° FITTING WITH LEAD-IN

### Specifications

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

Max. working pressure: 7 bar / 700 kPa / 102 psi

Temperature limits: 5-60° C / 41-140° F

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°

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

Ceramics: Al2O3 96%

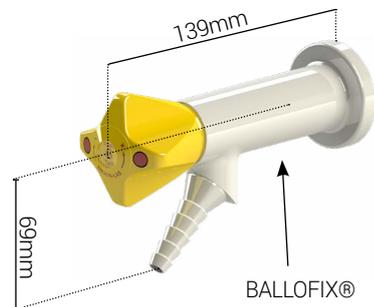
### Ordering information

For standard configuration please refer to the item numbers below.

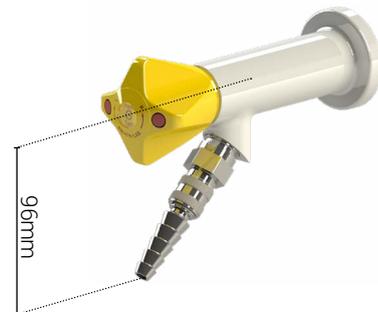
Other options:

- different media
- flashback arrestor
- needle headwork
- disability-friendly handle (for needle and 1/4-turn headworks only)
- alternative hose type and inlet connection
- other inlet options (type, length)
- national approvals

### With fixed nozzle



### With quick release coupling



### Configuration options

**Burning gases:** Choose outlet connection and media type:

	1-way valve
Fixed nozzle	2530 341 10XX - YY
Quick release nozzle	2530 342 10XX - YY

Replace **XX** with one of these media types:



**10** • Natural Gas



**12** • Liquefied Gases



**14** • Butane



**16** • Propane



**18** • Acetylene



**20** • Hydrogen



**46** • Methane

Replace **YY** with the inlet type you need on page 25

## SUSPENDED OR WALL MOUNTED STRAIGHT FITTING WITH LEAD-IN

### Specifications

The fitting is delivered with an integrated BALLOFIX® ball valve.  
 Max. working pressure: 7 bar / 700 kPa / 102 psi  
 Temperature limits: 5-60° C / 41-140° F  
 Handle: Metal, "POP-UP", BROEN-LAB POLYCOAT powder coated with media indication according to EN13792  
 Hose nozzle: Metal, fixed  
 Headwork: Ceramic, press/turn  
 Opening/closing function: 90°  
 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  
 Ceramics: Al2O3 96%

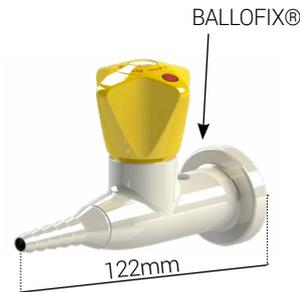
### Ordering information

For standard configuration please refer to the item numbers below.

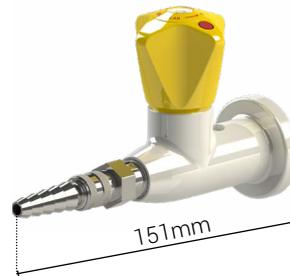
Other options:

- different media
- flashback arrestor
- needle headwork
- disability-friendly handle (for needle and 1/4-turn headworks only)
- alternative hose type and inlet connection
- other inlet options (type, length)
- national approvals

### With fixed nozzle



### With quick release coupling



### Configuration options

**Burning gases:** Choose outlet connection and media type:

	2-way 90° valve
Fixed nozzle	2532 173 10XX - YY
Quick release nozzle	2532 202 10XX - YY

Replace **XX** with one of these media types:



**10** • Natural Gas



**12** • Liquefied Gases



**14** • Butane



**16** • Propane



**18** • Acetylene



**20** • Hydrogen



**46** • Methane

Replace **YY** with the inlet type you need on page 25

## SINGLE 90° VALVE WITH REAR WALL CONNECTION (RWC)

### Specifications

The fitting is delivered with an integrated BALLOFIX® ball valve.  
 Handle: Metal, BROEN-LAB POLYCOAT powder coated with media indication according to EN13792  
 Hose nozzle: Metal, fixed  
 Headwork: Ceramic, press/turn  
 Opening/closing function: 90°  
 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  
 Ceramics: Al2O3 96%

### Ordering information

For standard configuration please refer to the item numbers below.

Other options:

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

### With fixed nozzle



### With quick release coupling

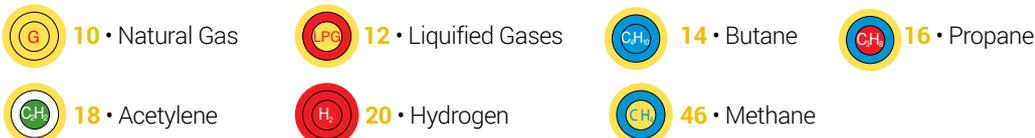


### Configuration options

**Burning gases:** Choose outlet connection and media type:

	2-way 90° valve
Fixed nozzle	2530 431 10 <b>XX</b> -40
Quick release nozzle	2530 432 10 <b>XX</b> -40

Replace **XX** with one of these media types:



Replace **YY** with the inlet type you need on page 25

## SINGLE STRAIGHT VALVE WITH REAR WALL CONNECTION (RWC)

### Specifications

The fitting is delivered with an integrated BALLOFIX® ball valve.  
 Handle: Metal, BROEN-LAB POLYCOAT powder coated with media indication according to EN13792  
 Hose nozzle: Metal, fixed  
 Headwork: Ceramic, press/turn  
 Opening/closing function: 90°  
 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  
 Ceramics: Al2O3 96%

### Ordering information

For standard configuration please refer to the item numbers below.

Other options:

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

### With fixed nozzle



### With quick release coupling



### Configuration options

**Burning gases:** Choose outlet connection and media type:

	2-way 90° valve
Fixed nozzle	2532 250 10XX -40
Quick release nozzle	2532 251 10XX -40

Replace **XX** with one of these media types:



**10** • Natural Gas



**12** • Liquefied Gases



**14** • Butane



**16** • Propane



**18** • Acetylene



**20** • Hydrogen



**46** • Methane

Replace **YY** with the inlet type you need on page 25

## BROEN-LAB UNIFLEX™ HOSE / SS FLEXIBLE PIPE SELECTION GUIDE

BROEN-LAB offers BROEN-LAB 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-LAB 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-LAB 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?

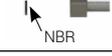
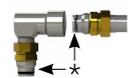
In the table below you find the summary of the factors that are necessary to consider when selecting a BROEN-LAB UniFlex™ flexible hoses/pipes for burning gases.

Factors*	Hose	Rubber 93G	SS 93Y
Inner hose material with media contact		Nitrile (NBR)	Corrugated Stainless Steel AISI 316
Outer hose material / braiding		EPDM (polyester reinforced)	None
Sealing material		Nitrile (NBR)	Nitrile (NBR) (93Y)
Inside diameter		6.3 mm	8.5 mm
Outside diameter		12.9 mm	12 mm
Max. working pressure		10 bar	16 bar, DVGW
Max. working temperature		50°C	50°C
Min. bending radius (inner)		40 mm	15 mm (Single bend) 130 mm (Dynamic bend)
Leakage rate		**	<1x10 <sup>-3</sup> mbar l/s [He] (93Y)
UV resistance		+	+++
Range of connections		+++	++

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

# 93Y - BROEN-LAB UNIFLEX™ FLEXIBLE STAINLESS STEEL PIPES FOR BURNING GASES

## INLET CONNECTIONS 93 Y XX XX XXXX

<b>10</b>	OD10 mm connection for compression fittings	
<b>12</b>	OD12 mm connection for compression fittings	
<b>15</b>	OD15 mm connection for compression	
<b>09</b>	OD3/8" connection for compression fittings	
<b>20</b>	Straight BROEN-LAB UniFlex™ connection with NBR O-ring	
<b>34</b>	3/8" NPT fixed male connection	
<b>70</b>	1/4" NPT fixed male connection	
<b>41</b>	Female G3/8" union nut connection	
<b>40</b>	Female G1/2" union nut connection	
<b>30</b>	90° BROEN-LAB UniFlex™ connection with NBR O-ring	

## OUTLET CONNECTIONS 93 Y XX XX XXXX

<b>20</b>	Straight BROEN-LAB UniFlex™ connection with NBR O-ring	
<b>30</b>	90° BROEN-LAB UniFlex™ connection with NBR O-ring	

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

## LENGTH 93 Y XX XX XXXX

Stainless steel 1.4404 flexible pipe



Marking for burning gas with Part no. and Media indication

### HOSE LENGTHS

Definition of length (L)



\*\*Standard lengths of hoses (L):

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

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

\*\* Other lengths are available on request

### SPECIFICATIONS

Inner hose material: Stainless Steel 1.4404 similar to AISI 316L  
 Braiding: None  
 Materials with media contact: Stainless Steel 1.4404, NBR (Nitrile) lubricated with mineral oil based lubricant  
 Inside diameter: 8.5 mm  
 Outside diameter: 12 mm  
 Max. working pressure: 16 bar according to DVGW  
 Max. working temperature: 50°C  
 Bending radius (inner):

- ≥ 15 mm (static)
- ≥ 130 mm (dynamic)

Min. length with connections: 500 mm  
 Max. movements (Bending radius 130 mm): 10.000\*\*  
 Leakage rate: <1x10<sup>-3</sup> mbar l/s [He]

### EXAMPLE OF HOSE CONFIGURATION

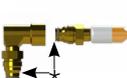
1200 mm hose with OD 12 mm inlet connection and straight UniFlex™ outlet connection



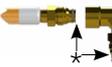
**93Y12201200**

## 93G - BROEN-LAB UNIFLEX™ RUBBER HOSES FOR BURNING GASES

### INLET CONNECTIONS 93 G XX XX XXXX

32	Male G3/8" fixed connection	
31	Male G1/2" fixed connection	
40	Female G1/2" union nut connection	
10	OD10 mm connection for compression fittings	
12	OD12 mm connection for compression fittings	
15	OD15 mm connection for compression fittings	
20	Straight BROEN-LAB UniFlex™ connection with NBR O-ring	
25	45° BROEN-LAB UniFlex™ connection with NBR O-ring	
30	90° BROEN-LAB UniFlex™ connection with NBR O-ring	

### OUTLET CONNECTIONS 93 G XX XX XXXX

20	Straight BROEN-LAB UniFlex™ connection with NBR O-ring	
25	45° BROEN-LAB UniFlex™ connection with NBR O-ring	
30	90° BROEN-LAB UniFlex™ connection with NBR O-ring	

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

### LENGTH 93 G XX XX XXXX

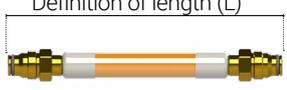
Rubber hose (polyester reinforced)



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

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

\*\* Other lengths are available on request

### SPECIFICATIONS

Inner hose material: Nitrile (NBR)  
 Outer hose material: EPDM  
 Materials with media contact: brass, NBR  
 Sealing material: Nitrile (NBR) with mineral oil based lubricant  
 Inside diameter: 6.3 mm  
 Outside diameter: 12.9 mm  
 Max. working pressure: 10 bar  
 Max. working temperature: 50°C  
 Bending radius (inner): ≥ 40 mm  
 Min. length with connections: 160 mm

### EXAMPLE OF HOSE CONFIGURATION

1200 mm hose with 3/8" fixed inlet connection and UniFlex outlet connection



**93G32201200**

## TECHNICAL INFORMATION

### PRESS/TURN HEADWORK

#### Specifications

BROEN-LAB UniFlex™ 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 / 700 kPa / 102 psi

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

#### Materials with media contact

Metals: Brass

Sealing: Nitrile (NBR)

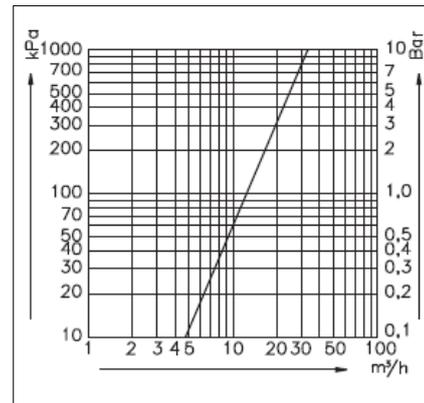
Lubricant: Mineral oil based

Ceramics: Al2O3 96%

#### Ordering information

Press/turn headwork • Not available as a spare part  
(for safety reasons)

#### Flow Chart



← Press/turn headwork

## TECHNICAL INFORMATION

### NEEDLE HEADWORK

#### Specifications

BROEN-LAB 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 / 1600 kPa / 232 psi

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

#### Materials with media contact

Metals: Brass

Sealing: Nitrile (NBR)

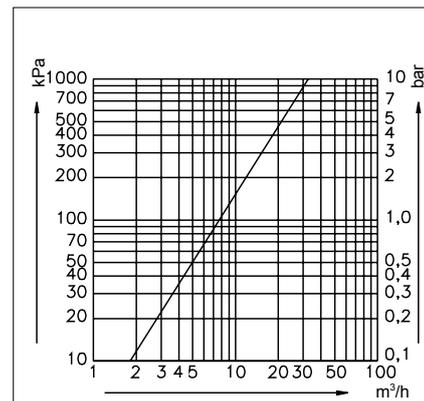
Lubricant: Mineral oil based

#### Ordering information

1. Yellow plastic ring • No. 0255035-4059

2. Needle headwork • Not available as a spare part  
(for safety reasons)

#### Flow Chart



← 1. Yellow plastic ring



← 2. Needle headwork

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## TECHNICAL INFORMATION

### 1/4 TURN HEADWORK

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#### Specifications

BROEN-LAB UniFlex™ fittings for burning gases can also be delivered with a 1/4-turn headwork (recommended for disability friendly handle)

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

#### Materials with media contact

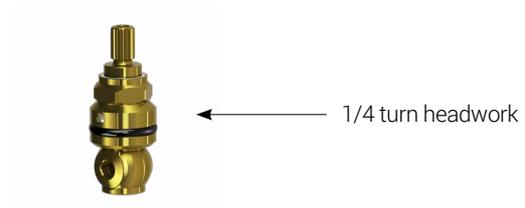
Metals: Brass

Sealing: Nitrile (NBR)

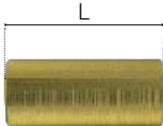
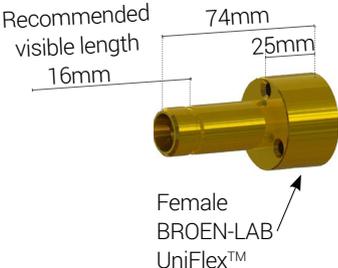
Lubricant: Mineral oil based

#### Ordering information

1/4 turn headwork • Not available as a spare part  
(for safety reasons)

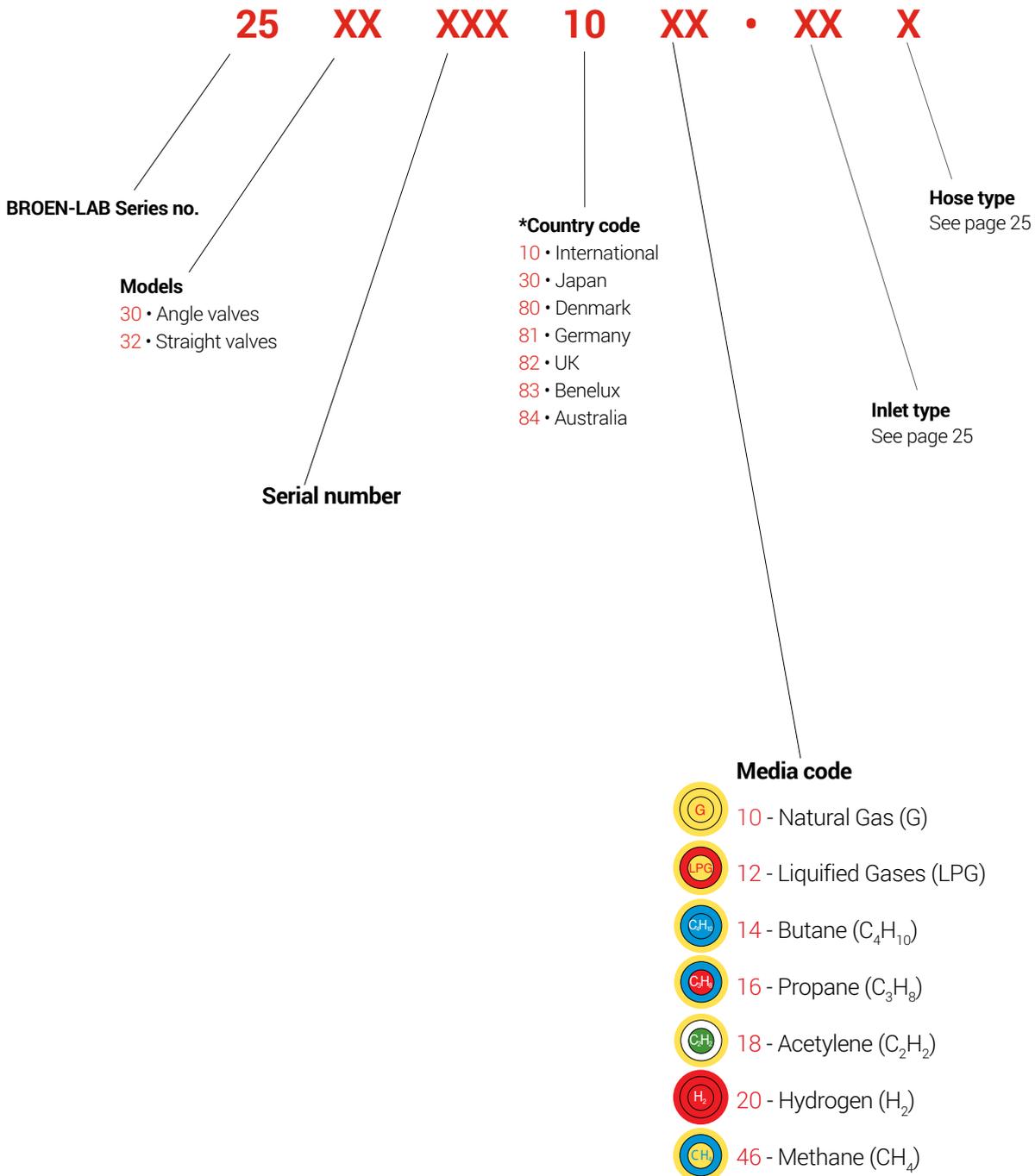


## ACCESSORIES

Illustration	Description	BROEN-LAB item no.
	Hose nozzle for quick release coupling	96C0030
	Flashback arrestor	96T1006
	Mounting set for G1/2" connection Mounting set for M30x1.5 connection	19 141 000 19 190 000
	G1/2" inlet with female BROEN-LAB UniFlex™ connection (incl. o-ring)  L = 30mm L = 60mm L = 90mm	15 504 33G      Code <b>-05</b> 15 504 12G      Code <b>-14</b> 15 504 46G      Code <b>-18</b>
	Threaded inlet pipe M30x1.5  L = 30mm L = 60mm L = 90mm	19 190 03      Code <b>-50</b> 19 190 02      Code <b>-52</b> 19 190 04      Code <b>-54</b>
	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	14 923 04G
	Metal pop-up handle with media indication according to EN 13792	19 160 149 10 <b>XX</b>  Replace <b>XX</b> with the media on page 25

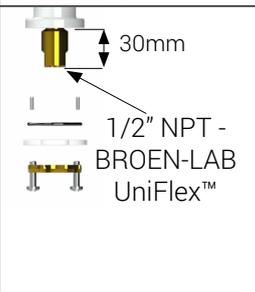
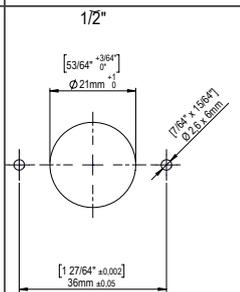
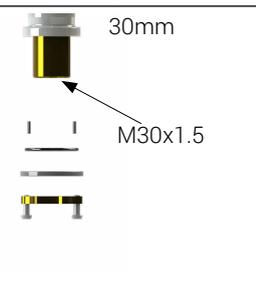
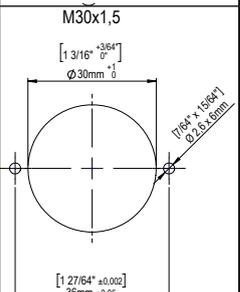
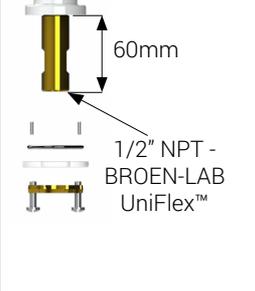
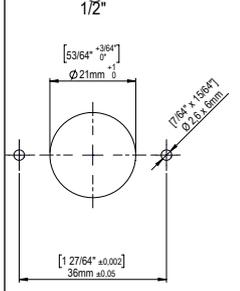
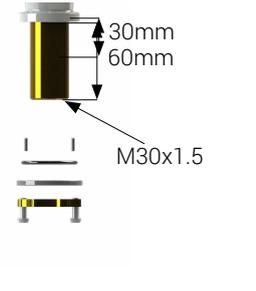
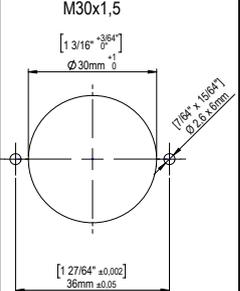
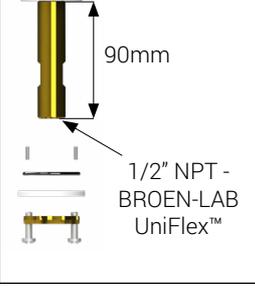
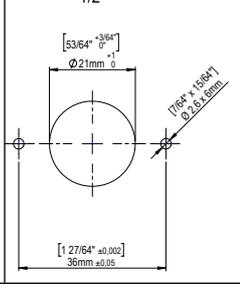
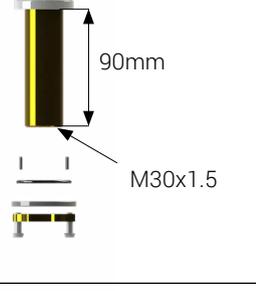
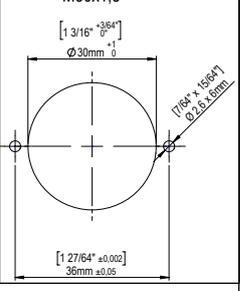
## ORDERING INFORMATION

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



For other configuration options please contact your local BROEN-LAB representative.

# ORDERING INFORMATION

Number	Inlet design	Drilling template	Number	Inlet design	Drilling template
-05	 <p>30mm 1/2" NPT - BROEN-LAB UniFlex™</p>	 <p>1/2" [.5316" <sup>+0.002</sup> 0"] Ø21mm <sup>+0.01</sup> 0 [1.2716" <sup>+0.002</sup> 0] 36mm <sup>+0.05</sup> 0 17/64" x (.5316") Ø 2.6 x 36mm</p>	-50	 <p>30mm M30x1.5</p>	 <p>M30x1,5 [1.3116" <sup>+0.002</sup> 0"] Ø30mm <sup>+0.01</sup> 0 [1.2716" <sup>+0.002</sup> 0] 36mm <sup>+0.05</sup> 0 17/64" x (.5316") Ø 2.6 x 36mm</p>
-14	 <p>60mm 1/2" NPT - BROEN-LAB UniFlex™</p>	 <p>1/2" [.5316" <sup>+0.002</sup> 0"] Ø21mm <sup>+0.01</sup> 0 [1.2716" <sup>+0.002</sup> 0] 36mm <sup>+0.05</sup> 0 17/64" x (.5316") Ø 2.6 x 36mm</p>	-52	 <p>30mm 60mm M30x1.5</p>	 <p>M30x1,5 [1.3116" <sup>+0.002</sup> 0"] Ø30mm <sup>+0.01</sup> 0 [1.2716" <sup>+0.002</sup> 0] 36mm <sup>+0.05</sup> 0 17/64" x (.5316") Ø 2.6 x 36mm</p>
-18	 <p>90mm 1/2" NPT - BROEN-LAB UniFlex™</p>	 <p>1/2" [.5316" <sup>+0.002</sup> 0"] Ø21mm <sup>+0.01</sup> 0 [1.2716" <sup>+0.002</sup> 0] 36mm <sup>+0.05</sup> 0 17/64" x (.5316") Ø 2.6 x 36mm</p>	-54	 <p>90mm M30x1.5</p>	 <p>M30x1,5 [1.3116" <sup>+0.002</sup> 0"] Ø30mm <sup>+0.01</sup> 0 [1.2716" <sup>+0.002</sup> 0] 36mm <sup>+0.05</sup> 0 17/64" x (.5316") Ø 2.6 x 36mm</p>

No pipe/hose No code	 <p>Standard length 700mm</p> <p>OD 12 mm Code "M"</p> <p>Stainless steel</p>	 <p>Standard length 700mm</p> <p>OD 10 mm Code "B"</p> <p>Rubber hoses</p>	 <p>Standard length 700mm</p> <p>OD 15 mm Code "H"</p>	 <p>Standard length 700mm</p> <p>G 1/2" Union nut Code "E"</p>
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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-LAB UniFlex™ compression ring fittings.





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## HEADQUARTER

### **BROEN-LAB A/S**

Drejervaenget 2  
5610 Assens  
Denmark

Tel. +45 6376 6376  
Fax +45 6471 2476

lab@broen-lab.com  
broen-lab.com

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## INTERNATIONAL OFFICES

### **BROEN-LAB Ltd.**

Tel. +44 121 522 4515  
Fax +44 121 522 4535

lab@broen-lab.com  
broen-lab.com

### **BROEN-LAB Singapore Pte. Ltd.**

25 International Business Park  
#04-60A German Centre  
Singapore 609916

Tel. +65 6298 0662  
Fax +65 62 98 04 68

lab@broen-lab.com  
broen-lab.com

### **BROEN-LAB GmbH**

Tel. +45 6376 6376  
Fax +45 6471 2476

lab@broen-lab.com  
broen-lab.com

### **BROEN-LAB Sverige AB**

Tel. +45 6376 6376  
Fax +45 6471 2476

lab@broen-lab.com  
broen-lab.com

### **BROEN-LAB Inc.**

15 Constitution Drive  
Suite 122  
NH 03110  
Bedford  
USA

Tel. +1 603 310 5089

lab@broen-lab.com  
broen-lab.com

BROEN-LAB develops, manufactures and sells Laboratory Fittings, Emergency Shower Systems and Eye Wash Systems into a broad spectrum of laboratories and industrial locations; sectors include Pharmaceutical, Food&Beverage and Academia. Our expertise and product quality ensure optimal solutions compliant to all relevant international norms setting new standards in risk mitigation in modern research and development facilities.

BROEN-LAB offers solutions that ensure the functionality, compliance, hygiene, durability and safety are of the highest priority. For more than 50 years our products have been integrated into a wide variety of workplaces, laboratories, hospitals and industrial locations, with features that are assessed and designed to be flexible, durable and compliant offering a broad range of options tailored to each location. This inherent design integrity provides confidence in the solution adopted wherever in the world these are applied.

BROEN-LAB is a collaboration partner in the design and layout of your next laboratory and it's integrated safety.



### **BROEN-LAB A/S ISO 9001 certification**

In September 1991 BROEN-LAB A/S 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 in Assens.

The quality management system of BROEN-LAB A/S now complies with detailed specifications laid down by the internationally acknowledged EN ISO 9001:2015. This certification will further contribute to reputation for quality and reliability of BROEN-LAB A/S.

### **BROEN-LAB A/S ISO 14001:2015 certification**

In December 2022 we got certified according to ISO 14001 in Environmental certification. The new certification was carried out by Bureau Veritas, Denmark, for Danish site in Assens. The Environment ISO14001 management system of BROEN-LAB A/S is included in internationally acknowledged EN ISO 9001:2015. Both certifications furthermore contribute to reputation for quality and reliability of BROEN-LAB A/S.