

**BROEN
UNIFLEX™
FITTINGS FOR
NON-BURNING
2.0 GASES /
VACUUM**










BROEN UNIFLEX™ FITTINGS FOR NON-BURNING 2.0 GASES / VACUUM

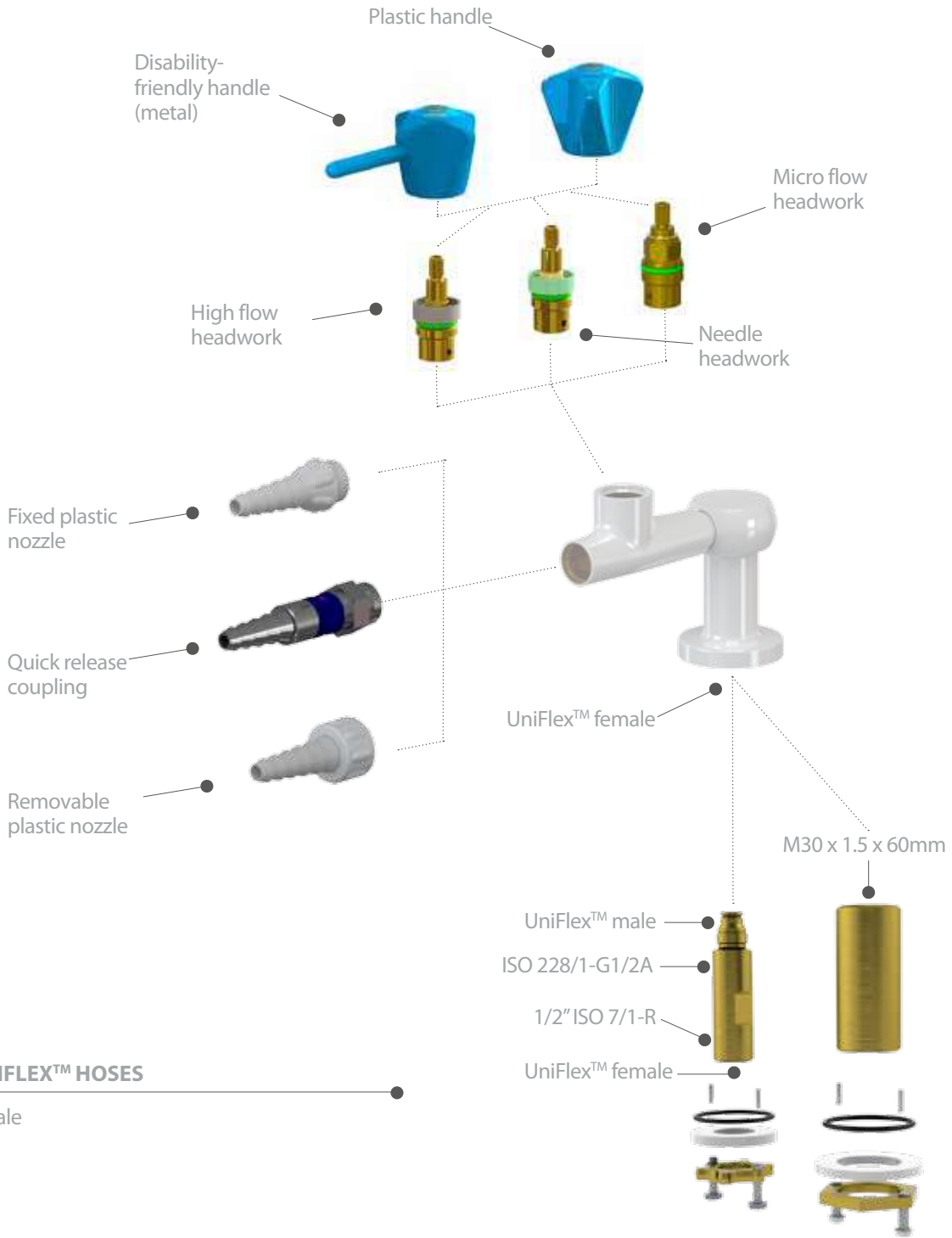
BROEN UNIFLEX™ FITTINGS FOR NON-BURNING 2.0 GASES / VACUUM



BROEN

INTELLIGENT FLOW SOLUTIONS

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BROEN UNIFLEX™ HOSES



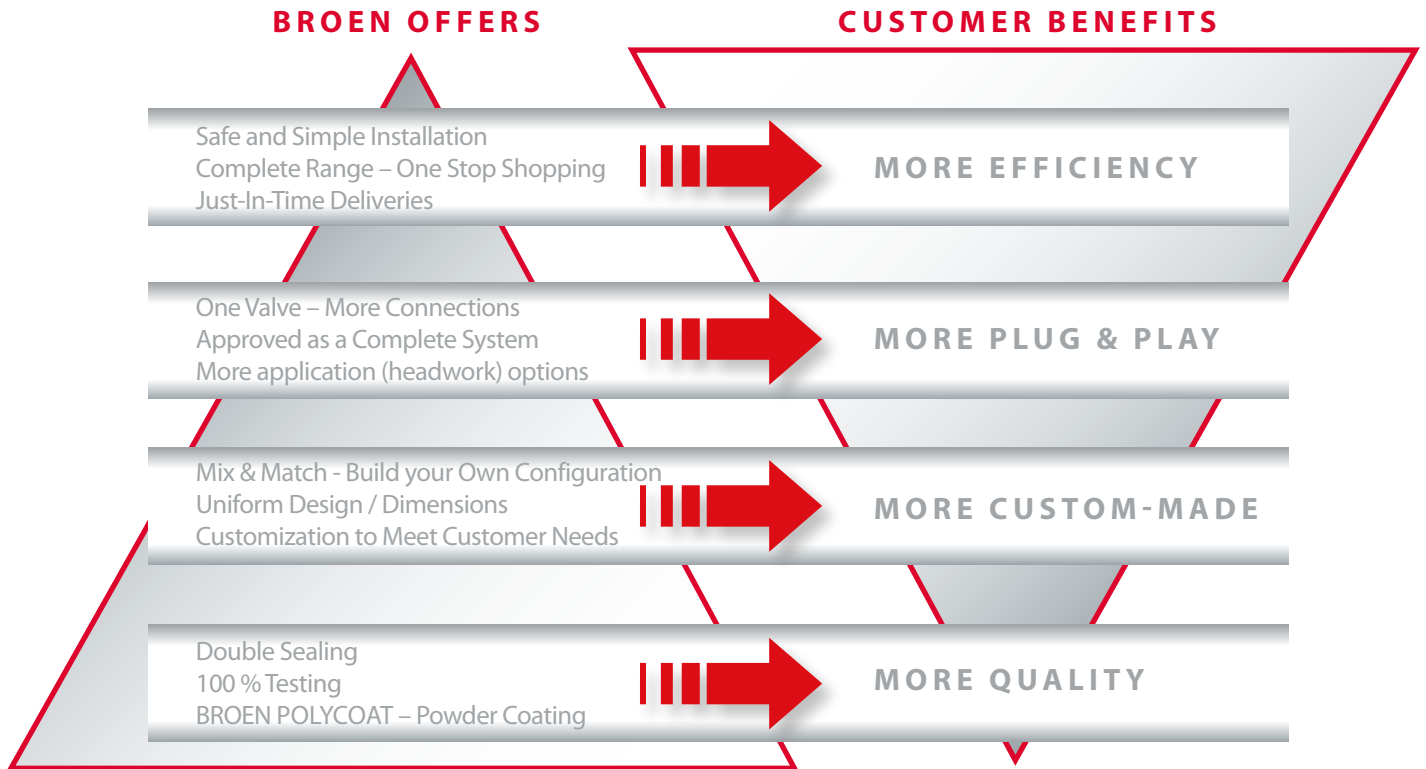
BROEN UNIFLEX™ FITTINGS FOR NON-BURNING 2.0 GASES / VACUUM



THIS IS BROEN UNIFLEX™ BASIC

BROEN UniFlex™ BASIC line offers a very high quality and durability combined with the complete program, which adds up to low LCC (Life Cycle Costs).

BROEN UNIFLEX™ FITTINGS FOR NON-BURNING 2.0 GASES / VACUUM



BROEN UniFlex™ BASIC fittings for non-burning 2.0 gases/vacuum 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™ BASIC fittings are delivered with a plastic handle with media indication according to EN13792. As an option it is possible to get fittings with disability-friendly handle for easier operation.

As standard BROEN UniFlex™ BASIC fittings are delivered with a fixed plastic nozzle (can be unscrewed by hand if needed) or a quick release coupling (hexagon coded) for easy and immediate connection and safe disconnection. As an option a removable plastic nozzle can be used.

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 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).

WHAT IS NON-BURNING 2.0 GAS?

Non-burning 2.0 gases are typical industrial and technical gases that are 99% clean. BROEN UniFlex™ fittings for non-burning gases can be used for non-toxic, non-corrosive, non-burning 2.0 gases, such as Compressed Air, Nitrogen, Carbon Dioxide, Argon, etc.

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

- laboratory and instrumentation
- chemical industry
- cutting and welding
- food processing, etc.

WHAT IS VACUUM?

Vacuum is a volume of space that is essentially empty of matter, such that its gaseous pressure is much less than atmospheric pressure. Vacuum is usually measured by its absolute pressure and is divided into several types (according to EN 13792):

- Low Vacuum: 1000 to 1mbar
- Fine Vacuum : 1 to 10⁻³ mbar
- High Vacuum: 10⁻³ to 10⁻⁷ mbar

Laboratory applications usually require use of suction. Suction is a flow of media into a partial vacuum, or region with low pressure. It is being used to clear surfaces, containers or tubing of residues or other materials.

OUR HEADWORKS

BROEN UniFlex™ BASIC fittings for non-burning 2.0 gases can be delivered with 3 different types of headworks depending on the requirements set by applications with regards to regulation of media flow.



As standard all BROEN UniFlex™ BASIC fittings for non-burning 2.0 gases are delivered with a needle headwork that allows fine regulation of media flow and the valve is fully opened after 3 x 360° rotations of a handle.

As standard all BROEN UniFlex™ BASIC fittings for vacuum are delivered with a high flow headwork. If there is a need for high flow of other media than vacuum, or a valve should function as a shut-off, then it is possible to get a fitting with a high flow headwork for 2.0 non-burning gases.

In cases where media flow (2.0 non-burning gases) is close to zero and when a microscopic flow rate is required then it is an option to choose a micro flow headwork, which provides a very fine regulation of media flow.

For more information about BROEN headworks and technical details please refer to pages 20-21 in this catalogue.



With fixed nozzle



With quick release coupling

SPECIFICATIONS

Handle: Plastic, media indication according to EN13792
Hose nozzle: Plastic, fixed (can be unscrewed by hand, thread: male G3/8)

NON-BURNING 2.0 GASES	VACUUM / HIGH FLOW
Headwork: Needle	Headwork: High flow
Opening/closing function: 3 x 360°	Opening/closing function: 1.5 x 360°
Max. working pressure: 16 bar / 232 psi	Working pressure: -1 bar to 16 bar / -14.5 psi to 232 psi

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

MATERIALS WITH MEDIA CONTACT

- Metals:** Brass
- Plastics:** PVDF, PP, SPX (hose)
- Sealing:** FKM
- Lubricant:** Perfluoropolyether based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

- Other options:
- different media
 - removable plastic hose nozzle with union nut
 - disability-friendly handle (single valve only)
 - micro flow headwork (for 2.0 non-burning gases)
 - high flow headwork (for 2.0 non-burning gases)
 - alternative hose inlet connection / without a hose
 - other inlet options (type, length)



For further information and mounting instructions please refer to www.BROEN.com or contact your local BROEN LAB representative.

Model: with fixed nozzle



Media	1-valve	2-valve 90°	2-valve 180°	4-valve
Compressed air	2532 001 1021-52B	2532 014 1021-52B	2532 008 1021-52B	2532 020 1021-52B
Nitrogen	2532 001 1023-52B	2532 014 1023-52B	2532 008 1023-52B	2532 020 1023-52B
Carbon dioxide	2532 001 1024-52B	2532 014 1024-52B	2532 008 1024-52B	2532 020 1024-52B
Argon	2532 001 1025-52B	2532 014 1025-52B	2532 008 1025-52B	2532 020 1025-52B
Helium	2532 001 1026-52B	2532 014 1026-52B	2532 008 1026-52B	2532 020 1026-52B
Low vacuum (1000 to 1 mbar)	2532 002 1028-52B	2532 015 1028-52B	2532 009 1028-52B	2532 021 1028-52B

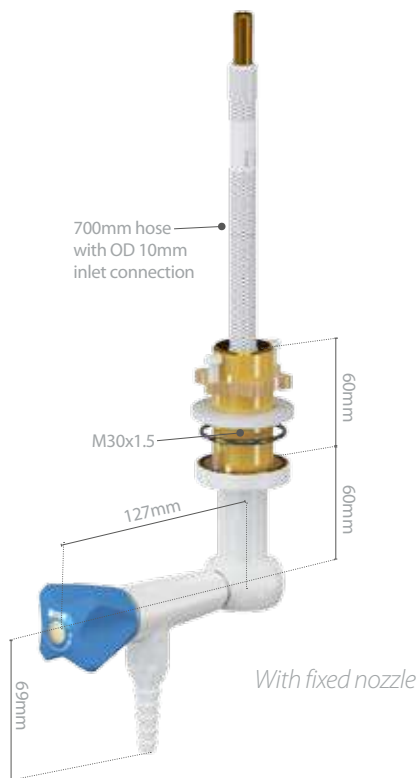
Fittings are delivered with a 700mm SPX hose with OD10mm inlet connection.
For other options please refer to page 23 or contact your local BROEN LAB representative.

Model: with hexagon coded quick release coupling



Media	1-valve	2-valve 90°	2-valve 180°	4-valve
Compressed air	2532 003 1021-52B	2532 016 1021-52B	2532 010 1021-52B	2532 122 1021-52B
Nitrogen	2532 003 1023-52B	2532 016 1023-52B	2532 010 1023-52B	2532 122 1023-52B
Carbon dioxide	2532 003 1024-52B	2532 016 1024-52B	2532 010 1024-52B	2532 122 1024-52B
Argon	2532 003 1025-52B	2532 016 1025-52B	2532 010 1025-52B	2532 122 1025-52B
Helium	2532 003 1026-52B	2532 016 1026-52B	2532 010 1026-52B	2532 122 1026-52B
Low vacuum (1000 to 1 mbar)	2532 108 1028-52B	2532 124 1028-52B	2532 107 1028-52B	2532 123 1028-52B

Fittings are delivered with a 700mm SPX hose with OD10mm inlet connection.
For other options please refer to page 23 or contact your local BROEN LAB representative.



SPECIFICATIONS

Handle: Plastic, media indication according to EN13792

Hose nozzle: Plastic, fixed (can be unscrewed by hand, thread: male G3/8)

NON-BURNING 2.0 GASES VACUUM / HIGH FLOW

Headwork: Needle

Headwork: High flow

Opening/closing function: 3 x 360°

Opening/closing function: 1.5 x 360°

Max. working pressure: 16 bar / 232 psi

Working pressure: -1 bar to 16 bar / -14.5 psi to 232 psi

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

MATERIALS WITH MEDIA CONTACT

- Metals:** Brass
- Plastics:** PVDF, PP, SPX (hose)
- Sealing:** FKM
- Lubricant:** Perfluoropolyether based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

- Other options:
- different media
 - removable plastic hose nozzle with union nut
 - micro flow headwork (for 2.0 non-burning gases)
 - high flow headwork (for 2.0 non-burning gases)
 - alternative hose inlet connection / without a hose
 - other inlet options (type, length)



For further information and mounting instructions please refer to www.BROEN.com or contact your local BROEN LAB representative.

SUSPENDED FITTINGS WITH 90° VALVES



Model: with fixed nozzle



Media

1-valve

2-valve 90°

2-valve 180°

4-valve

CA	Compressed air	2530 075 1021-52B	2530 080 1021-52B	2530 042 1021-52B	2530 203 1021-52B
N ₂	Nitrogen	2530 075 1023-52B	2530 080 1023-52B	2530 042 1023-52B	2530 203 1023-52B
CO ₂	Carbon dioxide	2530 075 1024-52B	2530 080 1024-52B	2530 042 1024-52B	2530 203 1024-52B
Ar	Argon	2530 075 1025-52B	2530 080 1025-52B	2530 042 1025-52B	2530 203 1025-52B
He	Helium	2530 075 1026-52B	2530 080 1026-52B	2530 042 1026-52B	2530 203 1026-52B
V	Low vacuum (1000 to 1 mbar)	2530 074 1028-52B	2530 082 1028-52B	2530 052 1028-52B	2530 204 1028-52B

Fittings are delivered with a 700mm SPX hose with OD10mm inlet connecton.
For other options please refer to page 23 or contact your local BROEN LAB representative.

Model: with hexagon coded quick release coupling



Media

1-valve

2-valve 90°

2-valve 180°

4-valve

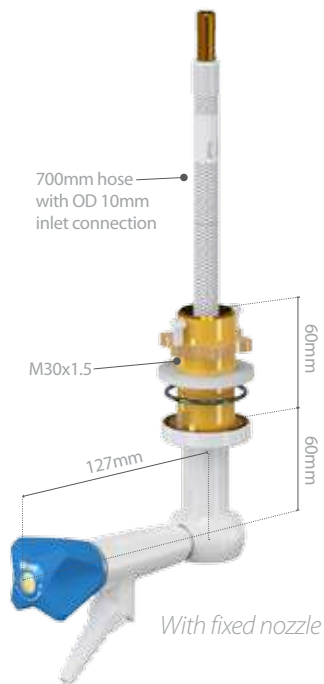
CA	Compressed air	2530 205 1021-52B	2530 207 1021-52B	2530 209 1021-52B	2530 211 1021-52B
N ₂	Nitrogen	2530 205 1023-52B	2530 207 1023-52B	2530 209 1023-52B	2530 211 1023-52B
CO ₂	Carbon dioxide	2530 205 1024-52B	2530 207 1024-52B	2530 209 1024-52B	2530 211 1024-52B
Ar	Argon	2530 205 1025-52B	2530 207 1025-52B	2530 209 1025-52B	2530 211 1025-52B
He	Helium	2530 205 1026-52B	2530 207 1026-52B	2530 209 1026-52B	2530 211 1026-52B
V	Low vacuum (1000 to 1 mbar)	2530 206 1028-52B	2530 208 1028-52B	2530 210 1028-52B	2530 212 1028-52B

Fittings are delivered with a 700mm SPX hose with OD10mm inlet connecton.
For other options please refer to page 23 or contact your local BROEN LAB representative.

BROEN UNIFLEX™ FITTINGS FOR NON-BURNING 2.0 GASES / VACUUM



For further information and mounting instructions please refer to www.BROEN.com or contact your local BROEN LAB representative.



With fixed nozzle

With quick release coupling



SPECIFICATIONS

Handle: Plastic, media indication according to EN13792

Hose nozzle: Plastic, fixed (can be unscrewed by hand, thread: male G3/8)

NON-BURNING 2.0 GASES **VACUUM / HIGH FLOW**

Headwork: Needle

Headwork: High flow

Opening/closing function: 3 x 360°

Opening/closing function: 1.5 x 360°

Max. working pressure: 16 bar / 232 psi

Working pressure: -1 bar to 16 bar / -14.5 psi to 232 psi

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

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Plastics: PVDF, PP, SPX (hose)

Sealing: FKM

Lubricant: Perfluoropolyether based

ORDERING INFORMATION

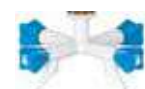
For standard configuration please refer to the item numbers below.

Other options:

- different media
- removable plastic hose nozzle with union nut
- micro flow headwork (for 2.0 non-burning gases)
- high flow headwork (for 2.0 non-burning gases)
- alternative hose inlet connection / without a hose
- other inlet options (type, length)



Model: with fixed nozzle



Media	1-valve	2-valve 90°	2-valve 180°	4-valve
Compressed air	2530 189 1021-52B	2530 191 1021-52B	2530 065 1021-52B	2530 193 1021-52B
Nitrogen	2530 189 1023-52B	2530 191 1023-52B	2530 065 1023-52B	2530 193 1023-52B
Carbon dioxide	2530 189 1024-52B	2530 191 1024-52B	2530 065 1024-52B	2530 193 1024-52B
Argon	2530 189 1025-52B	2530 191 1025-52B	2530 065 1025-52B	2530 193 1025-52B
Helium	2530 189 1026-52B	2530 191 1026-52B	2530 065 1026-52B	2530 193 1026-52B
Low vacuum (1000 to 1 mbar)	2530 190 1028-52B	2530 192 1028-52B	2530 062 1028-52B	2530 194 1028-52B

Fittings are delivered with a 700mm SPX hose with OD10mm inlet connecton.
For other options please refer to page 23 or contact your local BROEN LAB representative.

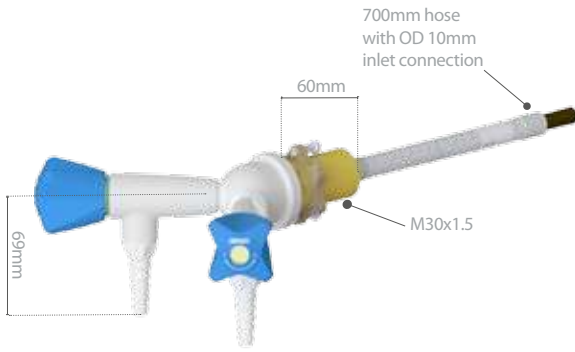
Model: with hexagon coded quick release coupling



Media	1-valve	2-valve 90°	2-valve 180°	4-valve
Compressed air	2530 195 1021-52B	2530 197 1021-52B	2530 199 1021-52B	2530 201 1021-52B
Nitrogen	2530 195 1023-52B	2530 197 1023-52B	2530 199 1023-52B	2530 201 1023-52B
Carbon dioxide	2530 195 1024-52B	2530 197 1024-52B	2530 199 1024-52B	2530 201 1024-52B
Argon	2530 195 1025-52B	2530 197 1025-52B	2530 199 1025-52B	2530 201 1025-52B
Helium	2530 195 1026-52B	2530 197 1026-52B	2530 199 1026-52B	2530 201 1026-52B
Low vacuum (1000 to 1 mbar)	2530 196 1028-52B	2530 198 1028-52B	2530 200 1028-52B	2530 202 1028-52B

Fittings are delivered with a 700mm SPX hose with OD10mm inlet connecton.
For other options please refer to page 23 or contact your local BROEN LAB representative.

With fixed nozzle



SPECIFICATIONS

Handle: Plastic, media indication according to EN13792

Hose nozzle: Plastic, fixed (can be unscrewed by hand, thread: male G3/8)

NON-BURNING 2.0 GASES

Headwork: Needle

Opening/closing function: 3 x 360°

Max. working pressure: 16 bar / 232 psi

VACUUM / HIGH FLOW

Headwork: High flow

Opening/closing function: 1.5 x 360°

Working pressure: -1 bar to 16 bar / -14.5 psi to 232 psi

Allowable test pressure after installation:

1.5 x max working pressure without function of the valve

With quick release coupling



MATERIALS WITH MEDIA CONTACT

Metals: Brass

Plastics: PVDF, PP, SPX (hose)

Sealing: FKM

Lubricant: Perfluoropolyether based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- different media
- removable plastic hose nozzle with union nut
- disability-friendly handle
- micro flow headwork (for 2.0 non-burning gases)
- high flow headwork (for 2.0 non-burning gases)
- alternative hose inlet connection / without a hose
- other inlet options (type, length)

Models



Media

with fixed nozzle

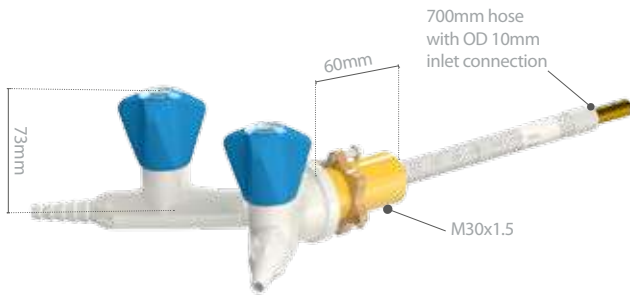
with hexagon coded quick release coupling

Compressed air	2530 185 1021-52B	2530 187 1021-52B
Nitrogen	2530 185 1023-52B	2530 187 1023-52B
Carbon dioxide	2530 185 1024-52B	2530 187 1024-52B
Argon	2530 185 1025-52B	2530 187 1025-52B
Helium	2530 185 1026-52B	2530 187 1026-52B
Low vacuum (1000 to 1 mbar)	2530 186 1028-52B	2530 188 1028-52B

Fittings are delivered with a 700mm SPX hose with OD10mm inlet connection.

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

With fixed nozzle



With quick release coupling



SPECIFICATIONS

Handle: Plastic, media indication according to EN13792

Hose nozzle: Plastic, fixed (can be unscrewed by hand, thread: male G3/8)

NON-BURNING 2.0 GASES VACUUM / HIGH FLOW

Headwork: Needle

Headwork: High flow

Opening/closing function: 3 x 360°

Opening/closing function: 1.5 x 360°

Max. working pressure: 16 bar / 232 psi

Working pressure: -1 bar to 16 bar / -14.5 psi to 232 psi

Allowable test pressure after installation:

1.5 x max working pressure without function of the valve

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Plastics: PVDF, PP, SPX (hose)

Sealing: FKM

Lubricant: Perfluoropolyether based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- different media
- removable plastic hose nozzle with union nut
- micro flow headwork (for 2.0 non-burning gases)
- high flow headwork (for 2.0 non-burning gases)
- alternative hose inlet connection / without a hose
- other inlet options (type, length)

BROEN UNIFLEX™ FITTINGS FOR NON-BURNING 2.0 GASES / VACUUM

Models



with fixed nozzle



with hexagon coded quick release coupling

Media

Compressed air	2532 050 1021-52B	2532 120 1021-52B
Nitrogen	2532 050 1023-52B	2532 120 1023-52B
Carbon dioxide	2532 050 1024-52B	2532 120 1024-52B
Argon	2532 050 1025-52B	2532 120 1025-52B
Helium	2532 050 1026-52B	2532 120 1026-52B
Low vacuum (1000 to 1 mbar)	2532 051 1028-52B	2532 121 1028-52B

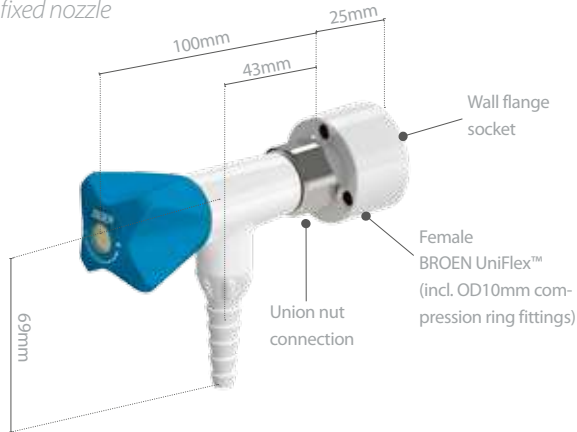
Fittings are delivered with a 700mm SPX hose with OD10mm inlet connection.

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

WALL MOUNTED FITTINGS WITH 90° VALVES FOR EXPOSED PIPING



With fixed nozzle



With quick release coupling



SPECIFICATIONS

Handle: Plastic, media indication according to EN13792
Hose nozzle: Plastic, fixed (can be unscrewed by hand, thread: male G3/8)

NON-BURNING 2.0 GASES	VACUUM / HIGH FLOW
Headwork: Needle	Headwork: High flow
Opening/closing function: 3 x 360°	Opening/closing function: 1.5 x 360°
Max. working pressure: 16 bar / 232 psi	Working pressure: -1 bar to 16 bar / -14.5 psi to 232 psi

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

MATERIALS WITH MEDIA CONTACT

- Metals:** Brass
- Plastics:** PVDF, PP, SPX (hose)
- Sealing:** FKM
- Lubricant:** Perfluoropolyether based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

- Other options:
- different media
 - removable plastic hose nozzle with union nut
 - disability-friendly handle
 - micro flow headwork (for 2.0 non-burning gases)
 - high flow headwork (for 2.0 non-burning gases)
 - other inlet options (hose or compression ring fittings)
 - wall flange socket for built-in installation

Models



Media	with fixed nozzle	with hexagon coded quick release coupling
Compressed air	2530 177 1021-T	2530 179 1021-T
Nitrogen	2530 177 1023-T	2530 179 1023-T
Carbon dioxide	2530 177 1024-T	2530 179 1024-T
Argon	2530 177 1025-T	2530 179 1025-T
Helium	2530 177 1026-T	2530 179 1026-T
Low vacuum (1000 to 1 mbar)	2530 178 1028-T	2530 180 1028-T

Delivered with wall flange socket and compression ring fitting for OD10mm Cu-pipe
 For other options please refer to pages 18-19 or contact your local BROEN LAB representative.

BROEN UNIFLEX™ FITTINGS FOR NON-BURNING 2.0 GASES / VACUUM

WALL MOUNTED FITTINGS WITH STRAIGHT VALVES FOR EXPOSED PIPING



With fixed nozzle



With quick release coupling



SPECIFICATIONS

Handle: Plastic, media indication according to EN13792

Hose nozzle: Plastic, fixed (can be unscrewed by hand, thread: male G3/8)

NON-BURNING 2.0 GASES

Headwork: Needle

Opening/closing function: 3 x 360°

Max. working pressure: 16 bar / 232 psi

VACUUM / HIGH FLOW

Headwork: High flow

Opening/closing function: 1.5 x 360°

Working pressure: -1 bar to 16 bar / -14.5 psi to 232 psi

Allowable test pressure after installation:

1.5 x max working pressure without function of the valve

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Plastics: PVDF, PP, SPX (hose)

Sealing: FKM

Lubricant: Perfluoropolyether based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- different media
- removable plastic hose nozzle with union nut
- disability-friendly handle
- micro flow headwork (for 2.0 non-burning gases)
- high flow headwork (for 2.0 non-burning gases)
- other inlet options (hose or compression ring fittings)
- wall flange socket for built-in installation

Models

Media	with fixed nozzle	with hexagon coded quick release coupling
Compressed air	2532 110 1021-T	2532 118 1021-T
Nitrogen	2532 110 1023-T	2532 118 1023-T
Carbon dioxide	2532 110 1024-T	2532 118 1024-T
Argon	2532 110 1025-T	2532 118 1025-T
Helium	2532 110 1026-T	2532 118 1026-T
Low vacuum (1000 to 1 mbar)	2532 117 1028-T	2532 119 1028-T

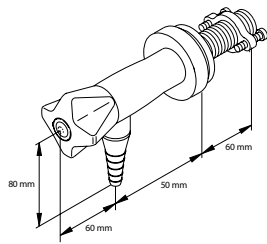
Delivered with wall flange socket and compression ring fitting for OD10mm Cu-pipe
For other options please refer to pages 18-19 or contact your local BROEN LAB representative.

BROEN UNIFLEX™ FITTINGS FOR NON-BURNING 2.0 GASES / VACUUM

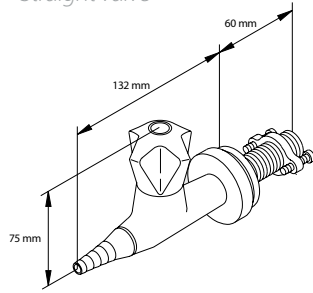
SUSPENDED OR WALL MOUNTED FITTINGS WITH PLASTIC HOSE NOZZLE / QUICK RELEASE COUPLING

STANDARD BOSS

90° valve



Straight valve



SPECIFICATIONS

Handle: Plastic with media indication according to EN13792
Hose nozzle: Plastic, fixed (can be unscrewed by hand, thread: male G3/8) or quick release coupling (hexagon coded)

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

NON-BURNING 2.0 GASES

Headwork: Needle
Opening/closing function:
 3 x 360°

Max. working pressure:
 16 bar / 232 psi

VACUUM / HIGH FLOW

Headwork: High flow
Opening/closing function:
 1.5 x 360°

Working pressure:
 -1 bar to 16 bar /
 -14.5 psi to 232 psi

MATERIALS WITH MEDIA CONTACT

Metals: Brass
 Plastics: PVDF
 Sealing: FKM
 Lubricant: Perfluoropolyether based

Models: straight valve



Media	with fixed nozzle	with hexagon coded quick release coupling
Compressed air	G32 038 8121-14	G32 010 1021-14
Nitrogen	G32 038 8123-14	G32 010 1023-14
Carbon dioxide	G32 038 8124-14	G32 010 1024-14
Argon	G32 038 8125-14	G32 010 1025-14
Helium	G32 038 8126-14	G32 010 1026-14
Low vacuum (1000 to 1 mbar)	G32 045 8128-14	G32 044 1028-14

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.

Models: 90° valve



Media	with fixed nozzle	with hexagon coded quick release coupling
Compressed air	G30 100 1021-14	G30 024 1021-14
Nitrogen	G30 100 1023-14	G30 024 1023-14
Carbon dioxide	G30 100 1024-14	G30 024 1024-14
Argon	G30 100 1025-14	G30 024 1025-14
Helium	G30 100 1026-14	G30 024 1026-14
Low vacuum (1000 to 1 mbar)	G30 110 8128-14	G30 111 1028-14

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.

SPECIFICATIONS

Handle: Plastic with media indication according to EN13792

Hose nozzle: Metal, fixed (can be unscrewed with Allen key, thread: male G3/8)

Allowable test pressure after installation:

1.5 x max working pressure without function of the valve

NON-BURNING 2.0 GASES

Headwork: Needle

Opening/closing function:
3 x 360°

Max. working pressure:
16 bar / 232 psi

VACUUM / HIGH FLOW

Headwork: High flow

Opening/closing function:
1.5 x 360°

Working pressure:
-1 bar to 16 bar /
-14.5 psi to 232 psi

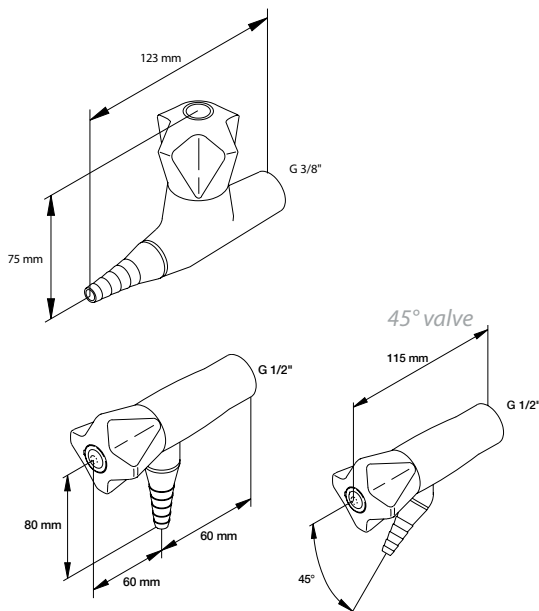
MATERIALS WITH MEDIA CONTACT

Metals: Brass

Plastics: PVDF

Sealing: FKM

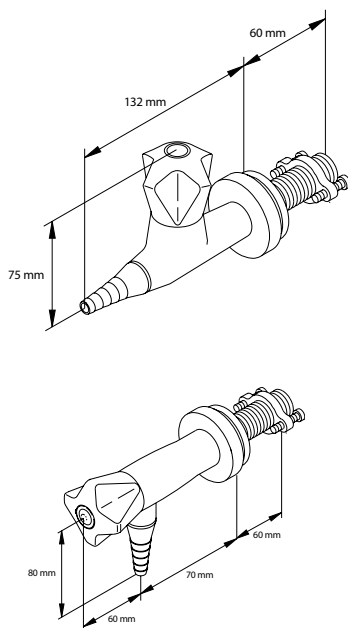
Lubricant: Perfluoropolyether based



18 020.009 - Non-burning 2.0 gases
18 020.929 - Vacuum

18 028.009 - Non-burning 2.0 gases, 90° valve
18 028.929 - Vacuum, 90° valve

18 237.009 - Non-burning 2.0 gases, 45° valve
18 237.929 - Vacuum, 45° valve



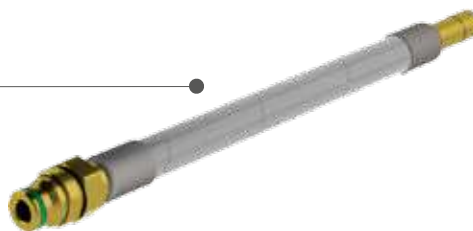
18 065.009-14 - Non-burning 2.0 gases
18 065.929-14 - Vacuum

*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.*

18 003.009-14 - Non-burning 2.0 gases
18 003.929-14 - Vacuum

*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 UniFlex™ flexible hoses



BROEN LAB offers BROEN UniFlex™ hoses 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 you time and labor - in other words reduced installation costs.

BROEN UniFlex™ hoses for non-burning 2.0 gases and vacuum are manufactured of soft cross-linked polyethylene (SPX). From the outside the hose is secured by a Stainless Steel braiding that ensures long service life and durability.

A wide range of fittings and lengths is available for BROEN UniFlex™ hoses enables customers to choose the perfect hose for their application.

Please request document No. 99G0005 for complete range of BROEN UniFlex™ hoses and technical specifications.

If you still prefer a standard way of installation with Cu, Stainless Steel, or PEX-pipes, BROEN LAB offers a wide range of connection fittings and adaptors for pipes of different dimensions.

Please request document No. 99G0004 for a complete range of BROEN UniFlex™ compression ring fittings.

BROEN UniFlex™ compression ring fittings and adaptors for Cu, Stainless Steel and PEX pipes



INLET CONNECTIONS

93 T XX XX XXXX

G3/8"A fixed connection (Code 32)



G1/2"A fixed connection (Code 31)



G3/8" union connection (Code 41)



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)



OD15mm connection for press fittings (Code 65)



Straight BROEN UniFlex™ connection with FKM o-ring (Code 20)



45° BROEN UniFlex™ connection with FKM o-ring (Code 25)



90° BROEN UniFlex™ connection with FKM o-ring (Code 30)



OUTLET CONNECTIONS

93 T XX XX XXXX

Straight BROEN UniFlex connection with FKM o-ring (Code 20)



45° BROEN UniFlex connection with FKM o-ring (Code 25)



90° BROEN UniFlex connection with FKM o-ring (Code 30)



*All O-rings are lubricated with perfluoropolyether based lubricant

SPECIFICATIONS

- Inner hose material:** SPX (soft PEX)
- Braiding:** Stainless steel with one green stripe
- Hose materials with media contact:** PEX, brass, FKM and perfluoropolyether based lubricant
- Inside diameter:** 8.2mm
- Outside diameter:** 12mm
- Max. working pressure:** 16 bar
- Max. working temperature:** 90°C
- Bending radius (inner):** ≥ 40mm
- Min. length with connections:** 160mm

HOSE

93 T XX XX XXXX

SPX hose with braiding in stainless steel



Marking for technical 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)

EXAMPLE OF HOSE CONFIGURATION

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



93T12201200

* Other lengths are available on request.

HEADWORKS

NEEDLE HEADWORK

SPECIFICATIONS

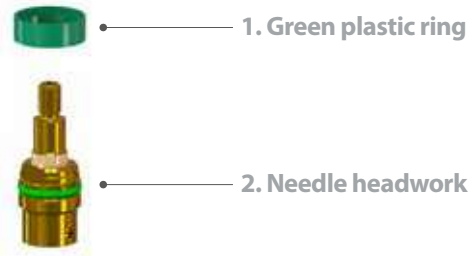
BROEN UniFlex™ fittings for non-burning 2.0 gases are as a standard delivered with needle headwork for fine regulation of media flow.

Opening/closing function: 3 x 360° turn

Media: Non-burning 2.0 (99% clean) gases

Max. working pressure: 16 bar / 232 psi

Test pressure: 1.5 x working pressure



MATERIALS WITH MEDIA CONTACT

Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

ORDERING INFORMATION

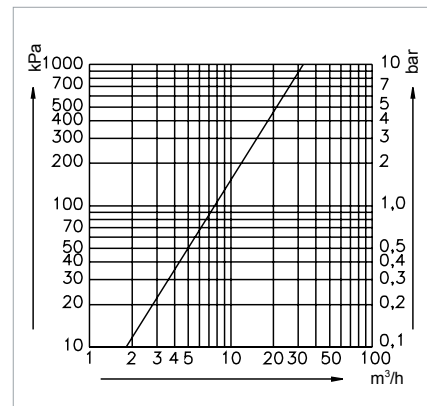
1. Green plastic ring

No. 0255035-5168

2. Needle headwork

No. 02557300

FLOW CHART



BROEN UNIFLEX™ FITTINGS FOR NON-BURNING 2.0 GASES / VACUUM

HIGH FLOW HEADWORK

SPECIFICATIONS

BROEN UniFlex™ fittings for vacuum are as a standard delivered with a high flow headwork. This headwork ensures high flow of media and can also be used for other non-burning 2.0 gases.

Opening/closing function: 1.5 x 360° turn

Media: Vacuum and non-burning 2.0 (99% clean) gases

Working pressure: -1 to 16 bar / -14.5 to 232 psi

Test pressure: 1.5 x working pressure



MATERIALS WITH MEDIA CONTACT

Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

ORDERING INFORMATION

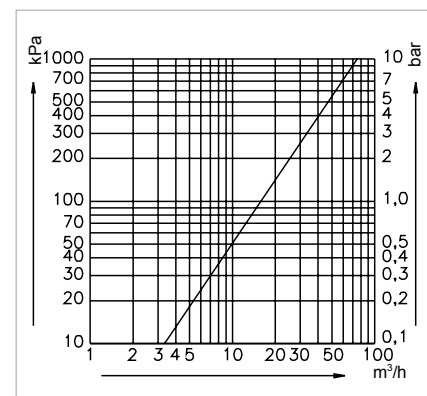
1. Grey plastic ring

No. 0255035-2696

2. High flow headwork

No. 02556300

FLOW CHART



HEADWORKS

MICRO FLOW HEADWORK



SPECIFICATIONS

BROEN Micro flow headwork ensures very fine regulation of media where flow of gas is close to zero and microscopic flow rates are required.

Opening/closing function: 7.5 x 360° turn

Media: Non-burning 2.0 (99% clean) gases

Max. working pressure: 16 bar / 232 psi

Test pressure: 1.5 x working pressure



Micro flow headwork

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Plastics: PVDF

Sealing: FKM

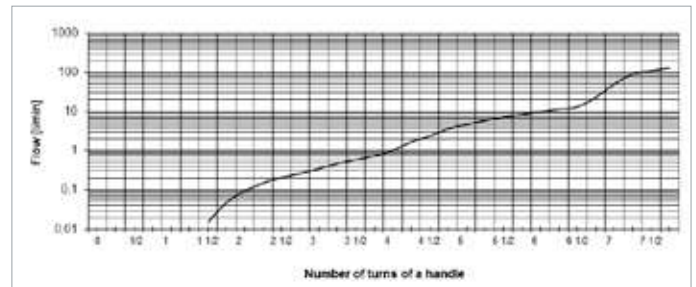
Lubricant: Perfluoropolyether based

ORDERING INFORMATION

Micro flow headwork

No. 19154400

FLOW CHART

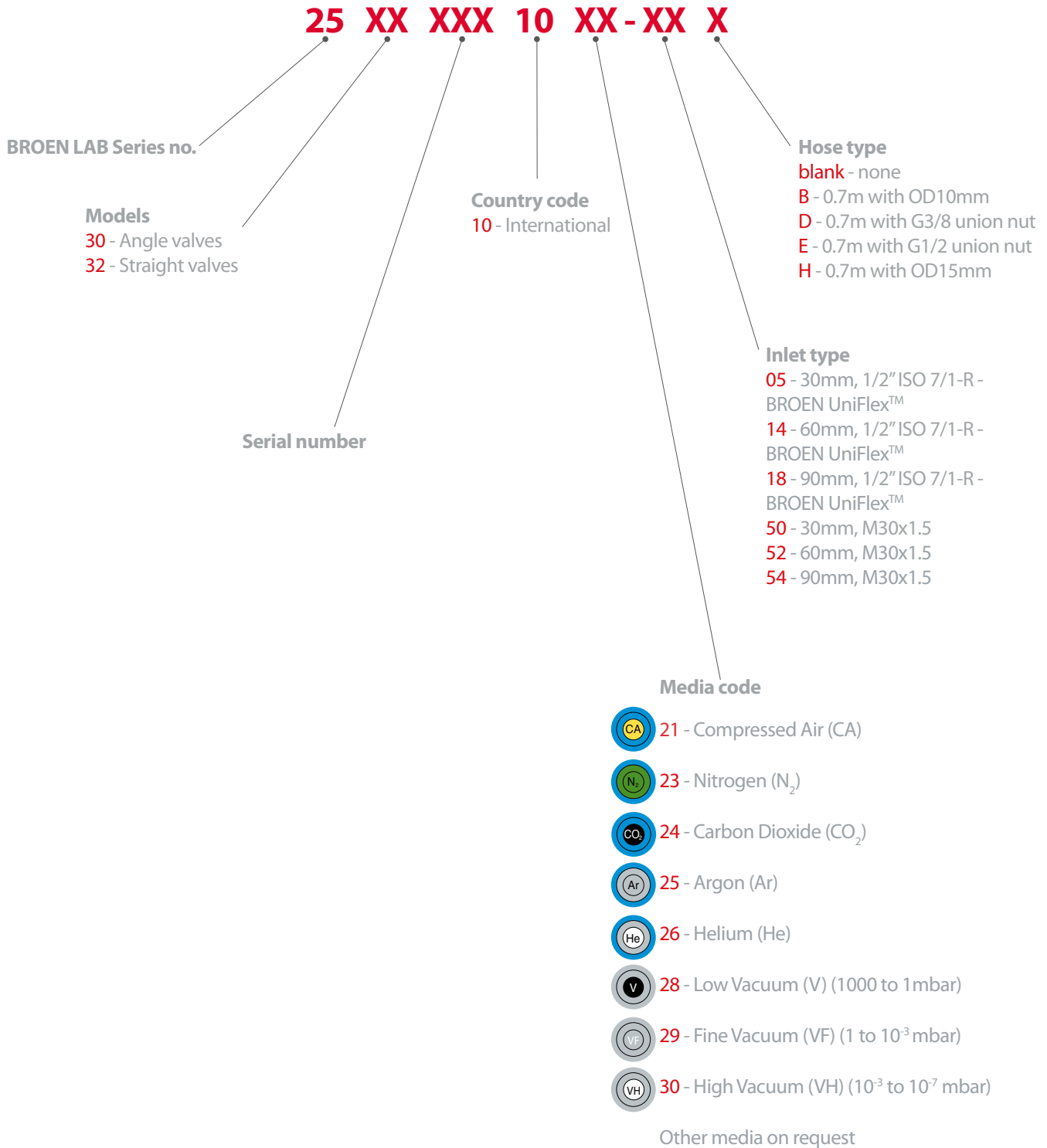


BROEN UNIFLEX™ FITTINGS FOR NON-BURNING 2.0 GASES / VACUUM



Illustration	Description	BROEN item No.
	Adaptor for removable plastic nozzle	2539 048 1021
	Removable plastic nozzle	2539 004 1021
	Fixed plastic nozzle	2539 040 1021
	Quick release coupling (hexagon coded)	19 632 00
	Pressure regulator (inlet/outlet: female G3/8 thread)	15 730 009
 	Mounting set for G1/2 connection Mounting set for M30x1.5 connection	19 141 000 19 190 000
	G1/2 inlet with female BROEN UniFlex™ connection (incl. O-ring) L=30mm L=60mm L=90mm	15 502 33T 15 274 54T 15 502 46T
	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
	Plastic handle with media indication according to EN 13792	191501401021 (CA) 191501401023 (N ₂) 191501401024 (CO ₂) 191501401025 (Ar) 191501401026 (He) 191501401028 (V) 191501401029 (VF) 191501401030 (VH)

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



BROEN UNIFLEX™ FITTINGS FOR NON-BURNING 2.0 GASES / VACUUM

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.

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.

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