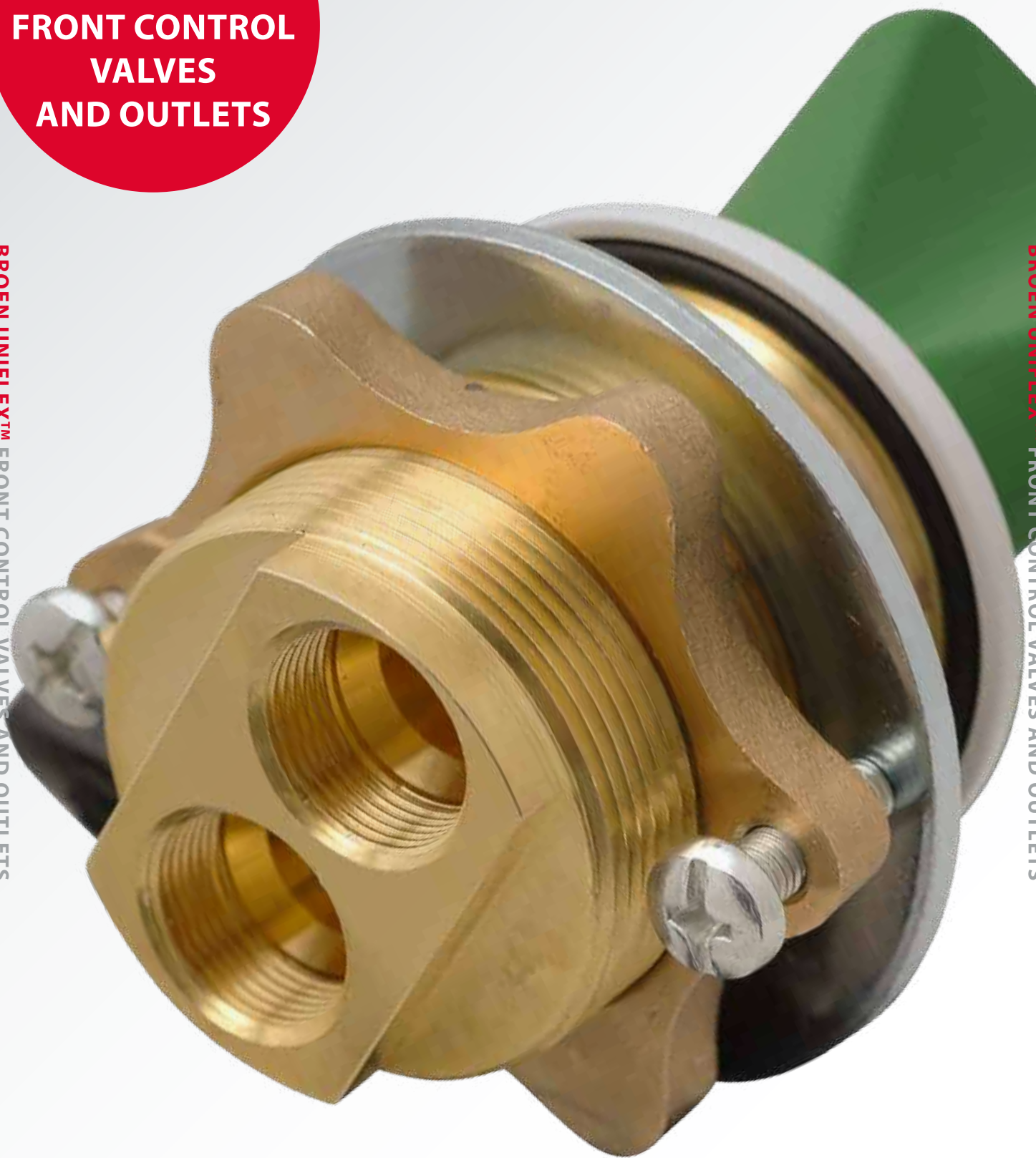


**BROEN
UNIFLEX™
FRONT CONTROL
VALVES
AND OUTLETS**















BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS

BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS










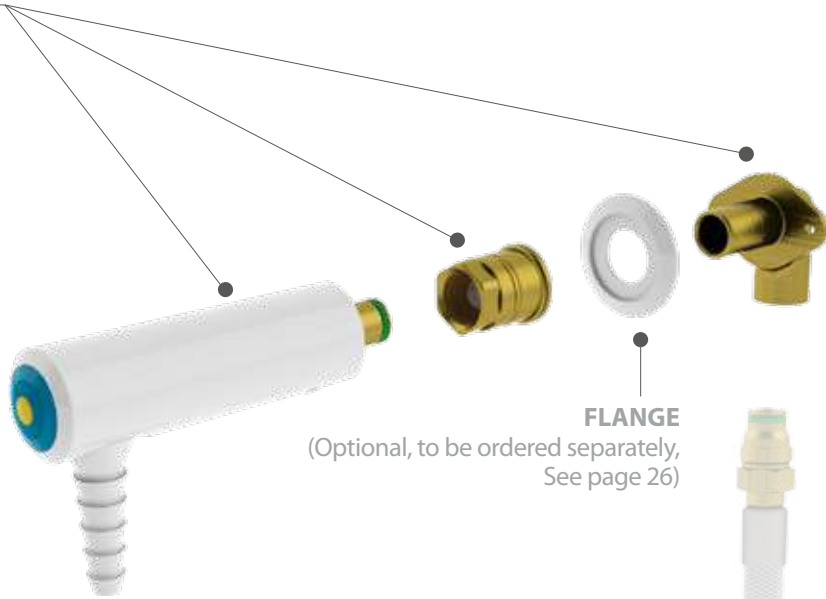
BROEN

INTELLIGENT FLOW SOLUTIONS

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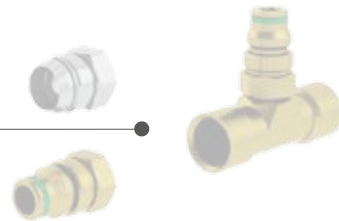
BROEN UniFlex™ flexible hoses

FRONT CONTROL VALVES

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BROEN UniFlex™ connection fittings and adaptors for Cu, SS, PEX and PA pipes

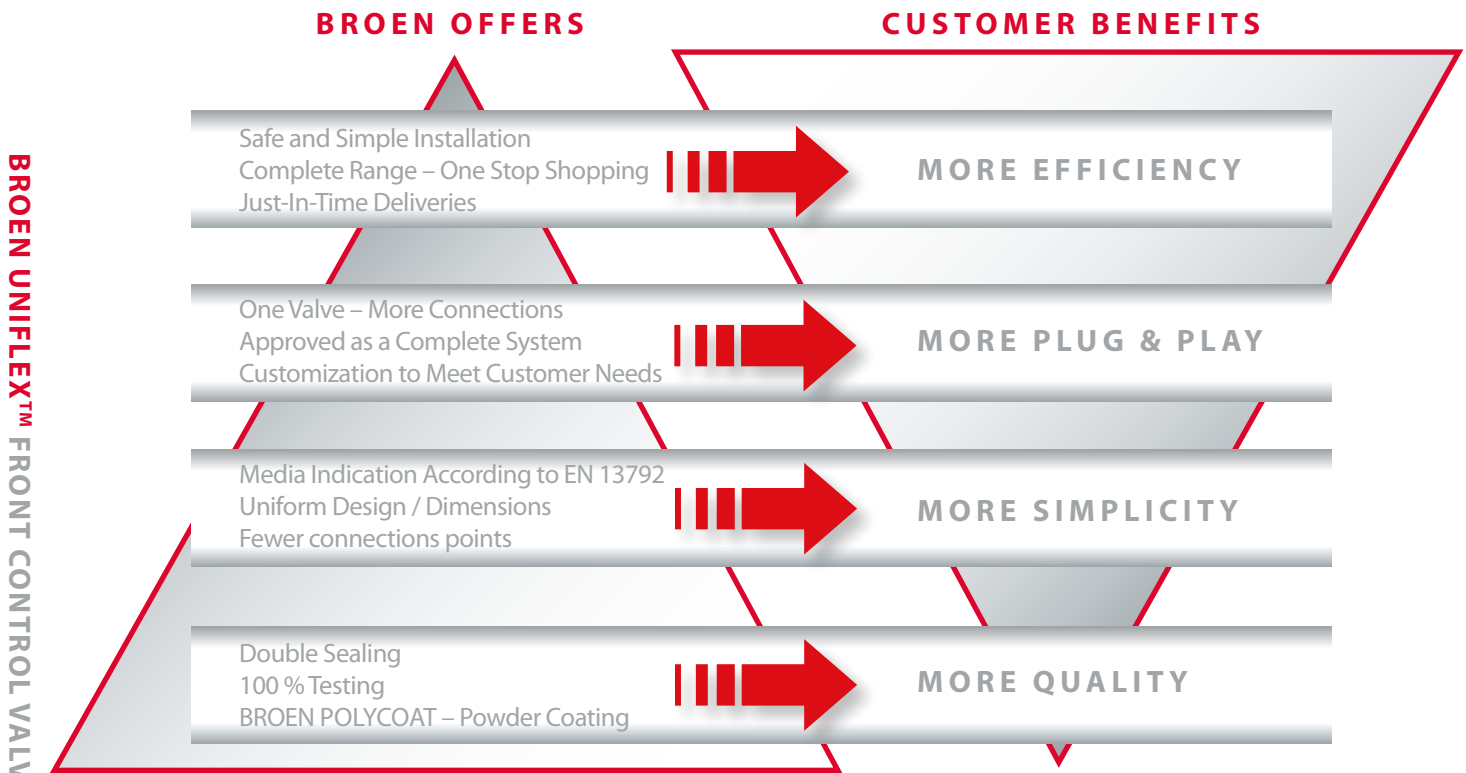


For more information about BROEN UniFlex™ hoses, connection fittings and adaptors, please contact your BROEN LAB representative or refer to www.broen.com



THIS IS BROEN UNIFLEX™ BASIC

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



BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS

The operation and the configuration of the BROEN UniFlex™ BASIC fittings are highly adapted to the requirements of modern laboratories in the educational sector.

The fittings are manufactured of the highest quality materials. The surface of the laboratory fittings is treated with BROEN POLYCOAT powder coating, which makes the surface highly resistant to most chemicals, UV fading and heat.

All BROEN UniFlex™ BASIC front control valves for are as a standard delivered with a plastic handle with media indication according to EN 13792.

Fume hood outlets for regular and coolant water, 2.0 non-burning gases and vacuum are delivered with a fixed plastic hose nozzle. Most BROEN UniFlex BASIC fume hood outlets are delivered with media indication according to EN 13792.

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).



SPECIFICATIONS

- Handle:** Plastic with media indication according to EN13792.
- Headwork:** Rubber
- Opening/closing function:** 2 x 360°
- Temperature range:** 0-90°C
- Max. working pressure:** 10 bar / 147 psi
- Test pressure:** 1 x working pressure
- Inlet/outlet:** BROEN UniFlex™
- Weight:** 0.7 kg

MATERIALS WITH MEDIA CONTACT

- Metals:** Brass
- Rubber:** EPDM
- Lubricant:** Silicone based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- a valve for different medium
- a valve for front side mounting
- a valve without mounting kit
- national approvals

For further information, please contact your BROEN LAB representative.

Model



Media

	Potable water, cold	2511 501 1001
	Potable water, hot	2511 501 1002
	Non-potable water, cold	2511 501 1007
	Non-potable water, hot	2511 501 1008

Delivered with mounting accessories



BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS

SPECIFICATIONS

- Handle:** Metal, BROEN POLYCOAT powder coated with media indication according to EN13792.
- Cartridge:** Ceramic (with flow and temperature limitation or two step opening)
- Temperature range:** 0-90°C
- Max.working pressure:** 10 bar / 147 psi
- Test pressure:** 1 x working pressure
- Inlet/outlet:** BROEN UniFlex™
- Weight:** 0.6 kg

MATERIALS WITH MEDIA CONTACT

- Metals:** Brass
- Rubber:** EPDM
- Plastics:** POM
- Lubricant:** Silicone based
- Ceramics:** Al-oxyd 96%

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.
 Other options:
 - a valve without mounting kit
 For further information, please contact your BROEN LAB representative.

Model



With flow and temperature limitation



With two step opening cartridge

Media	With flow and temperature limitation	With two step opening cartridge
Potable water, tempered	2511 529 1035	2511 531 1035
Non-potable water, tempered	2511 529 1037	2511 531 1037

Delivered with mounting accessories



SPECIFICATIONS

BROEN UniFlex™ outlets have an integrated media indication according to EN 13792.

Inlet: BROEN UniFlex™

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

Temperature range: 0-65°C

Max. wall thickness: 20mm

Weight: 0.5 kg (swivel spout: 0.7 kg)

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Rubber: EPDM

Plastics: PP

Lubricant: Silicone based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

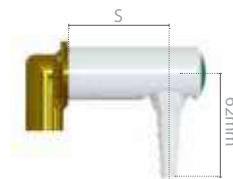
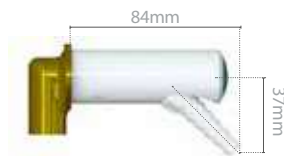
Other options:

- other media
- flange
- non-return valve
- removable nozzle
- other standout
- straight rear wall connection
- wall thickness 20-40mm
- double wall mounting
- additional support in case of a thin panel
- national approvals

For further information, please contact your BROEN LAB representative.

WITH FIXED NOZZLE

Model / Standout

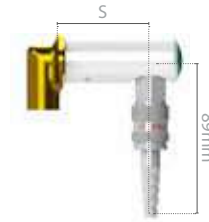
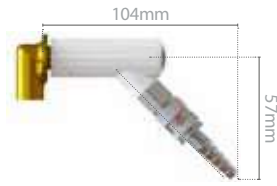


Media	45°	S = 53mm	S = 75mm	S = 90mm
Potable water, cold	2511 100 8101-40	2511 110 8101-40	2511 120 8101-40	2511 130 8101-40
Potable water, hot	2511 100 8102-40	2511 110 8102-40	2511 120 8102-40	2511 130 8102-40
Non-potable water, cold	2511 100 8107-40	2511 110 8107-40	2511 120 8107-40	2511 130 8107-40
Non-potable water, hot	2511 100 8108-40	2511 110 8108-40	2511 120 8108-40	2511 130 8108-40
Potable water, tempered	2511 100 8135-40	2511 110 8135-40	2511 120 8135-40	2511 130 8135-40
Non-potable water, tempered	2511 100 8137-40	2511 110 8137-40	2511 120 8137-40	2511 130 8137-40

Delivered with 90° rear wall connection (max wall thickness 20mm)

WITH QUICK RELEASE COUPLING

Model / Standout

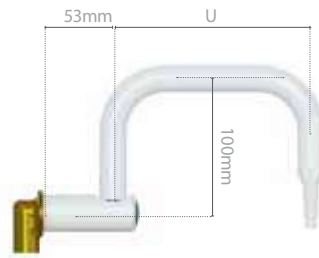


Media	45°	S = 53mm	S = 75mm	S = 90mm
Potable water, cold	2511 102 1001-40	2511 112 1001-40	2511 122 1001-40	2511 132 1001-40
Potable water, hot	2511 102 1002-40	2511 112 1002-40	2511 122 1002-40	2511 132 1002-40
Non-potable water, cold	2511 102 1007-40	2511 112 1007-40	2511 122 1007-40	2511 132 1007-40
Non-potable water, hot	2511 102 1008-40	2511 112 1008-40	2511 122 1008-40	2511 132 1008-40
Potable water, tempered	2511 102 1035-40	2511 112 1035-40	2511 122 1035-40	2511 132 1035-40
Non-potable water, tempered	2511 102 1037-40	2511 112 1037-40	2511 122 1037-40	2511 132 1037-40

Delivered with 90° rear wall connection (max wall thickness 20mm)

WITH SWIVEL SPOUT / FIXED HOSE NOZZLE

Model / Standout

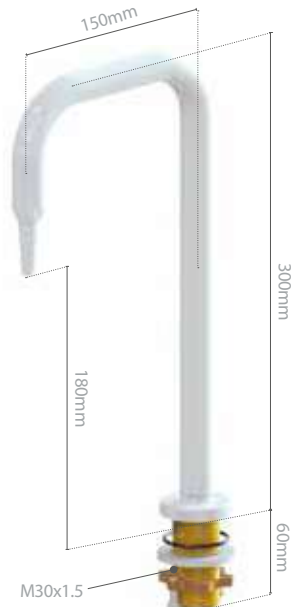


Media	U = 150mm	U = 200mm	S = 150mm	S = 200mm
Potable water, cold	2511 212 8101-40	2511 213 8101-40	2511 214 8101-40	2511 215 8101-40
Potable water, hot	2511 212 8102-40	2511 213 8102-40	2511 214 8102-40	2511 215 8102-40
Non-potable water, cold	2511 212 8107-40	2511 213 8107-40	2511 214 8107-40	2511 215 8107-40
Non-potable water, hot	2511 212 8108-40	2511 213 8108-40	2511 214 8108-40	2511 215 8108-40
Potable water, tempered	2511 212 8135-40	2511 213 8135-40	2511 214 8135-40	2511 215 8135-40
Non-potable water, tempered	2511 212 8137-40	2511 213 8137-40	2511 214 8137-40	2511 215 8137-40

Delivered with 90° rear wall connection (max wall thickness 20mm)



BENCH MOUNTED



SPECIFICATIONS

Inlet: BROEN UniFlex™

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

Temperature range: 0-65°C

Weight: 0.7 kg

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Rubber: EPDM

Plastics: PP

Lubricant: Silicone based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- non-return valve
- removable nozzle
- other inlet connections (length, type)

For further information, please contact your BROEN LAB representative.

BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS

WITH FIXED NOZZLE

Media	
Water	2539 038 1001-52

Delivered with mounting accessories



Available in PP or Stainless Steel according to product numbers listed below

SPECIFICATIONS

Handle: Plastic, with media indication according to EN13792.

Headwork: Diaphragm type

Opening/closing function: 2 x 360°

Max. working pressure: 10 bar / 147 psi

Test pressure: 1 x working pressure

Weight: 0.7 kg

PP VALVE

Temperature range:
0-65°C

Inlet/outlet:

Push couplings for OD10mm pipes

SS VALVE

Temperature range:
0-90°C

Inlet/outlet:

BROEN UniFlex™

MATERIALS WITH MEDIA CONTACT

PP VALVE

Rubber: EPDM

Plastics: PP

SS VALVE

Rubber: EPDM

Metals: SS (AISI 316)

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- a valve without mounting kit
- a valve for front side mounting

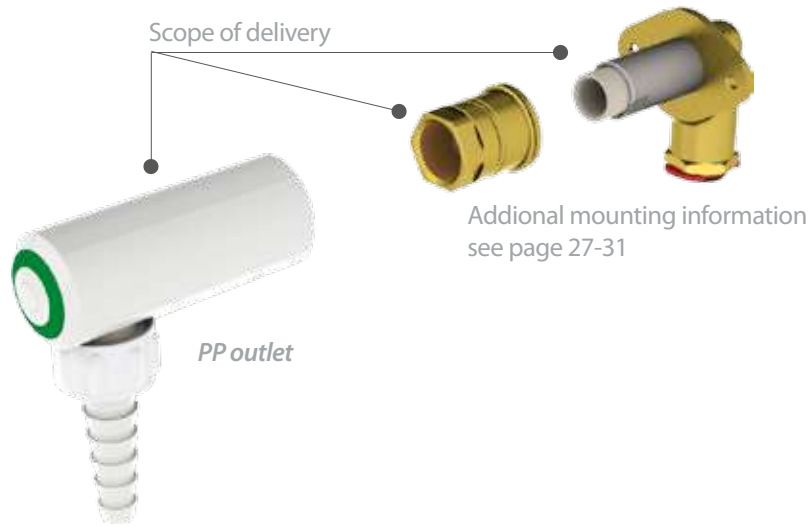
For further information, please contact your BROEN LAB representative.

Model



Media	PP valve	SS valve
Distilled water	2511 532 1003	2511 534 1003
Deionised water, cold	2511 532 1036	2511 534 1036

Delivered with mounting accessories



SPECIFICATIONS

BROEN UniFlex™ outlets have an integrated media indication according to EN 13792.

Inlet: Push couplings for OD10mm pipes

Outlet: Removable nozzle, PP

Temperature range: 0-65°C

Max. wall thickness: 20mm

Weight: 0.5 kg

MATERIALS WITH MEDIA CONTACT

Rubber: EPDM

Plastics: PP

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- flange
- wall thickness 20-40mm
- swivel spout
- additional support in case of a thin panel

For further information, please contact your BROEN LAB representative.

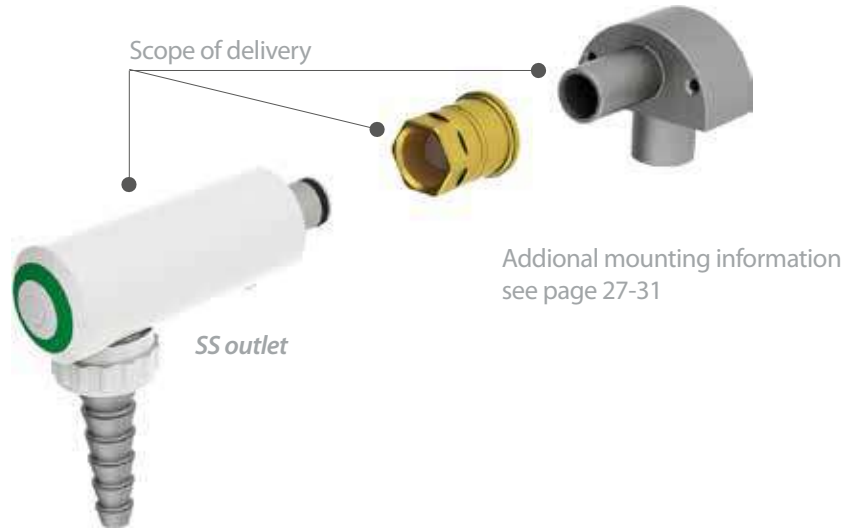
WITH REMOVABLE NOZZLE

Model / Standout



Media	S = 53mm	S = 75mm	S = 90mm
Distilled water	2511 116 1003-40	2511 126 1003-40	2511 136 1003-40
Deionised water, cold	2511 116 1036-40	2511 126 1036-40	2511 136 1036-40

Delivered with 90° rear wall connection (max wall thickness 20mm)



SPECIFICATIONS

BROEN UniFlex™ outlets have an integrated media indication according to EN 13792.

- Inlet:** BROEN UniFlex™
- Outlet:** Removable nozzle, SS
- Temperature range:** 0-90°C
- Max. wall thickness:** 20mm
- Weight:** 0.5 kg

MATERIALS WITH MEDIA CONTACT

- Rubber:** EPDM
- Metals:** Stainless Steel (AISI 316)

ORDERING INFORMATION

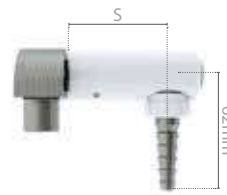
For standard configuration please refer to the item numbers below.

- Other options:
- flange
 - straight rear wall connection
 - fixed nozzle with external G3/4" thread
 - wall thickness 20-40mm
 - additional support in case of a thin panel

For further information, please contact your BROEN LAB representative.

WITH REMOVABLE NOZZLE

Model / Standout



Media	S = 53mm	S = 90mm
Distilled water	2511 117 1003-40	2511 137 1003-40
Deionised water, cold	2511 117 1036-40	2511 137 1036-40

Delivered with 90° rear wall connection (max wall thickness 20mm)



SPECIFICATIONS

Handle: Plastic with media indication according to EN13792.

Headwork: Rubber

Opening/closing function: 2 x 360°

Temperature range: 0-90°C

Max. working pressure: 10 bar / 147 psi

Test pressure: 1 x working pressure

Inlet/outlet: BROEN UniFlex™

Weight: 0.7 kg

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Rubber: EPDM

Lubricant: Silicone based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- a valve for front side mounting
- a valve without mounting kit
- a valve with simple hand operation of flow and return of chilled water

For further information, please contact your BROEN LAB representative.

Model



Media		
	Coolant water, feed	2511 501 1005
	Coolant water, return	2511 501 1006

Delivered with mounting accessories

OUTLETS

COOLANT WATER



Additional mounting information see page 27-31

SPECIFICATIONS

BROEN UniFlex™ outlets have an integrated media indication according to EN 13792.

Inlet: BROEN UniFlex™

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

Temperature range: 0-65°C

Max. wall thickness: 20mm

Weight: 0.5 kg (swivel spout: 0.7 kg)

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Rubber: EPDM

Plastics: PP

Lubricant: Silicone based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- flange
- other standout
- straight rear wall connection
- wall thickness 20-40mm
- double wall mounting
- additional support in case of a thin panel

For further information, please contact your BROEN LAB representative.

BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS

WITH FIXED NOZZLE

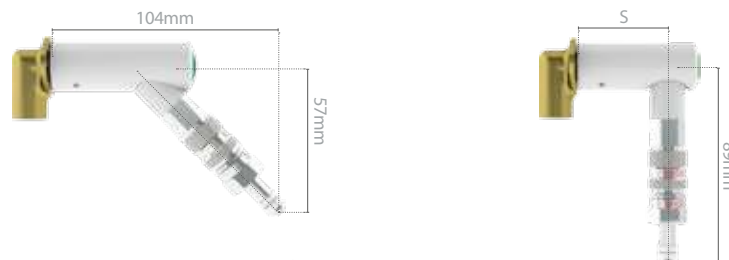
Model / Standout



Media	45°	S = 53mm	S = 75mm	S = 90mm
Coolant water, feed	2511 103 8105-40	2511 113 8105-40	2511 123 8105-40	2511 133 8105-40
Coolant water, return	2511 103 8106-40	2511 113 8106-40	2511 123 8106-40	2511 133 8106-40

Delivered with 90° rear wall connection (max wall thickness 20mm)

WITH QUICK RELEASE COUPLING WITH DOUBLE SHUT-OFF



Media	45°	S = 53mm	S = 75mm	S = 90mm
Coolant water, feed	2511 102 1005-40	2511 112 1005-40	2511 122 1005-40	2511 132 1005-40
Coolant water, return	2511 105 1006-40	2511 115 1006-40	2511 125 1006-40	2511 135 1006-40

Delivered with 90° rear wall connection (max wall thickness 20mm)



SPECIFICATIONS

Handle: Plastic with media indication according to EN13792.

Headwork: ceramic, press/turn

Opening/closing function: 90°

Max.working pressure: 7 bar / 101,5 psi

Test pressure: 1.5 x working pressure

Inlet/outlet: BROEN UniFlex™

Weight: 0.7 kg

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Rubber: NBR

Lubricant: Mineral oil based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- a valve for different medium
- a valve with needle headwork
- a valve for front side mounting
- a valve without mounting kit

For further information, please contact your BROEN LAB representative.

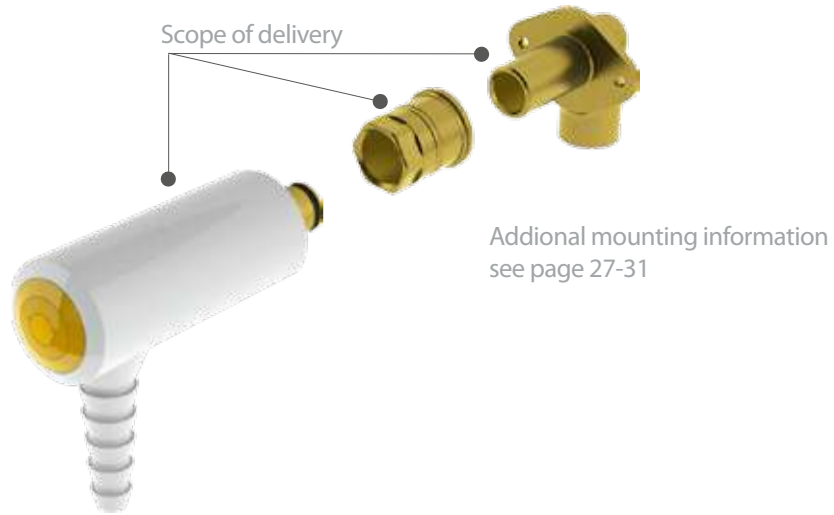
Model



Media

	Natural gas	2511 517 1031
	Propane/Butane (liquified gases)	2511 517 1032
	Hydrogen	2511 517 1034

Delivered with mounting accessories



BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS

SPECIFICATIONS

BROEN UniFlex™ outlets have an integrated media indication according to EN 13792.

- Inlet:** BROEN UniFlex™
- Hose nozzle:** Metal, fixed
- Max. wall thickness:** 20mm
- Weight:** 0.5 kg

MATERIALS WITH MEDIA CONTACT

- Metals:** Brass
- Rubber:** NBR
- Lubricant:** Mineral oil based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

- Other options:
- other media
 - flange
 - other standout
 - straight rear wall connection
 - wall thickness 20-40mm
 - double wall mounting
 - additional support in case of a thin panel

For further information, please contact your BROEN LAB representative.

WITH FIXED NOZZLE

Model / Standout



Media	45°	S = 53mm	S = 75mm	S = 90mm
Natural gas	2511 100 1010-40	2511 110 1010-40	2511 120 1010-40	2511 130 1010-40
Propane/Butane (liquified gases)	2511 100 1012-40	2511 110 1012-40	2511 120 1012-40	2511 130 1012-40
Hydrogen	2511 100 1020-40	2511 110 1020-40	2511 120 1020-40	2511 130 1020-40

Delivered with 90° rear wall connection (max wall thickness 20mm)



WITH QUICK RELEASE COUPLING

Model / Standout



Media	45°	S = 53mm	S = 75mm	S = 90mm
Natural gas	2511 102 1010-40	2511 112 1010-40	2511 122 1010-40	2511 132 1010-40
Propane/Butane (liquified gases)	2511 102 1012-40	2511 112 1012-40	2511 122 1012-40	2511 132 1012-40
Hydrogen	2511 102 1020-40	2511 112 1020-40	2511 122 1020-40	2511 132 1020-40

Delivered with 90° rear wall connection (max wall thickness 20mm)



BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS



SPECIFICATIONS

Handle: Plastic with media indication according to EN13792.

Inlet/outlet: BROEN UniFlex™

Weight: 0.7 kg

Test pressure: 1.5 x working pressure

TECHNICAL 2.0 GASES

Headwork: Needle

Opening/closing function: 3 x 360°

Max. working pressure: 16 bar / 232 psi

Headwork: Micro flow

Opening/closing function: 7.5 x 360°

Max. working pressure: 16 bar / 232 psi

VACUUM / HIGH FLOW

Headwork: High flow

Opening/closing function: 1.5 x 360°

Max. working pressure: -1 bar to 16 bar / -14.5 psi to 232 psi

Please note that valves for vacuum as a standard delivered with a high flow headwork. High flow headwork can also be used for other media where there is a requirement for higher flow.

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Rubber: FKM

Plastics: PVDF

Lubricant: Perfluoropolyether based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- a valve for different medium
- high flow headwork for other media
- a valve for front side mounting
- a valve without mounting kit

For further information, please contact your BROEN LAB representative.

BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS

Model



Media	Needle headwork	Micro flow headwork
Compressed air	2511 509 1021	2511 544 1021
Nitrogen	2511 509 1023	2511 544 1023
Carbon dioxide	2511 509 1024	2511 544 1024
Argon	2511 509 1025	2511 544 1025
Helium	2511 509 1026	2511 544 1026
High flow headwork		
Low vacuum (1000 to 1 mbar)	2511 513 1028	

Delivered with mounting accessories

Inlet: female
 BROEN UniFlex™
 with a built-in filter



Outlet: female
 BROEN UniFlex™

SPECIFICATIONS

BROEN UniFlex™ pressure regulator for panel mounting with a built-in filter (mesh size 200 µm) on the inlet.

- Inlet pressure:** Max. 14 bar
- Outlet pressure:** 0,5-12 bar
- Inlet/outlet:** BROEN UniFlex™
- Max. panel thickness:** 5,5mm
- Weight:** 0.5 kg

MATERIALS WITH MEDIA CONTACT

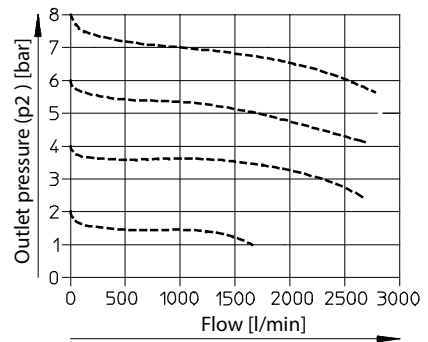
- Metals:** Brass, aluminium
- Rubber:** NBR
- Plastics:** PVDF
- Lubricant:** Perfluoropolyether based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.
 For further information and additional options, please contact your BROEN LAB representative.

FLOW CHART

Input pressure $p_1 = 10$ bar



Model

Media*

CA	Compressed air	25115611099
N ₂	Nitrogen	25115611099
CO ₂	Carbon Dioxide	25115611099
Ar	Argon	25115611099

* Can be used for CA, N₂, CO₂, Ar. Not recommended for Helium (He). Do not use for Oxygen (O₂)!



BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS

SPECIFICATIONS

BROEN UniFlex™ outlets have an integrated media indication according to EN 13792.

Inlet: BROEN UniFlex™

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

Max. wall thickness: 20mm

Weight: 0.5 kg

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Rubber: FKM

Plastics: PP

Lubricant: Perfluoropolyether based

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- other media
- removable plastic nozzle
- flange
- straight rear wall connection
- wall thickness 20-40mm
- double wall mounting
- additional support in case of a thin panel

For further information, please contact your BROEN LAB representative.

WITH FIXED NOZZLE

Model / Standout



Media	45°	S = 53mm	S = 75mm	S = 90mm
Compressed air	2511 100 8121-40	2511 110 8121-40	2511 120 8121-40	2511 130 8121-40
Nitrogen	2511 100 8123-40	2511 110 8123-40	2511 120 8123-40	2511 130 8123-40
Carbon dioxide	2511 100 8124-40	2511 110 8124-40	2511 120 8124-40	2511 130 8124-40
Argon	2511 100 8125-40	2511 110 8125-40	2511 120 8125-40	2511 130 8125-40
Helium	2511 100 8126-40	2511 110 8126-40	2511 120 8126-40	2511 130 8126-40
Low vacuum (1000 to 1 mbar)	2511 100 8128-40	2511 110 8128-40	2511 120 8128-40	2511 130 8128-40

Delivered with 90° rear wall connection (max wall thickness 20mm)

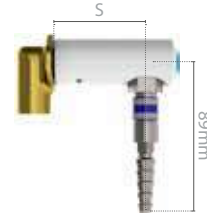
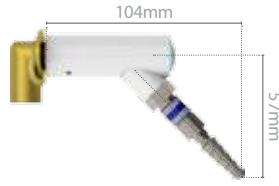
OUTLETS

TECHNICAL 2.0 GASES / VACUUM / HIGH FLOW



WITH QUICK RELEASE COUPLING

Model / Standout



Media	45°	S = 53mm	S = 75mm	S = 90mm
Compressed air	2511 102 1021-40	2511 112 1021-40	2511 122 1021-40	2511 132 1021-40
Nitrogen	2511 102 1023-40	2511 112 1023-40	2511 122 1023-40	2511 132 1023-40
Carbon dioxide	2511 102 1024-40	2511 112 1024-40	2511 122 1024-40	2511 132 1024-40
Argon	2511 102 1025-40	2511 112 1025-40	2511 122 1025-40	2511 132 1025-40
Helium	2511 102 1026-40	2511 112 1026-40	2511 122 1026-40	2511 132 1026-40
Low vacuum (1000 to 1 mbar)	2511 102 1028-40	2511 112 1028-40	2511 122 1028-40	2511 132 1028-40

Delivered with 90° rear wall connection (max wall thickness 20mm)

BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS





SPECIFICATIONS

Handle: Plastic with media indication according to EN13792.

Inlet/outlet: BROEN UniFlex™

Weight: 0.7 kg

Test pressure: 1.5 x working pressure

Headwork: Needle

Opening/closing function: 3 x 360°

Max. working pressure: 16 bar / 232 psi

Headwork: Micro flow

Opening/closing function: 7.5 x 360°

Max. working pressure: 16 bar / 232 psi

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Rubber: FKM

Plastics: PVDF

Lubricant: Perfluoropolyether based (Oxygen approved)

All components are ultrasonically cleaned for 99,99% clean gases

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- a valve for front side mounting
- a valve without mounting kit

For further information, please contact your BROEN LAB representative.

BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS

Model

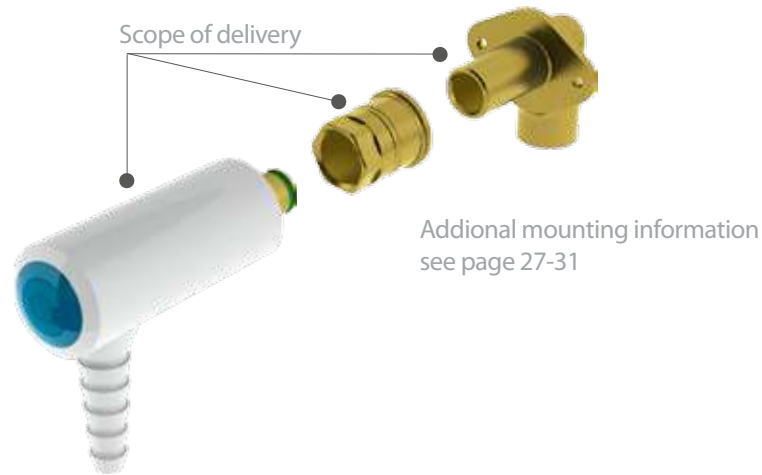


Media	Needle headwork	Micro flow headwork
Compressed air	2511 525 1021	2511 548 1021
Oxygen	2511 525 1022	2511 548 1022
Nitrogen	2511 525 1023	2511 548 1023
Carbon dioxide	2511 525 1024	2511 548 1024
Argon	2511 525 1025	2511 548 1025
Helium	2511 525 1026	2511 548 1026
Dinitrogen monoxide	2511 525 1027	2511 548 1027

Delivered with mounting accessories

OUTLETS

TECHNICAL 4.0 GASES / OXYGEN



SPECIFICATIONS

BROEN UniFlex™ outlets have an integrated media indication according to EN 13792.

Inlet: BROEN UniFlex™

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

Max. wall thickness: 20mm

Weight: 0.5 kg

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Rubber: FKM

Lubricant: Perfluoropolyether based (Oxygen approved)

All components are ultrasonically cleaned for 99,99% clean gases

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- other media
- flange
- other standout
- straight rear wall connection
- wall thickness 20-40mm
- additional support in case of a thin panel

For further information, please contact your BROEN LAB representative.

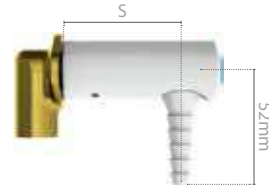
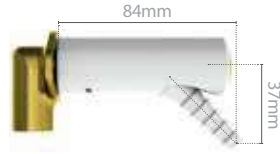
OUTLETS

TECHNICAL 4.0 GASES / OXYGEN



WITH FIXED NOZZLE

Model / Standout



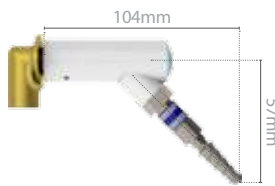
Media	45°	S = 53mm	S = 75mm	S = 90mm
Compressed air	2511 108 1021-40	2511 118 1021-40	2511 128 1021-40	2511 138 1021-40
Oxygen	2511 108 1022-40	2511 118 1022-40	2511 128 1022-40	2511 138 1022-40
Nitrogen	2511 108 1023-40	2511 118 1023-40	2511 128 1023-40	2511 138 1023-40
Carbon dioxide	2511 108 1024-40	2511 118 1024-40	2511 128 1024-40	2511 138 1024-40
Argon	2511 108 1025-40	2511 118 1025-40	2511 128 1025-40	2511 138 1025-40
Helium	2511 108 1026-40	2511 118 1026-40	2511 128 1026-40	2511 138 1026-40
Dinitrogen monoxide	2511 108 1027-40	2511 118 1027-40	2511 128 1027-40	2511 138 1027-40

Delivered with 90° rear wall connection (max wall thickness 20mm)

BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS

WITH QUICK RELEASE COUPLING

Model / Standout



Media	45°	S = 53mm	S = 75mm	S = 90mm
Compressed air	2511 185 1021-40	2511 186 1021-40	2511 187 1021-40	2511 190 1021-4
Oxygen	2511 185 1022-40	2511 186 1022-40	2511 187 1022-40	2511 190 1022-40
Nitrogen	2511 185 1023-40	2511 186 1023-40	2511 187 1023-40	2511 190 1023-40
Carbon dioxide	2511 185 1024-40	2511 186 1024-40	2511 187 1024-40	2511 190 1024-40
Argon	2511 185 1025-40	2511 186 1025-40	2511 187 1025-40	2511 190 1025-40
Helium	2511 185 1026-40	2511 186 1026-40	2511 187 1026-40	2511 190 1026-40
Dinitrogen monoxide	2511 185 1027-40	2511 186 1027-40	2511 187 1027-40	2511 190 1027-40

Delivered with 90° rear wall connection (max wall thickness 20mm)



SPECIFICATIONS

Valve can be used for non-corrosive and inactive gases with purity coefficient up to 5.0 (99.999% pure gases).

Handle: Plastic with media indication according to EN13792.

Inlet/outlet: BROEN UniFlex™

Leak rate: < 5x10⁻⁵ mbar x l/s [Helium]

Weight: 0.7 kg

Test pressure: 1.5 x working pressure

FLOW VALVES

Headwork: Needle

Opening/closing function: 3 x 360°

Max. working pressure: 21 bar / 305 psi

Headwork: Micro flow

Opening/closing function: 7.5 x 360°

Max. working pressure: 16 bar / 232 psi

SHUT-OFF VALVE

Headwork: Stop

Opening/closing function: 1.5 x 360°

Max. working pressure: 21 bar / 305 psi

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Rubber: FKM

Plastics: PVDF

Lubricant: Perfluoropolyether based (Oxygen approved)

All components are ultrasonically cleaned for 99,999% clean gases

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- a valve for front side mounting
- a valve without mounting kit
- inlet/outlet with female 1/4 NPT thread

For further information, please contact your BROEN LAB representative.

Model

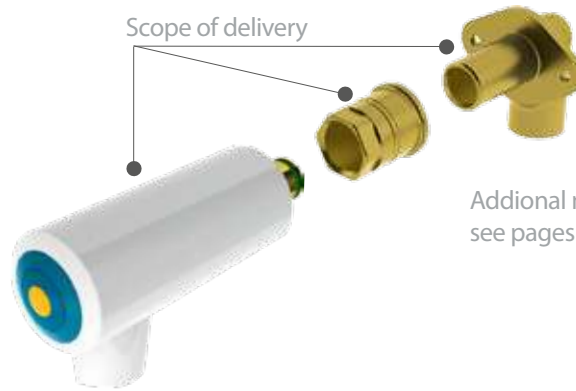


Media	Shut-off valve	Needle headwork	Micro flow headwork
Compressed air	2511 541 1021	2511 540 1021	2511 553 1021
Oxygen	2511 541 1022	2511 540 1022	2511 553 1022
Nitrogen	2511 541 1023	2511 540 1023	2511 553 1023
Carbon Dioxide	2511 541 1024	2511 540 1024	2511 553 1024
Argon	2511 541 1025	2511 540 1025	2511 553 1025
Helium	2511 541 1026	2511 540 1026	2511 553 1026

Delivered with mounting accessories

OUTLETS

PURE 5.0 GASES



Additional mounting information see pages 27-31

SPECIFICATIONS

Outlets can be used for non-corrosive and inactive gases with purity coefficient up to 5.0 (99,999% pure gases).

BROEN UniFlex™ outlets have an integrated media indication according to EN 13792.

Inlet: BROEN UniFlex™

Outlet: Female 1/4 NPT

Leak rate: 5×10^{-5} mbar x l/s [Helium]

Max. wall thickness: 20mm

Weight: 0.5 kg

MATERIALS WITH MEDIA CONTACT

Metals: Brass

Rubber: FKM

Lubricant: Perfluoropolyether based (Oxygen approved)

All components are ultrasonically cleaned for 99,999% clean gases.

ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

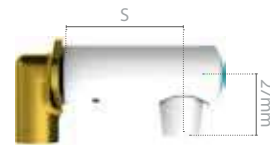
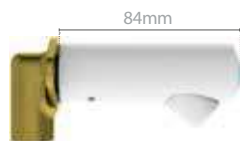
Other options:

- other media
- flange
- straight rear wall connection
- wall thickness 20-40mm
- additional support in case of a thin panel
- Swagelok® tube fittings
- inlet with female 1/4 NPT thread

For further information, please contact your BROEN LAB representative.

BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS

Model / Standout

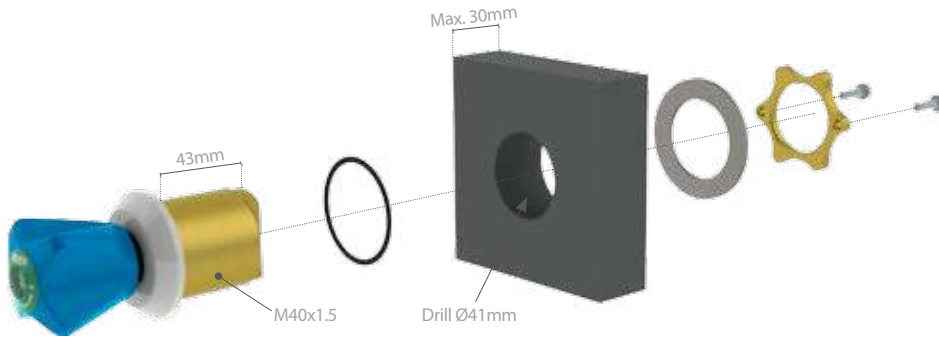


Media	45°	S = 53mm	S = 75mm	S = 90mm
Compressed air	2511 109 1021-40	2511 119 1021-40	2511 129 1021-40	2511 139 1021-40
Oxygen	2511 109 1022-40	2511 119 1022-40	2511 129 1022-40	2511 139 1022-40
Nitrogen	2511 109 1023-40	2511 119 1023-40	2511 129 1023-40	2511 139 1023-40
Carbon dioxide	2511 109 1024-40	2511 119 1024-40	2511 129 1024-40	2511 139 1024-40
Argon	2511 109 1025-40	2511 119 1025-40	2511 129 1025-40	2511 139 1025-40
Helium	2511 109 1026-40	2511 119 1026-40	2511 129 1026-40	2511 139 1026-40

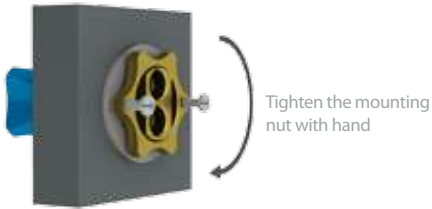
Delivered with 90° rear wall connection (max wall thickness 20mm)

Illustration	Description	Media	BROEN item No.
	Nut (wall thickness 0-20mm)	All media	1521036
	Flange (wall thickness 0-20mm)	All media	1521057G
	Nut (wall thickness 20-40mm)	All media	1521054
	Flange (wall thickness 20-40mm)	All media	1521178G
	Straight rear wall connection	Water, burning and 2.0 technical gases	1521088
	90° rear wall connection	Water, burning and 2.0 technical gases	1521052
	Backside support	All media	1521092
	Rear wall connection for fume hoods with a double wall construction M = 49 to 61 mm M = 61 to 73 mm M = 73 to 85 mm M = 85 to 97 mm M = 97 to 109 mm	Water, burning and 2.0 technical gases	2511494 2511497 2511496 2511495 2511493
	Test equipment for outlets	All media (except for models in PP for special water)	1521177

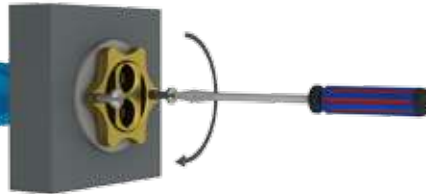
FRONT CONTROL VALVES



1)



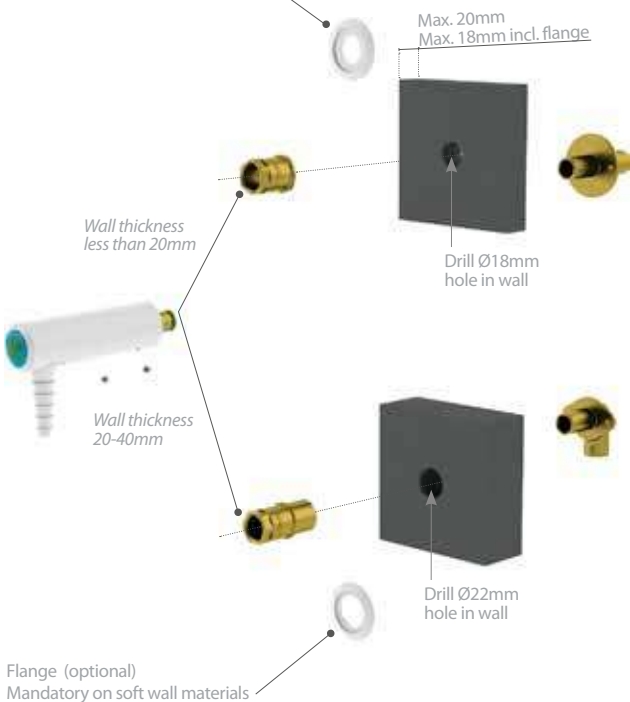
2)



BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS

OUTLETS

Flange (optional)
Mandatory on soft wall materials



1)



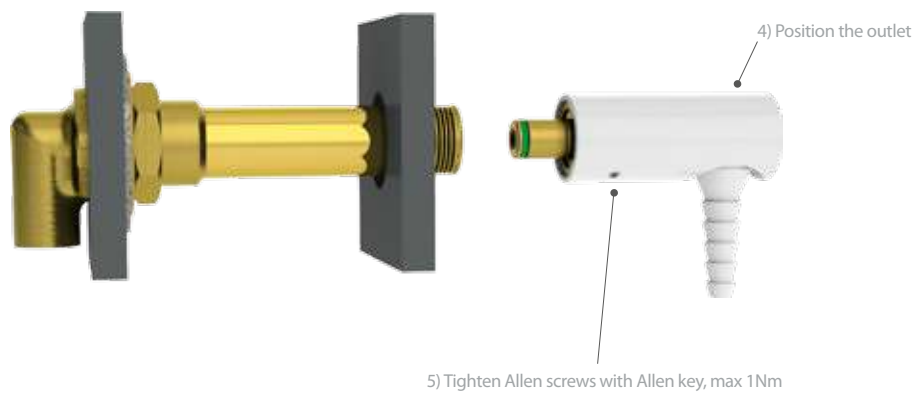
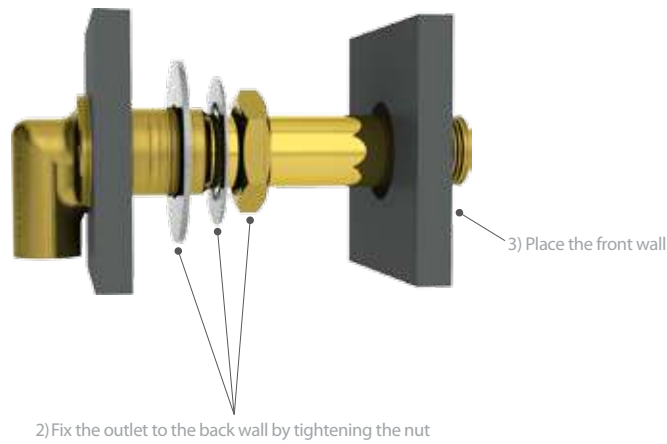
2)



Tighten Allen screws with
Allen key, max. 1Nm

MOUNTING OF OUTLETS INTO FUME HOODS WITH A DOUBLE WALL CONSTRUCTION

1) Insert the rear wall connection through the back wall



PIPE INSTALLATION

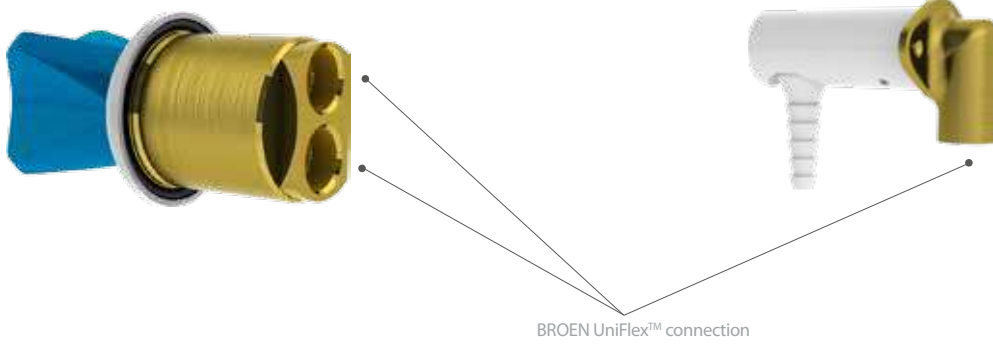
WATER / SPECIAL WATER (SS MODEL) /
TECHNICAL AND BURNING GASES (4.0 AND 5.0 GASES)



BROEN front control valves and fume hood outlets for standard media are delivered with BROEN UniFlex™ inlet connections as well as outlet connection on the valves.

VALVE

OUTLET



BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS

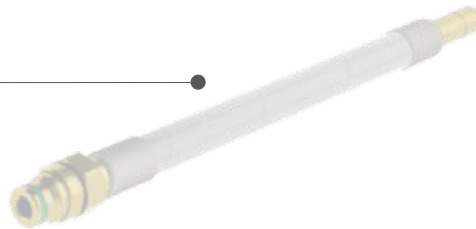
Pipe installation can be done either with flexible hoses or with standard Cu, PEX or SS pipes.

Please request document No. 94G0140 for installation instructions for compression ring fittings.

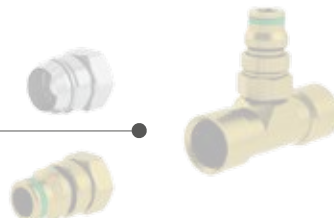
BROEN has a wide range of flexible hoses available with BROEN UniFlex™ connections as well as compression ring fittings to fit pipes of the following sizes:

- OD 8mm
- OD 10mm
- OD 12mm
- OD 15mm
- 3/8"

BROEN UniFlex™ flexible hoses



BROEN UniFlex™ connection fittings and adaptors for Cu, SS, PEX and PA pipes



For further information about flexible hoses and connection fittings, please contact your local BROEN LAB representative or refer to www.broen.com

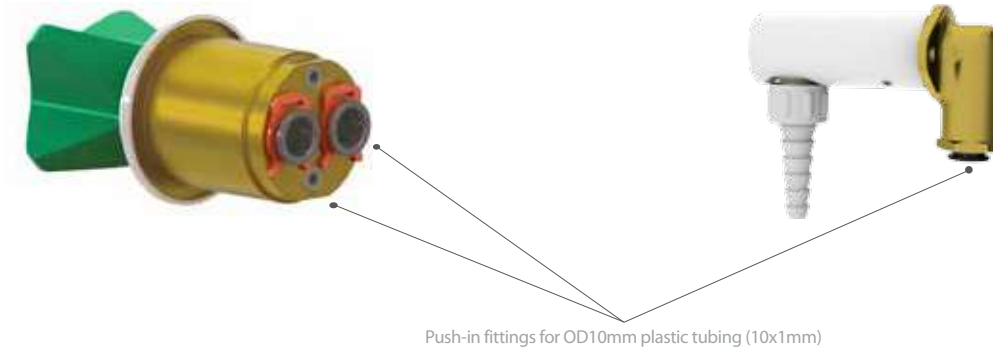
PIPE INSTALLATION
SPECIAL WATER (PP MODELS ONLY)



Please note that PP valves and outlets for special water are delivered with push-in fittings.

VALVE

OUTLET



BROEN recommends the following materials for pipe installation:

- Nylon (PA, can be purchased at BROEN), PE, PUR

For further information, please contact your BROEN LAB representative or refer to www.broen.com

BROEN UNIFLEX™ FRONT CONTROL VALVES AND OUTLETS

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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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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