

BROEN-LAB

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CLEANLINE 505

FITTINGS FOR 5.0 GASES

99B0095 Rev. 5 - 11-2021

WE MAKE

SOLUTIONS

BROEN-LAB Cleanline products are designed, produced and intended for use with 5.0 (99,999%) gases.

All individual parts for these valves are ultrasonically cleaned and dried in order to remove oil and particles from all parts before assembly. We ensure in this way to have a surface cleaner than 100 mg mineral oil/m², typically as low as <8-15 mg/m².

Immediately after the mentioned cleaning of the individual parts these are assembled and individually tested in a protected area in our production. Finally, the valve is packed and sealed in a plastic bag. Label on each bag is showing the actual cleanliness of the product.



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INTRODUCTION

What is 5.0 pure gas?

Pure 5.0 gases are typical industrial and technical gases that are 99,999% clean and should be used in applications where impurities must be avoided. Most commonly used pure gases are: Ar, He, CO₂, N₂, H₂, CH₄.

Pure gases are used in innumerable application in industries such as:

- Chemicals
- Pharmaceuticals
- Healthcare
- Laboratory and analysis
- Food and beverage
- Electronics, etc.

System requirements

The following requirements are set up to pure gas system:

- Materials with media contact are Oxygen approved and ultrasonically cleaned
- Assembled fittings are individually packed into sealed plastic bags

Double fittings

BROEN-LAB offers double fittings as a part of Cleanline 505 product range.

Use of double fittings contributes to a reduction of installation costs and results in more efficient utilization of working space.



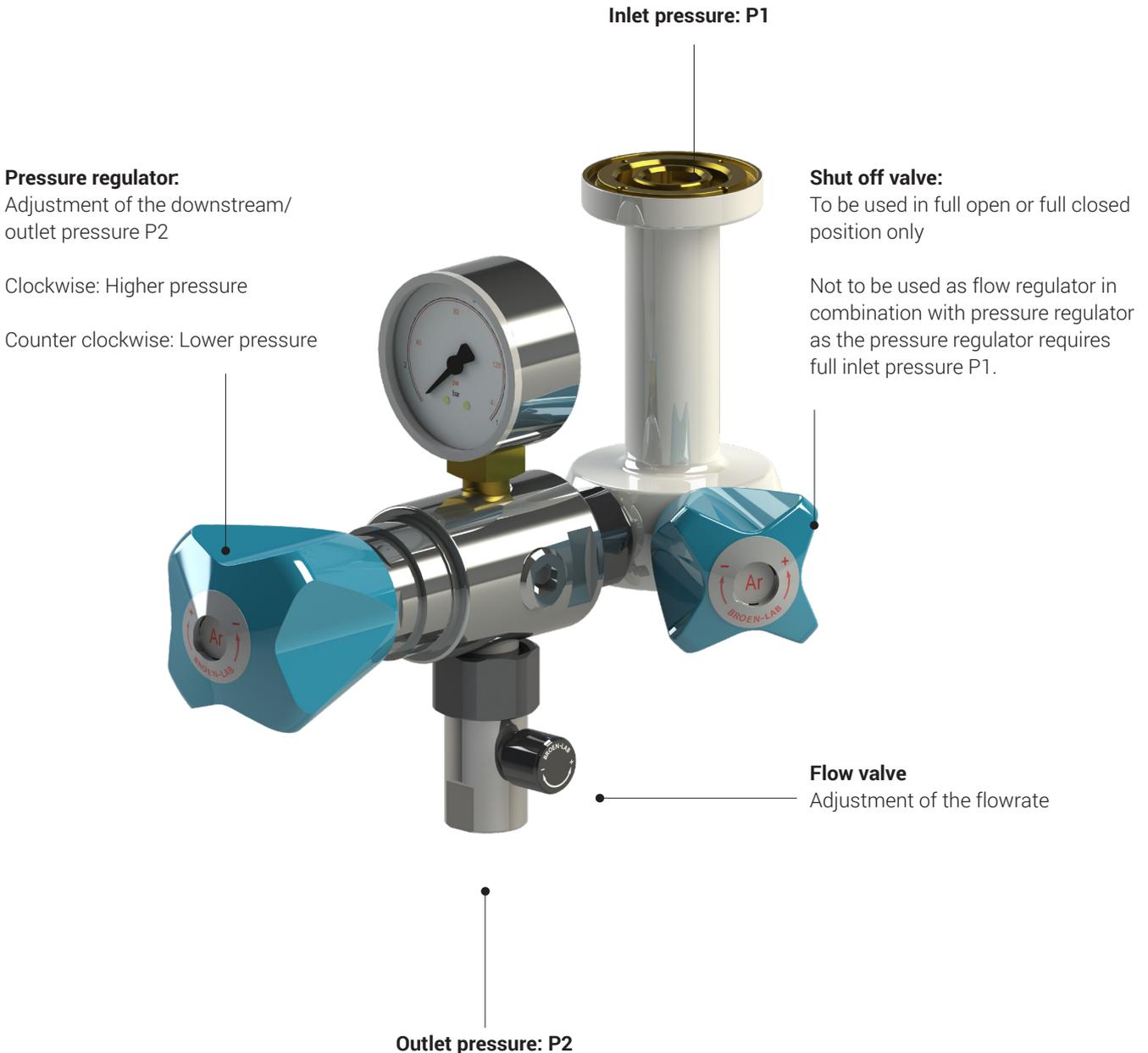
BROEN-LAB Cleanline 505 features:

- For 99,999% clean gases (5.0)
- Uniform design and features as for BROEN-LAB™ UniFlex™ fittings
- Ultrasonically cleaned components
- Sealings are made of FKM and PVDF
- Metal diaphragm type pressure regulators
- Good pressure control for reliable service
- Multiple mounting possibilities
- Swagelok® tube fittings secure clean connection on outlet side
- All fittings are leak tested by differential pressure method. Leak rate: < 10mm³/s at 6 bar [CA].
- 1 out of 100 valves is helium leak tested. Leak rate: < 5x10⁻⁵ mbar x l/s [He].

INTRODUCTION

Operating a pressure regulator 5.0:

BROEN-LAB Cleanline fittings can be supplied with a single stage pressure regulator. A single stage regulator is used to reduce the inlet pressure [P1] to the outlet pressure [P2] in one step. By turning the hand wheel the outlet [P2] pressure can be adjusted, with media indication according to EN 13792. Shut off valve is to be used in full open or full closed position only, if wanting to adjust the flow as well; a flow valve is recommended.



Recommended minimum inlet pressure [P1]: $P1 = 2 \times P2 + 1$ bar (Lower inlet pressure [P1] is possible but will result in lower achievable flowrate.)

BENCH MOUNTED SHUT-OFF / HIGH FLOW VALVE

Specifications

Handle in metal with media indication according to EN13792:2002

High flow headwork

Opening/closing function: 1.5 x 360°

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment,
BROEN-LAB colour: 2700 (RAL colour: 0008500)

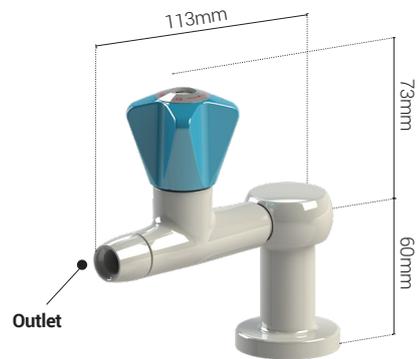
Material with media contact

Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based



For further options contact BROEN-LAB

Configuration options

Choose outlet connection and number of valves:



	1 valve	2 valves 90°	2 valves 180°
Female 1/4" NPT thread	2502 057 10XX-11	2502 253 10XX-11	2502 259 10XX-11
 Hose nozzle ID 1/4" (SS)	2502 132 10XX-11	2502 263 10XX-11	2502 262 10XX-11
 Tube fitting OD 1/4" (Brass)	2502 223 10XX-11	2502 255 10XX-11	2502 261 10XX-11
 Tube fitting OD 1/4" (SS)	2502 129 10XX-11	2502 254 10XX-11	2502 260 10XX-11
 Tube fitting OD 6mm (Brass)	2502 251 10XX-11	2502 256 10XX-11	2502 264 10XX-11
 Tube fitting OD 6mm (SS)	2502 252 10XX-11	2502 257 10XX-11	2502 265 10XX-11
 Flashback arrester (Acetylene 1.5 bar)	2502 062 1017-11	2502 258 1017-11	2502 266 1017-11

For other outlet connections see page 35. For other inlet connections see page 36.

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



17 - Acetylene (C₂H₂)



22 - Oxygen (O₂)



25 - Argon (Ar)



28 - Low vacuum (V)



19 - Hydrogen (H₂)



23 - Nitrogen (N₂)



26 - Helium (He)



21 - Compressed Air (CA)



24 - Carbon Dioxide (CO₂)



27 - Dinitrogen monoxide, nitrous oxide (N₂O)

BENCH MOUNTED FLOW REGULATION VALVE WITH NEEDLE HEADWORK

Specifications

Handle in metal with media indication according to EN13792:2002

Needle headwork

Opening/closing function: 3 x 360°

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

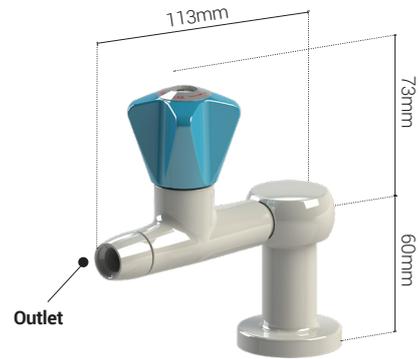
Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve



Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB

Configuration options

Choose outlet connection and number of valves:



	1 valve	2 valves 90°	2 valves 180°
 Female 1/4" NPT thread	2502 035 10XX-11	2502 036 10XX-11	2502 037 10XX-11
 Hose nozzle ID 1/4" (SS)	2502 209 10XX-11	2502 269 10XX-11	2502 275 10XX-11
 Tube fitting OD 1/4" (Brass)	2502 119 10XX-11	2502 270 10XX-11	2502 276 10XX-11
 Tube fitting OD 1/4" (SS)	2502 130 10XX-11	2502 271 10XX-11	2502 277 10XX-11
 Tube fitting OD 6mm (Brass)	2502 267 10XX-11	2502 272 10XX-11	2502 278 10XX-11
 Tube fitting OD 6mm (SS)	2502 268 10XX-11	2502 273 10XX-11	2502 279 10XX-11
 Flashback arrester (Acetylene 1.5 bar)	2502 054 1017-11	2502 274 1017-11	2502 602 1017-11

For other outlet connections see page 35. For other inlet connections see page 36.

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



17 - Acetylene (C₂H₂)



22 - Oxygen (O₂)



25 - Argon (Ar)



19 - Hydrogen (H₂)



23 - Nitrogen (N₂)



26 - Helium (He)



21 - Compressed Air (CA)



24 - Carbon Dioxide (CO₂)



27 - Dinitrogen monoxide, nitrous oxide (N₂O)

BENCH MOUNTED FLOW REGULATION VALVE WITH MICRO FLOW HEADWORK

Specifications

Handle in metal with media indication according to EN13792:2002

Micro flow headwork

Opening/closing function: 7.5 x 360°

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment,
BROEN-LAB colour: 2700 (RAL colour: 0008500)

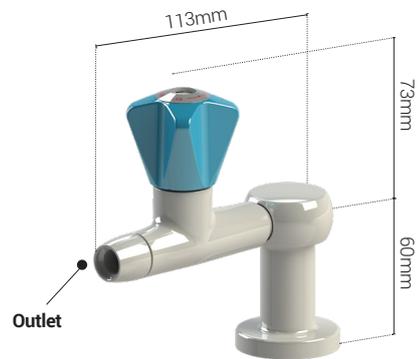
Material with media contact

Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based



For further options contact BROEN-LAB

Configuration options

Choose outlet connection and number of valves:



	1 valve	2 valves 90°	2 valves 180°
Female 1/4" NPT thread	2502 128 10XX-11	2502 280 10XX-11	2502 281 10XX-11
 Hose nozzle ID 1/4" (SS)	2502 133 10XX-11	2502 282 10XX-11	2502 283 10XX-11
 Tube fitting OD 1/4" (Brass)	2502 284 10XX-11	2502 285 10XX-11	2502 286 10XX-11
 Tube fitting OD 1/4" (SS)	2502 131 10XX-11	2502 185 10XX-11	2502 287 10XX-11
 Tube fitting OD 6mm (Brass)	2502 288 10XX-11	2502 289 10XX-11	2502 290 10XX-11
 Tube fitting OD 6mm (SS)	2502 291 10XX-11	2502 292 10XX-11	2502 294 10XX-11
 Flashback arrester (Acetylene 1.5 bar)	2502 295 1017-11	2502 296 1017-11	2502 297 1017-11

For other outlet connections see page 35. For other inlet connections see page 36.

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



17 - Acetylene (C₂H₂)



22 - Oxygen (O₂)



25 - Argon (Ar)



19 - Hydrogen (H₂)



23 - Nitrogen (N₂)



26 - Helium (He)



21 - Compressed Air (CA)



24 - Carbon Dioxide (CO₂)



27 - Dinitrogen monoxide, nitrous oxide (N₂O)

BENCH MOUNTED FITTING WITH SHUT-OFF VALVE AND PRESSURE REGULATOR

Specifications

Handle in metal with media indication according to EN13792:2002

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

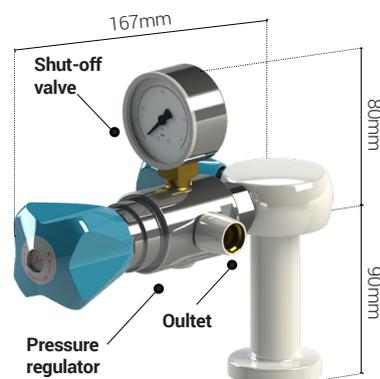
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Configuration options

Choose outlet connection and number of valves:



	3 bar	10 bar	3 bar	10 bar
Female 1/4" NPT thread	2505 059 10XX-11	2505 072 10XX-11	-	2505 131 10XX-11
 Hose nozzle ID 1/4" (SS)	-	2505 137 10XX-11	-	-
 Tube fitting OD 1/4" (Brass)	2505 098 10XX-11	2505 096 10XX-11	-	-
 Tube fitting OD 1/4" (SS)	-	-	-	-
 Tube fitting OD 6mm (Brass)	-	2505 139 10XX-11	-	-
 Tube fitting OD 6mm (SS)	-	-	-	-
 Flashback arrester (Acetylene 1.5 bar)	-	-	-	-

For other outlet connections see page 35. For other inlet connections see page 36.

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

 **17** - Acetylene (C₂H₂)

 **22** - Oxygen (O₂)

 **25** - Argon (Ar)

 **19** - Hydrogen (H₂)

 **23** - Nitrogen (N₂)

 **26** - Helium (He)

 **21** - Compressed Air (CA)

 **24** - Carbon Dioxide (CO₂)

 **27** - Dinitrogen monoxide, nitrous oxide (N₂O)

BENCH MOUNTED FITTING WITH PRESSURE REGULATOR AND FLOW REGULATION VALVE

Specifications

Handle in metal with media indication according to EN13792:2002

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

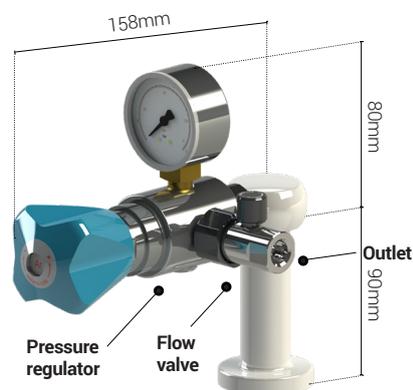
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Configuration options

Choose outlet connection and number of valves:



	3 bar	10 bar	3 bar	10 bar
Female 1/4" NPT thread	2505 051 10XX-11	2505 003 10XX-11	2505 052 10XX-11	2505 053 10XX-11
 Hose nozzle ID 1/4" (SS)	-	2505 085 10XX-11	2505 150 10XX-11	-
 Tube fitting OD 1/4" (Brass)	2505 030 10XX-11	2505 031 10XX-11	2505 032 10XX-11	2505 033 10XX-11
 Tube fitting OD 1/4" (SS)	2505 068 10XX-11	2505 083 10XX-11	-	-
 Tube fitting OD 6mm (Brass)	-	2505 103 10XX-11	-	2505 104 10XX-11
 Tube fitting OD 6mm (SS)	-	-	-	-
 Flashback arrester (Acetylene 1.5 bar)	2505 038 1017-11		2505 039 1017-11	

For other outlet connections see page 35. For other inlet connections see page 36.

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

 **17** - Acetylene (C₂H₂)

 **22** - Oxygen (O₂)

 **25** - Argon (Ar)

 **19** - Hydrogen (H₂)

 **23** - Nitrogen (N₂)

 **26** - Helium (He)

 **21** - Compressed Air (CA)

 **24** - Carbon Dioxide (CO₂)

 **27** - Dinitrogen monoxide, nitrous oxide (N₂O)

BENCH MOUNTED FITTING WITH SHUT-OFF VALVE, PRESSURE REGULATOR AND FLOW REGULATION VALVE

Specifications

Handle in metal with media indication according to EN13792:2002

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

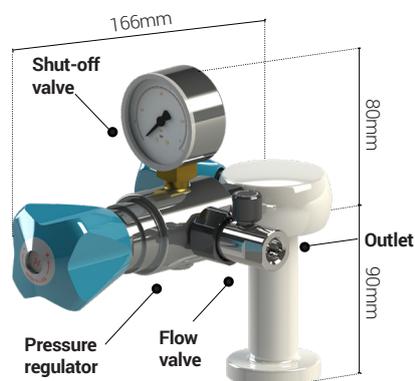
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Configuration options

Choose outlet connection and number of valves:



	3 bar	10 bar	3 bar	10 bar
Female 1/4" NPT thread	2505 121 10XX-11	2505 058 10XX-11	-	2505 132 10XX-11
 Hose nozzle ID 1/4" (SS)	-	-	-	-
 Tube fitting OD 1/4" (Brass)	2505 141 10XX-11	-	-	-
 Tube fitting OD 1/4" (SS)	2505 129 10XX-11	-	-	2505 144 10XX-11
 Tube fitting OD 6mm (Brass)	-	-	-	2505 152 10XX-11
 Tube fitting OD 6mm (SS)	-	2505 078 10XX-11	-	-
 Flashback arrester (Acetylene 1.5 bar)	-	-	-	-

For other outlet connections see page 35. For other inlet connections see page 36.

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

 **17** - Acetylene (C₂H₂)

 **22** - Oxygen (O₂)

 **25** - Argon (Ar)

 **19** - Hydrogen (H₂)

 **23** - Nitrogen (N₂)

 **26** - Helium (He)

 **21** - Compressed Air (CA)

 **24** - Carbon Dioxide (CO₂)

 **27** - Dinitrogen monoxide, nitrous oxide (N₂O)

SUSPENDED SHUT-OFF / HIGH FLOW VALVE

Specifications

Handle in metal with media indication according to EN13792:2002

High flow headwork

Opening/closing function: 1.5 x 360°

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment,
BROEN-LAB colour: 2700 (RAL colour: 0008500)

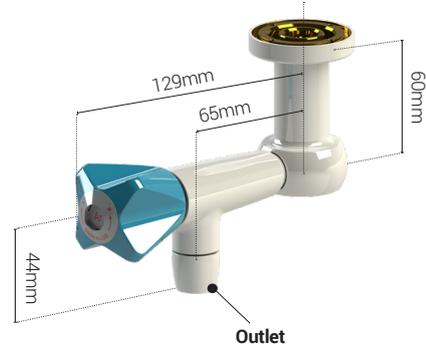
Material with media contact

Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based



For further options contact BROEN-LAB

Configuration options

Choose outlet connection and number of valves:



	1 valve	2 valves 90°	2 valves 180°
 Female 1/4" NPT thread	2502 040 10XX-11	2502 140 10XX-11	2502 350 10XX-11
 Hose nozzle ID 1/4" (SS)	2502 137 10XX-11	2502 146 10XX-11	2502 351 10XX-11
 Tube fitting OD 1/4" (Brass)	2502 342 10XX-11	2502 346 10XX-11	2502 352 10XX-11
 Tube fitting OD 1/4" (SS)	2502 134 10XX-11	2502 143 10XX-11	2502 353 10XX-11
 Tube fitting OD 6mm (Brass)	2502 343 10XX-11	2502 347 10XX-11	2502 354 10XX-11
 Tube fitting OD 6mm (SS)	2502 344 10XX-11	2502 348 10XX-11	2502 355 10XX-11
 Flashback arrester (Acetylene 1.5 bar)	2502 345 1017-11	2502 349 1017-11	2502 356 1017-11

For other outlet connections see page 35. For other inlet connections see page 36.

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



17 - Acetylene (C₂H₂)



22 - Oxygen (O₂)



25 - Argon (Ar)



28 - Low vacuum (V)



19 - Hydrogen (H₂)



23 - Nitrogen (N₂)



26 - Helium (He)



21 - Compressed Air (CA)



24 - Carbon Dioxide (CO₂)



27 - Dinitrogen monoxide, nitrous oxide (N₂O)

SUSPENDED FLOW REGULATION VALVE WITH NEEDLE HEADWORK

Specifications

Handle in metal with media indication according to EN13792:2002

Needle headwork

Opening/closing function: 3 x 360°

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment,
BROEN-LAB colour: 2700 (RAL colour: 0008500)

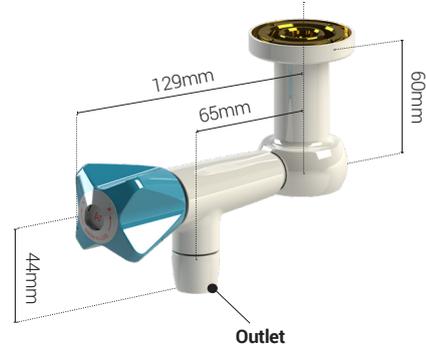
Material with media contact

Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based



For further options contact BROEN-LAB

Configuration options

Choose outlet connection and number of valves:



	1 valve	2 valves 90°	2 valves 180°
 Female 1/4" NPT thread	2502 039 10XX-11	2502 141 10XX-11	2502 121 10XX-11
 Hose nozzle ID 1/4" (SS)	2502 138 10XX-11	2502 148 10XX-11	2502 385 10XX-11
 Tube fitting OD 1/4" (Brass)	2502 120 10XX-11	2502 381 10XX-11	2502 122 10XX-11
 Tube fitting OD 1/4" (SS)	2502 135 10XX-11	2502 144 10XX-11	2502 306 10XX-11
 Tube fitting OD 6mm (Brass)	2502 380 10XX-11	2502 382 10XX-11	2502 386 10XX-11
 Tube fitting OD 6mm (SS)	2502 379 10XX-11	2502 383 10XX-11	2502 387 10XX-11
 Flashback arrester (Acetylene 1.5 bar)	2502 172 1017-11	2502 384 1017-11	2502 304 1017-11

For other outlet connections see page 35. For other inlet connections see page 36.

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



17 - Acetylene (C₂H₂)



22 - Oxygen (O₂)



25 - Argon (Ar)



19 - Hydrogen (H₂)



23 - Nitrogen (N₂)



26 - Helium (He)



21 - Compressed Air (CA)



24 - Carbon Dioxide (CO₂)



27 - Dinitrogen monoxide, nitrous oxide (N₂O)

SUSPENDED FLOW REGULATION VALVE WITH MICRO FLOW HEADWORK

Specifications

Handle in metal with media indication according to EN13792:2002

Micro flow headwork

Opening/closing function: 7.5 x 360°

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment,
BROEN-LAB colour: 2700 (RAL colour: 0008500)

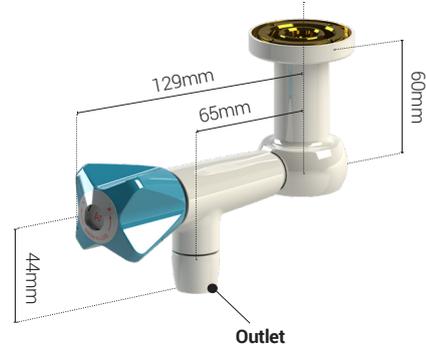
Material with media contact

Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based



For further options contact BROEN-LAB

Configuration options

Choose outlet connection and number of valves:



	1 valve	2 valves 90°	2 valves 180°
 Female 1/4" NPT thread	2502 041 10XX-11	2502 142 10XX-11	2502 397 10XX-11
 Hose nozzle ID 1/4" (SS)	2502 139 10XX-11	2502 147 10XX-11	2502 399 10XX-11
 Tube fitting OD 1/4" (Brass)	2502 389 10XX-11	2502 393 10XX-11	2502 398 10XX-11
 Tube fitting OD 1/4" (SS)	2502 136 10XX-11	2502 145 10XX-11	2502 400 10XX-11
 Tube fitting OD 6mm (Brass)	2502 390 10XX-11	2502 394 10XX-11	2502 401 10XX-11
 Tube fitting OD 6mm (SS)	2502 391 10XX-11	2502 395 10XX-11	2502 402 10XX-11
 Flashback arrester (Acetylene 1.5 bar)	2502 392 1017-11	2502 396 1017-11	2502 388 1017-11

For other outlet connections see page 35. For other inlet connections see page 36.

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



17 - Acetylene (C₂H₂)



22 - Oxygen (O₂)



25 - Argon (Ar)



28 - Low vacuum (V)



19 - Hydrogen (H₂)



23 - Nitrogen (N₂)



26 - Helium (He)



21 - Compressed Air (CA)



24 - Carbon Dioxide (CO₂)



27 - Dinitrogen monoxide, nitrous oxide (N₂O)

SUSPENDED FITTING WITH SHUT-OFF VALVE AND PRESSURE REGULATOR

Specifications

Handle in metal with media indication according to EN13792:2002

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

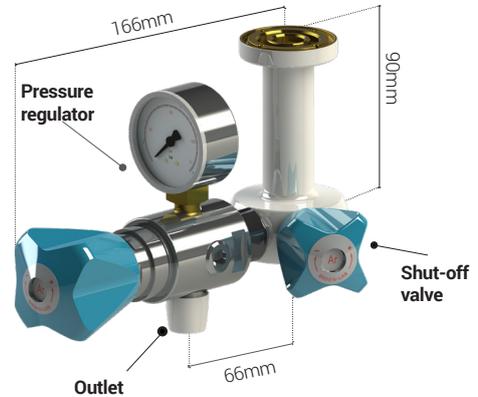
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Configuration options

Choose outlet connection and number of valves:



	3 bar	10 bar	3 bar	10 bar
Female 1/4" NPT thread	2505 128 10XX-11	2505 127 10XX-11	-	2505 133 10XX-11
 Hose nozzle ID 1/4" (SS)	-	-	2505 512 10XX-11	-
 Tube fitting OD 1/4" (Brass)	2505 097 10XX-11	2505 092 10XX-11	2505 093 10XX-11	2505 094 10XX-11
 Tube fitting OD 1/4" (SS)	-	-	-	-
 Tube fitting OD 6mm (Brass)	-	-	-	-
 Tube fitting OD 6mm (SS)	-	-	-	-
 Flashback arrester (Acetylene 1.5 bar)	-	-	-	-

For other outlet connections see page 35. For other inlet connections see page 36.

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



17 - Acetylene (C₂H₂)



22 - Oxygen (O₂)



25 - Argon (Ar)



19 - Hydrogen (H₂)



23 - Nitrogen (N₂)



26 - Helium (He)



21 - Compressed Air (CA)



24 - Carbon Dioxide (CO₂)



27 - Dinitrogen monoxide, nitrous oxide (N₂O)

SUSPENDED FITTING WITH PRESSURE REGULATOR AND FLOW REGULATION VALVE

Specifications

Handle in metal with media indication according to EN13792:2002

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

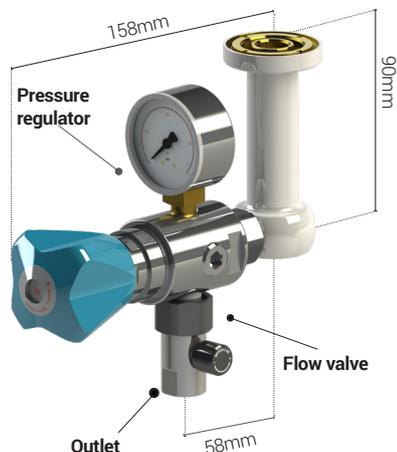
Material with media contact

Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based



For further options contact BROEN-LAB

Configuration options

Choose outlet connection and number of valves:



	3 bar	10 bar	3 bar	10 bar
Female 1/4" NPT thread	2505 048 10XX-11	2505 001 10XX-11	2505 049 10XX-11	2505 050 10XX-11
 Hose nozzle ID 1/4" (SS)	-	-	-	-
 Tube fitting OD 1/4" (Brass)	2505 020 10XX-11	2505 021 10XX-11	2505 022 10XX-11	2505 023 10XX-11
 Tube fitting OD 1/4" (SS)	-	-	-	-
 Tube fitting OD 6mm (Brass)	-	2505 105 10XX-11	-	-
 Tube fitting OD 6mm (SS)	-	2505 119 10XX-11	-	-
 Flashback arrester (Acetylene 1.5 bar)	2505 028 1017-11		2505 029 1017-11	

For other outlet connections see page 35. For other inlet connections see page 36.

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



17 - Acetylene (C₂H₂)



22 - Oxygen (O₂)



25 - Argon (Ar)



19 - Hydrogen (H₂)



23 - Nitrogen (N₂)



26 - Helium (He)



21 - Compressed Air (CA)



24 - Carbon Dioxide (CO₂)



27 - Dinitrogen monoxide, nitrous oxide (N₂O)

SUSPENDED FITTING WITH SHUT-OFF VALVE, PRESSURE REGULATOR AND FLOW REGULATION VALVE

Specifications

Handle in metal with media indication according to EN13792:2002

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

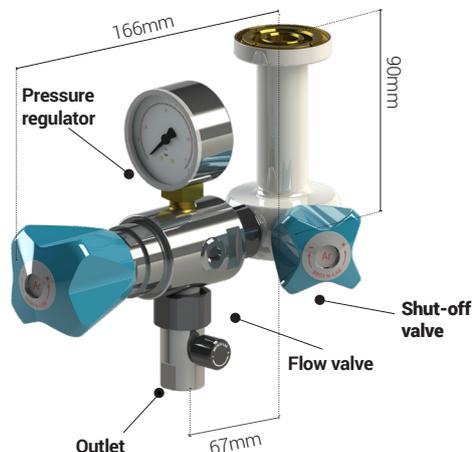
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Configuration options

Choose outlet connection and number of valves:



	3 bar	10 bar	3 bar	10 bar
Female 1/4" NPT thread	2505 004 10XX-11	2505 002 10XX-11	2505 126 10XX-11	2505 091 10XX-11
 Hose nozzle ID 1/4" (SS)	-	-	-	-
 Tube fitting OD 1/4" (Brass)	-	2505 111 10XX-11	-	-
 Tube fitting OD 1/4" (SS)	-	2505 112 10XX-11	-	2505 113 10XX-11
 Tube fitting OD 6mm (Brass)	-	-	-	-
 Tube fitting OD 6mm (SS)	-	-	-	-
 Flashback arrester (Acetylene 1.5 bar)	2505 106 1017-11		-	

For other outlet connections see page 35. For other inlet connections see page 36.

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



17 - Acetylene (C₂H₂)



22 - Oxygen (O₂)



25 - Argon (Ar)



19 - Hydrogen (H₂)



23 - Nitrogen (N₂)



26 - Helium (He)



21 - Compressed Air (CA)



24 - Carbon Dioxide (CO₂)



27 - Dinitrogen monoxide, nitrous oxide (N₂O)

PANEL/WALL MOUNTED FITTING WITH SHUT-OFF / HIGH FLOW VALVE FOR CONCEALED PIPING

Specifications

Handle in metal with media indication according to EN13792:2002

High flow headwork

Opening/closing function: 1.5 x 360°

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

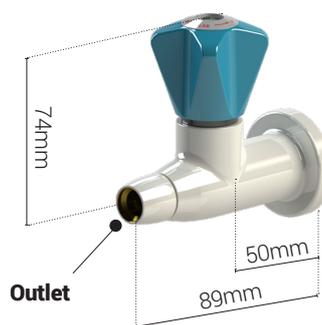
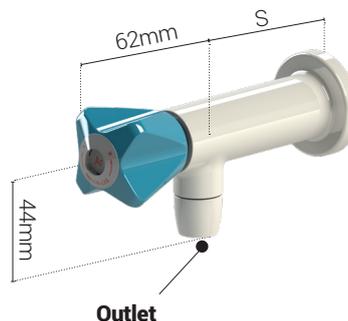
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Configuration options

Choose outlet connection and number of valves:



	S = 50mm	S = 75mm	Straight valve
 Female 1/4" NPT thread	2502 079 10XX-11	2502 073 10XX-11	2502 085 10XX-11
 Hose nozzle ID 1/4" (SS)	2502 170 10XX-11	2502 449 10XX-11	2502 171 10XX-11
 Tube fitting OD 1/4" (Brass)	2502 450 10XX-11	2502 455 10XX-11	2502 460 10XX-11
 Tube fitting OD 1/4" (SS)	2502 451 10XX-11	2502 456 10XX-11	2502 461 10XX-11
 Tube fitting OD 6mm (Brass)	2502 452 10XX-11	2502 457 10XX-11	2502 462 10XX-11
 Tube fitting OD 6mm (SS)	2502 453 10XX-11	2502 458 10XX-11	2502 463 10XX-11
 Flashback arrester (Acetylene 1.5 bar)	2502 454 1017-11	2502 459 1017-11	2502 464 1017-11

For other outlet connections see page 35. For other inlet connections see page 36.

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



17 - Acetylene (C₂H₂)



22 - Oxygen (O₂)



25 - Argon (Ar)



19 - Hydrogen (H₂)



23 - Nitrogen (N₂)



26 - Helium (He)



21 - Compressed Air (CA)



24 - Carbon Dioxide (CO₂)



27 - Dinitrogen monoxide, nitrous oxide (N₂O)

PANEL/WALL MOUNTED FITTING WITH FLOW REGULATION VALVE WITH NEEDLE HEADWORK FOR CONCEALED PIPING

Specifications

Handle in metal with media indication according to EN13792:2002

Needle headwork

Opening/closing function: 3 x 360°

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

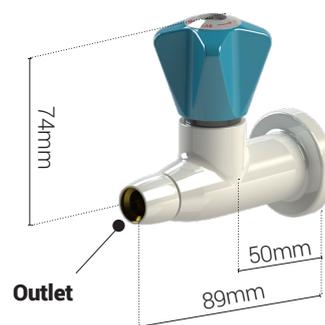
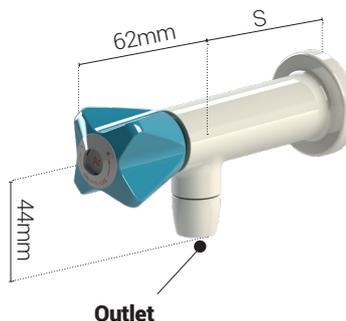
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Configuration options

Choose outlet connection and number of valves:



	S = 50mm	S = 75mm	Straight valve
 Female 1/4" NPT thread	2502 080 10XX-11	2502 074 10XX-11	2502 086 10XX-11
 Hose nozzle ID 1/4" (SS)	2502 465 10XX-11	2502 470 10XX-11	2502 206 10XX-11
 Tube fitting OD 1/4" (Brass)	2502 466 10XX-11	2502 491 10XX-11	2502 127 10XX-11
 Tube fitting OD 1/4" (SS)	2502 301 10XX-11	2502 492 10XX-11	2502 305 10XX-11
 Tube fitting OD 6mm (Brass)	2502 467 10XX-11	2502 493 10XX-11	2502 508 10XX-11
 Tube fitting OD 6mm (SS)	2502 468 10XX-11	2502 494 10XX-11	2502 509 10XX-11
 Flashback arrester (Acetylene 1.5 bar)	2502 469 1017-11	2502 495 1017-11	2502 123 1017-11

For other outlet connections see page 35. For other inlet connections see page 36.

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



PANEL/WALL MOUNTED FITTING WITH SHUT-OFF / MICROFLOW VALVE FOR CONCEALED PIPING

Specifications

Handle in metal with media indication according to EN13792:2002

Microflow headwork

Opening/closing function: 7.5 x 360°

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

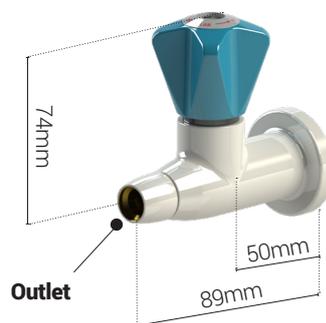
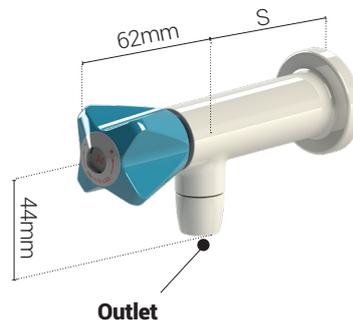
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Configuration options

Choose outlet connection and number of valves:



	S = 50mm	S = 75mm	Straight valve
 Female 1/4" NPT thread	2502 081 10XX-11	2502 075 10XX-11	2502 087 10XX-11
 Hose nozzle ID 1/4" (SS)	2502 496 10XX-11	2502 497 10XX-11	2502 510 10XX-11
 Tube fitting OD 1/4" (Brass)	2502 498 10XX-11	2502 499 10XX-11	2502 511 10XX-11
 Tube fitting OD 1/4" (SS)	2502 500 10XX-11	2502 501 10XX-11	2502 512 10XX-11
 Tube fitting OD 6mm (Brass)	2502 502 10XX-11	2502 503 10XX-11	2502 513 10XX-11
 Tube fitting OD 6mm (SS)	2502 504 10XX-11	2502 505 10XX-11	2502 514 10XX-11
 Flashback arrester (Acetylene 1.5 bar)	2502 506 1017-11	2502 507 1017-11	2502 603 1017-11

For other outlet connections see page 35. For other inlet connections see page 36.

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



17 - Acetylene (C₂H₂)



22 - Oxygen (O₂)



25 - Argon (Ar)



19 - Hydrogen (H₂)



23 - Nitrogen (N₂)



26 - Helium (He)



21 - Compressed Air (CA)



24 - Carbon Dioxide (CO₂)



27 - Dinitrogen monoxide, nitrous oxide (N₂O)

PANEL/WALL MOUNTED FITTING WITH SHUT-OFF VALVE AND PRESSURE REGULATOR

Specifications

Handle in metal with media indication according to EN13792:2002

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

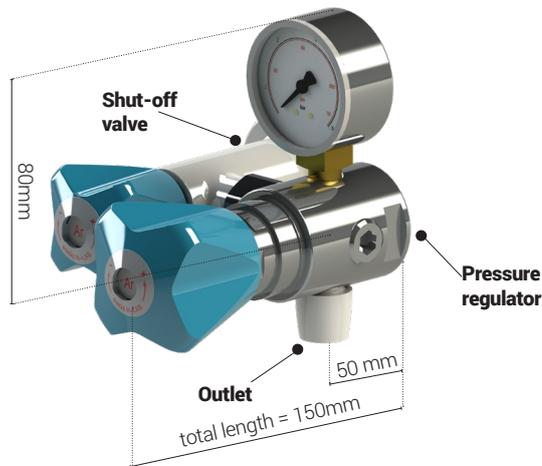
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Configuration options

Choose outlet connection and number of valves:



	3 bar	10 bar
Female 1/4" NPT thread	2505 086 10XX-11	2505 074 10XX-11
 Hose nozzle ID 1/4" (SS)	-	-
 Tube fitting OD 1/4" (Brass)	2505 099 10XX-11	2505 075 10XX-11
 Tube fitting OD 1/4" (SS)	-	2505 062 10XX-11
 Tube fitting OD 6mm (Brass)	-	-
 Tube fitting OD 6mm (SS)	-	-
 Flashback arrester (Acetylene 1.5 bar)	2505 220 1017-11	

For other outlet connections see page 35. For other inlet connections see page 36.

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

 **17** - Acetylene (C₂H₂)

 **22** - Oxygen (O₂)

 **25** - Argon (Ar)

 **19** - Hydrogen (H₂)

 **23** - Nitrogen (N₂)

 **26** - Helium (He)

 **21** - Compressed Air (CA)

 **24** - Carbon Dioxide (CO₂)

 **27** - Dinitrogen monoxide, nitrous oxide (N₂O)

PANEL/WALL MOUNTED FITTING WITH PRESSURE REGULATOR AND FLOW REGULATION VALVE

Specifications

Handle in metal with media indication according to EN13792:2002

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

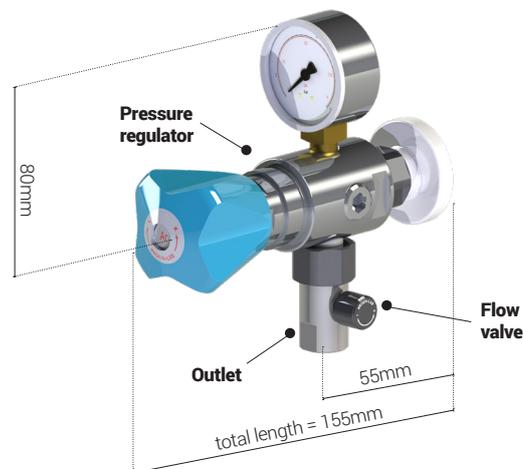
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Configuration options

Choose outlet connection and number of valves:



	3 bar	10 bar
Female 1/4" NPT thread	2505 040 10XX-11	2505 041 10XX-11
 Hose nozzle ID 1/4" (SS)	2505 081 10XX-11	2505 084 10XX-11
 Tube fitting OD 1/4" (Brass)	2505 007 10XX-11	2505 006 10XX-11
 Tube fitting OD 1/4" (SS)	-	2505 082 10XX-11
 Tube fitting OD 6mm (Brass)	2505 509 10XX-11	-
 Tube fitting OD 6mm (SS)	2505 107 10XX-11	-
 Flashback arrester (Acetylene 1.5 bar)	2505 017 1017-11	

For other outlet connections see page 35. For other inlet connections see page 36.

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

 **17** - Acetylene (C₂H₂)

 **22** - Oxygen (O₂)

 **25** - Argon (Ar)

 **19** - Hydrogen (H₂)

 **23** - Nitrogen (N₂)

 **26** - Helium (He)

 **21** - Compressed Air (CA)

 **24** - Carbon Dioxide (CO₂)

 **27** - Dinitrogen monoxide, nitrous oxide (N₂O)

PANEL/WALL MOUNTED FITTING WITH SHUT-OFF VALVE, PRESSURE REGULATOR AND FLOW REGULATION VALVE

Specifications

Handle in metal with media indication according to EN13792:2002

Inlet connection: 1/2" NPT/NPSM - female 1/4" NPT

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

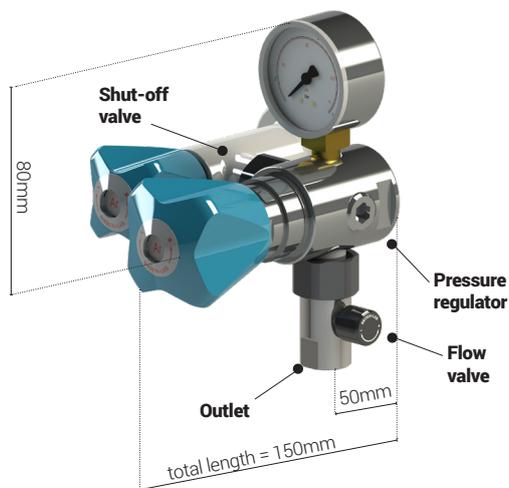
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Configuration options

Choose outlet connection and number of valves:



	3 bar	10 bar
 Female 1/4" NPT thread	-	2505 064 10XX-11
 Hose nozzle ID 1/4" (SS)	-	2505 130 10XX-11
 Tube fitting OD 1/4" (Brass)	-	-
 Tube fitting OD 1/4" (SS)	-	2505 135 10XX-11
 Tube fitting OD 6mm (Brass)	-	-
 Tube fitting OD 6mm (SS)	-	-
 Flashback arrester (Acetylene 1.5 bar)	2505 065 1017-11	

For other outlet connections see page 35. For other inlet connections see page 36.

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



17 - Acetylene (C₂H₂)



22 - Oxygen (O₂)



25 - Argon (Ar)



19 - Hydrogen (H₂)



23 - Nitrogen (N₂)



26 - Helium (He)



21 - Compressed Air (CA)



24 - Carbon Dioxide (CO₂)



27 - Dinitrogen monoxide, nitrous oxide (N₂O)

PANEL/WALL MOUNTED FLOW REGULATION VALVE WITH HIGH FLOW HEADWORK WITH WALL FLANGE SOCKET (WFS)

Specifications

Handle in metal with media indication according to EN13792:2002

High flow headwork

Opening/closing function: 1,5 x 360°

Inlet connection: female BROEN-LAB UniFlex™

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

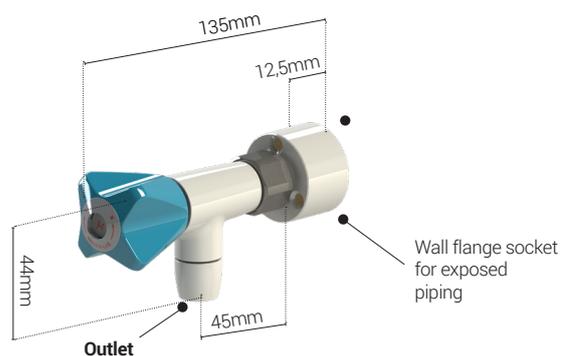
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Valve with a wall flange socket for built-in installation



Configuration options

Choose outlet connection and number of valves:



	WFS	Built-in
Female 1/4" NPT thread	2502 050 10XX	2502 051 10XX
 Hose nozzle ID 1/4" (SS)	2502 156 10XX	2502 525 10XX
 Tube fitting OD 1/4" (Brass)	2502 522 10XX	2502 526 10XX
 Tube fitting OD 1/4" (SS)	2502 162 10XX	2502 527 10XX
 Tube fitting OD 6mm (Brass)	2502 523 10XX	2502 528 10XX
 Tube fitting OD 6mm (SS)	2502 524 10XX	2502 529 10XX
 Flashback arrester (Acetylene 1.5 bar)	2502 229 1017	2502 230 1017

For other outlet connections see page 35.

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

 **17** - Acetylene (C₂H₂)

 **22** - Oxygen (O₂)

 **25** - Argon (Ar)

 **19** - Hydrogen (H₂)

 **23** - Nitrogen (N₂)

 **26** - Helium (He)

 **21** - Compressed Air (CA)

 **24** - Carbon Dioxide (CO₂)

 **27** - Dinitrogen monoxide, nitrous oxide (N₂O)

PANEL/WALL MOUNTED FLOW REGULATION VALVE WITH NEEDLE HEADWORK WITH WALL FLANGE SOCKET (WFS)

Specifications

Handle in metal with media indication according to EN13792:2002

Needle headwork

Opening/closing function: 3 x 360°

Inlet connection: female BROEN-LAB UniFlex™

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

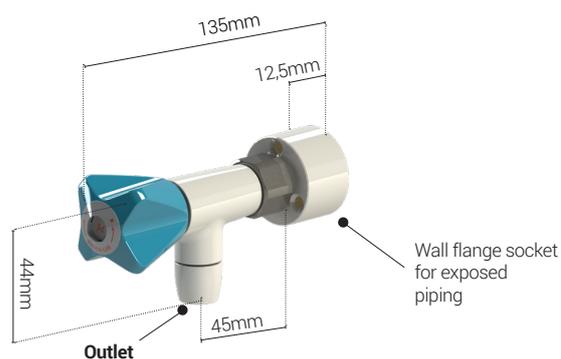
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Valve with a wall flange socket for built-in installation



Configuration options

Choose outlet connection and number of valves:



	WFS	Built-in
Female 1/4" NPT thread	2502 047 10XX	2502 048 10XX
 Hose nozzle ID 1/4" (SS)	2502 157 10XX	2502 532 10XX
 Tube fitting OD 1/4" (Brass)	2502 197 10XX	2502 191 10XX
 Tube fitting OD 1/4" (SS)	2502 163 10XX	2502 533 10XX
 Tube fitting OD 6mm (Brass)	2502 530 10XX	2502 534 10XX
 Tube fitting OD 6mm (SS)	2502 531 10XX	2502 535 10XX
 Flashback arrester (Acetylene 1.5 bar)	2502 232 1017	2502 233 1017

For other outlet connections see page 35.

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

 **17** - Acetylene (C₂H₂)

 **22** - Oxygen (O₂)

 **25** - Argon (Ar)

 **19** - Hydrogen (H₂)

 **23** - Nitrogen (N₂)

 **26** - Helium (He)

 **21** - Compressed Air (CA)

 **24** - Carbon Dioxide (CO₂)

 **27** - Dinitrogen monoxide, nitrous oxide (N₂O)

PANEL/WALL MOUNTED FLOW REGULATION VALVE WITH MICRO FLOW HEADWORK WITH WALL FLANGE SOCKET (WFS)

Specifications

Handle in metal with media indication according to EN13792:2002

Micro flow headwork

Opening/closing function: 7,5 x 360°

Inlet connection: female BROEN-LAB UniFlex™

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

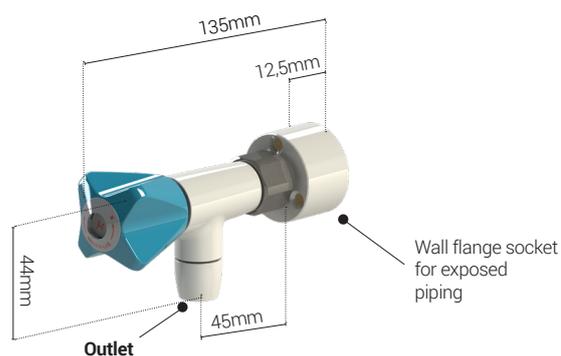
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Valve with a wall flange socket for built-in installation



Configuration options

Choose outlet connection and number of valves:



	WFS	Built-in
Female 1/4" NPT thread	2502 056 10XX	2502 053 10XX
 Hose nozzle ID 1/4" (SS)	2502 158 10XX	2502 558 10XX
 Tube fitting OD 1/4" (Brass)	2502 554 10XX	2502 559 10XX
 Tube fitting OD 1/4" (SS)	2502 164 10XX	2502 560 10XX
 Tube fitting OD 6mm (Brass)	2502 555 10XX	2502 561 10XX
 Tube fitting OD 6mm (SS)	2502 556 10XX	2502 562 10XX
 Flashback arrester (Acetylene 1.5 bar)	2502 557 1017	2502 263 1017

For other outlet connections see page 35.

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

 **17** - Acetylene (C₂H₂)

 **22** - Oxygen (O₂)

 **25** - Argon (Ar)

 **19** - Hydrogen (H₂)

 **23** - Nitrogen (N₂)

 **26** - Helium (He)

 **21** - Compressed Air (CA)

 **24** - Carbon Dioxide (CO₂)

 **27** - Dinitrogen monoxide, nitrous oxide (N₂O)

PANEL/WALL MOUNTED FITTING WITH SHUT-OFF VALVE AND PRESSURE REGULATOR FOR EXPOSED PIPING (WFS)

Specifications

Handle in metal with media indication according to EN13792:2002

Inlet connection: female BROEN-LAB UniFlex™

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

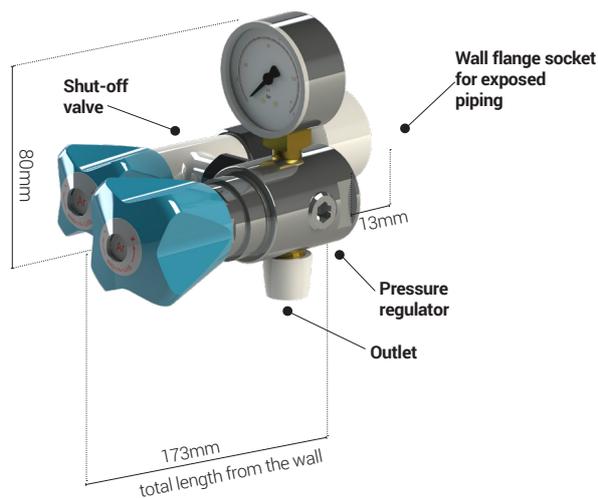
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Valve with a wall flange socket for built-in installation



Configuration options

Choose outlet connection and number of valves:



	3 bar	10 bar	3 bar	10 bar
Female 1/4" NPT thread	-	2505 134 10XX	-	2505 071 10XX
 Hose nozzle ID 1/4" (SS)	-	-	-	-
 Tube fitting OD 1/4" (Brass)	-	-	-	-
 Tube fitting OD 1/4" (SS)	-	-	-	-
 Tube fitting OD 6mm (Brass)	-	-	-	-
 Tube fitting OD 6mm (SS)	-	2505 138 10XX	-	-
 Flashback arrester (Acetylene 1.5 bar)	-	-	-	-

For other outlet connections see page 35.

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

 **17** - Acetylene (C₂H₂)

 **22** - Oxygen (O₂)

 **25** - Argon (Ar)

 **19** - Hydrogen (H₂)

 **23** - Nitrogen (N₂)

 **26** - Helium (He)

 **21** - Compressed Air (CA)

 **24** - Carbon Dioxide (CO₂)

 **27** - Dinitrogen monoxide, nitrous oxide (N₂O)

PANEL/WALL MOUNTED FITTING WITH PRESSURE REGULATOR AND FLOW REGULATION VALVE FOR EXPOSED PIPING (WFS)

Specifications

Handle in metal with media indication according to EN13792:2002

Inlet connection: female BROEN-LAB UniFlex™

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

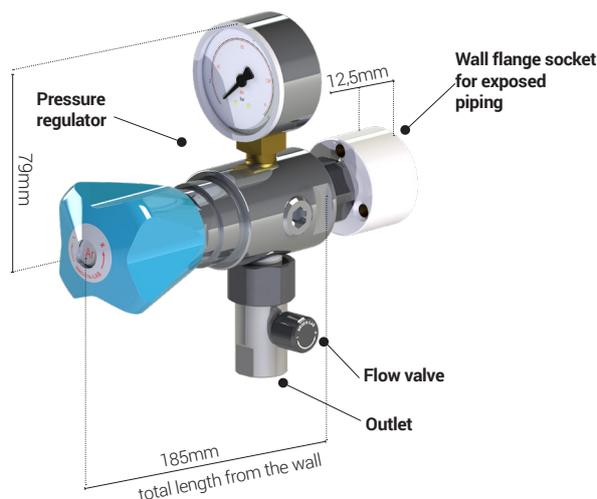
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Valve with a wall flange socket for built-in installation



Configuration options

Choose outlet connection and number of valves:



	3 bar	10 bar	3 bar	10 bar
Female 1/4" NPT thread	2505 042 10XX	2505 005 10XX	2505 044 10XX	2505 045 10XX
 Hose nozzle ID 1/4" (SS)	-	-	-	-
 Tube fitting OD 1/4" (Brass)	2505 090 10XX	2505 010 10XX	2505 011 10XX	2505 012 10XX
 Tube fitting OD 1/4" (SS)	2505 143 10XX	2505 109 10XX	-	-
 Tube fitting OD 6mm (Brass)	-	-	-	-
 Tube fitting OD 6mm (SS)	2505 108 10XX	2505 120 10XX	-	-
 Flashback arrester (Acetylene 1.5 bar)	2505 018 1017		2505 019 1017	

For other outlet connections see page 35.

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

 **17** - Acetylene (C₂H₂)

 **22** - Oxygen (O₂)

 **25** - Argon (Ar)

 **19** - Hydrogen (H₂)

 **23** - Nitrogen (N₂)

 **26** - Helium (He)

 **21** - Compressed Air (CA)

 **24** - Carbon Dioxide (CO₂)

 **27** - Dinitrogen monoxide, nitrous oxide (N₂O)

PANEL/WALL MOUNTED FITTING WITH SHUT-OFF VALVE, PRESSURE REGULATOR AND FLOW REGULATION VALVE FOR EXPOSED PIPING (WFS)

Specifications

Handle in metal with media indication according to EN13792:2002

Inlet connection: female BROEN-LAB UniFlex™

Outlet connection: See table below

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Acetylene (C₂H₂): 1.5 bar / 22 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment, BROEN-LAB colour: 2700 (RAL colour: 0008500)

Material with media contact

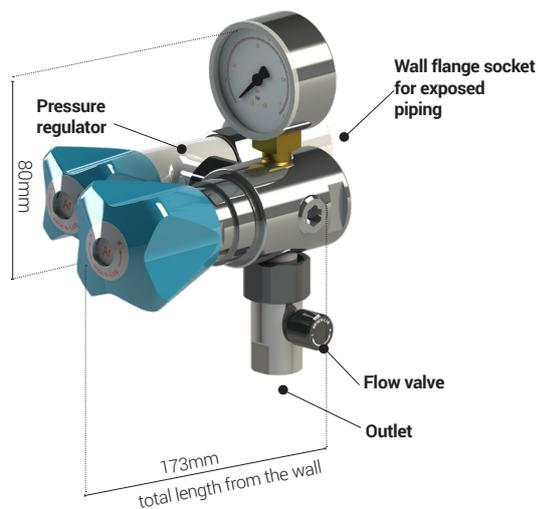
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Valve with a wall flange socket for built-in installation



Configuration options

Choose outlet connection and number of valves:



	3 bar	10 bar	3 bar	10 bar
Female 1/4" NPT thread	2505 122 10XX	2505 066 10XX	2505 124 10XX	2505 123 10XX
 Hose nozzle ID 1/4" (SS)	-	-	-	-
 Tube fitting OD 1/4" (Brass)	-	-	-	2505 102 10XX
 Tube fitting OD 1/4" (SS)	-	2505 136 10XX	-	-
 Tube fitting OD 6mm (Brass)	-	-	-	-
 Tube fitting OD 6mm (SS)	-	-	-	-
 Flashback arrester (Acetylene 1.5 bar)	-	-	-	-

For other outlet connections see page 35.

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

 **17** - Acetylene (C₂H₂)

 **22** - Oxygen (O₂)

 **25** - Argon (Ar)

 **19** - Hydrogen (H₂)

 **23** - Nitrogen (N₂)

 **26** - Helium (He)

 **21** - Compressed Air (CA)

 **24** - Carbon Dioxide (CO₂)

 **27** - Dinitrogen monoxide, nitrous oxide (N₂O)

PANEL / BUILT-IN MOUNTED FITTING WITH PRESSURE REGULATOR

Specifications

Handle in metal with media indication according to EN13792:2002

Inlet connection: female BROEN-LAB UniFlex™

Outlet connection: female BROEN-LAB UniFlex™

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment,

BROEN-LAB colour: 2700 (RAL colour: 0008500)

Mounting plate: AISI 316L, brushed surface

Material with media contact

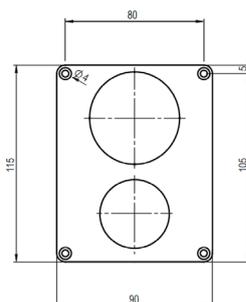
Metals: Brass

Plastics: PVDF

Sealing: FKM

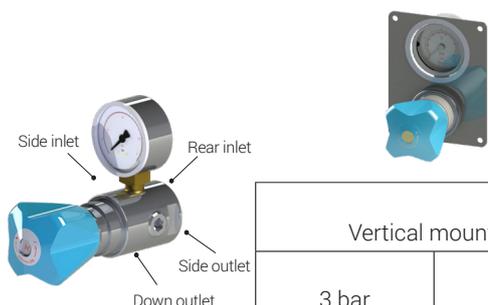
Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB



Configuration options

Choose inlet and outlet connection



	Vertical mounted		Horizontal mounted, handle in the right side		Horizontal mounted, handle in the left side	
	3 bar	10 bar	3 bar	10 bar	3 bar	10 bar
Inlet/outlet connection	-	-	-	-	-	-
Rear/down	-	-	-	-	-	-
Rear/side	2505 145 10XX	2505 146 10XX	-	-	-	-
Side/down	-	-	-	-	-	-
Side/side	-	-	-	-	-	-

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



17 - Acetylene (C₂H₂)



22 - Oxygen (O₂)



25 - Argon (Ar)



19 - Hydrogen (H₂)



23 - Nitrogen (N₂)



26 - Helium (He)



21 - Compressed Air (CA)



24 - Carbon Dioxide (CO₂)



27 - Dinitrogen monoxide, nitrous oxide (N₂O)

PANEL / BUILT-IN MOUNTED FITTING WITH PRESSURE REGULATOR AND FRONT CONTROL VALVE

Specifications

Handle in metal with media indication according to EN13792:2002

Inlet connection: female BROEN-LAB UniFlex™

Outlet connection: female BROEN-LAB UniFlex™

Rated maximum inlet pressure [P1]:

Standard: 21 bar / 305 psi

Allowable test pressure after installation:

1.5 x max inlet pressure [P1] without function of the valve

Surface

Chemical and UV-resistant Polyester Based Surface treatment,

BROEN-LAB colour: 2700 (RAL colour: 0008500)

Mounting plate: AISI 316L, brushed surface

Material with media contact

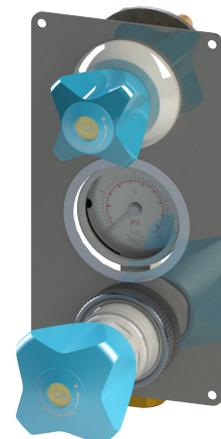
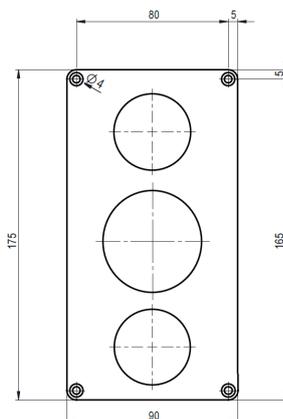
Metals: Brass

Plastics: PVDF

Sealing: FKM

Lubricant: Perfluoropolyether based

For further options contact BROEN-LAB

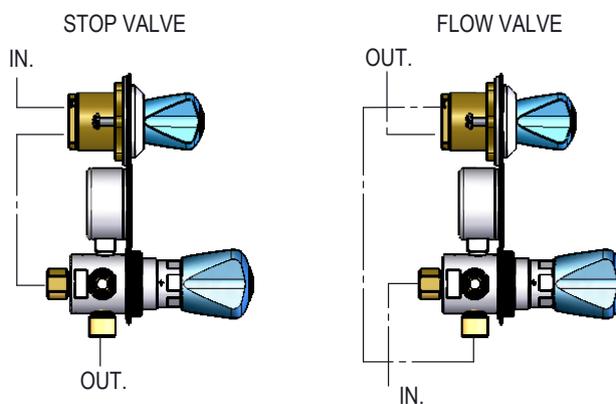


Configuration options

Specify valve type/headwork



	Vertical mounted with Front Control Valve	
	3 bar	10 bar
Needle headwork	2505 520 10XX	2505 163 10XX
1/4 turn headwork	-	-
Microflow headwork	-	-
Highflow headwork	-	-



Installation options

The Front Control Valve can be used as a stop valve or as a flow valve. See sketch above.

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



TECHNICAL INFORMATION

PRESSURE REGULATOR

Specifications

BROEN-LAB Cleanline 505 fittings are supplied with a single stage pressure regulator. A single stage regulator is used to reduce the inlet pressure [P1] to the outlet pressure [P2] in one step. By turning the hand wheel we can adjust the outlet pressure.

Type: Diaphragm single stage pressure regulator
 Purity: Up to 6.0 (pressure regulator only)
 Handle: Metal, BROEN-LAB POLYCOAT powder coated with media indication according to EN13792:2002

Rated maximum inlet pressure [P1]:

- Standard: 40 bar / 600 psi (Regulator only)
- Acetylene (C₂H₂): 1,5 bar / 22 psi

Outlet pressure [P2]:

- See ordering information

Recommended minimum inlet pressure [P1]:

- P1 = 2 x P2 + 1 (lower pressure [P1] is possible but will result in lower achievable flowrate)

Allowable test pressure after installation:

- 1.5 x max inlet pressure [P1] without function of the valve
- Manometer indicates pressure in both bar, psi and kPa scale.

Particle filter: 50 µm SS-filament in the inlet.

Pressure regulator may not be used as a shut-off valve!
 Temperature range: -25°C to +70°C / -13°F to +158°F

Inlet connection: Female G3/8-ISO 228/1 thread
 Outlet: Female G3/8-ISO 228/1 thread

Materials with media contact

- Body: Chrome plated brass
 - Inner parts: Brass
 - Sealing: FKM
 - Manometer: Brass
- Pressure regulator diaphragm:
- 3 and 10 bar: Hastelloy
 - Acetylene: AISI 316

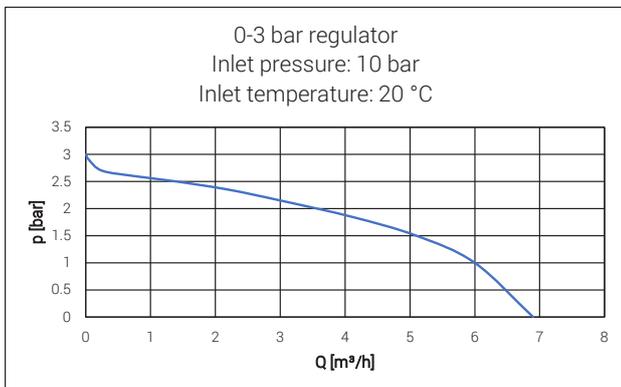
Ordering information

- Acetylene P₂= 0-1.5bar: 2505 073 1017 *
- Standard media P₂= 0-3 bar: 2505 046 10XX *
- Standard media P₂= 0-10 bar: 2505 047 10XX *

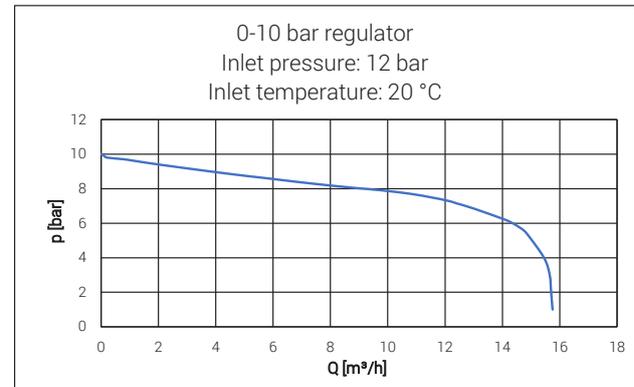
*Delivered with G1/2" union nut as inlet and 1/4" NPT female on the outlet.

XX - Media code
 (please refer to page 37 for media coding)

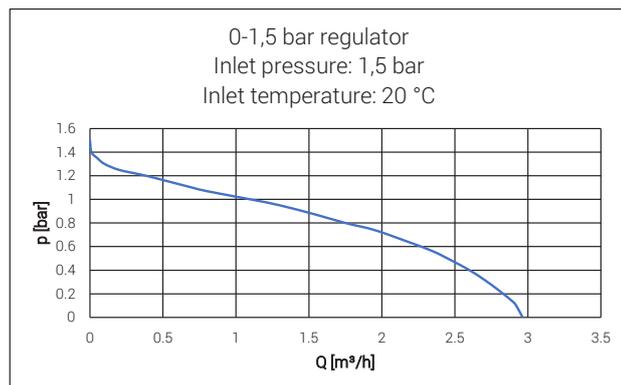
Model: 2505 046-10XX (0-3 bar)



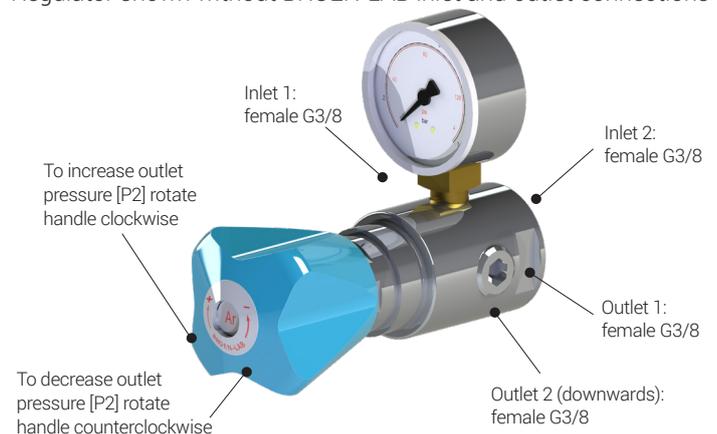
Model: 2505 047 10XX (0-10 bar)



Model: 2505 073-1017 (Acetylene)



Regulator shown without BROEN-LAB inlet and outlet connections



TECHNICAL INFORMATION

FLOW VALVE

Specifications

Compact flow regulating valve for low pressure applications.
For use on the outlet of pressure regulator.

Type: Needle

Opening/closing function: 3 x 360° turn

Purity: Up to 5.0

Handle: Metal

Rated maximum inlet pressure [P1]: 60 bar / 870 psi

Temperature range: -20°C to +50°C / -4°F to +122°F

Seat orifice size: Ø2.4mm

Flow coefficient:

$C_v = 0.116$

$K_v = 0.10$

Inlet connection: Male G3/8"

Outlet: Female 1/4" NPT thread

Materials with media contact

Body: Nickel plated brass

Seat seal: Metal / metal

O-ring: FKM

Gasket: PVDF

Needle: Stainless Steel

Ordering information

Straight version including mounting nut:

No. 15304679

Angle version including mounting nut:

No. 15304689

Straight version:

No. 02551009

Angle version:

No. 02553009



15304679



15304689



02551009



02553009

TECHNICAL INFORMATION

HIGH FLOW HEADWORK

Specifications

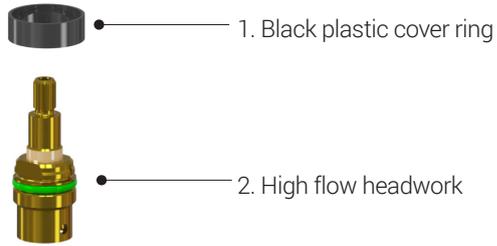
Opening/closing function: 1.5 x 360° turn

Media: Non-burning 5.0 (99.999% clean) gases

Max. working pressure: 21 bar / 305 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

Sealing: FKM

Lubricant: Perfluoropolyether based

Ordering information

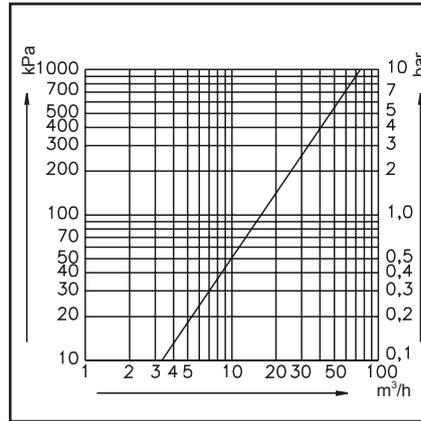
1. Black plastic cover ring

No. 0255035-2000

2. High flow headwork

Please contact your local BROEN-LAB sales representative

Flow Chart



TECHNICAL INFORMATION

NEEDLE HEADWORK

Specifications

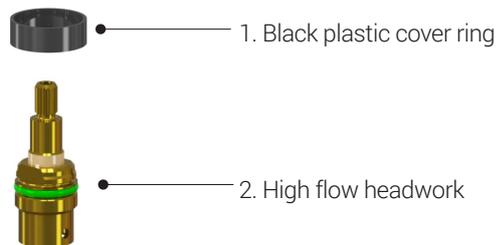
Opening/closing function: 3 x 360° turn

Media: Non-burning 5.0 (99.999% clean) gases

Max. working pressure: 21 bar / 305 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

Sealing: FKM

Lubricant: Perfluoropolyether based

Ordering information

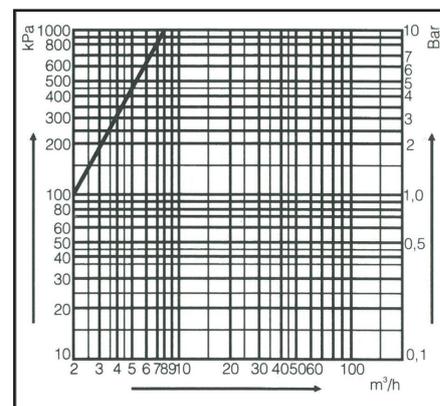
1. Black plastic cover ring

No. 0255035-2000

2. Needle headwork

Please contact your local BROEN-LAB sales representative

Flow Chart



TECHNICAL INFORMATION

MICRO FLOW HEADWORK

Specifications

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



Micro flow headwork

Opening/closing function: 7.5 x 360° turn

Media: Non-burning 5.0 (99.999% clean) gases

Max. working pressure: 21 bar / 305 psi

Test pressure: 1.5 x working pressure

Materials with media contact

Metals: Brass

Plastics: PVDF

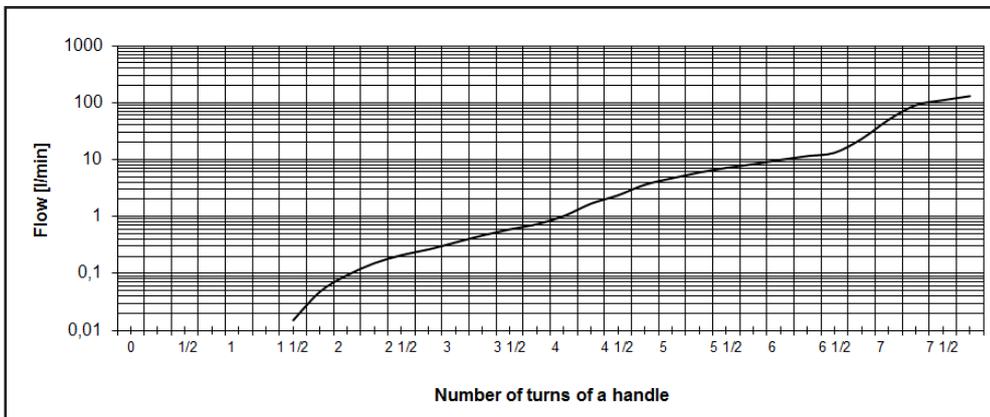
Sealing: FKM

Lubricant: Perfluoropolyether based

Ordering information

Please contact your local BROEN-LAB sales representative

Flow Chart



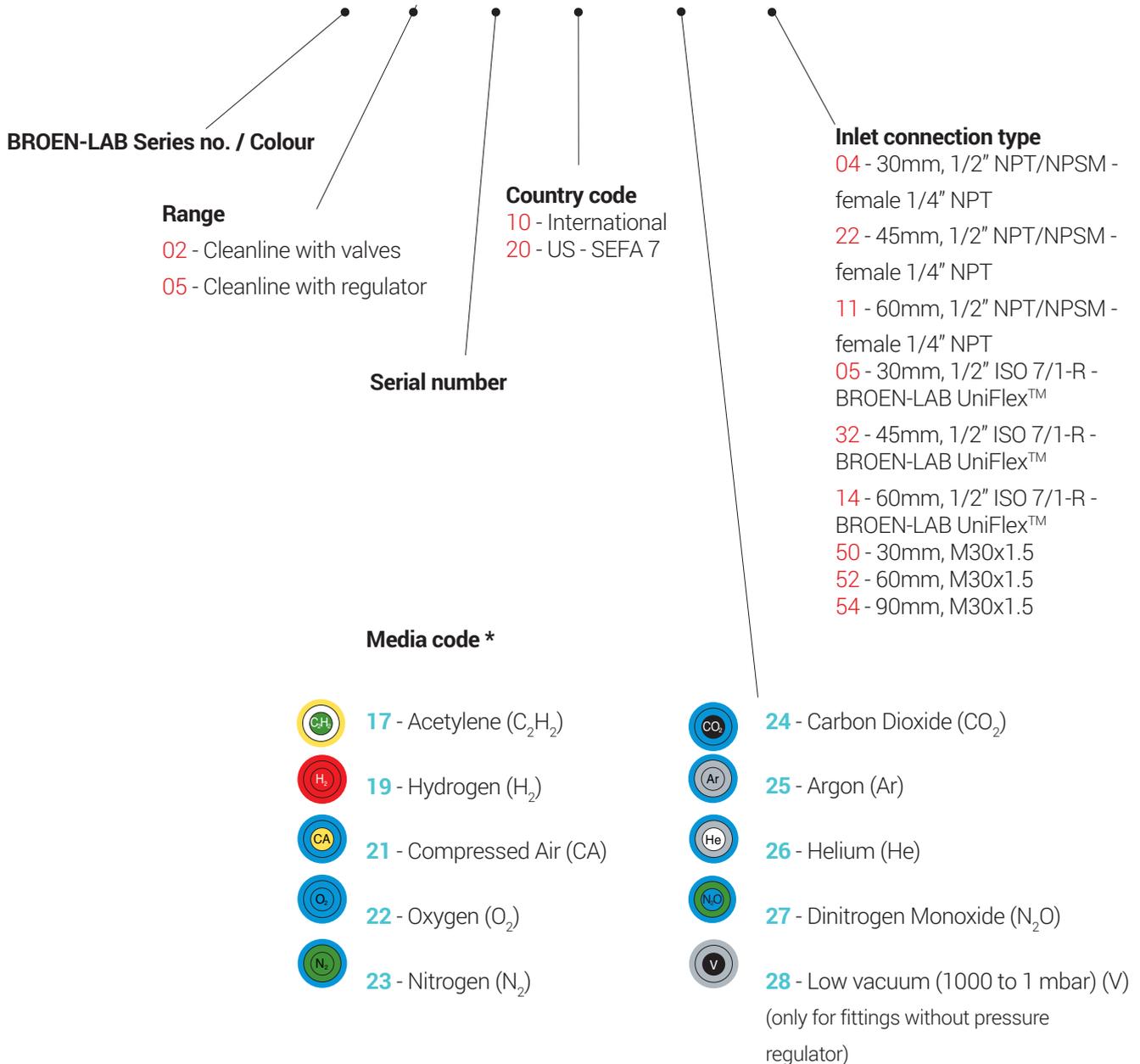
ACCESSORIES / SPAREPARTS

Illustration	Description	BROEN-LAB item no.
	Hose nozzle Male 1/4" NPT - ID 1/4"	96i00450
	Swagelok straight tube fittings OD 1/8" OD 1/4" OD 6mm OD 8mm OD 10mm	Brass: Stainless Steel: 96i01400 96i01040 96i00390 96i01030 96i01120 96i01020 96i00380 96i01110 96i01240 96i01430
	Swagelok elbow tube fittings OD 1/8" OD 1/4" OD 6mm OD 8mm OD 10mm	Brass: Stainless Steel: 96i01560 96i01100 96i01550 96i01090 96i01320 96i01080 96i01540 96i00430 96i01390 96i01680
	Mounting set for G1/2" connection Mounting set for M30x1.5 connection	19 141 999 19 190 000
	Inlet connection with 1/2" NPT/NPSM - female 1/4" NPT thread (incl. O-ring) L = 30mm L = 45mm L = 60mm	15 505 33R 15 505 37R 15 505 12R
	Wall flange socket (for exposed piping)	02 101 300G
	Wall flange socket (for built-in installation)	02 101 310
	Cover flange for 02 101 310	14 923 04G
	Flash back arrester (inlet: 1/4" NPT - outlet: 1/4" NPT female) (To be used for Acetylene)	96T1006
	Complete metal handle with media indication according to EN13792: • for single valves • for pressure regulator	19 160 149 10XX 02 402 109 10XX

ORDERING INFORMATION

Generally, item numbers for BROEN-LAB Cleanline 505 fittings have the following structure:

25 02 XXX 10 XX - XX



* Other media on request.

Please contact your local BROEN-LAB representative.

HEADQUARTER

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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.