WEH® Solutions for Industrial Gases

High pressure components and systems for gas mixing and filling up to 420 bar / 6,000 psi

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Welcome to WEH

Since 1973, WEH has stood for pioneering spirit, technical excellence and safety in fluid technology. As an agile specialist, we develop and manufacture safe, simple and highly leak-tight connection solutions for applications with pressures of up to 10,000 bar – ranging from high pressure and gas applications to hydrogen applications.

What sets us apart

WEH combines over 50 years of experience with continuous innovation. Our connection solutions stand worldwide for the highest levels of quality, safety and efficiency. We develop both standard products and customized solutions and support our customers with comprehensive technical expertise – from the initial idea up to the final application. With an international sales and service network and ISO 9001–certified quality, we meet the highest requirements across a wide range of industries and applications.

We offer

Our portfolio consists of reliable components and systems for connection technology as well as for hydrogen and CNG technology and high-pressure applications across numerous key industries.

Our WEH® quick connectors, valves and high pressure components enable efficient, reliable and leak-tight connections. They make testing and filling processes safer, speed up operations and set global standards in fluid technology.

Our solutions are used in the following industries among others:

- Automotive
- Gas Industry
- HVAC-R
- Mechanical and Plant Engineering
- Chemistry and Pharmaceuticals
- Medicine
- Off-Highway
- Logistics
- Respiratory protection and breathing air technology

Quick Connectors

Connected in seconds – without screwing

WEH® quick connectors enable functional, pressure and leak testing as well as evacuating and filling cylinders and containers – ergonomic, safe and process-optimized. For female threads and male threads, pipes, ports and much more.

High Pressure Solutions

Components & systems for medium and high pressure

For applications from 690 bar up to 10,000 bar. Suitable for hydraulic applications as well as demanding media such as hydrogen or helium – offering maximum leak-tightness, long service life and easy installation.

Filter Technology

Purity begins with attention to detail.

WEH® filters protect your systems from particles and contaminants. Available for technical gases, natural gas and hydrogen.

Valve Technology

Precise control. Secure locking.

Robust WEH® check valves and screw-in valves for liquids and gases. For industry, test benches and high pressure systems.

Solutions for Industrial Gases

Mixing, distributing and safely filling gases.

Customizable WEH® solutions for gas mixing and filling processes. Ideal for medical gases, laboratory applications and industrial gas supply..

Hydrogen & CNG Refueling Components

Refuel safely. Global deployment.

Proven worldwide in hydrogen and natural gas mobility: WEH® refueling components for vehicles, filling stations, and infrastructure—compliant with standards, safe and easy to maintain.

Our competencies:

Pressure ranges
up to 10,000 bar / 150,000 psi

Experience
50+ Years

Quality
Made in Germany

System overview - WEH® Components for setting up safe gas technology systems and installations

Reliable & secure since 1983

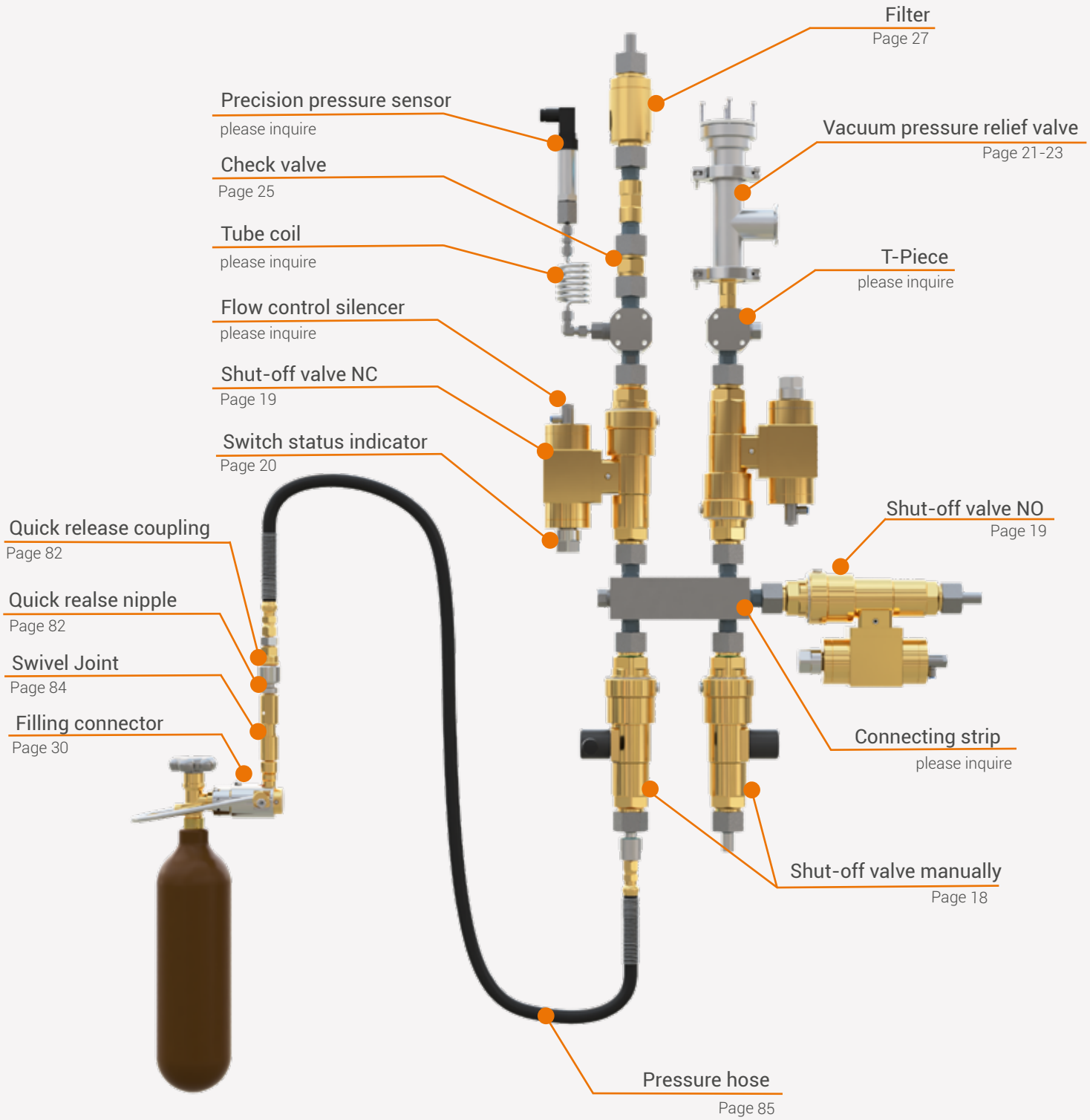
As specialists in the gas sector, we have been developing safe and reliable components for renowned manufacturers worldwide for more than 40 years. Technical gases are used in virtually every industry and in many industrial processes. In addition to the production of other mixed gases, they are also used in medical technology, pharmaceuticals, chemicals, food technology and many other areas.

In order to produce or use high quality gases in a reliable manner, you need reliable and powerful process plant technology that also meets the highest economic demands. Over the years, the product range has been continuously expanded, so that today numerous components required for plants for mixing, evacuating, and filling gases are available.

Our product portfolio includes:

Shut-off valves with mechanical or pneumatic sensors for use in gas mixing and filling systems	
Vacuum pressure relief valve for protecting vacuum pumps	
Check valves as backflow prevention devices in gas mixing systems	
Gas filters for the filtration of inert gases and oxygen	
Quick connector for filling, evacuating and testing gas cylinders	

Our system in detail:



Mixing

Gas mixing systems are indispensable in numerous industries when it comes to precise, reproducible and safe gas processes. Whether in metalworking, the food industry, medical technology, or special applications — stable mixing ratios are crucial for quality and efficiency. Modern WEH® components enable stable control, high operational safety and flexible adaptation to different gas types and process requirements. This results in a powerful solution for demanding applications.

Consistent mixing quality

Precise switching valves ensure consistent mixing ratios.

High process reliability

Through tested components and robust designs.

Flexible integration

Suitable for different types of gas and variable mixing requirements.

Easy handling

Clearly structured, easy to use, and maintenance-friendly.

Evacuating & Filling

To ensure consistently high quality of a gas mixture, it is ensured before the filling process that the delivered cylinders are completely free of residual gases. To do this, the containers are evacuated before refilling: all residues from the previous atmosphere – such as residual gases, air, or moisture – are reliably extracted. This procedure is standard practice when filling technical and medical gases. With WEH® quick connectors, this step can be carried out just as efficiently as the subsequent filling process. The connectors connect in seconds without screws and ensure a tight, secure, and standard-compliant connection. Whether female thread, male thread, pin index, or residual pressure valve – WEH offers the right solution for almost all cylinder valves. This makes evacuation and filling processes equally safe, convenient, and economical.

Quick connection

Changing in seconds without screws saves time and energy.

High tightness

Optimized sealing technology minimizes gas losses.

Maximum compatibility

Wide selection of connectors for different standards and valve types.

Ergonomic working

Joint-friendly operation and reduced risk of incorrect operation thanks to safety features.

Testing

WEH® offers high-performance test connectors for reliable pressure and leak testing of gas cylinders, guaranteeing fast results and a high level of safety. The tool-free quick connection eliminates time-consuming screw-in procedures, making test sequences significantly more efficient. With robust materials, integrated safety mechanisms, and high pressure resistance, the test connectors meet the highest requirements. They enable precise testing and help to reduce downtime and increase operational safety at all levels.

Efficient testing processes

Quick connectorss reduce testing time and effort.

Highest security

Integrated safety features protect users and equipment.

Reliable results

Precise design for reproducible test values.

Long service life

Robust materials and high-quality manufacturing reduce downtime.

Customized solutions

Customized solutions for your applications: When standard solutions are not sufficient, we develop tailor-made components for your processes.

Our approach is structured, efficient, and designed for partnership-based collaboration:

01.

Analysis

We understand your application and your technical requirements..

02.

Consulting

We assess feasibility and propose initial solutions.

03.

Development

Design, material selection, and simulation by our experienced team of experts.

04.

Prototype construction & testing

At the WEH Test Center, we subject your solution to specific quality and safety tests.

05.

manufacturing

Series production or individual solutions – depending on your needs.

06.

Delivery & Support

On time, worldwide, with technical support on request.

Quick connector for evacuating & filling

	TYPE	CONNECTION TYPE	MEDIUM	PRESSURE PS	VERSION RPV / NON-RPV	PAGE
	Connector TW54		Inert gases / Oxygen	250 bar or 375 bar	✓	33
	Connector TW57		Inert gases / Oxygen	250 bar or 375 bar	✓	39
	Connector TW101		Inert gases / Oxygen	250 bar	✓*	43
	Connector TW102		Inert gases / Oxygen	250 bar	✓*	47
	Connector TW103-S90		CO_2	155 bar	✓*	53
	Connector TW152		Medical oxygen	250 bar	✓	57
	Connector TW42		Medical oxygen	250 bar	✓	63
	Connector TW49		Medical oxygen	250 bar		65
	Connector TW52		Refrigerant / CO_2 (gaseous or liquid)	250 bar 150 bar	✓	67
	Connector TW53		Acetylene / Acetone	30 bar		71
	Connector TW59		Flammable gases (propane, butane)	30 bar		73
	Connector TW67		Inert gases / Oxygen	250 bar or 375 bar	✓	75

*Only versions for residual pressure valves available

Legend

Male thread | Female thread | Pin-Index | Collar | Inner bore

Accessories for evacuating & filling

	TYPE	MEDIUM	PRESSURE PS	PAGE
	Quick release system TK350-TN350	Inert gases / Oxygen	375 bar	81
	Swivel joint TD1	Inert gases / Oxygen	420 bar	83
	Pressure hose THP40	Inert gases / Oxygen	420 bar	85

Components for mixing and filling systems

	TYPE	MEDIUM	PRESSURE PS	PAGE
	Shut-off valve TV17	Inert gases / Oxygen	420 bar	17
	Vacuum pressure relief module TVS20 (ventilating into the room)	Inert gases / Oxygen	420 bar	21
	Vacuum pressure relief module TVS21 (ventilating to the open air)	Inert gases / Oxygen	420 bar	23
	Check valve TVR2	Inert gases	420 bar	25
	Filter TSF4	Inert gases / Oxygen	420 bar	27

Quick connector for pressure testing gas cylinders

	TYPE	CONNECTION TYPE	MEDIUM	PRESSURE PS	PAGE
	Connector TW17		Water	450 bar	91
	Connector TW117		Water, compressed air (during emptying)	450 bar	95

Mixing

Mixing

Precise gas mixing requires reliable components that ensure stable process conditions. In gas technology applications, WEH solutions ensure constant mixing ratios, high purity, and maximum safety. The compact WEH® TV17 shut-off valves combine several functions in one valve and enable flexible gas control. In addition, the TVS20/TVS21 pressure relief valves protect the system from overpressure. An extensive range of accessories is also available for setting up complete gas technology systems – from filters and check valves to other safety-related components.

Components for mixing and filling systems

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	Vacuum pressure relief module TVS21 (ventilating to the open air)	Inert gases / Oxygen	420 bar	23
	Check valve TVR2	Inert gases	420 bar	25
	Filter TSF4	Inert gases / Oxygen	420 bar	27

WEH® Shut-off valves – the multifunctional solution for your gas application

Shut-off of high-pressure gases. The shut-off valve is flow-optimized, extremely quiet and easy to integrate — ideal for modular systems with high flow rates.

Benefits at a glance:

- **High flow capacity** thanks to flow-optimized geometry
- **Quiet, smooth shifting** — even at high pressures
- **Easy integration** into existing systems without modification
- **Compact design** – ideal for gas engineering systems

WEH® Vaccum pressure relief module TVS20 / TVS21 - Efficient protection for sensitive components

The TVS series reliably protects vacuum pumps, filters and measurement technology from overpressure and underpressure. Compact, durable and with precisely defined opening pressures — for stable and safe operating conditions.

Your benefits:

- **Automatic overpressure protection** against critical operating conditions
- **Protection of sensitive components** against damage and failure
- **Reproducible opening pressures** for consistent process quality
- **Compact design** for tight installation spaces and easy retrofitting


U5K1X4AM

WEH® Shut-off valve TV17

The WEH® shut-off valve TV17 for inert gases and oxygen is used to stop the flow of gases under high pressure. Its compact design makes it ideal for installation in gas systems. Installation in existing systems is also straightforward.

Max. allowable operating pressure PS:
420 bar

Medium:
Oxygen, inert gases

Actuation:
Pneumatic (NC or NO) for automatic actuation, e.g., via PLC, or manual for hand operation.

Application Example

Technical Data

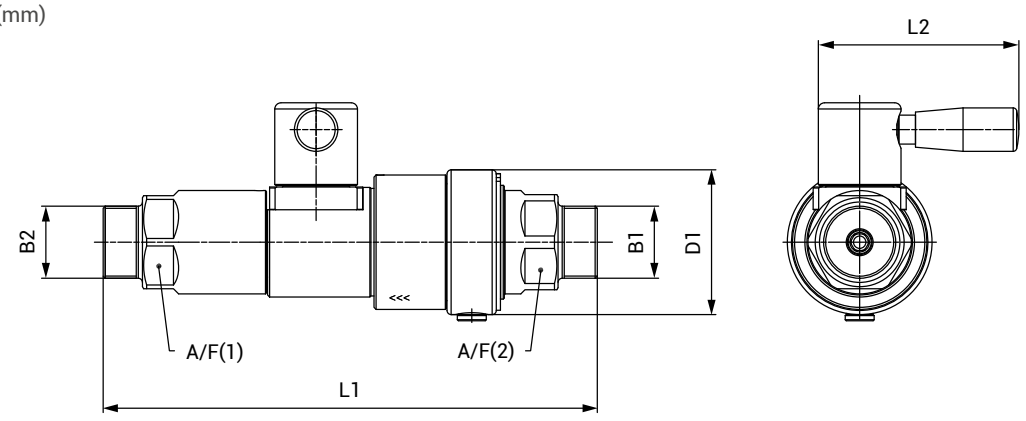
Max. allowable operating pressure PS	420 bar
Temperature range	0°C up to +60°C
Pilot pressure	6 - 8 bar
Pilot pressure port P1	G1/4“ female thread
Measuring port MA2	M28x1.5 male thread
Materials	Brass and Monel® 400
Actuation	Pneumatic (NC resp. NO) for automatic control (e.g. via SPS) or manual with actuation lever
Conformity / Tests / Approvals	Type approval for suitability against adiabatic compression available

Other designs available on request

For further **technical data**, please refer to the product data sheet on the WEH website: link.weh.com/tv17

WEH® TV17 Shut-off valve with manual actuation

approx. dimensions (mm)



Side view

Front view

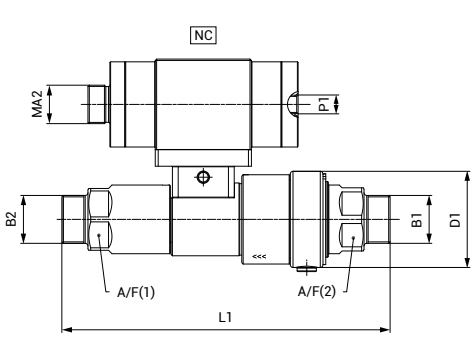
Part no.	Description	Medium	Technical nominal size	B1 / B2 (male thread)	L1	L2	D1	A/F(1)	A/F(2)
C1-163167	TV17GOS	O_2	12 mm	UNF 1 3/8“-12	239	97	70	45	46
C1-163171	TV17GO	inert gases	12 mm	UNF 1 3/8“-12	239	97	70	45	46

Required information for ordering see page 101.

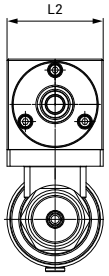
WEH® TV17 Shut-off valve with pneumatic actuation

approx. dimensions (mm)

TV17 NC

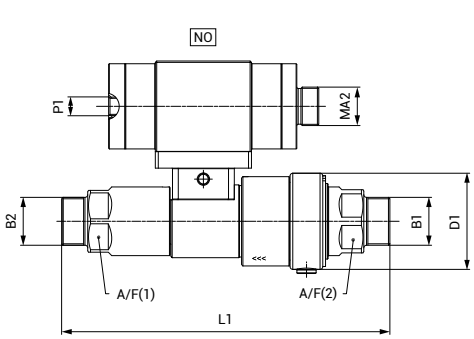


Side view

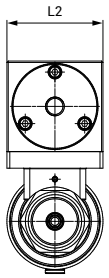


Front view

TV17 NO



Side view



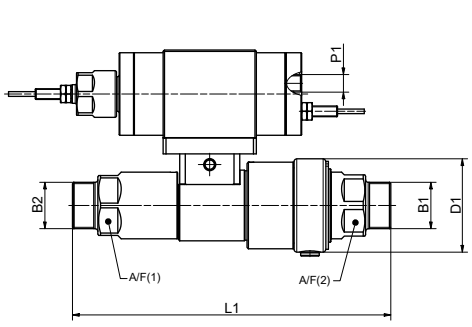
Front view

Part no.	Description	Medium	Technical nominal size	B1 / B2 (male thread)	P1 (female thread)	MA2 (male thread)	L1	L2	D1	A/F (1)	A/F (2)
C1-159223	TV17GOS NC	O_2	12 mm	UNF 1 3/8"-12	G1/4"	M28x1.5	239	70	70	45	46
C1-171636	TV17GOS NO	O_2	12 mm	UNF 1 3/8"-12	G1/4"	M28x1.5	239	70	70	45	46
C1-162130	TV17GO NC	inert gases	12 mm	UNF 1 3/8"-12	G1/4"	M28x1.5	239	70	70	45	46
C1-175840	TV17GO NO	inert gases	12 mm	UNF 1 3/8"-12	G1/4"	M28x1.5	239	70	70	45	46

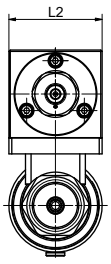
WEH® TV17 Shut-off valve with pneumatic actuation and sensor* on both sides

approx. dimensions (mm)

TV17 NC

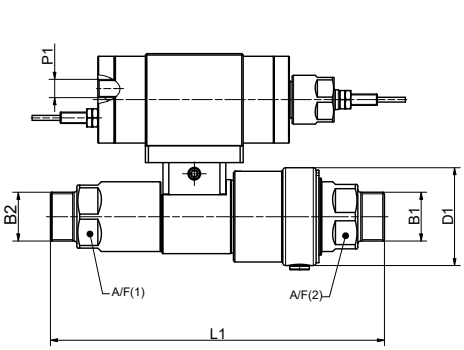


Side view

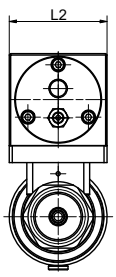


Front view

TV17 NO



Side view



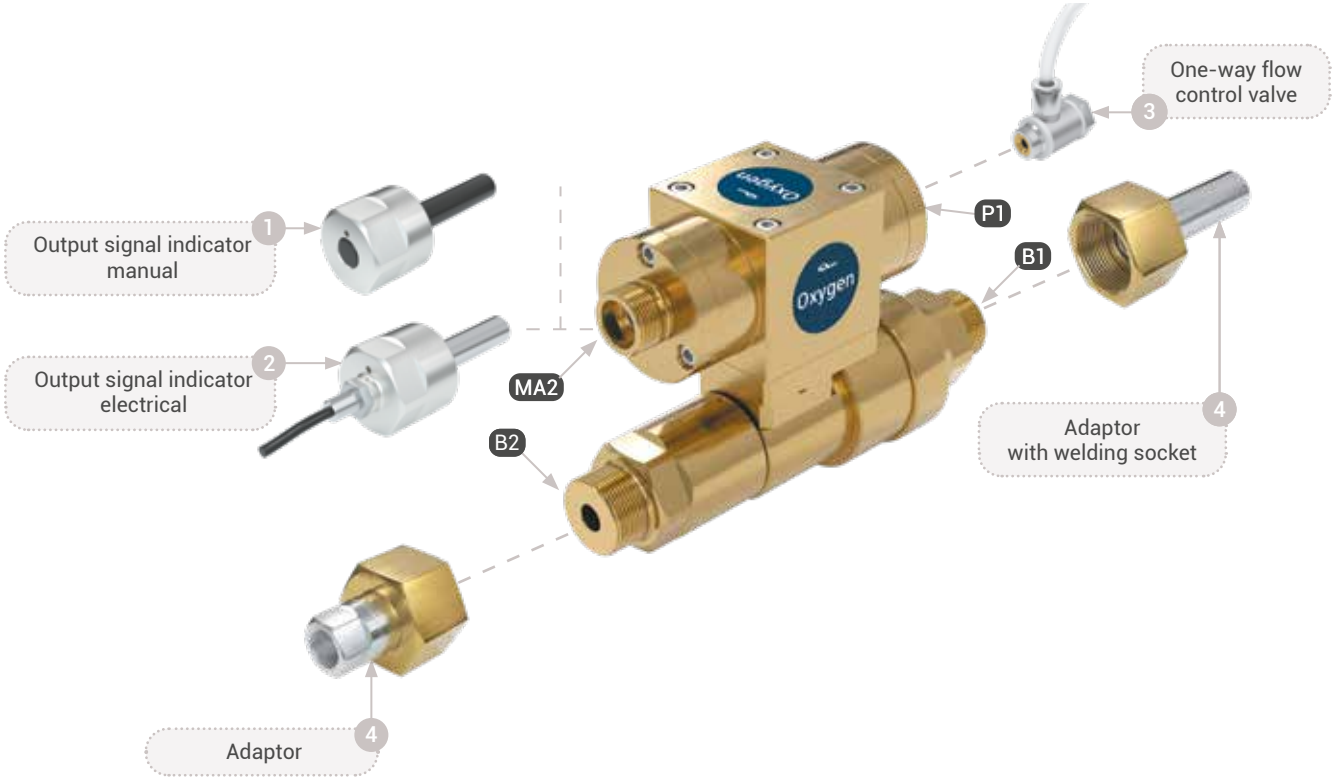
Front view

Part no.	Description	Medium	Technical nominal size	B1 / B2 (male thread)	P1 (female thread)	L1	L2	D1	A/F (1)	A/F (2)
C1-189838	TV17 NC	O_2	12 mm	UNF 1 3/8"-12	G1/4"	239	70	70	45	46
C1-189837	TV17 NO	O_2	12 mm	UNF 1 3/8"-12	G1/4"	239	70	70	45	46

*Sensor = electrical output signal indicator

System overview

The following schematic diagram gives you an overview of the various accessories available for the WEH® TV17 Shut-off valve.



Definition of ports

B1	Media inlet
B2	Media outlet
P1	Pilot pressure port, compressed air 6 - 8 bar
MA2	Measuring port for output signal indicators

Filter WEH® TSF4
Page 29

For further spare parts and **accessories**, please refer to the product data sheet on the WEH website: link.weh.com/tv17

WEH® Vaccum pressure relief module TVS20

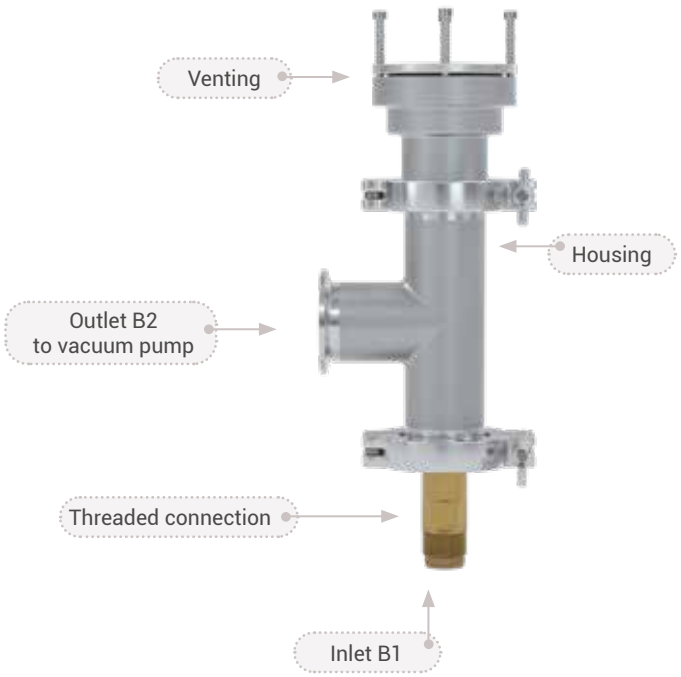
The WEH® vacuum overpressure protection TVS20 is used to protect components operated under vacuum, such as vacuum pumps, sensors, etc., from over-pressure. For example, if a vacuum pump is installed in a pressurized system that normally operates at a significantly higher pressure than the permissible operating pressure of the vacuum pump, the TVS20 overpressure protection helps safeguard the pump from damage by safely venting the excess pressure into the atmosphere.

Max. allowable operating pressure PS:
420 bar

Media:
Oxygen, inert gases

Technical nominal size:
12 mm

System overview



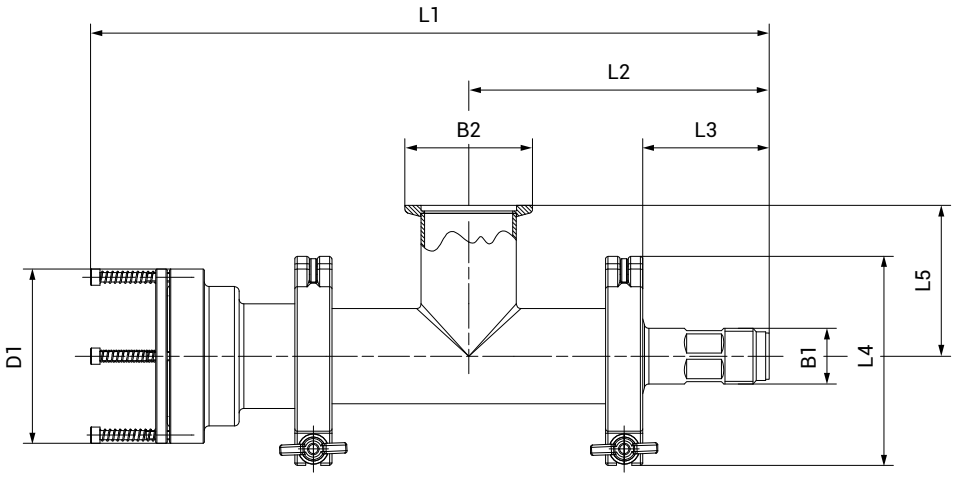
Technical Data

Max. inlet pressure at inlet B1	420 bar
Max. outlet pressureat outlet B1	0.2 bar
Temperature range	+5°C up to +60°C
Material	Stainless steel, brass
Sealing material	Copper / EPDM

Other designs on request

WEH® TVS20 / TVS20 O_2 Vacuum pressure relief module

approx. dimensions (mm)

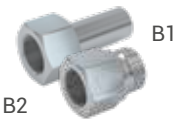


Part no.	Description	Medium	B1 (male thread)	B2*	L1	L2	L3	L4	L5	D1
C1-169470	TVS20	inert gases	M24x2	ISO-KF flange DN 40	292	129	54	90	65	75
C1-189014	TVS20 O_2	O_2	M24x2	ISO-KF flange DN 40	292	129	54	90	65	75

* acc. to ISO 2861

Required information for ordering see page 101.

Accessories | Adaptors



Part no.	Description	TNW	B1	B2 (female thread)
C1-99861**	Adaptor	12 mm	Tube Ø20x4.0	M24x2
W99863**	Adaptor	12 mm	Tube Ø16x2.5	M24x2
E29-162220	Adaptor	12 mm	G3/4"* male thread	M24x2
E29-160839	Adaptor	12 mm	NPT 3/4" male thread	M24x2

* according to DIN 3852-2
** with welding socket

WEH® Vaccum pressure relief module TVS21

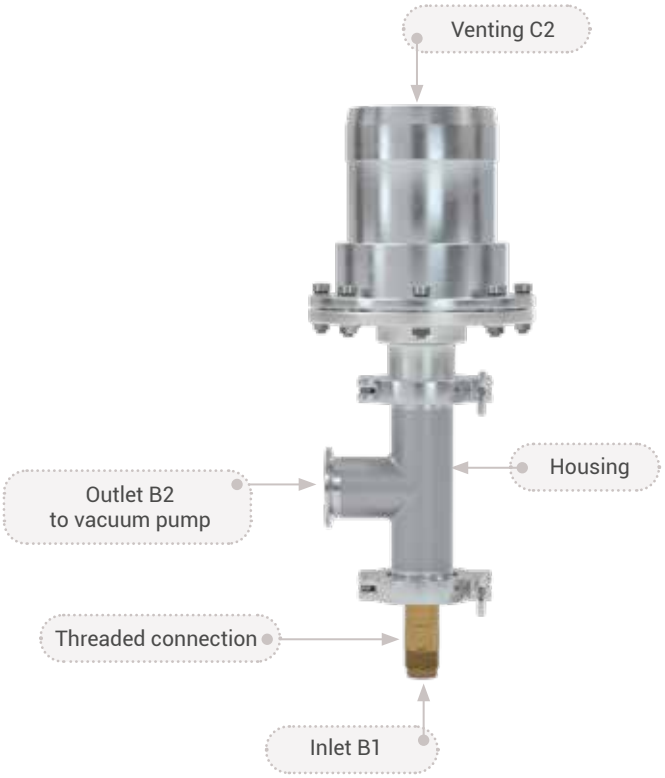
The WEH® vacuum overpressure protection TVS21 is used to protect components operated under vacuum, such as vacuum pumps, sensors, etc., from over-pressure. For example, if a vacuum pump is installed in a pressurized system that normally operates at a significantly higher pressure than the permissible operating pressure of the vacuum pump, the TVS21 overpressure protection helps safeguard the pump from damage by safely venting the excess pressure to the outside through a hose.

Max. allowable operating pressure PS:
420 bar

Media:
Oxygen, inert gases

Technical nominal size:
12 mm

System overview



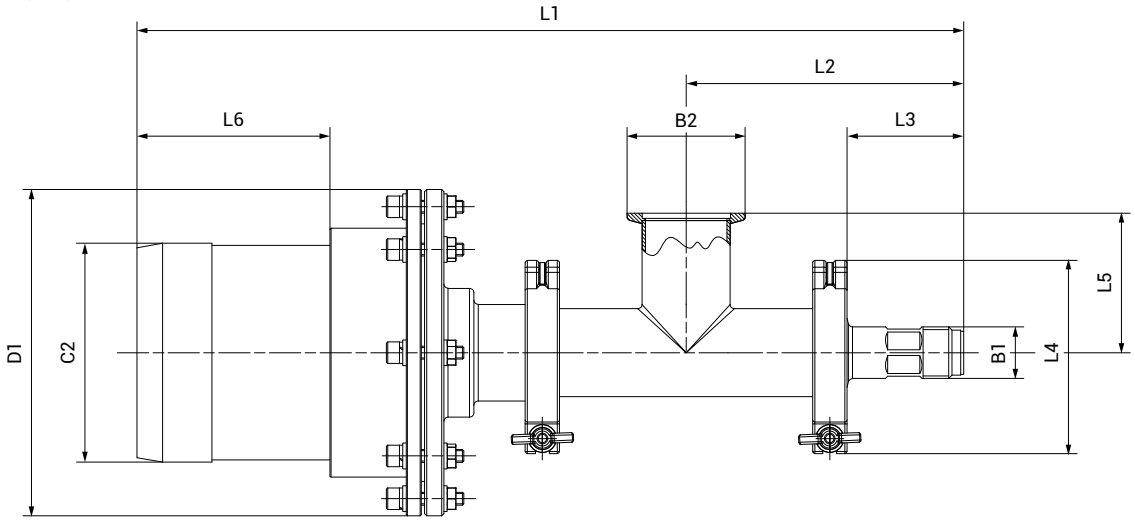
Technical Data

Max. inlet pressure at inlet B1	420 bar
Max. outlet pressureat outlet B1	0.2 bar
Temperature range	+5°C up to +60°C
Material	Stainless steel, brass
Sealing material	Copper / EPDM

Other designs on request

WEH® TVS21 / TVS21 O_2 Vacuum pressure relief module

approx. dimensions (mm)



Part no.	Description	Medium	B1 (male thread)	B2*	C2	L1	L2	L3	L4	L5	L6	D1
C1-169471	TVS21	inert gases	M24x2	ISO KF flange DN 40	Ø 100	385	129	54	90	65	90	152
C1-190761	TVS21 O_2	O_2	M24x2	ISO-KF flange DN 40	Ø 100	385	129	54	90	65	90	152

*according to ISO 2861

Required information for ordering see page 101.

Accessories | Adaptors

Part no.	Description	TNW	B1	B2 (female thread)
C1-99861**	Adaptor	12 mm	Tube Ø20x4,0	M24x2
W99863**	Adaptor	12 mm	Tube Ø16x2,5	M24x2
E29-162220	Adaptor	12 mm	G3/4"* male thread	M24x2
E29-160839	Adaptor	12 mm	NPT 3/4" male thread	M24x2

* according to DIN 3852-2
** with welding socket

WEH® Check Valve TVR2

The WEH® check valve TVR2 was specially developed for installation in gas mixing plants. The internal seals are arranged so that they do not lie directly in the media flow. This minimizes the risk of damage to the seals from any dirt particles present. The check valves, which operate very quietly even at high flow rates, are particularly characterized by their very low opening pressure and excellent tightness, making them ideal for use with gaseous media.

Max. allowable operating pressure PS:
420 bar

Media:
Inert gases

Norminal bore:
12 mm

Application Example

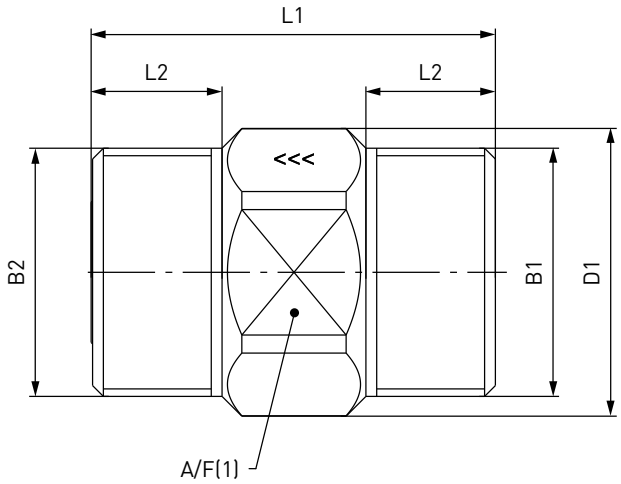
Technical Data

Max. allowable operating pressure PS	420 bar
Temperature range	+5°C up to +95°C
Material	Housing of brass, inner parts of stainless steel
Spring material	Stainless spring steel
Sealing material	Housing seal of EPDM
Sealing concept	Cone sealing with PEEK
Flow direction	B1 → B2

Other designs on request

WEH® Check Valve TVR2

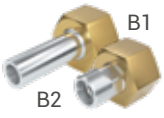
approx. dimensions (mm)



Part no.	Description	B1 (male thread)	B2 (male thread)	L1	L2	D1	A/F(1)
C1-77200-X01	TVR2	UNF 1 3/8"-12	UNF 1 3/8"-12	56	18	40	36

Required information for ordering see page 101.

Accessories | Adaptors incl. sleeve nut



Part no.	Description	B1 (female thread)	B2
C1-164158	Adaptor	UNF 1 3/8"-12	M24x1,5* male thread for tube Ø 16
C1-166893	Adaptor	UNF 1 3/8"-12	Tube Ø 16**
C1-164157	Adaptor	UNF 1 3/8"-12	G3/8"
C1-100953***	Adaptor	UNF 1 3/8"-12	Tube Ø 16x2
C1-164156***	Adaptor	UNF 1 3/8"-12	Tube Ø 20x3

* 24° cone connection acc. to ISO 8434-1 (S16xM24)
*** double ferrule fitting
*** with welding socket

WEH® Filter TSF4

Filter for use with gaseous media and for installatioin in gas mixing systems. Suitable for oxygen testing in laboratories.

Max. allowable operating pressure PS:
420 bar

Media:
Inert gases, Oxygen

Technical nominal size:
12 mm

Application Example

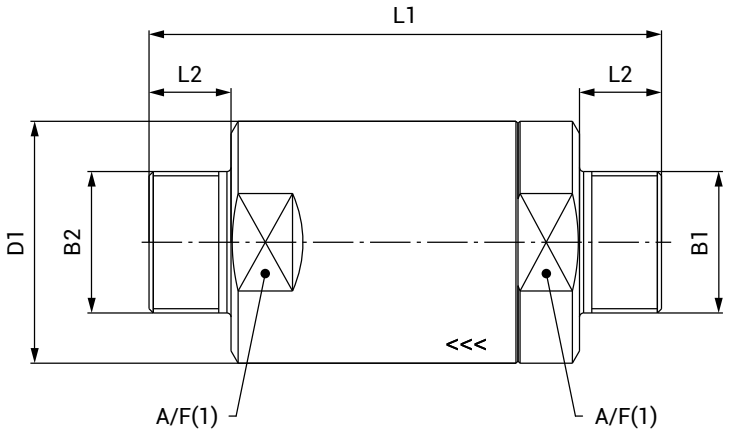
Technical Data

Max. allowable operating pressure PS	420 bar
Temperature range	-20°C up to +85°C -10°C up to +60°C (O_2)
Material	Brass and stainless steel resp. Monel® (O2)
Sealing material	Housing seal of EPDM
Design	Incl. unscrewable filter element (40 µm)
Conformity / Tests / Approvals	Type approval for suitability against adiabatic compression available

Other designs on request

WEH® Filter TSF4

approx. dimensions (mm)

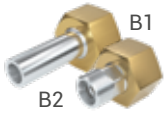


Part no.	Description	B1 (male thread)	B2 (male thread)	L1	L2	D1	A/F(1)
C1-82292-X01	TSF4	UNF 1 3/8"-12	UNF 1 3/8"-12	125	20	59	54
C1-92654-X01*	TSF4	UNF 1 3/8"-12	UNF 1 3/8"-12	125	20	59	54

*for oxygen

Required information for ordering see page 101.

Accessories | Adaptors incl. sleeve nut



Part no.	Description	B1 (female thread)	B2
C1-164158	Adaptor	UNF 1 3/8"-12	M24x1.5* male thread for tube Ø 16
C1-166893	Adaptor	UNF 1 3/8"-12	Tube Ø 16**
C1-164157	Adaptor	UNF 1 3/8"-12	G3/8"
C1-100953***	Adaptor	UNF 1 3/8"-12	Tube Ø 16x2
C1-164156***	Adaptor	UNF 1 3/8"-12	Tube Ø 20x3

** 24° cone connection acc. to ISO 8434-1 (S16xM24)
*** double ferrule fitting
*** with welding socket

For **spare parts,** see the product data sheet on the WEH website: link.weh.com/tsf4-gas

Evacuating & Filling

Legend

Male thread | Female thread | Pin-Index | Collar | Inner bore

WEH® Quick connector

	TYPE	CONNECTION TYPE	MEDIUM	PRESSURE PS	VERSION RPV / NON-RPV	PAGE
	Connector TW54		Inert gases / Oxygen	250 bar or 375 bar	✓	33
	Connector TW57		Inert gases / Oxygen	250 bar or 375 bar	✓	39
	Connector TW101		Inert gases / Oxygen	250 bar	✓*	43
	Connector TW102		Inert gases / Oxygen	250 bar	✓*	47
	Connector TW103-S90		CO_2	155 bar	✓*	53
	Connector TW152		Medical oxygen	250 bar	✓	57
	Connector TW42		Medical oxygen	250 bar	✓	63
	Connector TW49		Medical oxygen	250 bar		65
	Connector TW52		Refrigerant / CO_2 (gaseous or liquid)	250 bar 150 bar	✓	67
	Connector TW53		Acetylene / Acetone	30 bar		71
	Connector TW59		Flammable gases (propane, butane)	30 bar		73
	Connector TW67		Inert gases / Oxygen	250 bar or 375 bar	✓	75

*Only versions for residual pressure valves available

Filling stations for mobile applications
WEH® gas connectors are used in filling stations, which significantly reduce space requirements and enable the simultaneous filling of multiple gas cylinders.

Connects to the gas cylinder valve in seconds - WITHOUT screwing

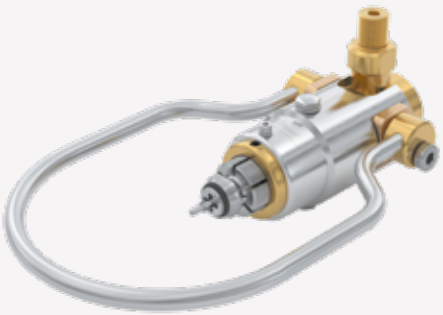
No more tedious manual screwing, no additional sealants or Teflon tape. Simply attach the WEH® connector to the cylinder valve of the gas cylinder. By flipping the actuating lever, the pressure-tight connection is established in seconds.

WEH® quick connector meet the high safety and leak-tightness requirements of the gas industry and are ideal for various gaseous media and a wide range of gas cylinder valves in accordance with DIN, CGA, NF, BS, etc.

Features & Benefits

1. **Integrated safety pin**
   → prevents locking under pressure
2. **Red marking**
   → Indicates pressure-tight connection (TW54/TW101 only)
3. **WEH® TD1 Swivel Joint**
   → increases the service life of the hose

WEH® Filling Connectors TW54



Quick Connector for filling of gas cylinders with female thread (with or without a residual pressure valve).

An integrated safety peg, venting bores and a red marking ensure optimum safety for the operator.

Max. allowable operating pressure PS:
250 bar | 375 bar

Media:
Oxygen, nitrogen, CO2, air, inert gases, medical gases

Actuation:
Manual actuation via operating loop

Connection types:

acc. to DIN, CGA, BS, NF etc.

WEH® TW54 for
residual pressure valves (RPV)

WEH® TW54 for
non-residual pressure valves

Application Example

Technical Data

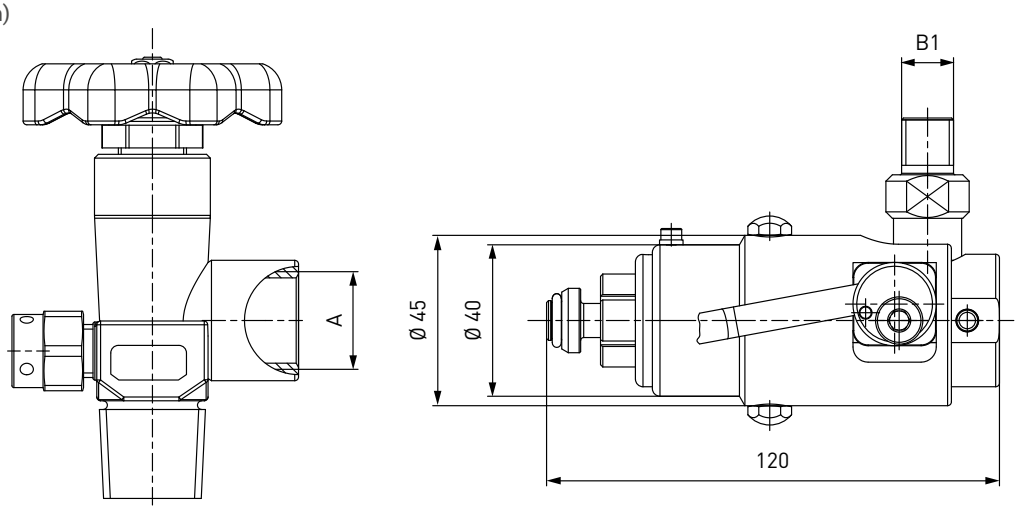
Max. allowable operating pressure PS	250 bar or 375 bar
Temperature range	+5°C up to +80°C +5°C up to +60°C (O_2)
Leak rate	1 x 10-3 mbar x l/s
Connection A	Female thread connection acc. to the corresponding national standard e.g. DIN, CGA, BS, NF etc.
Medium	Oxygen, nitrogen, CO2, air, inert gases, medical gases
Actuation	Manual actuation via operating loop (loop depending on type of gas cylinder)
Material	Corrosion resistant stainless steel, brass, monel®
Sealing material	EPDM
Design	With or without RPV-Pin
Conformity/Tests/Approvals	Type approval for suitability against adiabatic compression available

Other designs on request

For further **technical data**, please refer to the product data sheet on the WEH website: link.weh.com/tw54

WEH® TW54 Quick connector for non-residual pressure valves

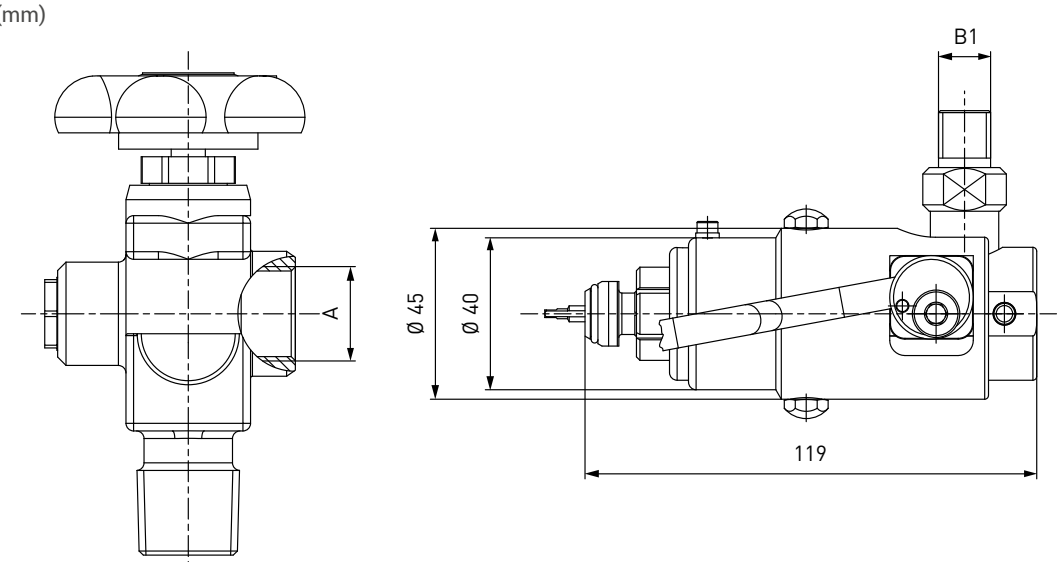
approx. dimensions (mm)



Part No.	Description	Pressure (PS)	A (female thread)	B1
On request	TW54	250 bar	On request	On request
On request	TW54	375 bar	On request	On request

WEH® TW54 Quick connector for residual pressure valves

approx. dimensions (mm)



Part No.	Description	Pressure (PS)	A (female thread)	B1
On request	TW54	250 bar	On request	On request
On request	TW54	375 bar	On request	On request

Other connection sizes and types on request.

Accessories

Swivel Joint
WEH® TD1
Page 83

Pressure hose
WEH® THP40
Page 85

Quick release coupling
WEH® TK350-TN350
Page 81

Actuations

Various actuators, such as handles, wire ropes, etc., in many shapes and sizes are available for the WEH® TW54.
Please contact us!

Locking devices

Additional locking devices are also available for WEH® TW54. Please contact us!

Connection for pressure gauges

Quick connector incl. pressure gauge connection and venting valve for pressure monitoring of filled gas cylinders.

Part No.	Description
On request	TW54 incl. pressure gauge connection and vent valve

Adaptors

Adaptors for connecting the quick connector to the filling hose are available on request.

Monel® construction

All pressurized parts are also available in Monel®. Please contact us!

Bumper

A bumper is also available for the WEH® product.

The WEH® bumper was specially developed as a protective cover for gas connectors and offers numerous advantages – especially in daily use:

- Longer service life: Protects the grip sleeve and jaw locking, thereby extending the service life of the connector.
- Effective protection against damage: Reduces wear and tear caused by hard impacts, e.g. on cylinder valve.
- Tool-free installation: Easy to attach without dismantling the connector.
- Maintains full functionality: Does not impair the operation or tightness of the connector.
- Suitable for oxygen: Can also be used safely in applications involving oxygen.

Part No.	Description
C1-190763	Bumper

Spare parts

Various parts are available as spares for the WEH® TW54 Quick connector.

Part No.	Description
On request	Spare sealing

WEH® Filling Connectors TW57

WEH® TW57 for
residual pressure valves (RPV)

WEH® TW57 for
non-residual pressure valves

Quick Connector for filling of gas cylinders with male thread (with or without a residual pressure valve).

An integrated safety peg and venting bores ensure optimum safety for the operator.

Max. allowable operating pressure PS:
250 bar | 375 bar

Media:

Oxygen, nitrogen, CO2, air, inert gases, medical gases

Actuation:
Manual actuation via operating loop

Connects to:

acc. to DIN, CGA, BS, NF etc.

Application Example

Technical Data

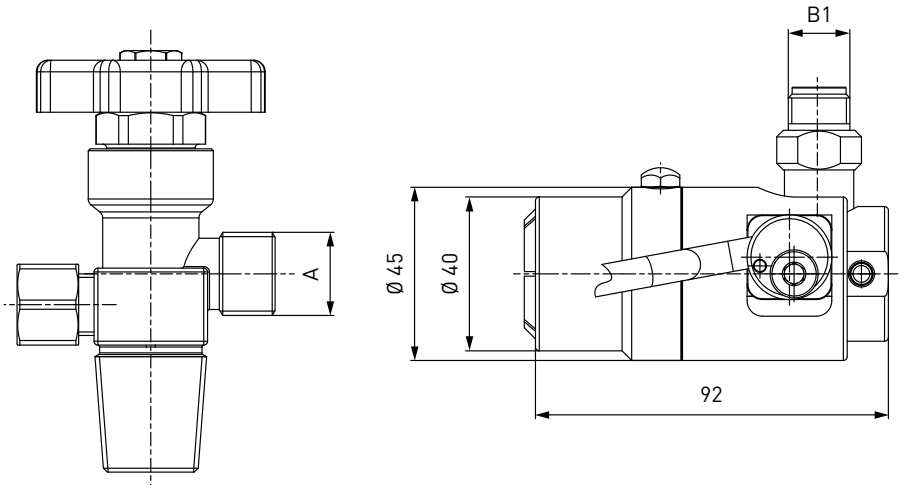
Max. allowable operating pressure PS	250 bar or 375 bar
Temperature range	+5°C up to +80°C +5°C up to +60°C (O_2)
Leak rate	1 x 10-3 mbar x l/s
Connection A	Male thread connection according to the respective national standard e.g., DIN, CGA, BS, NF, etc.
Medium	Oxygen, nitrogen, CO2, air, inert gases, medical gases
Actuation	Manual actuation via operating loop (loop depending on type of gas cylinder)
Material	Corrosion resistant stainless steel, brass, Monel®
Sealing material	EPDM
Design	With or without RPV-Pin
Conformity/Tests/Approvals	Type approval for suitability against adiabatic compression available

Other designs on request

For further **technical data**, please refer to the product data sheet on the WEH website: link.weh.com/tw57

WEH® TW57 Quick connector for non-residual pressure valves

approx. dimensions (mm)

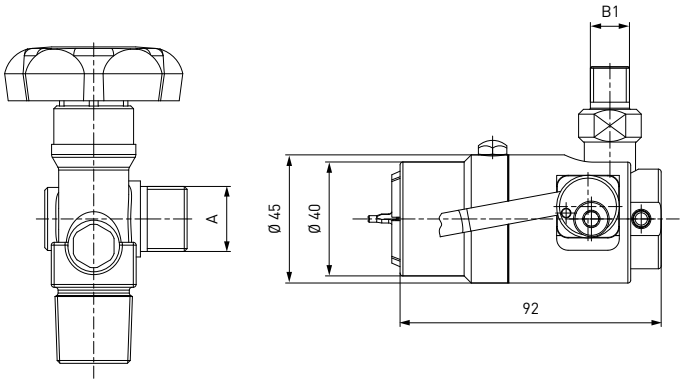


Part No.	Description	Pressure (PS)	A (male thread)	B1
On request	TW57	250 bar	On request	On request
On request	TW57	375 bar	On request	On request

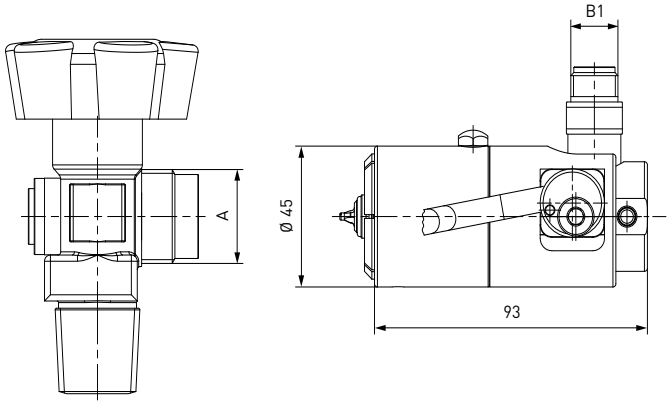
WEH® TW57 Quick connector for residual pressure valves

approx. dimensions (mm)

250 bar



375 bar



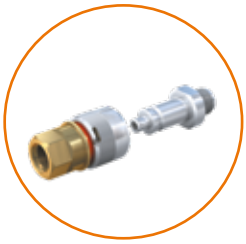
Part No.	Description	Pressure (PS)	A (female thread)	B1
On request	TW57	250 bar	On request	On request
On request	TW57	375 bar	On request	On request

Other connection sizes and types on request.

Accessories

Swivel Joint
WEH® TD1
Page 83

Pressure hose
WEH® THP40
Page 85



Quick release coupling
WEH® TK350
Page 81

Actuations

For WEH® TW57 various actuations, e.g. loops, wire ropes, manual lever handles etc. are available in different sizes and forms. Please contact us!

Locking devices

Additional locking devices are also available for WEH® TW57. Please contact us!

Connection for pressure gauges

Quick connector incl. pressure gauge connection and venting valve for pressure monitoring of filled gas cylinders.

Part No.	Description
On request	TW54 incl. pressure gauge connection and vent valve

Adaptors

Adaptors for connecting the quick connector to the filling hose are available on request.

Monel® construction

All pressurized parts are also available in Monel®. Please contact us!

Bumper

NEW

A bumper is also available for the WEH® product.

The WEH® bumper was specially developed as a protective cover for gas connectors and offers numerous advantages – especially in daily use:

- Longer service life: Protects the grip sleeve and jaw locking, thereby extending the service life of the connector.
- Effective protection against damage: Reduces wear and tear caused by hard impacts, e.g. on cylinder valve.
- Tool-free installation: Easy to attach without dismantling the connector.
- Maintains full functionality: Does not impair the operation or tightness of the connector.
- Suitable for oxygen: Can also be used safely in applications involving oxygen.

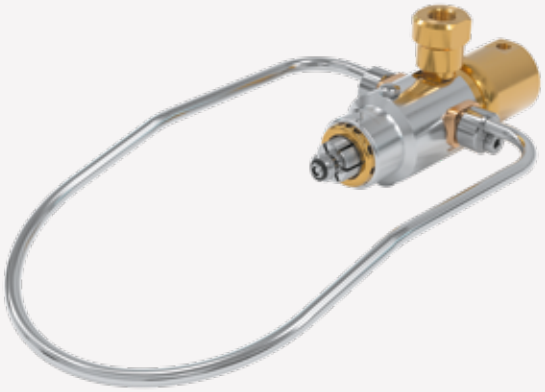
Part No.	Description
C1-190763	Bumper

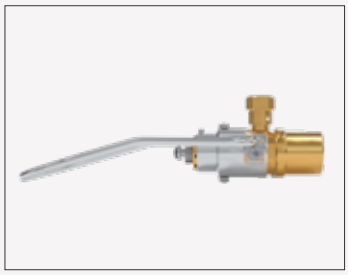
Spare parts

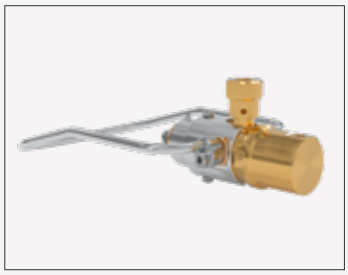
Various parts are available as spares for the WEH® TW54 Quick connector.

Part No.	Description
On request	Spare sealing

WEH® Filling Connectors TW101







Quick Connector for evacuating and filling of gas cylinders with female thread and pressure regulator.

The TW101 has the same tried and tested features as WEH® Connector TW54.

Max. allowable operating pressure PS:
250 bar

Media:
Medical oxygen

Actuation:
Manual actuation via operating loop

Connects to:

acc. to DIN, CGA, BS, NF etc.

Application Example

Technical Data

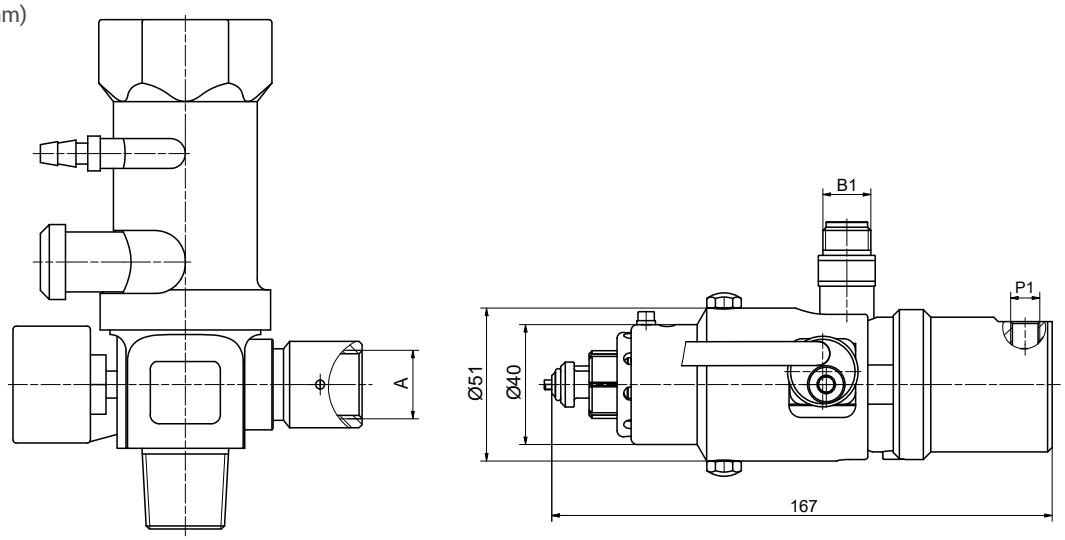
Max. allowable operating pressure PS	250 bar
Pilot pressure	6 - 8 bar (for opening residual pressure valve)
Temperature range	+5°C up to +60°C (O_2)
Leak rate	1 x 10-3 mbar x l/s
Connection A	Female thread connection acc. to the corresponding national standard e.g. DIN, CGA, BS, NF etc.
Medium	Medical oxygen
Actuation	Manual actuation via operating loop (loop depending on type of gas cylinder) Opening / closing of the RPV pin in the valve: via pneumatic pilot pressure line
Material	Corrosion resistant stainless steel, brass, Monel®
Sealing material	EPDM
Design	With or without RPV-Pin
Conformity/Tests/Approvals	Type approval for suitability against adiabatic compression available

Other designs on request

For further **technical data,** please refer to the product data sheet on the WEH website: link.weh.com/tw101

WEH® TW101 Quick connector

approx. dimensions (mm)



Part No.	Description	A (female thread)	B1	P1 (female thread)
On request	TW101	On request	On request	G1/8"

Other connection sizes and types on request.

Accessories

Swivel Joint
WEH® TD1
Page 83

Pressure hose
WEH® THP40
Page 85

Quick release coupling
WEH® TK350
Page 81

Actuations

For WEH® TW101 various actuations, e.g. loops, wire ropes etc. are available in different sizes and forms.
Please contact us!

Adaptors

Adaptors for connecting the quick connector to the filling hose are available on request.

Monel® construction

All pressurized parts are also available in Monel®. Please contact us!

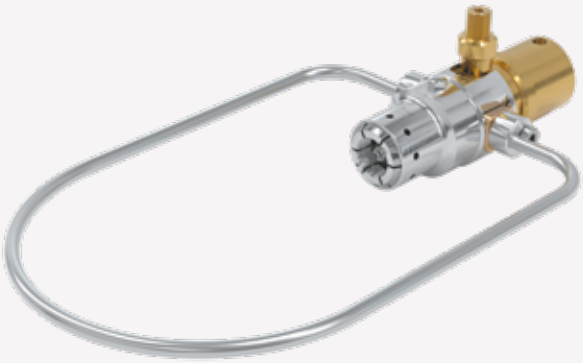
Spare parts

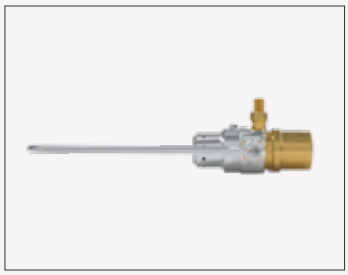
Various parts are available as spares for the WEH® TW101 Quick connector.

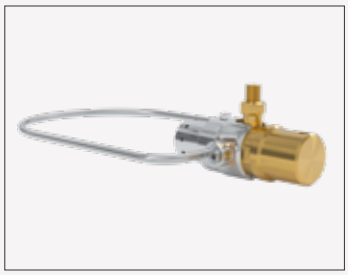
Part No.	Description
On request	Spare Sealing

RPV-PIN
Many quick connectors are available for gas cylinder valves with or without RPV pins.

WEH® Filling Connectors TW102







Quick Connector for evacuating and filling of gas cylinders with male thread and pressure regulator.

The TW102 has the same tried and tested features as WEH® Connector TW57.

Max. allowable operating pressure PS:
250 bar

Media:
Medical oxygen

Actuation:

Manual actuation via operating loop

Connects to:

acc. to DIN, CGA, BS, NF etc.

Application Example

Technical Data

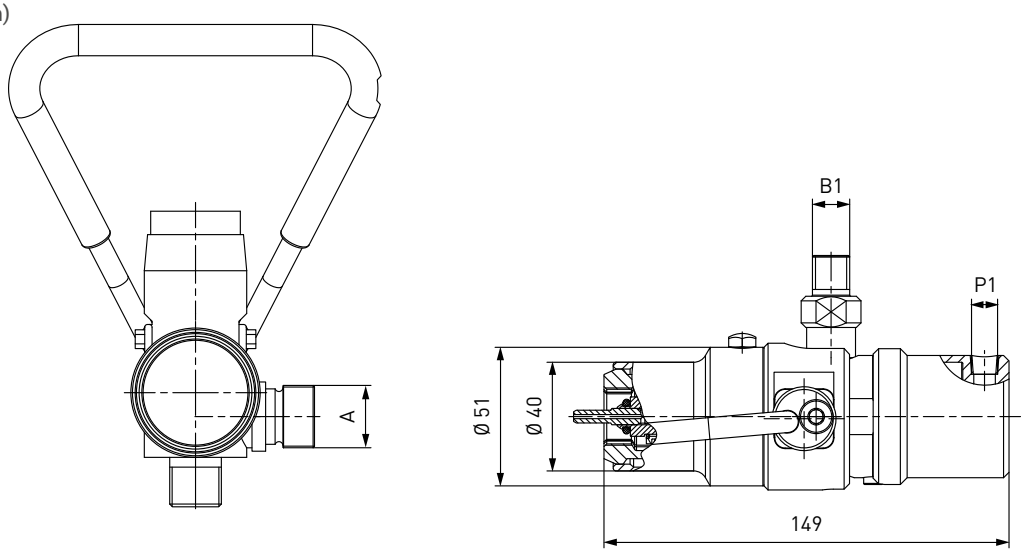
Max. allowable operating pressure PS	250 bar
Pilot pressure	6 - 8 bar (for opening residual pressure valve)
Temperature range	+5°C up to +60°C (O_2)
Leak rate	1 x 10-3 mbar x l/s
Connection A	Male thread connection acc. to the corresponding national standard e.g. DIN, CGA, BS, NF etc.
Medium	Medical oxygen
Actuation	Manual actuation via operating loop (loop depending on type of gas cylinder) Opening / closing of the RPV pin in the valve: via pneumatic pilot pressure line
Material	Corrosion resistant stainless steel, brass, Monel®
Sealing material	EPDM
Design	Incl. adaptor and RPV pin
Conformities / Tests / Approvals	Type approval for suitability against adiabatic compression available

Other designs on request

For further **technical data**, please refer to the product data sheet on the WEH website: link.weh.com/tw102

WEH® TW102 Quick connector

approx. dimensions (mm)



Part No.	Description	A (female thread)	B1	P1 (female thread)
On request	TW102	On request	On request	G1/8"

Other connection sizes and types on request.

Accessories

Swivel Joint
WEH® TD1
Page 83

Pressure hose
WEH® THP40
Page 85

Quick release coupling
WEH® TK350
Page 81

Actuations

For WEH® TW102 various actuations, e.g. loops, wire ropes etc. are available in different sizes and forms.
Please contact us!

Adaptors

Adaptors for connecting the quick connector to the filling hose are available on request.

Monel® construction

All pressurized parts are also available in Monel®. Please contact us!

Spare parts

Various parts are available as spares for the WEH® TW102 Quick connector.

Part No.	Description
On request	Ersatzdichtungen

Ventilation holes
For oxygen applications, all our connectors have ventilation holes in the sleeve. The holes divert the gas to the side in the event of an unwanted gas leak from the cylinder valve.

Wide range of actuation options

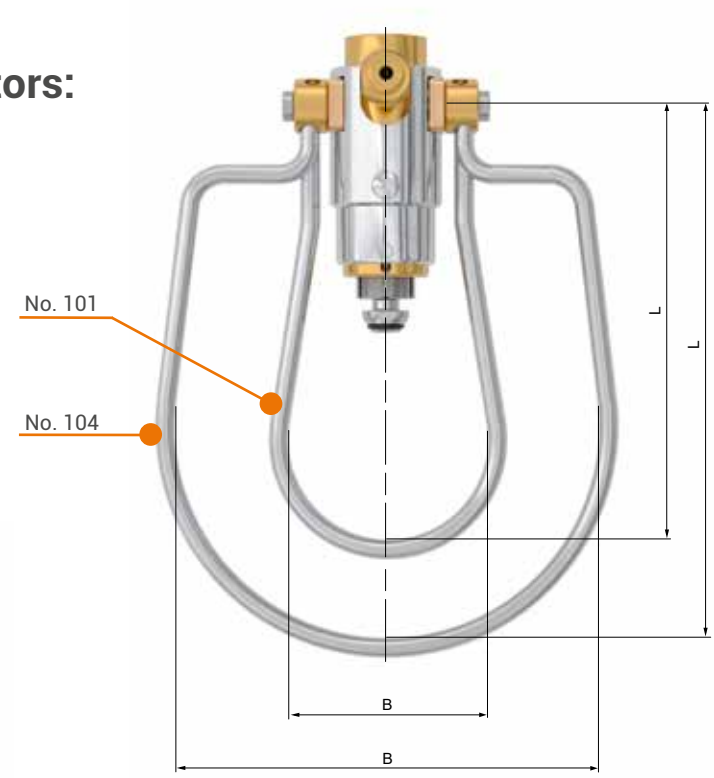
for a wide range of requirements

A wide range of actuation options – suitable for every cylinder head

When selecting the right connector, it is not only the cylinder type that matters – the type of actuation and the geometry of the cylinder head are also crucial for safe and convenient use.

That is why WEH® offers a wide range of standardized actuations – from bail grips to wire rope and lever variants to special designs for specific requirements. These can be flexibly combined depending on the type of protective cap and enable simple, ergonomic handling in a wide variety of applications – such as filling, testing, or emptying gas cylinders.

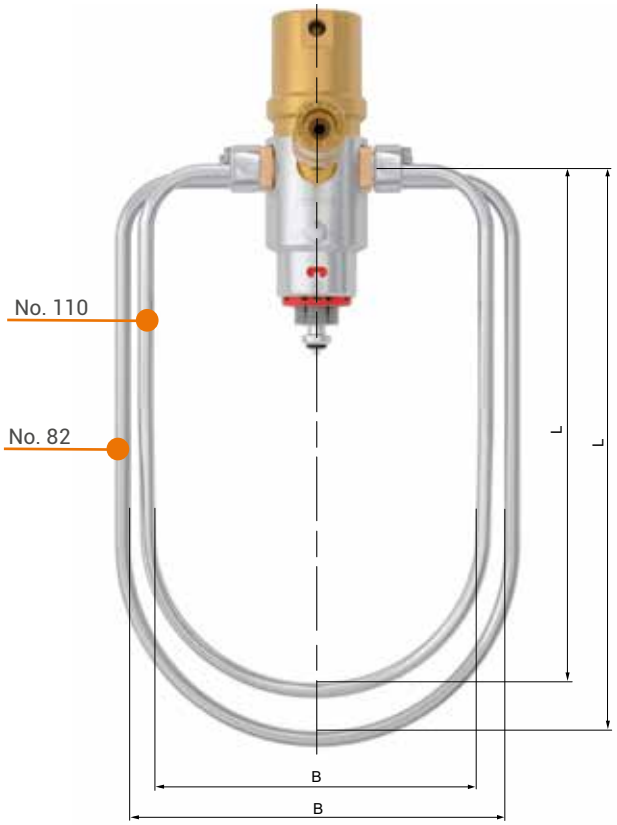
An overview of our standard actuators:



Loop options for the TW54 / TW57

Actuation number	Swing length (L)	Width (B)
No. 101	170 mm	80 mm
No. 104	213 mm	170 mm

Other variants available on request



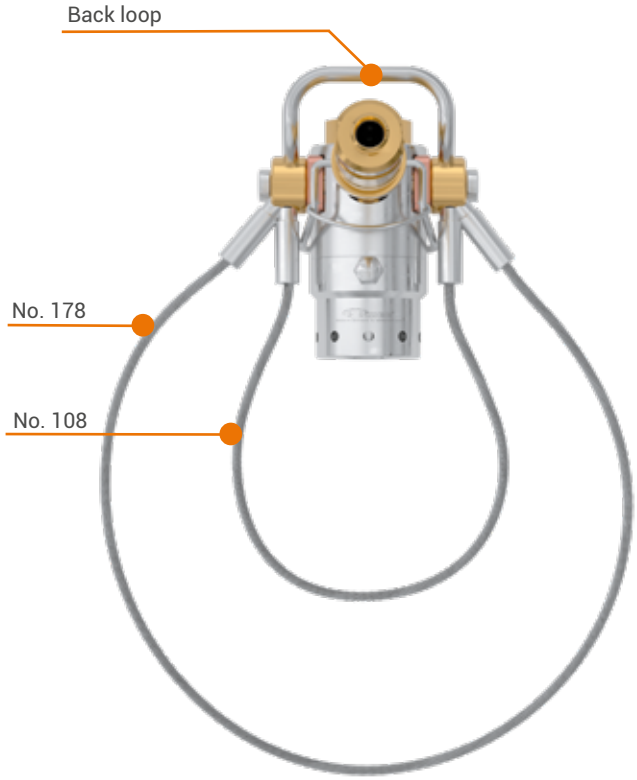
Loop options for the TW101 / TW102

Actuation number	Swing length (L)	Width (B)
No. 82	282 mm	185 mm
No. 110	258 mm	160 mm

Other variants available on request

Functions of the loop assembly

- Loop actuation for attaching and detaching the device
- Loop actuation as a safety feature



Wire rope variants for the TW54 / TW57

Actuation number	Extended length
No. 108	275 mm
No. 178	680 mm

Other variants available on request

Functions wire rope assembly

- Loop actuation at the rear for attaching and detaching the device
- Wire rope as a safety feature

Lever variants for the TW54 / TW57

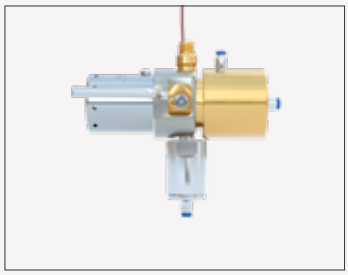
Actuation number	Length
No. 118	69 mm

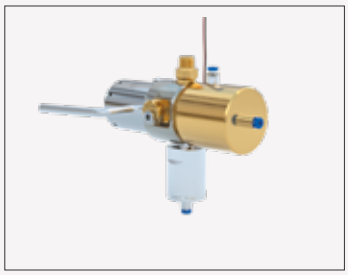
Functions lever variants

- Space-saving operation: Easy to access and comfortable to use, even with narrow bottle necks

Other variants are available — Please contact us!

WEH® Connectors TW103-S90





The WEH® Connector TW103-S90 is ideal for the industrial filling of gas cylinders in production and gas-filling systems. Thanks to vertical in-line filling — at temperatures from -40 °C to +40 °C and pressures of up to 155 bar — it can also be optimally integrated into existing production lines and automation solutions.

Maximum allowable operating pressure PS:
155 bar

Media:
CO_2

Actuation:
Manual and pneumatic actuation

Connects to:

Technical Data

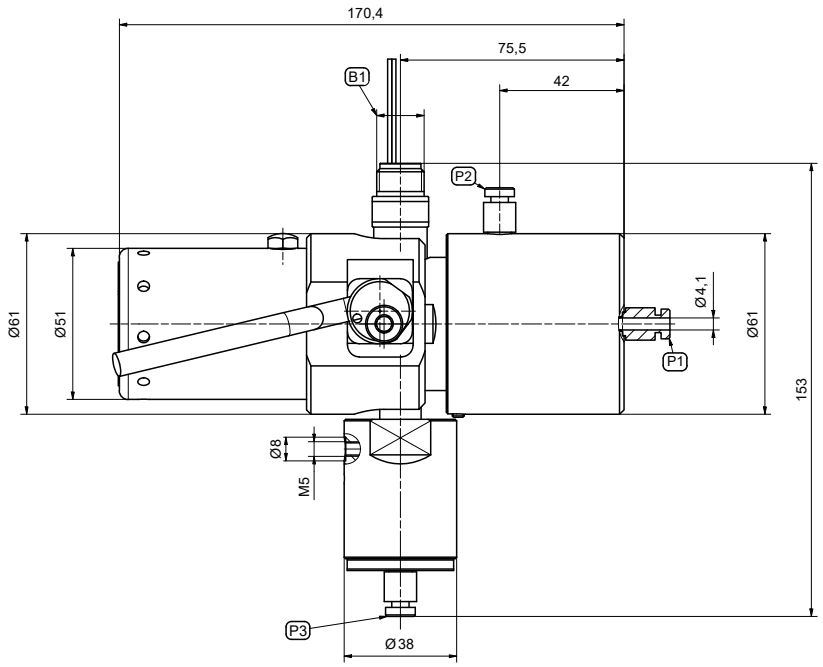
Max. allowable operating pressure PS*	155 bar
Pilot pressure P1, P2, P3	6 - 8 bar
Temperature range	-40°C up to +40°C
Outer leak rate	1 x 10-3 mbar x l/s
Connection	Collar / bead
Medium	CO_2
Material	Brass, stainless steel
Sealing material	EPDM
Actuation**	Manual and pneumatic actuation
Switching capacity of the optional pressure sensor	1 mA 5V DC until 100 mA 30V DC
Pressure equipment type	Pipe-like, pressure-retaining equipment acc. to Article 2, No. 5 of the pressure equipment directive
Conformities / Tests / Approvals	2014/68/EU (Article 4 paragraph 3)

*Please observe the pressure limits specified in the relevant cylinder valve standard.
These may be lower than the maximum allowable operating pressure for which the WEH® product is designed.
**Depending on the application

For further **technical data,** please refer to the product data sheet on the WEH website: link.weh.com/tw103-S90

WEH® TW103-S90 connector

approx. dimensions (mm)



Part No.	Description	B1 (male thread)	P1=P2=P3
C1-180242	TW103-S90 with micro switch	M16x1.5	Ø4.0 mm
C1-187745	TW103-S90 without micro switch	M16x1.5	Ø4.0 mm

Accessories

Swivel Joint
WEH® TD1
Page 83

Pressure hose
WEH® THP40
Page 85

Quick release coupling
WEH® TK350
Page 81

Actuations

Other bail variants for the WEH® connector TW103-S90 are available on request.

Adaptor

Adaptors to connect the WEH® connector TW103-S90 to the filling hose are available on request.

Spare parts

Various spare parts are available for the WEH® connector TW103-S90.

Part No.	Description
On request	Spare Sealing

WEH® Filling Connectors TW152

WEH® TW152
with 90° media inlet

WEH® TW152
with inline media inlet

WEH® TW152 für
residual pressure valves (RPV)

WEH® TW152 für
non-residual pressure valves

Quick Connector for filling of oxygen cylinders with male thread (with or without a residual pressure valve) and pressure regulator.

Max. allowable operating pressure PS:
250 bar

Media:
Medical oxygen

Actuation:
Manual actuation via sliding sleeve

Connects to:

acc. to DIN, CGA, BS, NF etc.

Application Example

Increased safety for oxygen applications - WEH® TW152 with venting bores

When filling with medical oxygen, particularly high demands are placed on the safety, tightness, and cleanliness of the components. With the TW152 filling connector, oxygen cylinders can be filled easily, efficiently and safely.

For maximum safety, the quick connector is equipped with an integrated locking mechanism that prevents it from locking under pressure. Additional venting bores in the sliding sleeve divert oxygen to the side in the event of unwanted gas leakage from the cylinder valve, thereby reducing the risk of burns.

Thanks to its small, compact design, the TW152 is ideal for filling oxygen cylinders with pressure regulators and protective caps.

Features & Benefits

1. **Integrated locking mechanism**
   → prevents locking under pressure
2. **Venting bores**
   → for lateral oxygen discharge in the event of unwanted gas return
3. **WEH® TD1 Swivel Joint**
   → for radial alignment of the connector
4. **Oxygen purification**
   → Ready for use with medical oxygen

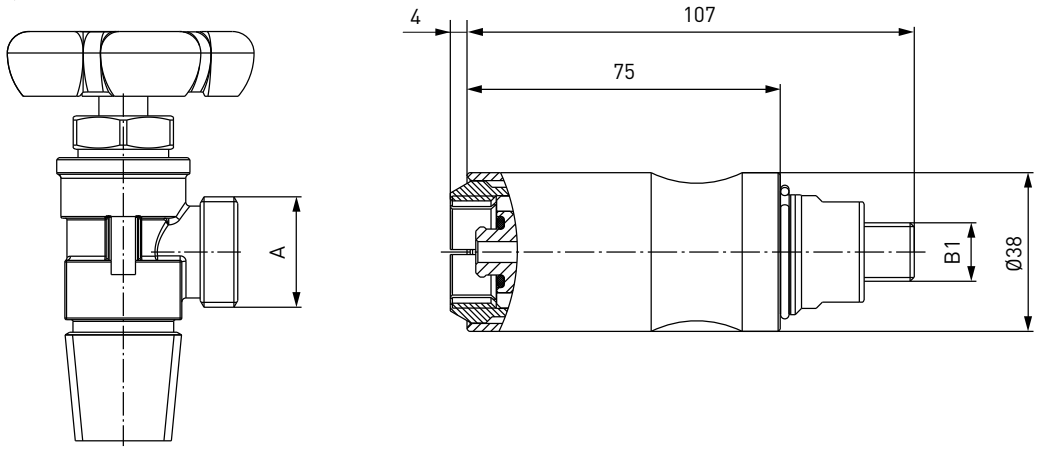
Technical Data

Max. allowable operating pressure PS	250 bar
Temperature range	+5°C up to +60°C (O_2)
Leak rate	1 x 10-3 mbar x l/s
Connection A	Male thread connection acc. to the corresponding national standard e.g. DIN, CGA, BS, NF etc.
Actuation	Manual actuation via sliding sleeve
Material	Corrosion resistant stainless steel, brass, Monel®
Sealing material	EPDM
Design	With or without RPV-Pin
Conformity / Tests / Approvals	Type approval for suitability against adiabatic compression available

Other designs on request

WEH® TW152 Quick connector with inline media inlet

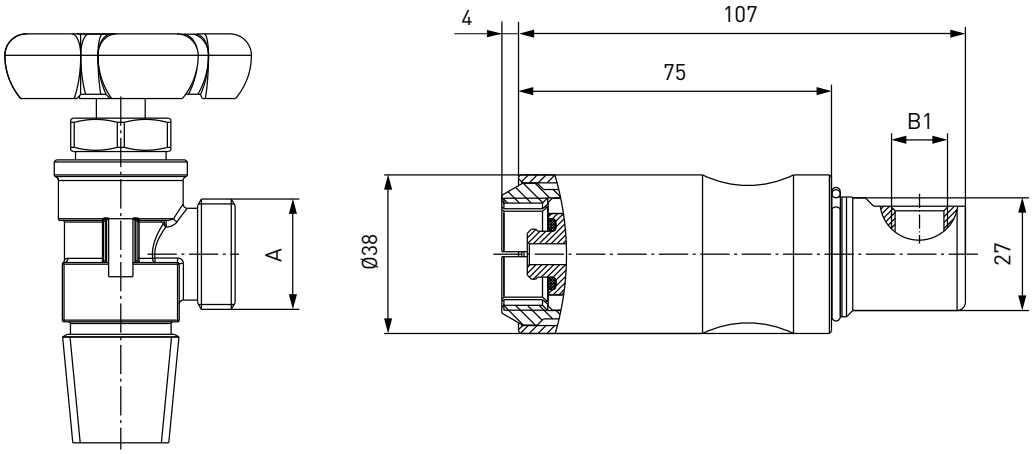
approx. dimensions (mm)



Part No.	Description	A (male thread)	B1 (female thread)
C1-62956-X01	TW152	W21.8x1/14“ DIN 477	NPT 1/4“
C1-47060-X01	TW152	0.903-14 NGO-RH CGA 540	NPT 1/4“

WEH® TW152 Quick connector with 90° media inlet

approx. dimensions (mm)



Part No.	Description	A (male thread)	B1 (female thread)
C1-62957-X01	TW152	W21.8x1/14“ DIN 477	NPT 1/4“
C1-49930-X01	TW152	0.903-14 NGO-RH EXT *CGA 540*	NPT 1/4“
On request	TW152*	0.903-14 NGO-RH EXT *CGA 540*	NPT 1/4“

*with RPV-Pin

Required order information, please see Page 101.

Accessories

Swivel Joint
WEH® TD1
Page 83

Pressure hose
WEH® THP40
Page 85

For further **spare parts and accessories**, please refer to the product data sheet on the WEH website: link.weh.com/tw152

WEH® Connector for Pin-Index systems

The WEH® TW42 and TW49 connectores for Pin-Index systems comply with the requirements of the CGA-870 standard. The coding of the devices can be adapted to all common CGA standards. Depending on the application, the connectors can also be used for filling medical oxygen. Made of rust-resistant stainless steel and brass, these connectors offer maximum safety and durability.

The connectors are oxygen-cleaned and delivered free of oil and grease (oxygen burnout test available).
The use of pin index connectors results in considerable time savings and increased productivity during filling.

Features & Benefits

1. **Available for applications with or without RPV**
   → Flexible use depending on system requirements
2. **Compatible with pin-index valves**
   → Suitable for valves with and without pressure gauges, as well as variants with handwheels
3. **Simple, tool-free handling**
   → Quick to connect – no screws required
4. **Very light – only approx. 700 g**
   → This makes it particularly comfortable for everyday use.
5. **Ergonomic, easy-to-use design**
   → For safe and comfortable operation
6. **High operational reliability**
   → No accidental locking under pressure possible
7. **Minimal wear and tear**
   → Hardly any maintenance required – extremely low maintenance costs

WEH® Filling Connectors TW42

WEH® TW42 for
esidual pressure valves (RPV)

WEH® TW42 for
non-residual pressure valves

Quick connector for filling of gas cylinders with Pin-Index system (with or without a residual pressure valve).

Max. allowable operating pressure PS:
250 bar

Media:
Medical oxygen

Actuation:
Manual actuation via clamping lever

Connects to:

acc. to CGA 870 (others on request)

Application Example

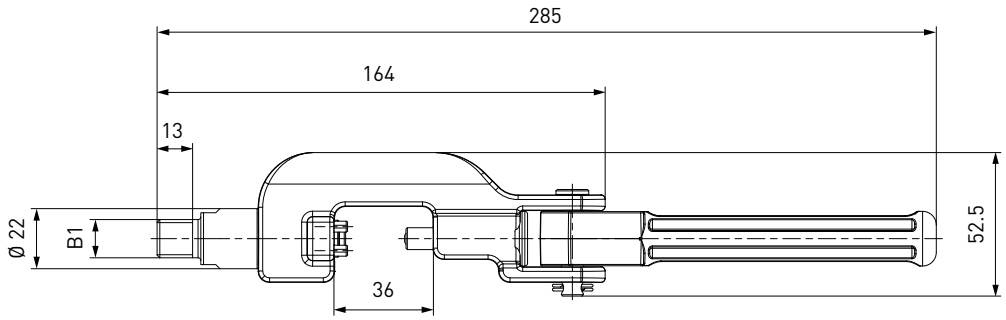
Technical Data

Max. allowable operating pressure PS	250 bar
Temperature range	+5°C up to +60°C (O_2)
Leak rate	1 x 10-3 mbar x l/s
Connection A	Pin-Index connection acc. to CGA 870 (others on request)
Actuation	Manual actuation via lever handle
Material	Corrosion resistant stainless steel, brass
Sealing material	EPDM
Design	With or without RPV-Pin
Conformity / Tests / Approvals	Type approval for suitability against adiabatic compression available

Other designs on request

WEH® TW42 Quick connector

approx. dimensions (mm)



Part No.	Description	A	B1 (male thread)
C1-117833-X01	TW42	CGA 870	NPT 1/4"
C1-117834-X01*	TW42	CGA 870	NPT 1/4"

*with RPV-Pin

Required information for ordering see page 101.

Accessories

Swivel Joint
WEH® TD1
Page 83

Pressure hose
WEH® THP40
Page 85

For further **spare parts and accessories**, please refer to the product data sheet on the WEH website: link.weh.com/tw42

WEH® Filling Connectors TW49

WEH® TW49 for non-residual pressure valves

WEH® TW42 for non-residual-pressure valves

Quick Connector for filling of gas cylinders with Pin-Index system without hand wheel and gauge.

Max. allowable operating pressure PS:
250 bar

Media:
Medical oxygen

Actuation:
Manual actuation via clamping lever

Connects to:

acc. to CGA 870 (others on request)

Application Example

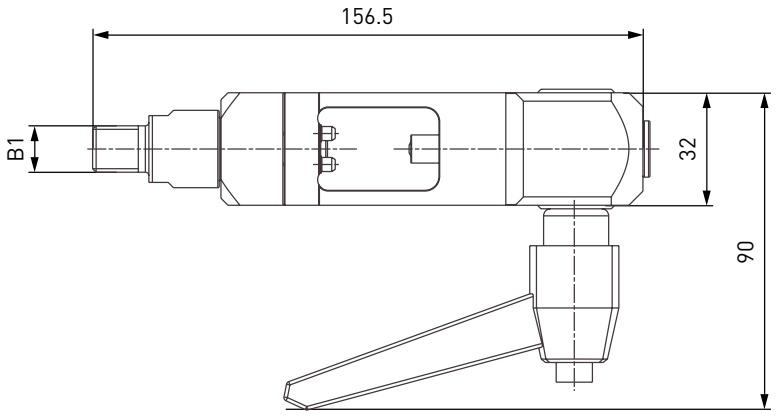
Technical Data

Max. allowable operating pressure PS	250 bar
Temperature range	+5°C up to +60°C (O_2)
Connection A	Pin-Index connection acc. to CGA 870 (others on request)
Actuation	Manual actuation via lever handle
Material	Corrosion resistant stainless steel, brass
Sealing material	EPDM
Conformity / Tests / Approvals	Type approval for suitability against adiabatic compression available

Other designs on request

WEH® TW49 Quick connector

approx. dimensions (mm)



Part No.	Description	A	B1 (male thread)
C1-4439-X01	TW49	CGA 870	NPT 1/4"

Required information for ordering see Page 101.

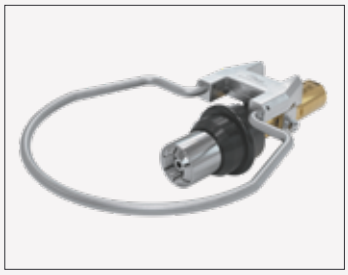
Accessories

Swivel Joint
WEH® TD1
Page 83

Pressure hose
WEH® THP40
Page 85

For further **spare parts and accessories**, please refer to the product data sheet on the WEH website: link.weh.com/tw49

WEH® Filling Connector TW52



Quick connector for filling of gas cylinders with male thread (with or without a residual pressure valve) with CO2 or refrigerants.

The WEH® TVCO2 linear valve is optionally available for the WEH® TW52.

Max. allowable operating pressure PS:
250 bar
150 bar with $TVCO_2$ linear valve

Media:
CO_2, refrigerants

Actuation:
Manual actuation via grip sleeve

Connects to:

acc. to DIN, CGA, BS, NF etc.

Application Example

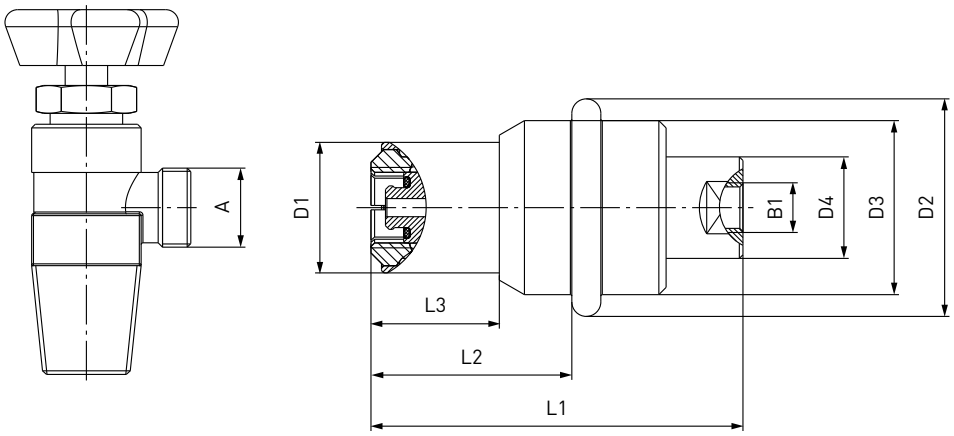
Technical Data

Max. allowable operating pressure PS	250 bar 150 bar with $TVCO_2$ shut-off valve
Temperature range	-40°C up to +40°C (CO_2)
Leak rate	1 x 10-3 mbar x l/s
Connection A	Male thread connection acc. to the corresponding national standard e.g. DIN, CGA, BS, NF etc.
Actuation	Manual actuation via grip sleeve
Material	Corrosion resistant stainless steel and brass
Sealing material	Front seal of EPDM resp. polyurethane
Design	With or without RPV-Pin

Other designs on request

WEH® TW52 Quick connector for non-residual pressure valves

approx. dimensions (mm)

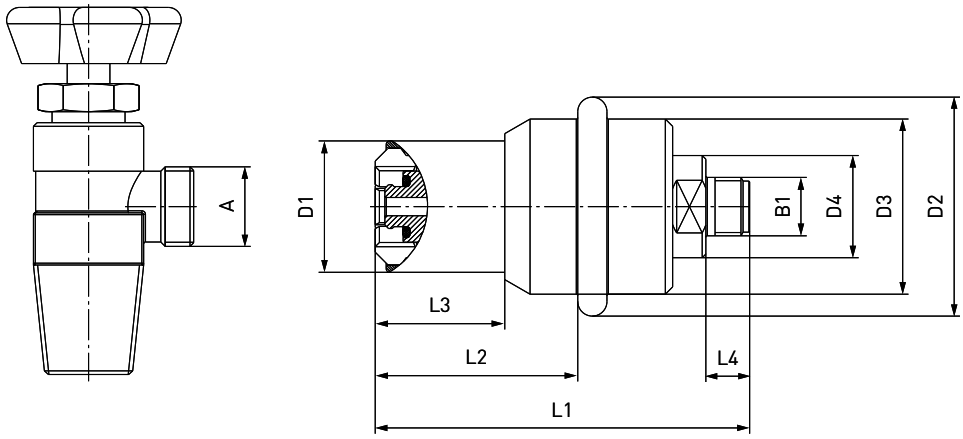


Part No.	Description	A (male thread)	B1 (female thread)	D1	D2	D3	D4	L1	L2	L3
C1-16560-X01	TW52	G1/2"	G1/4"	38	60	48	28	103	55.5	35.5
C1-16564-X01	TW52	W21.8x1/14"*	G1/4"	36	60	48	28	103	55.5	35.5

* according to DIN 477

WEH® TW52 Quick connector for non-residual pressure valves (suitable for TVCO2 shut-off valve)

approx. dimensions (mm)

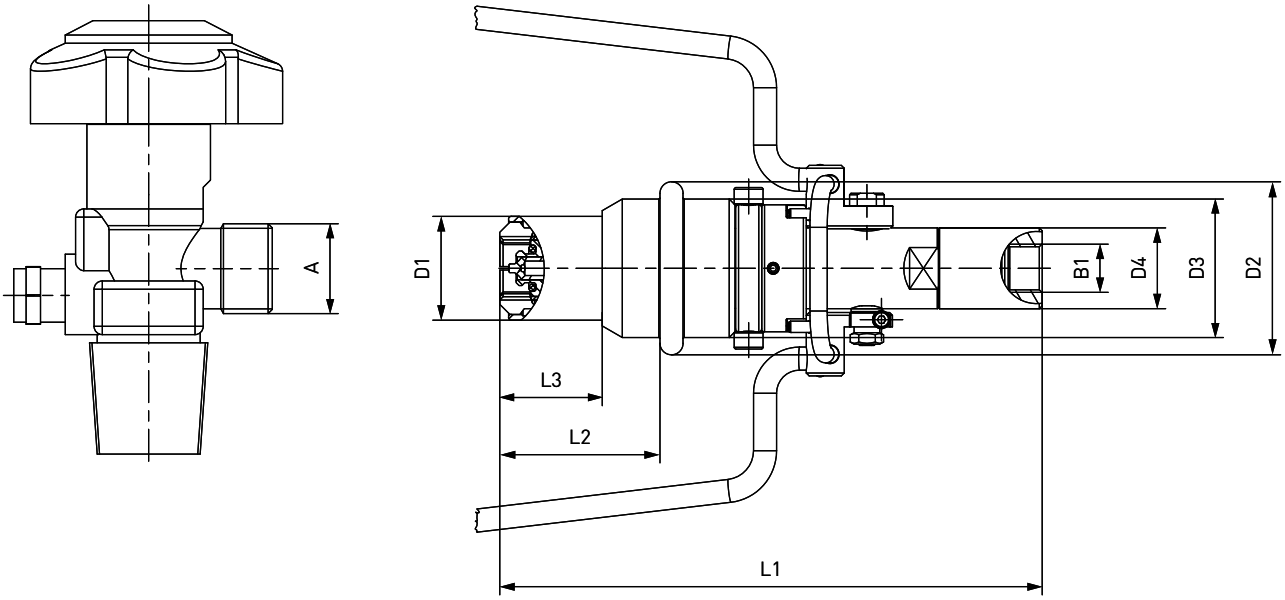


Part No.	Description	A (male thread)	B1 (male thread)	D1	D2	D3	D4	L1	L2	L3	L4
C1-16563	TW52	W21.8x1/14“*	M16x1.5	36	60	48	28	103	55.5	35.5	12

* according to DIN 477

WEH® TW52 Quick connector for residual pressure valves (incl. shut-off valve)

approx. dimensions (mm)



Part No.	Description	A (male thread)	B1 (female thread)	D1	D2	D3	D4	L1	L2	L3
C1-68486	TW52	W21.8x1/14“*	G3/8“	36	60	48	28	188	55.5	35.5

* according to DIN 477

Required information for ordering see Page 101.

Accessories

Pressure hose
WEH® THP40
Page 85

Greater efficiency and safety – with the optional lever actuation

For even greater ease of use, the TW52 is optionally available with an ergonomic control lever. This enables particularly safe and clean handling during filling:

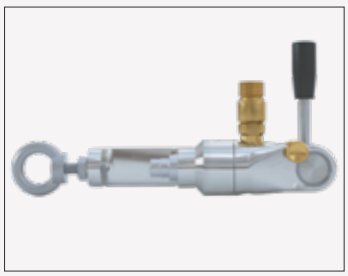
When connecting:

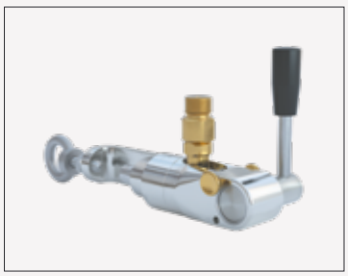
- **Integrated safety device:** The bracket provides reliable protection against unwanted media flow.
- **Automatic opening of the supply line:** Flow is only enabled when the connector is correctly connected.

When closing:

- **Immediate shut-off of the supply line:** No uncontrolled gas escape during removal.
- **Automatic venting:** The supply line is safely depressurized – for maximum safety and clean working.

WEH® Filling Connectors TW53





Quick Connector for filling of gas cylinders with acetylene and acetone .

Max. allowable operating pressure PS:
30 bar

Media:
Acetylene, Acetone

Actuation:
Manual actuation via actuation lever

Connects to:

DIN 477 No. 3

Application Example

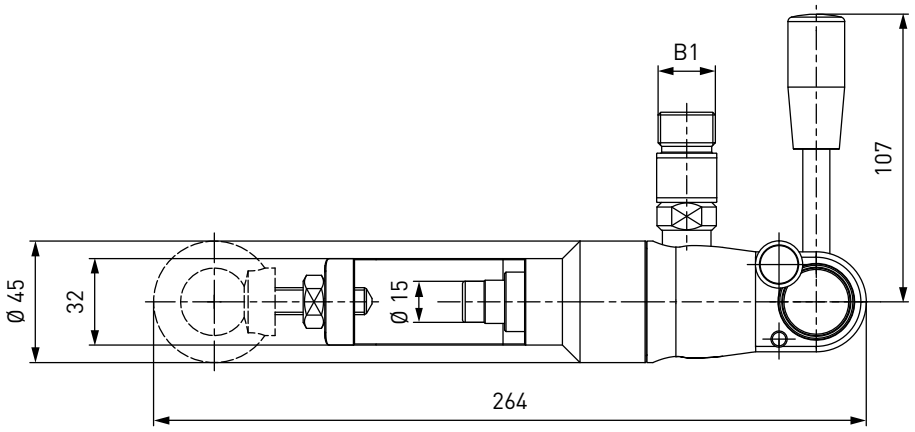
Technical Data

Max. allowable operating pressure PS	30 bar
Temperature range	+10°C up to +60°C
Leak rate	1 x 10-3 mbar x l/s
Connection A	Connection acc. to DIN 477 part 1 no. 3
Actuation	Manual actuation via actuation lever
Material	Corrosion resistant stainless steel, brass
Sealing material	EPDM
Conformity / Tests / Approvals	Detonative acetylene decomposition test up to 315 bar

Other designs on request

WEH® TW53 Quick connector

approx. dimensions (mm)



Part No.	Description	A	B1 (male thread)
C1-4419	TW53	DIN 477 No. 3	G1/2"

Required information for ordering see Page 101.

Accessories

Swivel Joint
WEH® TD1
Page 83

WEH® Filling Connectors TW59

Quick Connector for filling of gas cylinders with propane and butane.

Max. allowable operating pressure PS:
30 bar

Media:
Propane, butane

Actuation:
Manual actuation via sliding sleeve (pneumatically supported)

Connects to:
DIN 477 No. 1 and 2

Application Example

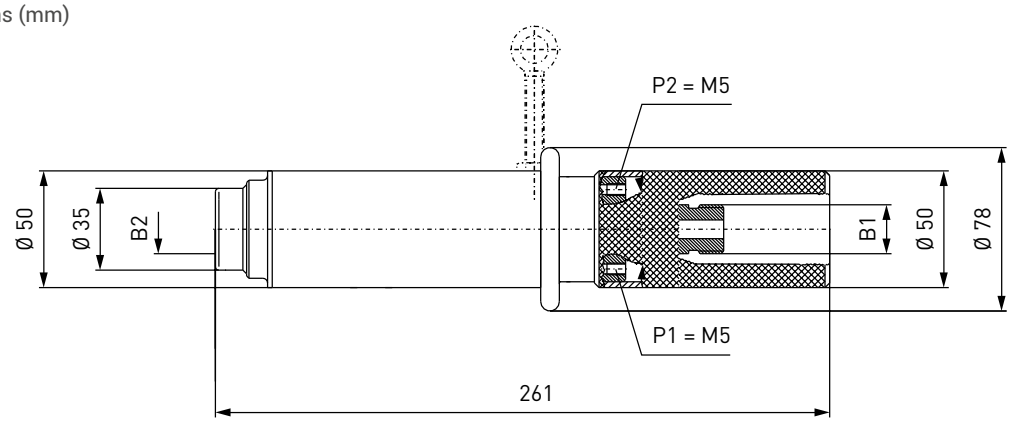
Technical Data

Max. allowable operating pressure PS	30 bar
Pilot pressure	6 - 8 bar
Pilot pressureconnection P1	M5
Pilot pressureconnection P2	M5 - if this feature is not required the port must be fitted with a blanking plug (factory fitted)
Temperature range	+5°C up to +60°C
Leak rate	1 x 10-3 mbar x l/s
Connection A	Connection acc. to DIN 477 part 1 no. 1 and 2
Actuation	Manual actuation via sliding sleeve (pneumatically supported)
Material	Corrosion resistant stainless steel, aluminum
Sealing material	NBR
Conformity / Tests / Approvals	TÜV test available

Other designs on request

WEH® TW59 Quick connector

approx. dimensions (mm)



Part No.	Description	B1 (male thread)	B1 (male thread)
C1-10291	TW59	W21.8x1/14" LH	W21.8x1/14" LH

Required information for ordering see Page 101.

Accessories

Part No.	Description
E51-101N	Special sealing

WEH® Filling Conncetors TW67

WEH® TW67 for
residual pressure valves (RPV)

WEH® TW67 or
non-residual pressure valves

Manual Connector for filling of gas cylinders with male thread and with or without a residual pressure valve (pallet and bundle filling).

Max. allowable operating pressure PS:
250 bar | 375 bar

Media:
Inert/flammable gases, oxygen, argon, nitrogen

Actuation:
Manual actuation via grip sleeve

Connects to:

acc. to DIN, CGA, BS, NF etc.

Apllication Example

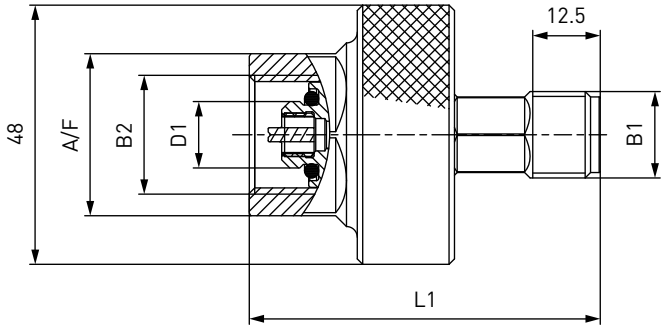
Technical Data

Max. allowable operating pressure PS	250 bar or 375 bar
Temperature range	+5 °C up to +80 °C +5 °C up to +60 °C (O_2)
Leak rate	1 x 10-3 mbar x l/s
Connection A (cylinder valve)	Male thread connection acc. to the corresponding national standard e.g. DIN, CEN, CGA, BS, NF etc.
Material	Brass
Sealing material	Acc. to gas type
Filling type	Pallet filling, bundle filling
Conformity / Tests / Approvals	Type approval for suitability against adiabatic compression available

Other designs on request

WEH® TW67 Manual connector with inline media inlet - pallet filling

approx. dimensions (mm)

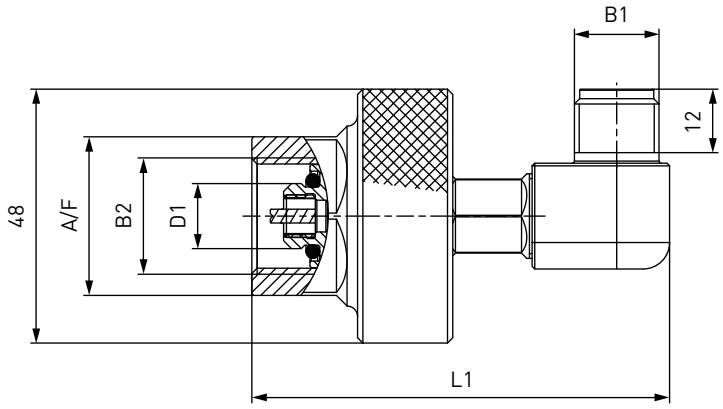


Part No.	B2 (female thread)	B1 (male thread)	Pressure (PS)	Medium	D1	L1	A/F
C1-94962-X01	W21,8 x1/14" *DIN 477 Part 1*	M16x1.5	250 bar	Argon	12.3	65	30
C1-95028	W21,8 x1/14"-LH *DIN 477 Part 1*	M16x1.5	250 bar	Flammable gases	12.3	65	30
C1-94992	W24,32 x1/14" *DIN 477 Part 1*	M16x1.5	250 bar	Nitrogen	12.3	65	30
C1-95039	W30x2 *ISO 5145 1.FTSC* Code 0170	M16x1.5	375 bar	Inert gases	15.9	68	36
C1-94996-X01	G3/4" *DIN 477 Part 1*	M16x1.5	250 bar	Oxygen	13.5	65	32
C1-98091	W30x2 *ISO 5145 1.FTSC* Code 4070	M16x1.5	375 bar	Oxygen	17.3	68	36
C1-94998*	W21,8 x1/14" *DIN 477 Part 1*	M16x1.5	250 bar	Argon	12.3	65	30
C1-95063*	W21,8 x1/14"-LH *DIN 477 Part 1*	M16x1.5	250 bar	Flammable gases	12.3	65	30
C1-94983-X01*	W24,32 x1/14" *DIN 477 Part 1*	M16x1.5	250 bar	Nitrogen	12.3	65	30
C1-95220*	W30x2 *ISO 5145 1.FTSC* Code 0170	M16x1.5	375 bar	Inert gases	15.9	68	36
C1-94995-X01*	G3/4" DIN 477 Part 1	M16x1.5	250 bar	Oxygen	13.5	65	32
C1-98090*	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	375 bar	Oxygen	17.3	68	36

* with RPV-Pin

WEH® TW67 Manual connector with 90° media inlet - pallet filling

approx. dimensions (mm)

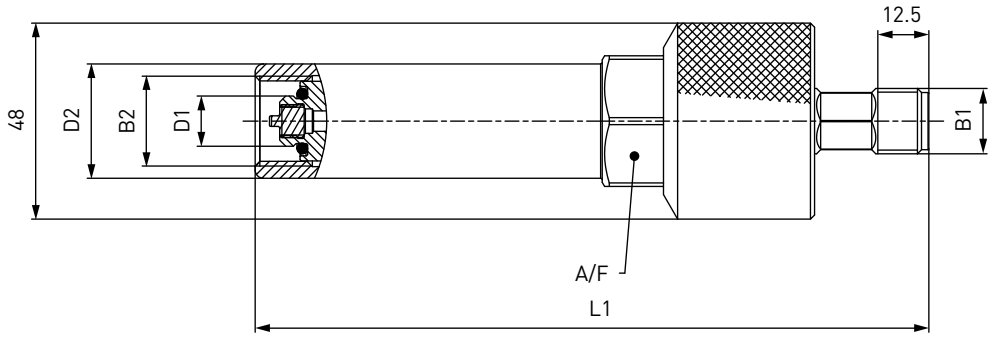


Part No.	B2 (female thread)	B1 (male thread)	Pressure (PS)	Medium	D1	L1	A/F
C1-93019-X01	W21,8 x1/14“ DIN 477 Part 1	M16x1.5	250 bar	Argon	12.3	79	30
C1-92813-X01	W21,8 x1/14“-LH DIN 477 Part 1	M16x1.5	250 bar	Flammable gases	12.3	79	30
C1-92986-X01	W24,32 x1/14“ DIN 477 Part 1	M16x1.5	250 bar	Nitrogen	12.3	79	30
C1-94098-X01	W30x2 ISO 5145 1.FTSC Code 0170	M16x1.5	375 bar	Inert gases	15.9	82	36
C1-93043-X01	G3/4“ DIN 477 Part 1	M16x1.5	250 bar	Oxygen	13.5	78	32
C1-98089-X01	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	375 bar	Oxygen	17.3	82	36
C1-93023-X01*	W21,8 x1/14“ DIN 477 Part 1	M16x1.5	250 bar	Argon	12.3	79	30
C1-92855*	W21,8 x1/14“-LH DIN 477 Part 1	M16x1.5	250 bar	Flammable gases	12.3	79	30
C1-93009-X01*	W24,32 x1/14“ DIN 477 Part 1	M16x1.5	250 bar	Nitrogen	12.3	79	30
C1-95221-X01*	W30x2 ISO 5145 1.FTSC Code 0170	M16x1.5	375 bar	Inert gases	15.9	82	36
C1-93047-X01*	G3/4“ DIN 477 Part 1	M16x1.5	250 bar	Oxygen	13.5	79	32
C1-99758-X01*	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	375 bar	Oxygen	17.3	82	36

* with RPV-Pin

WEH® TW67 Manual connector with inline media inlet - bundle filling

approx. dimensions (mm)



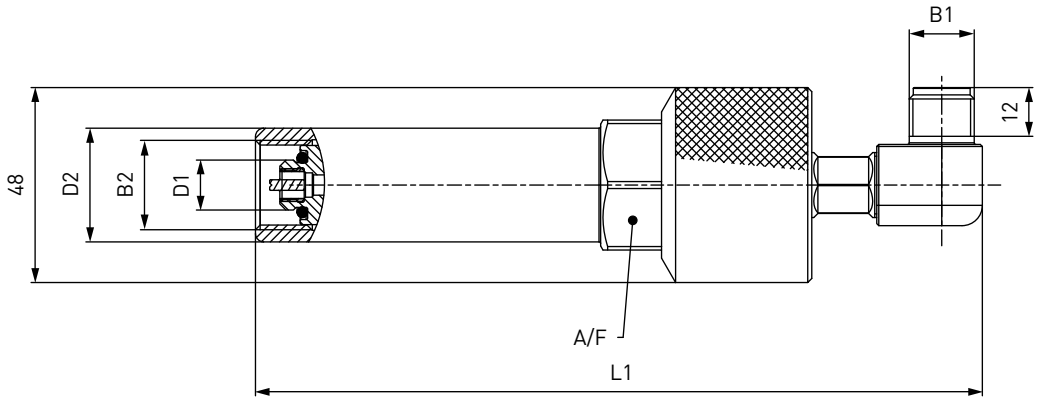
Example: TW67 with RPV pin

Part No.	B2 (female thread)	B1 (male thread)	Pressure (PS)	Medium	D1	L1	A/F
C1-95101	W21,8 x1/14“ DIN 477 Part 1	M16x1.5	250 bar	Argon	12.3	79	30
C1-95194	W21,8 x1/14“-LH DIN 477 Part 1	M16x1.5	250 bar	Flammable gases	12.3	79	30
C1-95202	W24,32 x1/14“ DIN 477 Part 1	M16x1.5	250 bar	Nitrogen	12.3	79	30
C1-95111-X01	W30x2 ISO 5145 1.FTSC Code 0170	M16x1.5	375 bar	Inert gases	15.9	82	36
C1-95216	G3/4“ DIN 477 Part 1	M16x1.5	250 bar	Oxygen	13.5	78	32
C1-98092	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	375 bar	Oxygen	17.3	82	36
C1-95110*	W21,8 x1/14“ DIN 477 Part 1	M16x1.5	250 bar	Argon	12.3	79	30
C1-95196*	W21,8 x1/14“-LH DIN 477 Part 1	M16x1.5	250 bar	Flammable gases	12.3	79	30
C1-95199*	W24,32 x1/14“ DIN 477 Part 1	M16x1.5	250 bar	Nitrogen	12.3	79	30
C1-95223*	W30x2 ISO 5145 1.FTSC Code 0170	M16x1.5	375 bar	Inert gases	15.9	82	36
C1-95219*	G3/4“ DIN 477 Part 1	M16x1.5	250 bar	Oxygen	13.5	79	32
C1-98093*	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	375 bar	Oxygen	17.3	82	36

* with RPV-Pin

WEH® TW67 Manual connector with 90° media inlet - bundle filling

approx. dimensions (mm)



Example: TW67 with RPV pin

Part No.	B2 (female thread)	B1 (male thread)	Pressure (PS)	Medium	D1	L1	A/F
C1-95081-X01	W21,8 x1/14“ DIN 477 Part 1	M16x1.5	250 bar	Argon	12.3	79	30
C1-95195-X01	W21,8 x1/14“-LH DIN 477 Part 1	M16x1.5	250 bar	Flammable gases	12.3	79	30
C1-95203-X01	W24,32 x1/14“ DIN 477 Part 1	M16x1.5	250 bar	Nitrogen	12.3	79	30
C1-95080-X01	W30x2 ISO 5145 1.FTSC Code 0170	M16x1.5	375 bar	Inert gases	15.9	82	36
C1-95215-X01	G3/4“ DIN 477 Part 1	M16x1.5	250 bar	Oxygen	13.5	78	32
C1-98094-X01	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	375 bar	Oxygen	17.3	82	36
C1-95082-X01*	W21,8 x1/14“ DIN 477 Part 1	M16x1.5	250 bar	Argon	12.3	79	30
C1-95197*	W21,8 x1/14“-LH DIN 477 Part 1	M16x1.5	250 bar	Flammable gases	12.3	79	30
C1-95198-X01*	W24,32 x1/14“ DIN 477 Part 1	M16x1.5	250 bar	Nitrogen	12.3	79	30
C1-95224-X01*	W30x2 ISO 5145 1.FTSC Code 0170	M16x1.5	375 bar	Inert gases	15.9	82	36
C1-95218-X01*	G3/4“ DIN 477 Part 1	M16x1.5	250 bar	Oxygen	13.5	79	32
C1-98095-X01*	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	375 bar	Oxygen	17.3	82	36

* with RPV-Pin

Required information for ordering see Page 101.

Accessories

Swivel Joint
WEH® TD1
Page 83

Pressure hose
WEH® THP40
Page 85

Quick release coupling
WEH® TK350-TN350
Page 81

For further **spare parts and accessories**, please refer to the product data sheet on the WEH website: link.weh.com/tw67

WEH® Quick Release Coupling TK350-TN350

The quick-Release coupling TK350 is screwed directly onto the WEH® Connector, and the corresponding quick-release nipple TN350 is attached to the filling hose. If a switch to a different cylinder valve configuration is required, the connection between the TK350 and TN350 can be disconnected by releasing the bayonet lock and pulling back the sliding sleeve on the TK350.

The quick-Release nipple TN350 remains on the filling hose and is simply connected to another WEH® Connector, which is also equipped with a TK350 quick-release coupling. This allows for a rapid switch from one system to another

Max. allowable operating pressure PS:
375 bar

Media:
Inert/flammable gases, oxygen

Suitable for:
Filling hoses
WEH® Connectors TW54/57, TW101/102, TW67

Application Example

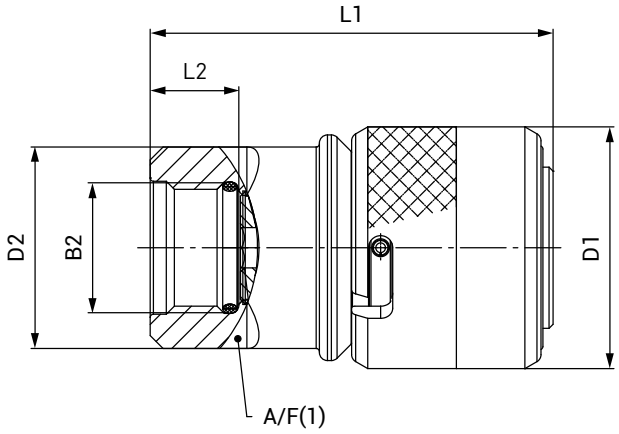
Technical Data

Max. allowable operating pressure PS	375 bar
Temperature range	+5°C up to +80°C +5°C up to +60°C (O_2)
Leak rate	1 x 10-3 mbar x l/s
Material	Corrosion resistant TK350: brass and stainless steel TN350: stainless steel
Sealing material	EPDM
Actuation	Manual actuation via sliding sleeve
Conformity / Tests / Approvals	Type approval for suitability against adiabatic compression available

Other designs on request

WEH® TK350 Quick release coupling

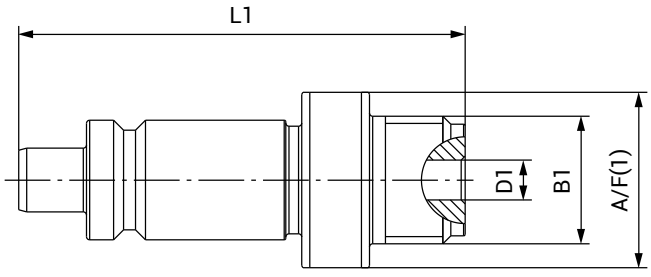
approx. dimensions (mm)



Part No.	Description	B2 (female thread)	L1	L2	D1	D2	A/F(1)
C1-91239-X01	TK350	M16x1.5	50	11	30	25	22

WEH® TN350 Quick release nipple

approx. dimensions (mm)



Part No.	Description	B1 (male thread)	L1	D1	A/F(1)
C1-91241-X01	TN350	M16x1.5	56	5	22

Required information for ordering see Page 101.

Accessories | Spare parts

For **accessories and spare parts**, see the product data sheet on the WEH website: link.weh.com/tk350-tn350

WEH® Swivel joint TD1

Swivel Joint radial positioning of the WEH® Connectors.

Max. allowable operating pressure PS:
420 bar

Medium:
Inert gases, Oxygen

Application Example

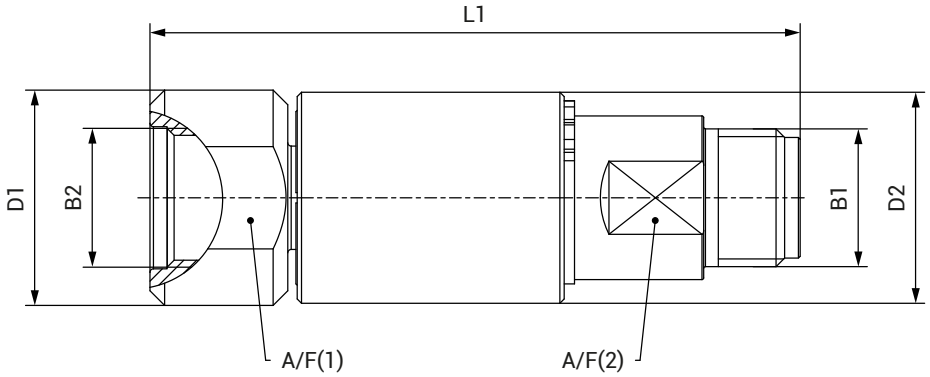
Technical Data

Max. allowable operating pressure PS	420 bar
Temperature range	+5°C up to +80°C -5°C up to +60°C (O_2)
Material	Brass
Sealing material	EPDM
Conformity / Tests / Approvals	Type approval for suitability against adiabatic compression available

Other designs on request

WEH® Swivel Joint TD1

approx. dimensions (mm)



Part No.	Description	B1 (male thread)	B2 (female thread)	L1	D1	D2	A/F(1)	A/F(2)
W6996-X01	TD1	M16x1.5	M16x1.5	75,5	25	24.5	22	17

Required information for ordering see Page 101.

Accessories | Spare parts

For **accessories and spare parts**, see the product data sheet on the WEH website: link.weh.com/td1

WEH® High-Pressure Hose THP40

The WEH® pressure hoses THP40 are made of Kevlar®-reinforced PTFE and, due to their smooth inner surface, have a very high thermal decomposition threshold and autoignition temperature. This means that even under high-pressure flow, only a minimal temperature increase occurs. Additionally, they are resistant to a wide range of chemicals and solvents.

Max. allowable operating pressure PS:
420 bar

Media:
Inert gases, Oxygen

Application Example

Technical Data

Max. allowable operating pressure PS	420 bar
Temperature range	-30°C up to +80°C
Material	Hose: Kevlar® reinforced PTFE Fittings: brass
Sealing material	Acc. to gas type
Minimum bend radius	90 mm
Design	Complete with screw connections, kink protection (spiral) at the compression fittings, and steel cable for securing against accidental loosening. Pressure hoses for oxygen are additionally equipped with a heat sink.
Conformity / Tests / Approvals	ISO 14113:2013

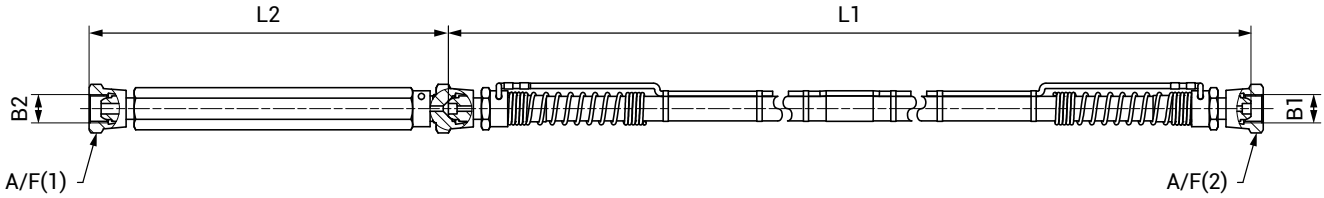
Other designs on request

Overview product series

Product series	Medium		Heat sink
	Oxygen	Inert gases	
THP40-S1	X		X
THP40-S2	X		X
THP40-S3		X	
THP40-S4		X	

WEH® THP40 - S1 Pressure hose

approx. dimensions (mm)

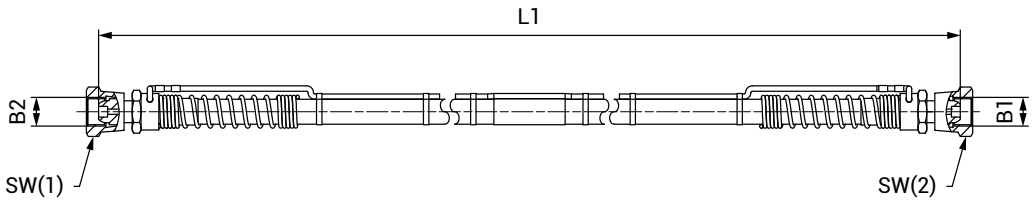


Part No.	Description	B1 (female thread)	B2 (female thread)	L1	L2	A/F(1)/ A/F(2)
C1-176385	THP40 - S1	M16x1.5*	M16x1.5	800	200	24
C1-176387	THP40 - S1	M16x1.5*	M16x1.5	1300	200	24
C1-176388	THP40 - S1	M16x1.5*	M16x1.5	1800	200	24
C1-176389	THP40 - S1	NPT 1/4“	NPT 1/4“	800	200	24
C1-176390	THP40 - S1	NPT 1/4“	NPT 1/4“	1300	200	24
C1-176391	THP40 - S1	NPT 1/4“	NPT 1/4“	1800	200	24

*24° cone connection acc. to ISO 8434-1

WEH® THP40 - S3 Pressure hose

approx. dimensions (mm)



Part No.	Description	B1 (female thread)	B2 (female thread)	L1	A/F(1)/ A/F(2)
C1-176398	THP40 - S3	M16x1.5*	M16x1.5	1000	24
C1-176400	THP40 - S3	M16x1.5*	M16x1.5	1500	24
C1-176401	THP40 - S3	M16x1.5*	M16x1.5	2000	24
C1-176402	THP40 - S3	NPT 1/4“	NPT 1/4“	1000	24
C1-176403	THP40 - S3	NPT 1/4“	NPT 1/4“	1500	24
C1-176404	THP40 - S3	NPT 1/4“	NPT 1/4“	2000	24

*24° cone connection acc. to ISO 8434-1

Required information for ordering see Page 101.

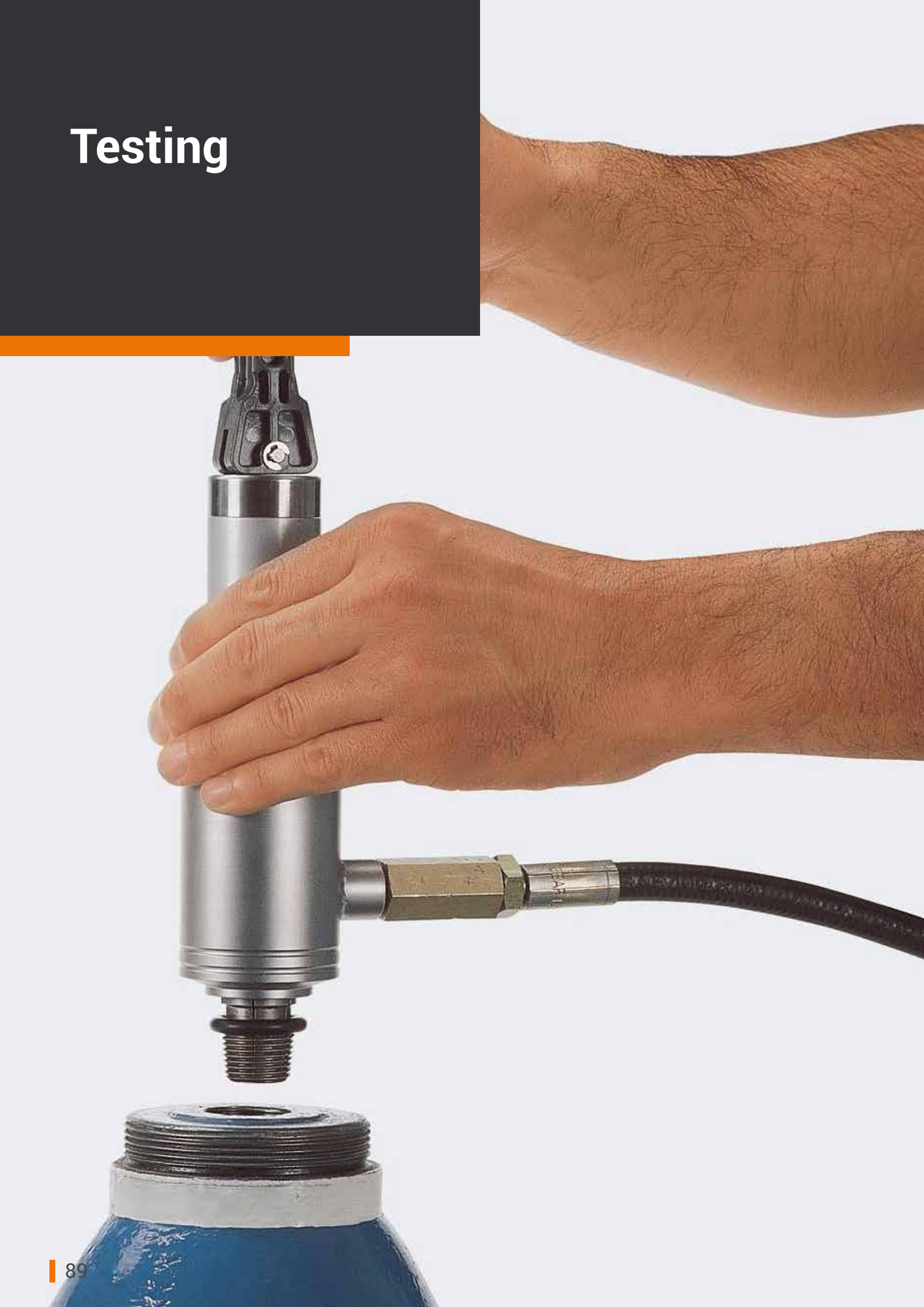
Accessories | Adaptors

Adaptor for fitting M16x1.5 hoses with 24° sealing cone on gas unit with M16x1.5 plane sealing.

Part No.	Description	B1 (female thread)	B2 (male thread)
W42288	Adaptor	M16x1.5	M16x1.5

*24° cone connection acc. to ISO 8434-1 (S16xM16)

Testing



WEH® Test Connector

Pressure and leak testing of gas cylinders often involves a great deal of time and effort: fittings must be screwed in, test media connected, and processes repeatedly modified. With WEH® test connectors, all this can be done in a single step—without any screwing.

Simply attach, check, done.
Filling, pressure testing, and emptying are carried out using a single, compact system. This saves time, reduces wear on the threads, and protects the user's joints.

Ideal for series testing of oxygen and breathing air cylinders – e.g., in gas filling, production, or maintenance.

Your benefits at a glance:

- Quick, tool-free connection
- No thread wear
- Fewer modifications – greater efficiency
- Convenient, ergonomic operation
- Maximum tightness and process reliability

Quick connector for pressure testing gas cylinders

	TYPE	CONNECTION TYPE	MEDIUM	PRESSURE PS	PAGE
	Connector TW17		Water	450 bar	91
	Connector TW117		Water, compressed air (during emptying)	450 bar	95

WEH® Filling Connectors TW17

Pneumatic actuation via valve head

Manual actuation via clamping lever

Quick Connector for pressure testing of gas cylinders with water.

Max. allowable operating pressure PS:
450 bar

Media:
Water

Actuation:
Pneumatic actuation via valve head or manual actuation via clamping lever

Connects to:

acc. to DIN, CGA, BS, NF etc.

Application Example

Technical Data

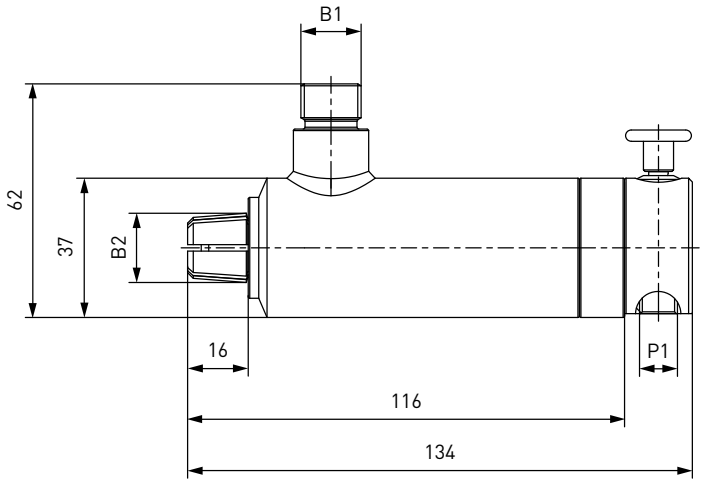
Max. allowable operating pressure PS	450 bar
Temperature range	+5°C up to +80°C
Pilot pressure	6 - 12 bar air
Leak rate	1 x 10-3 mbar x l/s
Material	Corrosion resistant stainless steel, brass
Sealing material	NBR
Actuation	Pneumatic actuation via valve head or manual actuation via lever handle

Other designs on request

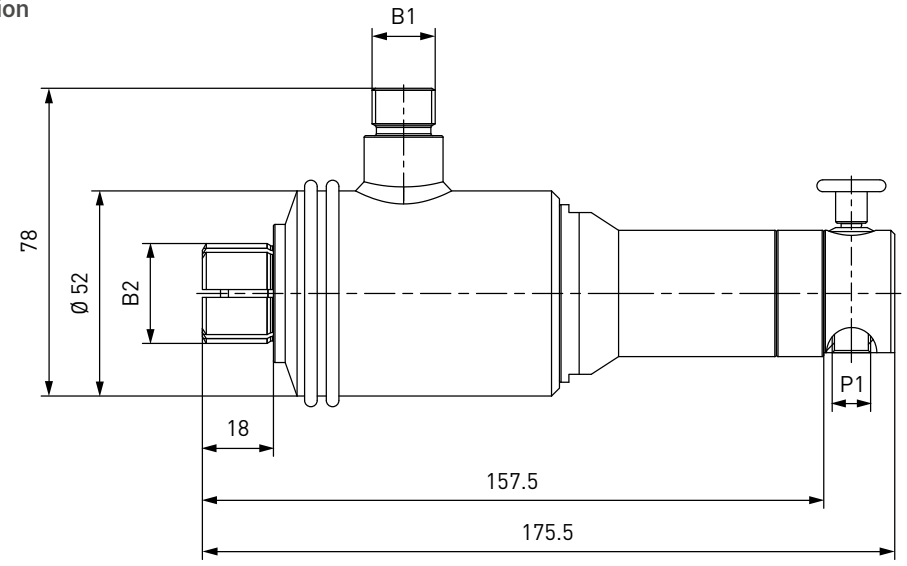
WEH® TW17 Quick connector with pneumatic actuation

approx. dimensions (mm)

TW17V for W19.8x1/14“ connection



TW17V for W28.8x1/14“ connection



Part No.	Description	B1 (male thread)	B2 (male thread)	P1 (female thread)
C1-33210	TW17V	M16x1.5*	W19.8x1/14"	G1/8“
C1-30341	TW17V	M16x1.5*	W28.8x1/14“	G1/8“

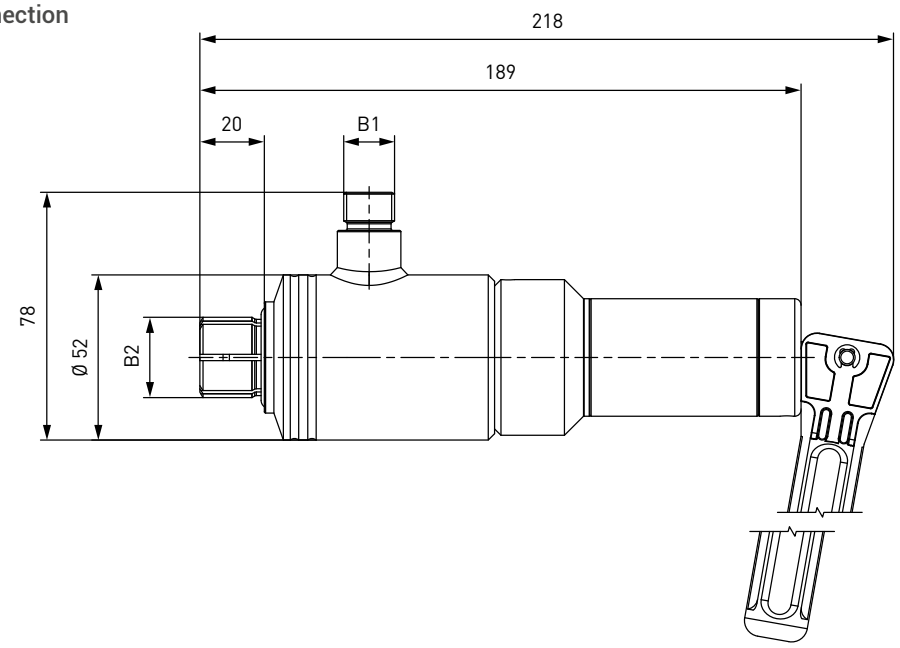
*Ermeto 24° ‚S‘

Required information for ordering see Page 101.

WEH® TW17 Quick connector with manual actuation

approx. dimensions (mm)

TW17M for W28.8x1/14“ connection



Part No.	Description	B1 (male thread)	B2 (male thread)
C1-14854	TW17M	M16x1.5*	W28.8x1/14"

*Ermeto 24° ‚S‘

Required information for ordering see Page x.

Accessories | Actuation

For type TW17 various manual and pneumatic actuations are available:
- H (manually via hand lever)
- M (manually via lever handle)
- V (pneumatically via valve head)
- P (pneumatically for external control systems)

Please contact us!

For **spare parts**, see the product data sheet on the WEH website: link.weh.com/tw17-gas

WEH® Filling Connectors TW117

Three functions with one connection: filling, testing and discharging of gas cylinders with water (discharging can also be carried out with compressed air).

Max. allowable operating pressure PS:
450 bar

Media:
Water, compressed air (when discharging)

Actuation:
Pneumatic actuation via valve head

Connects to:

acc. to DIN, CGA, BS, NF etc.

Application Example

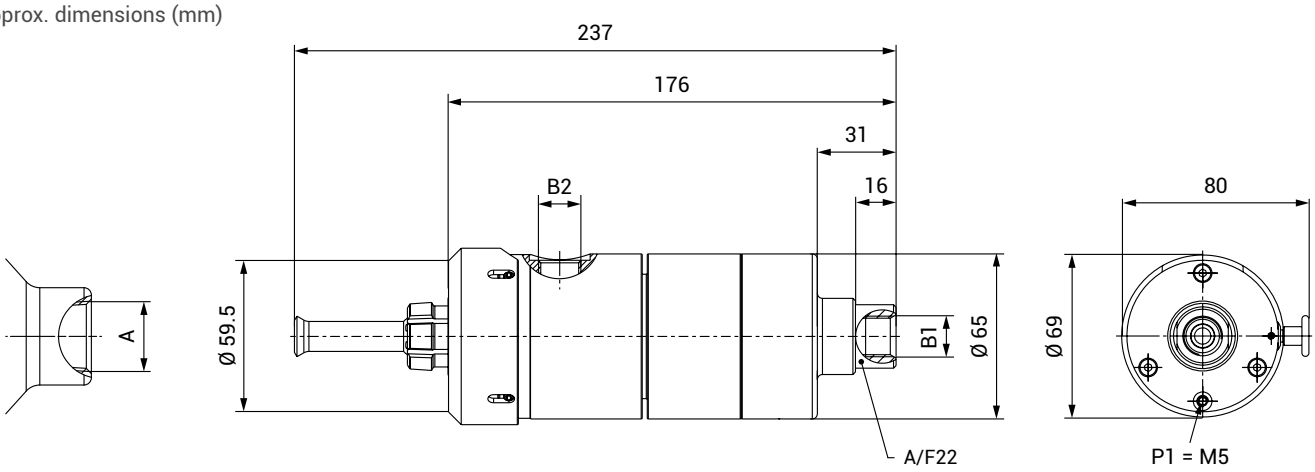
Technical Data

Max. allowable operating pressure PS	450 bar
Temperature range	+10°C up to +80°C
Pilot pressure	6 - 8 bar air
Pilot pressureconnection P1	M5
Leak rate	1 x 10-3 mbar x l/s
Material	Corrosion resistant stainless steel, aluminum, brass
Sealing material	NBR
Actuation	Pneumatic actuation via valve head

Other designs on request

WEH® TW117 Quick connector

approx. dimensions (mm)



Part No.	Description	A (female thread)	B1 (female thread)	B2 (female thread)
C1-11673	TW117	W28.8x1/14"*	M16x1.5	G3/8"

*according to DIN 477

Required information for ordering see Page 101.

Accessories | Adaptors

Adaptors for connecting the quick connector to the filling hose are available on request.

Spare parts

Part No.	Description
E50-231N	Front sealing
B200B-056-00	Sealing set

Quality & Service

- Made in Germany -

Play it safe:
WEH Manufacturer Service

You have chosen a WEH® product, and with it, quality and safety. Your satisfaction is our top priority—even after the purchase of our products. Our service team is your reliable and competent contact when it comes to the lifespan of our products.

Now that's what we call good service!

The quality of our products is a major advantage for our customers. WEH® products are not simply replaced—they are sent in for service.

Your benefits:

- Our experts inspect, repair, and maintain your devices reliably, quickly, and safely.
- In doing so, we comply with national and international requirements.
- We use only original spare parts.
- We carry out outgoing goods inspections and create an inspection report
- We ensure maximum availability. and performance of the products
- With our service, you minimize safety risks.
- Our experts detect emerging damages at an early stage.
- Unnecessary repairs and consequential damages can be ruled out by our service staff.
- The costs for service and maintenance are transparent

This is what we can do for you:

ANALYSIS

As part of maintenance, we check which parts can be reused

REPLACEMENT

We replace parts to ensure quality and safety standards

WARRANTY & GUARANTEE

Quality you can rely on – every product is inspected.

LABORATORY

For specialized analyses, we cooperate with partner laboratories

CLEANING

First, wash – using our modern cleaning machine.

Quality from experience

Proven technologies on the market for over 50 years

Some may describe WEH as obsessed – obsessed with the highest quality. Indeed, this is one of the most important criteria our products must meet. Alongside safety, quality is our top priority. We use only high-quality materials and have relied on the 'Made in Germany' label for decades

Sustainable satisfaction, but above all the safety of our customers is our top priority. From the product concept to the service, the commitment to excellent quality is firmly embedded in our company processes. For us, it is a matter of course to subject every product to the highest quality and safety inspections

Our customers can rely on our team to be meticulous during incoming and outgoing goods inspections. For this purpose, our quality experts have access to the most advanced measurement and testing method.

We maintain our high standards of top quality not only for our ready-to-ship products but also for the goods we receive from suppliers. We value dependable partners who share our commitment and put these standards into practice within their own operations.

Only when the quality of the materials we purchase meets our standards can you trust that the final product will be both safe and of superior quality.

ORIGINAL WEH® PRODUCT since 1973

CERTIFIED QUALITY MANAGEMENT

Our commitment to quality is certified according to the high requirements of recognized standards:

- **ISO 9001:2015**
- **ISO 14001:2015**
- **Pressure Equipment Directive 2014/68/EU Attachment III, Module H**

EQ ZERT EN ISO 14001 ISO 14001 DIN EN ISO 14001 CERTIFIED certified environmental management system

EQ ZERT EN ISO 9001 ISO 9001 DIN EN ISO 9001 CERTIFIED certified quality system

The result of our philosophy?

Product solutions that combine top quality and maximum safety, delivering real advantages to our customers

- Low downtime
- Cost reduction and increased productivity
- Dependability and exceptional user-friendliness

WEH Worldwide

Discover our sales partner here

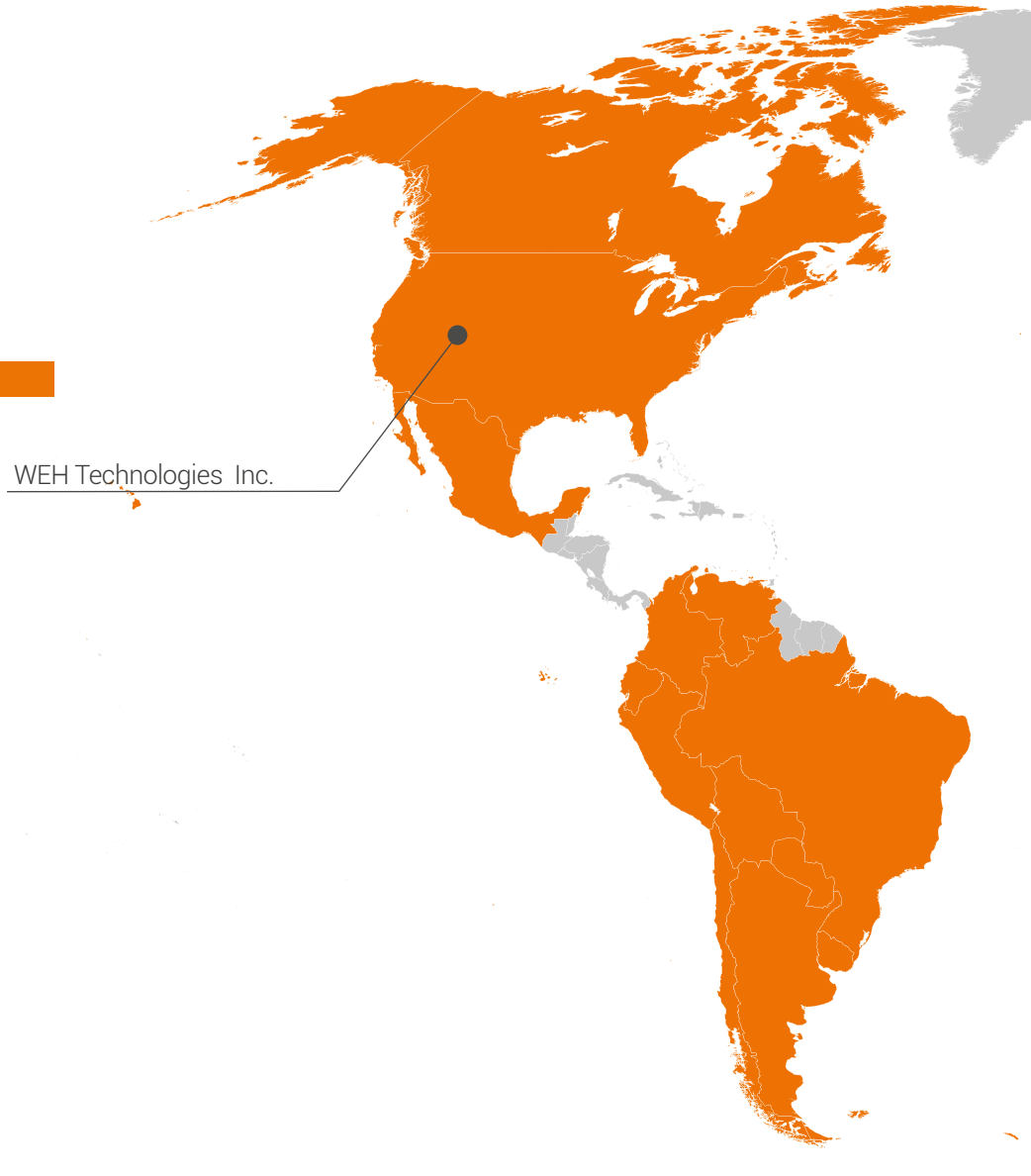
Your reliable partner worldwide for high-pressure and connection technology,

Top technical expertise, driven by German engineering, innovative system solutions, and decades of experience.

Find us here

Company headquarter
Germany

Subsidiary
United Kingdom
France
USA
Poland



This is us

35

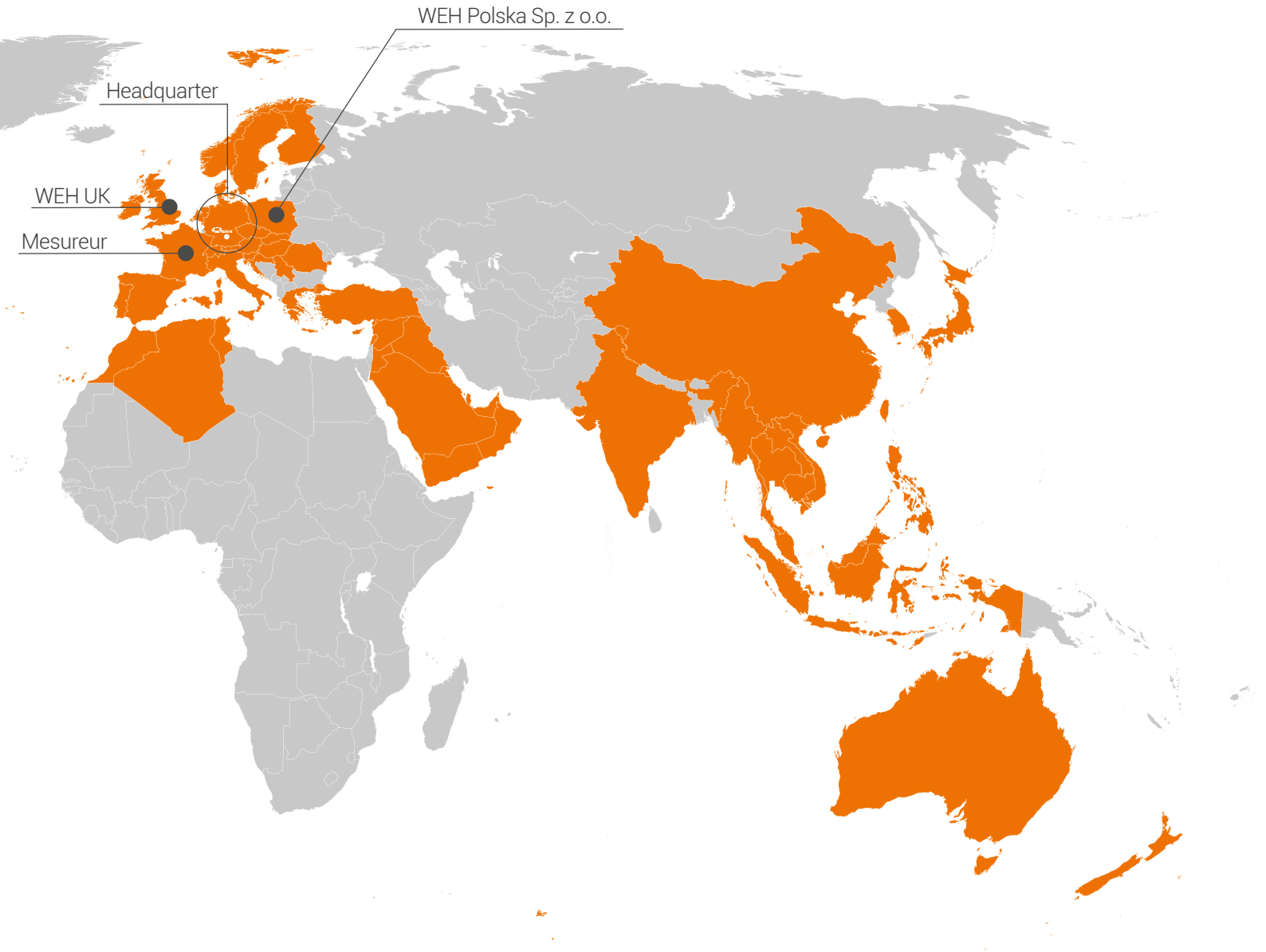
More than 35 partners in over 6 countries worldwide

200

Approx. empoyees worldwide

1973

Foundation



We are at your service as a reliable partner

From initial consultation and training to internal and external maintenance.

Our team will help you make the best use of our products and operate them safely in the long term.

Ordering

In order to process your request / order successfully, we generally require the following information:

1. Part No.
2. Connection type / Connection size
3. Max. allowable operating pressure / Cracking pressure
4. Temperature range
5. Medium
6. Description of the area of application
7. CAD drawing of the customer connection

As a precaution, we would like to point out that

a) in the order confirmation regarding the delivery of any article, in particular ECE / EG79 articles, WEH does not agree to fulfill additional requirements of the end customer concerned,
b) WEH is not subject to any external notification obligation with regard to external change management (see page 45)
c) WEH does not agree to the re-procurement of the product in the form of a regular series delivery.
Exceptions to a) - c) may be agreed in the event of the conclusion of a customer-specific project with corresponding special conditions

Check out our social media channels

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@WEH Group

YouTube
@WEHQuickConnectors

More than just gases: high pressure and connection technology for various industries

Whether for mixing, filling, or testing, WEH® stands for reliable components in gas applications. But our expertise extends far beyond that. Discover our entire portfolio in high-pressure and fluid technology—with our quick nozzles, valves, and high pressure systems, you can create efficient, reliable, and leak-tight connections. Our technologies make your work easier, make processes safer, and connect industries worldwide..

- **Refueling technology for hydrogen**
- **Refueling technology for natural gas**
- **Quick connectors**
- **Valve technology**
- **Filter technology**
- **High pressure solutions**

Explore the catalogs now:

Can't find a solution for your application?
Contact us today.

industry@weh.com

+49 7303 9609 703

Technical Appendix

Definitions

Abbreviation	Definition	
Pressure specifications	*(all pressure specifications are to be understood as overpressure, unless otherwise stated)*	
PN	Nominal pressure	Nominal pressure after temperature compensation at 15°C (59 °F)
PS	Max. allowable operating pressure	Maximum allowable operating pressure acc. to Pressure Equipment Directive 2014/68/EU, Article 2 paragraph 8
PT	Hydrostatic test pressure	Hydrostatic test pressure acc. to Pressure Equipment Directive 2014/68/EU, Annex I no. 7.4
PP	Pilot pessure	Actuation pressure for hydraulic and pneumatic components
PC	Cracking pressure	Pressure at which the check valve opens and the first indication of flow occurs
WP	Working pressure	'Working pressure' means the maximum pressure to which a component is designed to be subjected to and which is the basis for determining the strength of the component under consideration
MAWP	Max. allowable working pressure	Max. allowable operating pressure at which the weakest point of the system or the vessel (e.g. cylinder valve) can operate at a certain temperature during normal operation
Dimensions		
L1, L2, L3 ...	Length specification	
D1, D2, D3 ...	Diameter specification	
A/F(1), A/F(2) ...	Wrench size specification	
Ports		
A / X	Customer-specific port (test piece, sample, cylinder valve, handwheel respiratory protective equipment)	
B1, B2, B3 ...	Media ports	
C1, C2, C3 ...	Gas recirculation ports	
P1, P2, P3 ...	Pilot pressure ports	
MA1, MA2 ...	Measuring ports	
Q	Drain port filter	
G	Mounting bores	
Others		
DN	PED-nominal size (DN)	Nominal size (DN) acc. to Pressure Equipment Directive 2014/68/EU, whereby the largest, pressurized diameter of the media or pilot pressure connections of the WEH Device (A, B1, B2, B3 or C1, C2, C3 and P1, P2, P3) which faces the customer´s pipe system, is relevant. Expressed by a rounded, dimensionless number, e. g. DN 25
TNW	Technical nominal size	The technical nominal size (formerly expressed by "effective diameter") is the smallest diameter available for the media flow of the respective pressure device. Expressed by a number with unit, e. g. 12 mm
µm	Max. diameter of the filtered particle	
Kv	Is the discharge of water in m^3/h at a pressure drop of 1 bar (14.5 psi), acc. to DIN/EN 60534-2	
Cv	Is the discharge of water in gallons per minute at a pressure drop of 1 psi, acc. to DIN/EN 60534-2	
IR	Infrared data interface	
ENR	Exchangeable data interface (exchangeable nozzle receiver)	

Technical Appendix

Definitions

Abbreviation	Definition
TS	Maximum allowable temperature acc. to Pressure Equipment Directive 2014/68/EU, Article 2 paragraph 9
Breakaway force	Is the force range, in which the breakaway releases
NC	Normally closed (initial position of shut-off valve)
NO	Normally open (initial position of shut-off valve)

Technical explanations

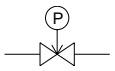
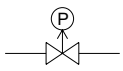
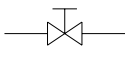
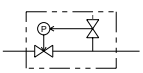
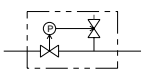
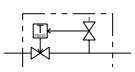
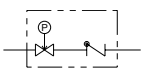
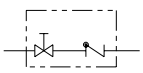
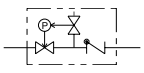
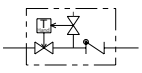
Term	Definition
Temperature range	Is the temperature range in which the WEH® Product can be used. If no explicit information on medium and ambient temperature is given, this temperature range applies to both medium and environment.
Media temperature range	Is the temperature range of the medium used, which can flow through the WEH® Product (may change depending on the time of measurement).
Ambient temperature range	Is the temperature range of the environment in which the WEH® Product can be used.
Leak rate	Is the maximum external leak rate, which the WEH® Product exhibits in delivery condition.
Internal leak rate	The internal leak rate depends, among other things, on type of application, medium and pressure difference on the WEH® Product. On request it can be specified more precisely.
Max. side load	Is the max. allowable sum of all external forces that may act on the device under intended use. **Note:** External forces can affect the life time of WEH® Products and can cause damage. Tensile and transverse loads as well as vibrations and pressure impacts need to be considered, e.g. by user side measures such as on site mountings and similar. Therefore, lateral forces such as whipping hoses or other equipment must be avoided. WEH® Products should be installed in such a way, that lateral forces which could lead to leakage or damage can not occur. Special applications require a special consultation before selecting the product.
Products with pneumatic actuation	The customer has to ensure there is adequate axial movement when pneumatically actuated WEH® Products are used in automated systems, see maximum side load. Ideally the products should be mounted with a floating joint or introduced individually to prevent the possibly existing clamping jaws getting blocked or jammed in the thread of the test piece.
Sealing material	On request the WEH® Product can be adapted to customer specific applications regarding to the sealing materials used. The clarification of the media compatibility and suitability of the adapted WEH® Product for the final application is always the responsibility of the end user.
Corrosion resistant	WEH® Products are designed for use in temperate climate zones - with low levels of humidity and salinity in the air. An accelerated formation of rust or corrosion may occur at or near the sea. Therefore, reduce the inspection interval recommended for normal use and send in the WEH® Product for maintenance immediately if you notice increased soot, rust or corrosion.
Storage / life time of components	There are certain requirements for every WEH® Product. WEH® Products are generally products which may be subject to wear and fatigue during operation and depending on your individual application/use. For details - in particular regarding the corresponding minimum inspection and maintenance intervals – please refer to the respective operating instructions for the WEH® Product.

Technical Appendix

Further explanations

Subject	Definition
Technical data	Unless otherwise stated, the technical data in catalogs, data sheets and operating instructions are based on tests with nitrogen that are in the development phase or at the end of development. Leakage data are based on measurements with helium.
Intended use	The intended use of WEH® products can be found in the respective operating instructions. The following applications are generally excluded for all WEH® products, unless these are expressly permitted in the operating instructions: • applications in the aerospace industry, e.g. for installation or use in or for the construction of aircraft, rocket propulsion systems, space probes, satellites, etc. • shipping applications
Safe product selection	Our WEH® Products are designed to be operated by qualified professional users (insofar as WEH® Products are also designed to be operated by other users in individual cases, this is explicitly stated in the corresponding operating instructions). Please note that WEH does not know your system and therefore - also due to the large number of different potential applications of WEH® Products - cannot perform tests on all potential types of application. You alone are responsible for the selection, configuration and suitability of WEH® Products, especially according to the requirements of your system. Before purchasing WEH® Products, please particularly ensure that our products are compatible with your intended use, your performance data, your material and fluids, your system concept and your system limits according to our product specifications. Please also consider your technical and legal requirements for operation, handling and maintenance. The quality and safety of WEH® Products is our highest priority. For this reason, WEH® Products may not be used outside the specifications in the relevant data sheets and product descriptions. If you are not sure whether the WEH® Product is suitable for your system and intended use, please contact us in advance. We also strongly recommend that you refrain from using third-party spare parts or a combination of WEH® Products with unsuitable third-party products. You alone are responsible for reviewing the suitability of third-party products. WEH® Products and WEH® Spare parts comply with our quality and safety standards.
Explanation on the Pressure Equipment Directive	In general, WEH® Products with a maximum allowable operating pressure of more than 0.5 bar (PS) fall within the scope of application of the Pressure Equipment Directive 2014/68/EU, are generally classified as pressure accessories in accordance with Article 2 (5) of the same and are considered to be similar to piping. These WEH® Products may not be used as safety accessories. Furthermore, it is pointed out, that these WEH® Products are designed and placed on the market in accordance with the requirements of Article 4 (3) of the Pressure Equipment Directive 2014/68/EU. For some products a different classification and/or categorisation is required or can be conducted on request. In these cases, if legally required, a conformity assessment procedure in accordance with Annex III of the Pressure Equipment Directive 2014/68/EU can and will also be conducted and the conformity can be declared by means of an EU Declaration of Conformity in accordance with Annex IV of the Pressure Equipment Directive 2014/68/EU. In these cases, the EU Declaration of Conformity is enclosed with the product.
External change management	WEH reserves the right to update, optimise and adjust its products continuously. This may result in corresponding changes of the product. Customers will be informed proactively or unsolicited by WEH only in individual cases about product updates, product optimisations and/or product adaptations that have been carried out. You are free to contact WEH at any time to request information about any product updates, product optimisations and/or product adjustments.

Symbols

Type	Pneumatic - NC	Pneumatic - NO	Manual
Shut-off valve			
Shut-off valve with venting			
Shut-off valve with check valve		-	
Shut-off valve with venting and check valve		-	

Brochure data

This catalog was created diligently and on the basis of decades of experience.

All information/recommendations in this catalog are non-binding and are particularly subject to possible deviations or changes. For any binding information/recommendations, please refer to the verified information/recommendations in our individual orders. Particularly, due to the wide range of possible applications of WEH® Products and the unknown parameters and operating conditions linked to them, the accuracy and/or completeness of the information/recommendations in this catalog cannot be guaranteed with respect to certain individual cases. In doing so, we would like to refer once again to the information/recommendations provided in individual orders.

The application limits indicated in this catalog (e.g. for pressure, temperature, etc.) are generally theoretical values determined in a test environment. As the concrete operating conditions could differ, we cannot ensure that these values apply to a specific customer application. During the practical use, you should particularly consider that the mutual influence of operational parameters could result in changes of the maximum values. Especially, in case of any unusual operating conditions, please contact WEH before using any WEH® Products. We therefore strongly recommend that you also require any necessary binding information/recommendations to be included by us in the individual orders.

Furthermore, we point out that we cannot assume any warranty or accept any responsibility for printing errors, incomplete information or misinterpretations. Illustrations and/or images are particularly provided for illustrative purposes only and may differ in some details from the actual product. Moreover, dimensions and other technical details in this catalog are non-binding information and are provided for illustrative purposes only. The product's exact form and design result exclusively from the specific individual order. In particular, certain information/recommendations in the catalog only become integral part of the contract if they have been expressly contractually agreed.

Only the latest version of our catalog and other product related documents is valid and applicable. Please ensure that you always use the latest catalog's and documents' versions. Please feel free to contact WEH at any time and request the latest versions.

Our General Terms and Conditions and the Agreement on Protection of Know-How and Quality Assurance shall apply to deliveries and other services, unless expressly agreed otherwise.
In principle, we do not accept the General Terms and Conditions of our customers or third parties. Thank you for your understanding.

Contact
Do you have any questions or require further information? – We are happy to assist you.

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