

Type **TW01**

WEH[®] Connector for pressure and vacuum testing

of straight tubes, bores and components with female thread



General

DESCRIPTION



Features

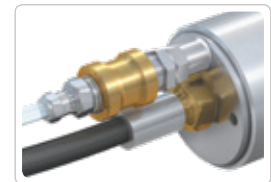
- Connection in seconds
- No hand tightening required
- Sealing irregular or rough surfaces
- Stroke limitation
- Simple seal replacement
- Ergonomic design
- High-grade materials

The WEH® TW01 Quick connector reliably and quickly seals inside bores, irregular or rough holes and internally threaded components. Fitted with elastomer seals ideal for sealing out of round and rough surfaces and clearing large tolerances on the test piece. The connector only clamps itself firmly over the sealing rubber of the test piece, but does not have any retaining function. Therefore a fixture must be used.

As a standard WEH® TW01 is equipped with a stroke limitation and for connection to female threads with an additional front seal.

Because of the pneumatic actuation, the connector is particularly well suited for automation of test procedures.

A number of accessories are available for manual actuation of the pilot pressure, e.g. hand slide valve or pneumatic coupling with control/venting fitting (see accessories).



TW01 with
hand slide valve

For WEH® TW01 Connectors standard shaft extensions of 1" (25.4 mm) or 2" (50.8 mm) are available to seal surfaces which are inaccessible to standard TW01 connectors. If required shaft shortenings for TW01 connectors are available, too. Special versions, e.g. twin connectors for sealing ports in close proximity to each other are available on request (see special solutions).

Application

Quick connector for pressure and vacuum testing of straight tubes, bores and components with female thread.

Leak testing: Pressure decay, underwater / helium tests.

Other applications: Filling, pressure and function tests, flushing, etc.

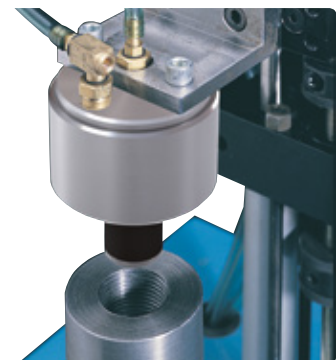
Components: Vessels, plastic vessels, medical components, valves, pumps, filter, pressure vessels, tube connections, etc.

TECHNICAL DATA

Characteristics	Basic version
Operating pressure PS	Vacuum up to max. 130 psi
Pilot pressure	60 - 175 psi compressed air
Temperature range	+41 °F up to +176 °F
Leak rate	1×10^{-3} mbar x l/s
Material	Housing, piston and spacer: Aluminium
Sealing material	Main seal of chloroprene / o-rings of NBR Urethane seals for high-wear applications are optional, for threaded applications as standard.

Other designs on request

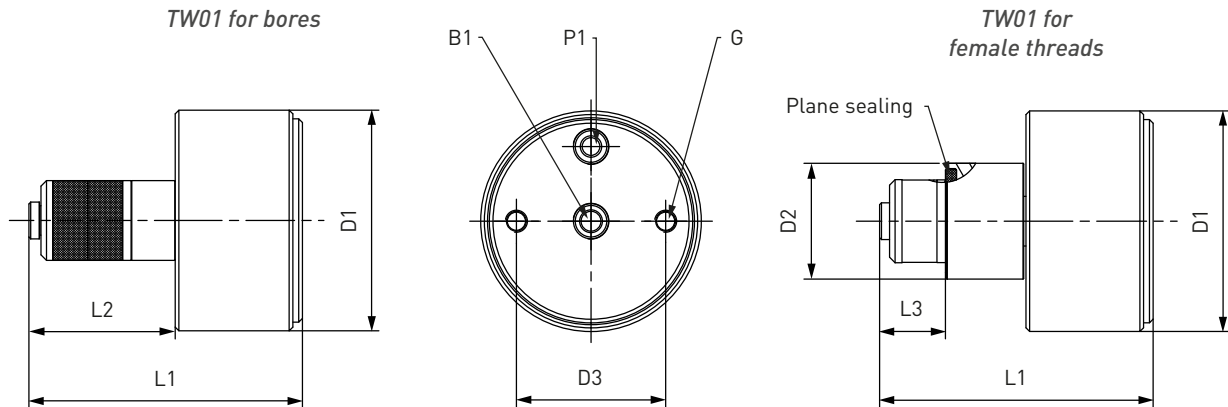
Example of use:



Ordering

ORDERING | WEH® TW01 Quick connector

approx. dimensions (mm)



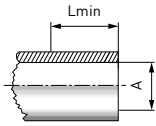
Body size	Inlet B1 (female thread)	Pilot pressure port P1 (female thread)	Mounting G**	D1	D2	D3	L1	L2	L3
01	M5	M5	M5	32.0	16.0	20.5	55.5	22.0	12.5
1	G1/8"	G1/8"	M6	40.0	19.0	26.0	70.5	28.0	14.5
2	G1/8"	G1/8"	M6	40.0	22.5	26.0	66.5	23.5	14.5
3	G1/8"	G1/8"	M6	60.0	31.5	41.0	74.5	40.0	18.5
4	G1/8"	G1/8"	M6	60.0	40.0	41.0	71.5	37.0	18.5
5	G1/2"	G1/8"	M6	89.0	48.0	60.0	106.5	59.5	31.5
6	G1/2"	G1/8"	M6	89.0	54.0	60.0	101.0	54.0	31.5
7	G3/4"	G1/8"	M6	107.0	*	76.5	94.0	57.5	*
8	G3/4"	G1/8"	M6	107.0	*	76.5	94.0	57.5	*

* on request

** thread for fixturing device

Ordering

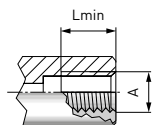
Straight tube, internal diameter



Part No. Connector	Part No. Main seal set	Part No. Replacement seals	Body size	Sealing range internal tube Ø A	Lmin*
C1-139903	B200B-141363	B200B-141298	01	7.7 - 8.3	13.5
C1-141179	B200B-141364	B200B-141299	01	8.4 - 10.0	13.5
C1-141180	B200B-141365	B200B-141300	1	10.0 - 12.0	15.0
C1-141181	B200B-141366	B200B-141301	1	12.0 - 14.0	15.0
C1-141182	B200B-141367	B200B-141302	1	14.0 - 16.0	15.0
C1-141183	B200B-141369	B200B-141303	2	16.0 - 18.0	15.0
C1-141184	B200B-141370	B200B-141304	2	18.0 - 20.0	15.0
C1-141185	B200B-141371	B200B-141305	2	20.0 - 22.0	15.0
C1-141186	B200B-141372	B200B-141306	3	22.0 - 24.0	28.0
C1-141187	B200B-141373	B200B-141307	3	24.0 - 26.0	28.0
C1-141188	B200B-141374	B200B-141308	3	26.0 - 28.0	28.0
C1-141189	B200B-141375	B200B-141309	4	28.0 - 30.0	28.0
C1-141190	B200B-141376	B200B-141310	4	30.0 - 32.0	28.0
C1-141191	B200B-141377	B200B-141312	4	32.0 - 34.0	28.0
C1-141192	B200B-141378	B200B-141313	5	34.0 - 37.0	41.0
C1-141193	B200B-141379	B200B-141314	5	37.0 - 40.0	41.0
C1-141194	B200B-141380	B200B-141315	5	40.0 - 43.0	41.0
C1-141195	B200B-141381	B200B-141316	6	43.0 - 47.0	41.0
C1-141196	B200B-141383	B200B-141317	6	47.0 - 51.0	41.0
C1-141197	B200B-141386	B200B-141318	6	51.0 - 55.0	41.0
C1-141198	B200B-141387	B200B-141319	7	55.0 - 58.5	41.5
C1-141199	B200B-141391	B200B-141321	7	58.5 - 62.1	41.5
C1-141200	B200B-141392	B200B-141322	7	62.1 - 65.6	41.5
C1-141201	B200B-141393	B200B-141323	8	65.6 - 69.2	41.5
C1-141202	B200B-141394	B200B-141324	8	69.2 - 72.7	41.5
C1-141203	B200B-141395	B200B-141325	8	72.7 - 76.0	41.5

* Lmin: minimum insertion length of test piece

NPT thread (ANSI/ASME B1.20.1-1983) - acc. to SAE J476a

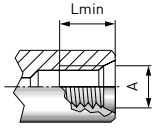


Part No. Connector	Part No. Main seal set	Part No. Replacement seals	Body size	Thread A (female thread)	Lmin*
C1-141430	B200B-141448	B200B-141440	01	1/8" NPT	12.5
C1-141433	B200B-141450	B200B-141441	1	1/4" NPT	14.5
C1-141434	B200B-141452	B200B-141442	2	3/8" NPT	14.5
C1-141435	B200B-141453	B200B-141443	2	1/2" NPT	14.5
C1-141436	B200B-141454	B200B-141444	3	3/4" NPT	18.5
C1-141437	B200B-141455	B200B-141445	4	1" NPT	18.5
C1-141438	B200B-141456	B200B-141446	5	1 1/4" NPT	31.5
C1-141439	B200B-141458	B200B-141447	6	1 1/2" NPT	31.5

* Lmin: minimum insertion length of test piece

Ordering

Metric ISO-thread to DIN 13 - acc. to ISO 6149-1

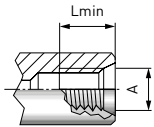


Part No. Connector	Part No. Main seal set	Part No. Replacement seals	Body size	Thread A (female thread)	Lmin*
C1-141459	B200B-141493	B200B-141476	01	M10x1.0	12.5
C1-141460	B200B-141494	B200B-141477	1	M12x1.5	14.5
C1-141461	B200B-141495	B200B-141478	1	M14x1.5	14.5
C1-141462	B200B-141496	B200B-141479	1	M16x1.5	14.5
C1-141463	B200B-141497	B200B-141480	2	M18x1.5	14.5
C1-141464	B200B-141498	B200B-141481	2	M20x1.5	14.5
C1-141465	B200B-141499	B200B-141482	2	M22x1.5	14.5
C1-141466	B200B-141500	B200B-141483	3	M24x1.5	18.5
C1-141467	B200B-141501	B200B-141484	3	M26x1.5	18.5
C1-141468	B200B-141502	B200B-141485	3	M27x2.0	18.5
C1-141469	B200B-141503	B200B-141486	3	M28x1.5	18.5
C1-141470	B200B-141504	B200B-141487	4	M30x1.5	18.5
C1-141471	B200B-141505	B200B-141488	4	M33x2.0	18.5
C1-141472	B200B-141506	B200B-141489	4	M36x2.0	18.5
C1-141473	B200B-141507	B200B-141490	5	M42x2.0	31.5
C1-141474	B200B-141508	B200B-141491	6	M48x2.0	31.5
C1-141475	B200B-141509	B200B-141492	7	M60x2.0	**

* Lmin: minimum insertion length of test piece

** on request

SAE-O-Ring Boss - acc. to SAE J1926 / ISO 11926



Part No. Connector	Part No. Main seal set	Part No. Replacement seals	Body size	Thread A (UNF/UN female thread)	Lmin*
C1-141901	B200B-141924	B200B-141913	01	-4 (7/16"-20)	12.5
C1-141902	B200B-141925	B200B-141914	1	-5 (1/2"-20)	14.5
C1-141903	B200B-141926	B200B-141915	1	-6 (9/16"-18)	14.5
C1-141904	B200B-141927	B200B-141916	2	-8 (3/4"-16)	14.5
C1-141905	B200B-141929	B200B-141917	3	-10 (7/8"-14)	18.5
C1-141906	B200B-141930	B200B-141918	3	-12 (1 1/16"-12)	18.5
C1-141907	B200B-141931	B200B-141919	4	-14 (1 3/16"-12)	18.5
C1-141908	B200B-141932	B200B-141920	4	-16 (1 5/16"-12)	18.5
C1-141909	B200B-141933	B200B-141921	5	-20 (1 5/8"-12)	31.5
C1-141910	B200B-141934	B200B-141922	6	-24 (1 7/8"-12)	31.5
C1-141911	B200B-141935	B200B-141923	7	-32 (2 1/2"-12)	**

* Lmin: minimum insertion length of test piece

** on request

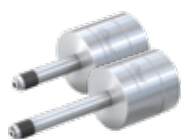
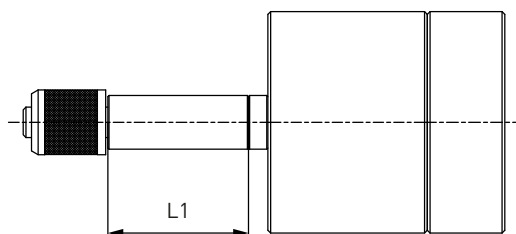
Other connector sizes and versions on request.

Required information for ordering see page 9, catalog no. 35.

Ordering / Accessories

ORDERING | WEH® TW01 Quick connector with shaft extension

approx. dimensions (mm)



Part No.	Description	Connection A	Inlet B1	L1
On request	TW01 with 1" extension	On request	On request	25.4
On request	TW01 with 2" extension	On request	On request	50.8

Shaft extensions in other lengths on request

ACCESSORIES

The following accessories are available for WEH® TW01:

Screw plug

If the WEH® Connector is to be used as a plug, the media inlet 'B1' will be sealed with a screw plug of brass (PVC sealing ring) for low pressure range. It is recommended that the media compatibility of the seal be tested by the customer!

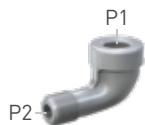


Part No. G-thread*	Description	Connection (male thread)	Pressure range
E69-9200	Screw plug (low pressure)	G1/8"	0 - 725 psi (0 - 50 bar)
E69-9230	Screw plug (low pressure)	G1/2"	0 - 725 psi (0 - 50 bar)
W9338	Screw plug (low pressure)	G3/4"	0 - 725 psi (0 - 50 bar)

* NPT-thread on request

Angle piece 90°

A 90° angle piece is available for applications requiring a 90° inlet for the pilot pressure. Connection 'P2' of the angle piece is connected to the pilot pressure port 'P1' of the connector and connection 'P1' of the angle piece is connected to the pilot pressure hose, hand slide valve or control/venting fitting.



Part No.	Description	Connection P1	Connection P2
E69-9500	Angle piece 90°	RP1/8"*	R1/8"***

* cylindrical Whitworth tube thread acc. to DIN EN ISO 228-1

** conical Whitworth tube thread acc. to DIN EN 10226

Accessories

Accessories for manual actuation of the pilot pressure:

Pneumatic coupling and control/venting fitting

We offer a pneumatic coupling with control/venting fitting for manual actuation of the pilot pressure. Both are equipped with an integrated check valve. Connection 'P2' of the fitting is connected to the pilot pressure port 'P1' of the connector and connection 'P1' of the pneumatic coupling is connected to the pilot pressure hose. The pneumatic coupling is placed and held onto the control/venting fitting for manual actuation of the pilot pressure thus generating a short pressure impulse onto the fitting for actuation of the TW01 connector. Once actuated, the pneumatic coupling can be disconnected. The integrated check valve of the control/venting fitting ensures that the TW01 connector remains properly connected to the test piece and prevents any escape of the pilot medium. To disconnect the TW01 connector, actuate the check valve of the fitting manually, thus venting the pilot pressure applied.



Part No.	Description	Connection P1 (female thread)	Connection P2 (male thread)
W136484	Control/venting fitting	-	G1/8"
W9326	Pneumatic coupling	G1/8"	-

Hand slide valve and thread extension

Alternatively we also offer a hand slide valve for manual actuation of the pilot pressure. Connection 'P2' of the hand slide valve is connected to the pilot pressure port 'P1' of the connector and connection 'P1' of the hand slide valve is connected to the pilot pressure hose. The pilot pressure is applied or vented by actuating the sliding sleeve.

For small sizes and applications with restricted access where the hand slide valve cannot be connected directly to the pilot pressure port 'P1' of the connector, we also offer a thread extension.



Part No.	Description	Connection P1 (female thread)	Connection P2 (male thread)
C1-48091	Hand slide valve	G1/8"	G1/8"
E69-96824	Thread extension	G1/8"	G1/8"

Seal sets



Main seal sets for non-threaded applications contain the elastomer main seal(s), two back-up washers and a locking ring for one seal replacement.

Main seal sets for threaded applications contain the elastomer main seal(s), a seal mount, a front seal, two back-up washers and a locking ring for one seal replacement.



Replacement seal sets contain five complete main seals with locking rings.

Accessories

SPECIAL SOLUTIONS

Examples:



TW01 with spacer for straight tubes



TW01 twin connector
with manual actuation



TW01 triple connector

Other products

OTHER PRODUCTS

You will find more products in our current catalog no. 35



Further information on our homepage
www.weh.com

Abbreviations/Definition

Explanation of abbreviations see technical appendix in the catalogue or www.weh.com

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). You alone are responsible for the selection of WEH® Products and their configuration according to the requirements of your system. In doing so, please particularly consider your intended use, your performance data, your material compatibility, your system concept and your system limits as well as 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. 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

These WEH® Products are generally and exclusively classified as pressure accessories for piping in accordance with Article 2 (5) of the Pressure Equipment Directive 2014/68/EU. These WEH® Products may not be used (i) as safety accessories or (ii) for vessels as defined by the Pressure Equipment Directive 2014/68/EU. Therefore, the application of these WEH® Products must comply with their classification as pressure accessories for piping. The assessment with regard to a different classification can, however, be made on request.

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.

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» Contacting

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