

Quick Connectors

210 Aluminum



Recommended for Engine Oil Cooling, Transmission Oil Cooling, Turbocharger Cooling & Oil Supply Applications, EGR, SCR, Rear Differential, Hybrid, Electric, Fuel Cell, and eBooster Cooling

Benefits

- Assembly time improvement
- Tool free installation
- Zero pressure drop
- Assembly design freedom



Ruggedly constructed from 6061-T6 aluminum: inherent corrosion resistance

Optional washer: component reduction for in-tank coolers

One piece machined body: compact space and lightweight

Designed for maximum performance: 100% production leak tested

Improved ergonomics and cleanliness with rounded corners

Controlled axial clearance: prevents micro leakage

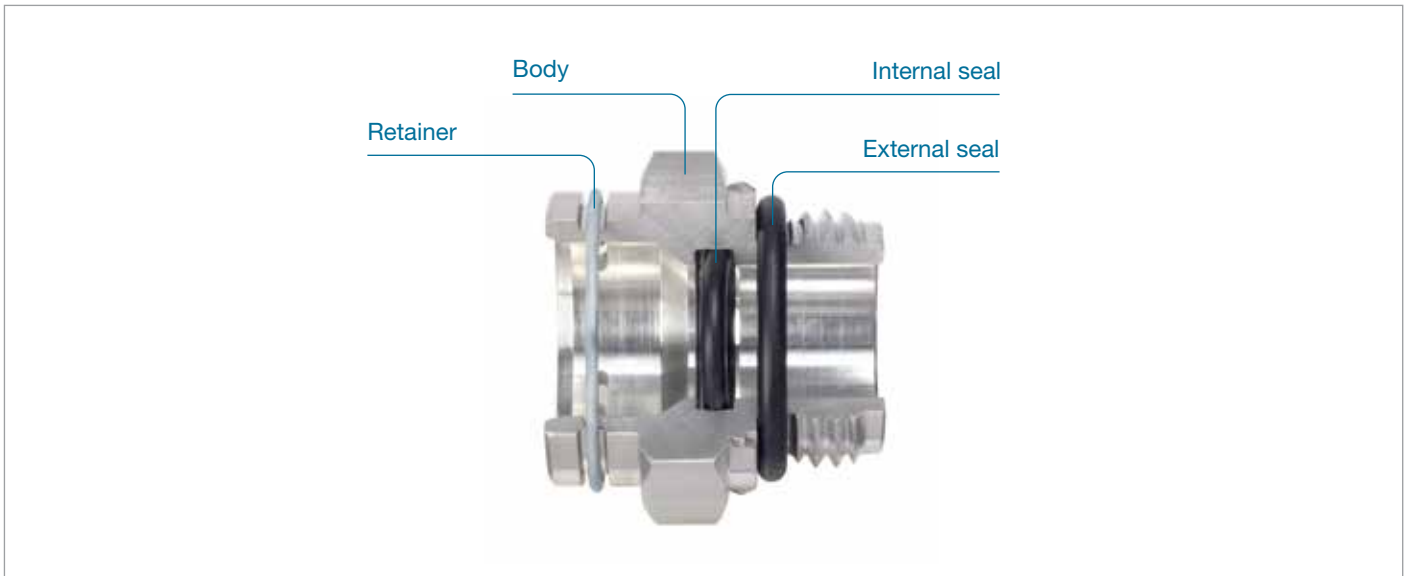
Minimum pressure drop: ensures optimum flow

Robust retainer mechanism: low insertion force

External ISO seal: leak prevention at thread interface

Internal seal: leak prevention at tube interface

FEATURES



Quick Connectors 210

PRODUCT DESCRIPTION

Oetiker Quick Connectors (QC) are an innovative connecting solution for pressure lines carrying media. They enable significant savings in assembly time, space required, reduced warranties, and reduced injuries due to repetitive motion. Thanks to tool-free assembly, Oetiker QCs are an optimal solution for many applications and are particularly suitable as a connecting element for oil and/or coolant and heating lines to turbochargers, engines, and transmissions.

Other sealing compounds are available and the specified compounds represent the most commonly used compounds for engine oil cooling and transmission oil cooling applications.

CUSTOMIZATION

Product customization available to fit different application interfaces. Including but not limited to:

- Hose barb geometries
- Thread interfaces
- O-ring compounds
- Valve or membrane seal technology
- Hex and tube sizes
- Body metal materials



Metal hose barb QC



Membrane seal QC



Aluminum QC with conical washer

For more information, contact the local Oetiker representative or visit Oetiker.com.

TECHNICAL DATA OVERVIEW

Material

201 Body: SAE 6061-T6 Aluminum (UNS A96061, DIN W. Nr. 3.3211)

Retainer options: SAE Stainless Steel 302 (UNS S30400)

Internal and external seal options

FKM (-40 °C ... 205 °C), excellent ozone and heat aging resistance

AEM (-40 °C ... 180 °C), very good resistance to oil and grease

Conical washer for in-tank cooler applications

FKM (-40 °C ... 205 °C), excellent ozone and heat aging resistance

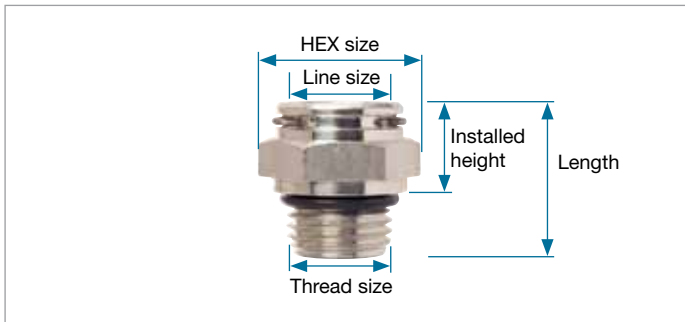
AEM (-40 °C ... 180 °C), resistance to oil and grease

Corrosion resistance according to ISO 9227

Aluminum ≥ 980 hours to red rust

Integrated washer quick connect (IQC) – provides both high performance sealing of oil line and retention to seal cooler into the tank.

TECHNICAL DATA



Overall connector dimensions

Line size	HEX size	Ext Thread size	Overall length	Installed height
3/8"	3/4"	9/16-18 UNF-2A	20.33 mm	11.81 mm
1/2"	1"	3/4-16 UNF-2A	28.4 mm	17.3 mm
5/8"	1-1/2"	7/8-14 UNF-2A	30.9 mm	19.89 mm
10 mm	22 mm	M16 x 1.5-6g	26.1 mm	13.6 mm
12 mm	27 mm	M20 x 1.5-6g	28.4 mm	14.4 mm
16 mm	28 mm	M22 x 1.5-6g	34.5 mm	19.5 mm

Process monitoring

Process monitoring is carried out mechanically and can be verified by firmly pulling back on tube. Further connection verification offerings are available including verification by mechanical, visual, and electronically recordable technology. Visit Oetiker.com to learn more.

ASSEMBLY

To make the connection, align the tube with quick connector while pushing straight into the quick connector. You will hear and feel the connection. Pull firmly back on the tube to ensure a proper connection has been made. Ensure colored identification band on the tube end is hidden within quick connector assembly. Snap the optional Locking Assurance Cap onto the tube and slide up to snap onto the connector.



To disconnect, remove the Locking Assurance Cap and place the disconnect tool onto the tube with the fingers facing the connector. Slide the disconnect tool down the tube and engage the retainer. Rotate the disconnect tool 60 degrees to expand the retainer. While holding the disconnect tool against the connector, pull back on the tube to remove. For further instructions visit Oetiker.com for detailed Quick Connector Assembly/Disassembly Instructions.

OETIKER TUBE END FORM



Oetiker quick connectors are qualified only when mating with tube end forms per the Oetiker specification. This specification is Oetiker controlled, and available upon request.

Oetiker's engineering and quality teams are available to support qualifying tube End Form suppliers. Recommended endform tooling and tube suppliers is available.

PERFORMANCE

Operating pressure

The permissible operating pressure is directly dependent on the O-ring selected, the temperature, and the quality of the male component. It must always be determined in relation to the application.

Line size	Tensile	Burst	Corrosion
3/8", 10 mm	3.5 kN	≥ 11 MPa*	980 hours to red rust
1/2", 12 mm	6.0 kN	≥ 11 MPa*	980 hours to red rust
5/8", 16 mm	7.3 kN	≥ 11 MPa*	980 hours to red rust

* tested to 11MPa without failure

OPTIONAL ACCESSORIES

- Conical washer for in-tank coolers
- Anodizing option – cosmetic & visual manufacturing aid
- Galling reducer – consistent torque profile
- Shipping plug – polypropylene (default), celcon (for improved cleanliness)
- Locking Assurance Cap – up to 250 °C (black, white)
- High strength retainer – 17-7 electro polished (UNS S17700)
- Disconnect tool (plastic)
- Customized QC packaging available on request



Shipping plug, locking assurance cap, disconnect tool