



“Fit and Forget” for permanent peace of mind

NORMAQUICK® – Quick Connectors

Innovative, secure, and “quickfit” – the NORMAQUICK® range of plug-in connectors made of synthetic material are suitable for most media carrying lines. No matter whether we are dealing with cooling water, oil, air or fuel carrying lines – NORMAQUICK® quick connectors offer the state-of-the-art means of connection. These connectors are specially suited to being matched up with the NORMAFLEX® tube system.



NORMAQUICK®
Quick Connectors

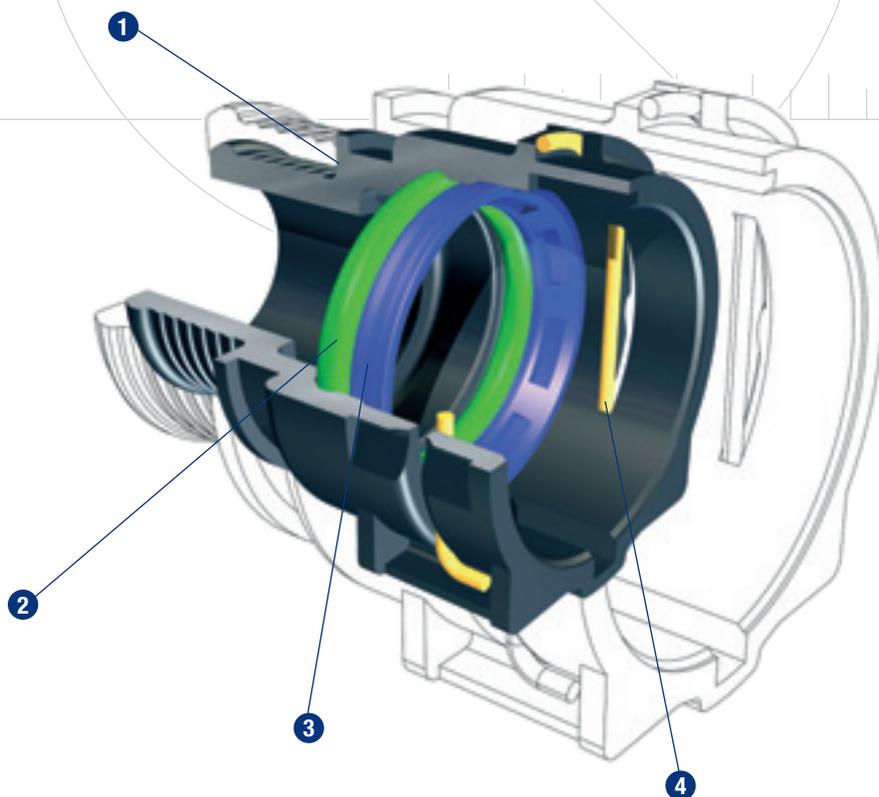
Speed

NORMAQUICK® – Quick Connectors

NORMAQUICK® PS3 Quick Connectors

NORMAQUICK® PS3 “Push & Seal” plastic quick connectors are an ideal means for the secure connection of cooling water and heating hoses as well as charged air systems.

Short description of technical features



1 Spigot

2 O-ring

3 Retaining ring

4 Retainer (spring)

Standard materials

NORMAQUICK® PS3 quick connectors are made from recyclable materials. For our standard versions we use Polyamide 6.6 with 30 % glass fiber content.

The standard material for the O-rings consists of peroxide-cured EPDM which is resistant to hot water. For NORMAQUICK® PS3 connectors that are likely to be used in direct contact with coolants we recommend PA 6.6 with 30 % glass fiber content that has been stabilized against heat and hydrolysis.

In case of special applications (e.g. charged air ducts) NORMAQUICK® PS3 connectors can be made from other technical thermoplastic materials with different filler types and contents. Please note, however that special types can only be made when the required minimum quantity is ordered.

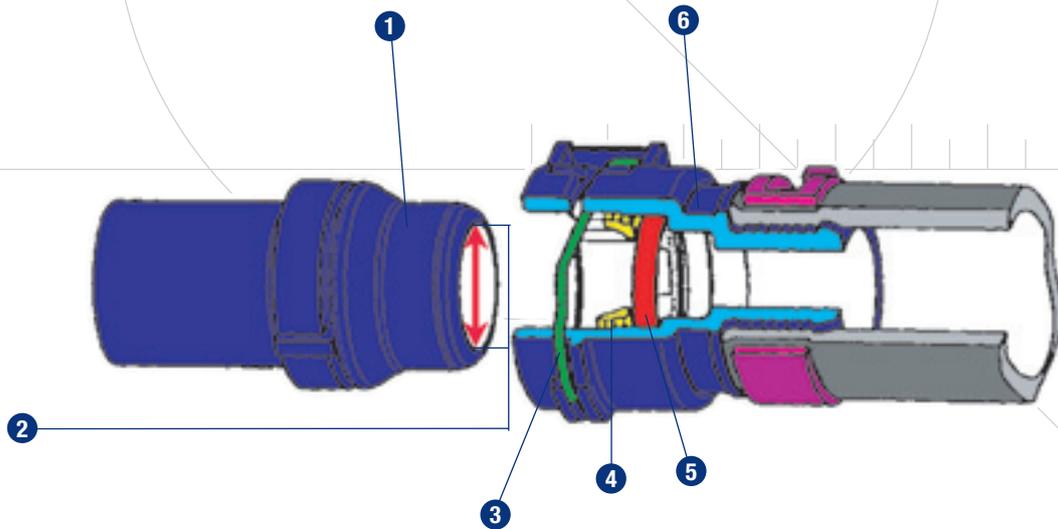
NORMAQUICK® – Quick Connectors

VDA-Connection spigot

Spigot to VDA standard

Please note that all NORMAQUICK® PS3 connectors are delivered without spigot.

But we will be pleased to offer suitable spigots on request.



1 Connection spigot

2 Diameter of bore = Nominal Width (NW)

3 Retainer (spring)

4 Retaining ring

5 O-ring

6 Connector

Technical features

Medium/Fluid	Operating Pressure	Operating Temperature
Cooling water	Approx. 1.5 bar excess pressure	Engine compartment: –40 °C to +135 °C Short time up to +150 °C (approx. 30 min.)

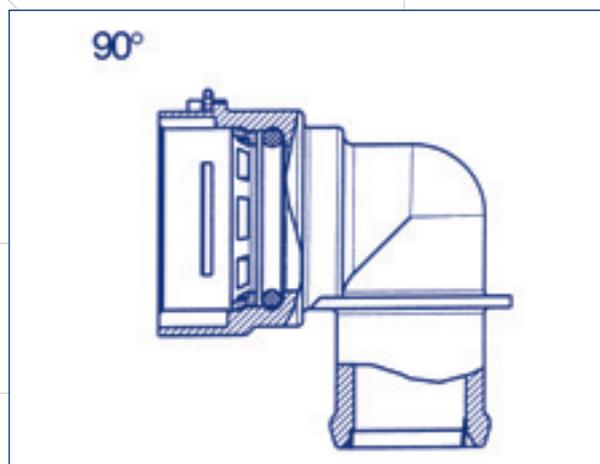
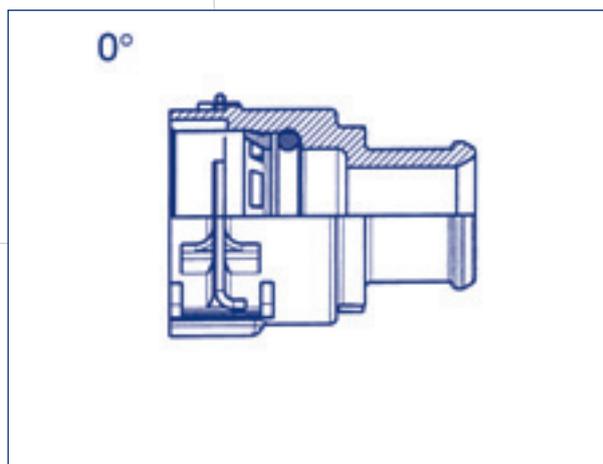
The advantages at a glance

- Snap assembly without tool = time and cost reduction
- Robot assembly possible = automated processes
- Compact structural dimensions = to be used in extremely narrow spaces
- Integrated seal = optimal tightness

NORMAQUICK® – Quick Connectors

Survey of sizes NORMAQUICK® PS 3

Two types of NORMAQUICK® PS3 (0° and 90°) are available as standard versions.



Nominal diameters in mm (inside diameter of the bore)	0 °	90 °
8	X	–
12	X	X
16	X	X
20	X	X
26	X	–
32	X	X
40	X	–
50	X	–

Enquiries/ordering:

When making enquiries or placing orders please state as follows:

		1. Type	2. Nominal width	3. Variant
Example	NORMAQUICK	PS3	16	0 °

During the last couple of years we have built up a selection of special/customised connector types. The geometries can be substantially modified to customer requirements and it is possible to integrate additional functional elements, e. g. thermo sensors. We would be pleased to answer your questions.

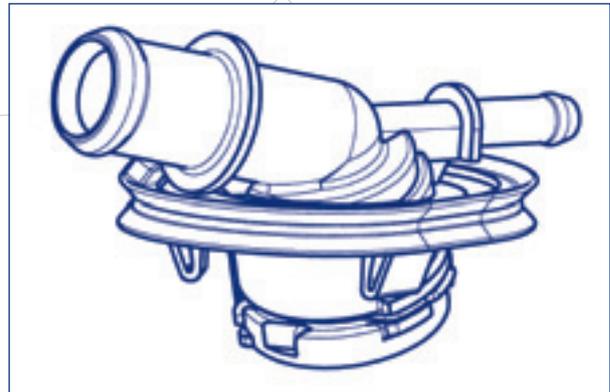
NORMAQUICK® – Quick Connectors

Applications

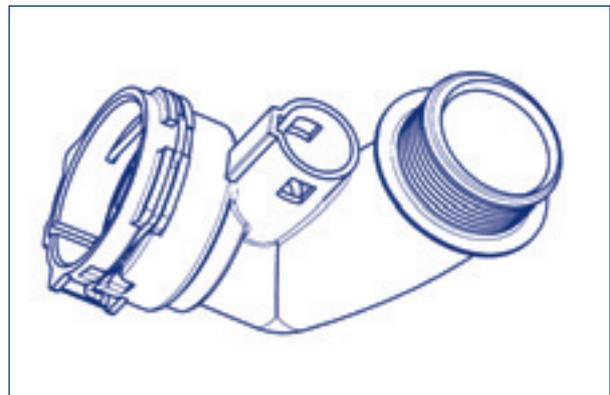
- Cooling water lines
- Heating lines
- Charged air connections

The following drawings show three practical examples:

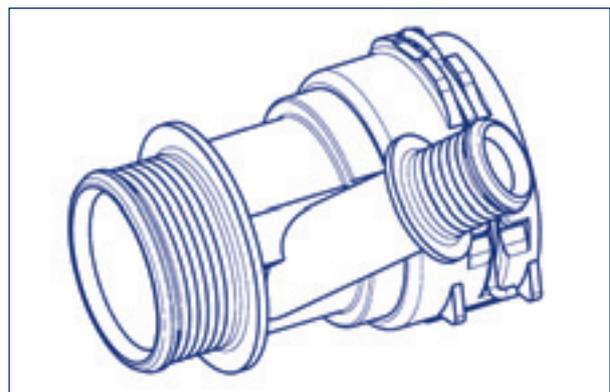
NORMAQUICK® PS3 with integrated junction piece, seal and branch



Flow-optimised NORMAQUICK® PS3 with integrated receptacle for thermo sensor



NORMAQUICK® PS3 with integrated junction piece

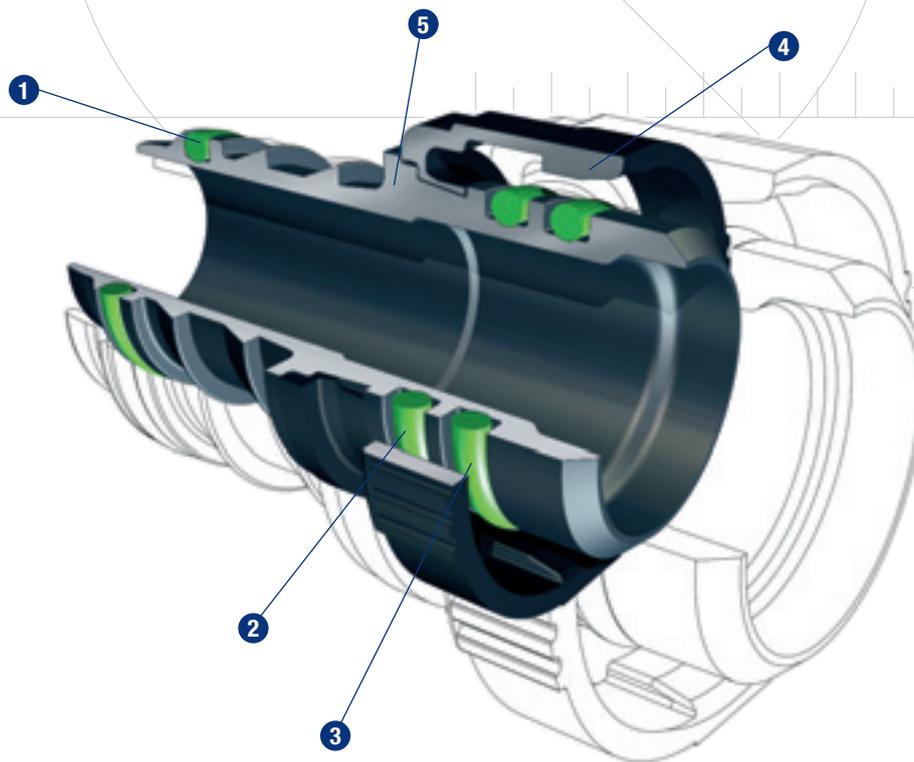


NORMAQUICK® – Quick Connectors

NORMAQUICK® V2 Quick Connectors

NORMAQUICK® V2 plastic quick connectors are an ideal means to connect media carrying lines as well as ventilation and exhaust lines in the automotive industry.

Short description of technical features



1 Firtree plus O-ring (optional)

2 Secondary O-ring

3 Primary O-ring

4 Locking device (ring)

5 Spigot

Standard materials

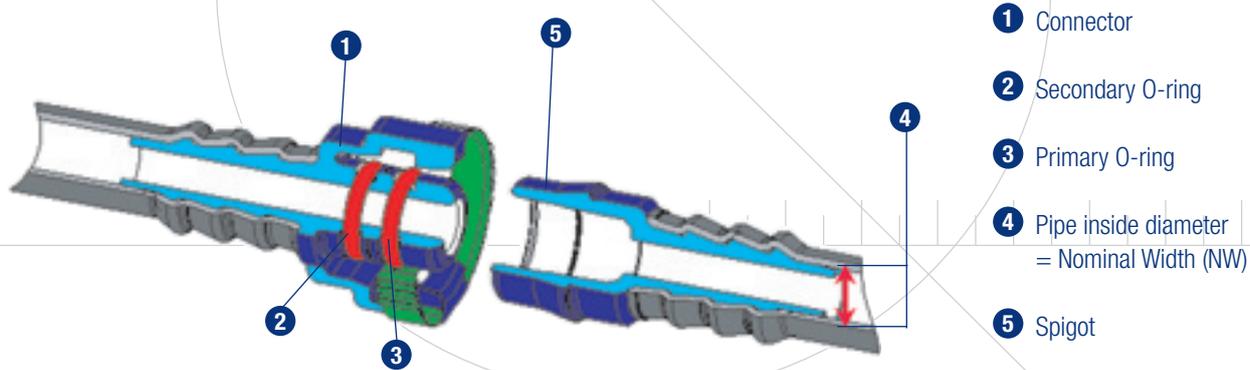
NORMAQUICK® V2 connectors are made from recyclable materials featuring extremely low permeation values. Our standard versions are made from Polyamide 6 with 30 % glass fiber content or Polyamide 12 with 20 % glass fiber content. The O-rings are made of NBR, HNBR, FPM and FVMQ as standard equipment.

NORMAQUICK® – Quick Connectors

Connecting spigot

To RASMUSSEN standard (Production drawings will be made available on request) NORMAQUICK® V2 connectors can be used on both plastic and metal spigots.

Would you please note that all NORMAQUICK® V2 connectors are delivered without spigot. However, we will be pleased to offer suitable spigots on request.



- 1 Connector
- 2 Secondary O-ring
- 3 Primary O-ring
- 4 Pipe inside diameter = Nominal Width (NW)
- 5 Spigot

Insiders' Tip:

The perfectly matched system is achieved when combining NORMAQUICK® V2 quick connectors and NORMAFLEX® fluid systems.



NORMAQUICK®
Quick Connectors

Technical features

Medium/Fluid	Operating Pressure	Operating Temperature
Fuels, air, oil & oil vapours	Approx. 5 bar excess pressure	Engine compartment: –40 °C up to +135 °C Short time up to +150 °C (approx. 30 min.)

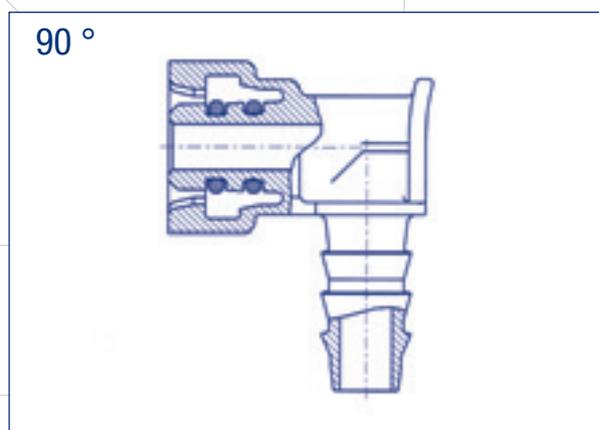
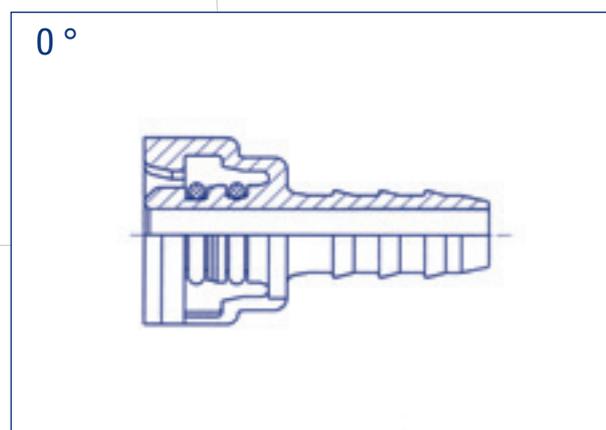
The advantages at a glance

- Fast assembly without tool = reduced time and cost
- Robot assembly possible = automated processes
- Compact dimensions = to be used in narrow spaces
- Integrated seal = optimal tightness
- The seals can be visually checked = safe assembly work

NORMAQUICK® – Quick Connectors

Survey of sizes NORMAQUICK® V2

Two types of NORMAQUICK® V2 connectors (0° and 90°) are available as standard versions.



Nominal width (mm) (inside diameter of the PA pipe to be connected)	0°	90°
4	X	X
6	X	X
7	X	X
8	X	X
10	X	X
12	X	X
15	X	X
19	X	X
25	X	–
27	X	X
33	X	–

Enquiries/ordering:

When making enquiries or placing orders please state as follows:

		1. Type	2. Nominal width	3. Type	4. Application
Example	NORMAQUICK	V2	10	90°	fuel

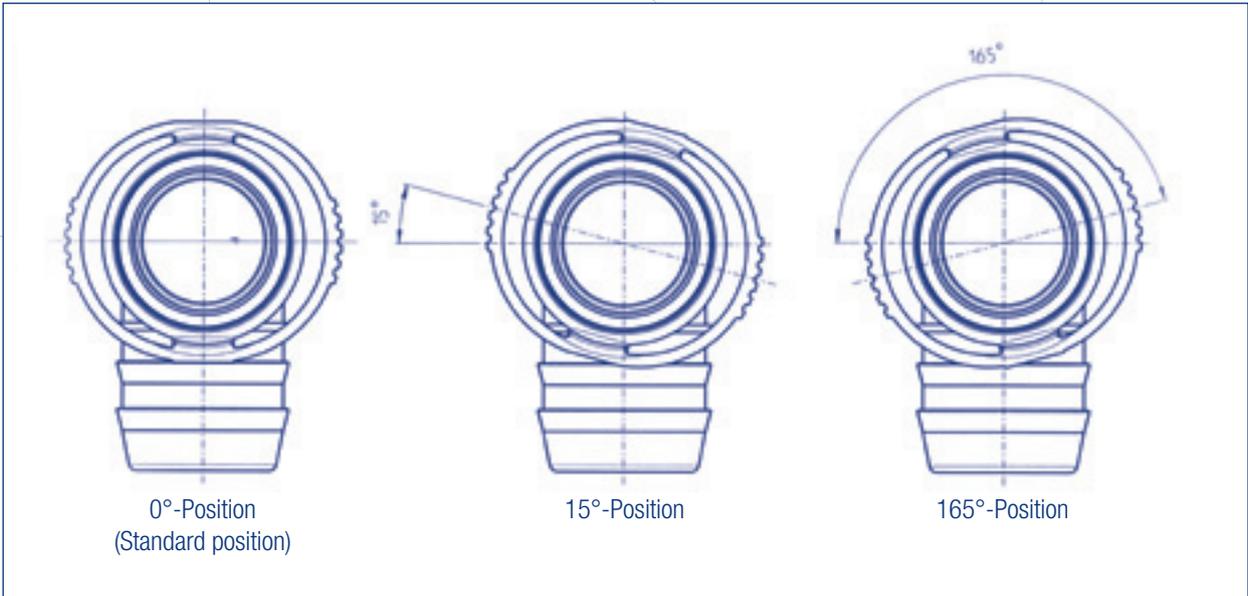
Special installation dimensions may require the dismantling ring to be oriented at an angle which deviates from that of the standard version. For such cases we supply quick connectors with dismantling rings oriented at the following angles:

NORMAQUICK® V2-NW 19 with dismantling ring oriented at an angle of 15°, 30°, 45° etc. in steps of 15°

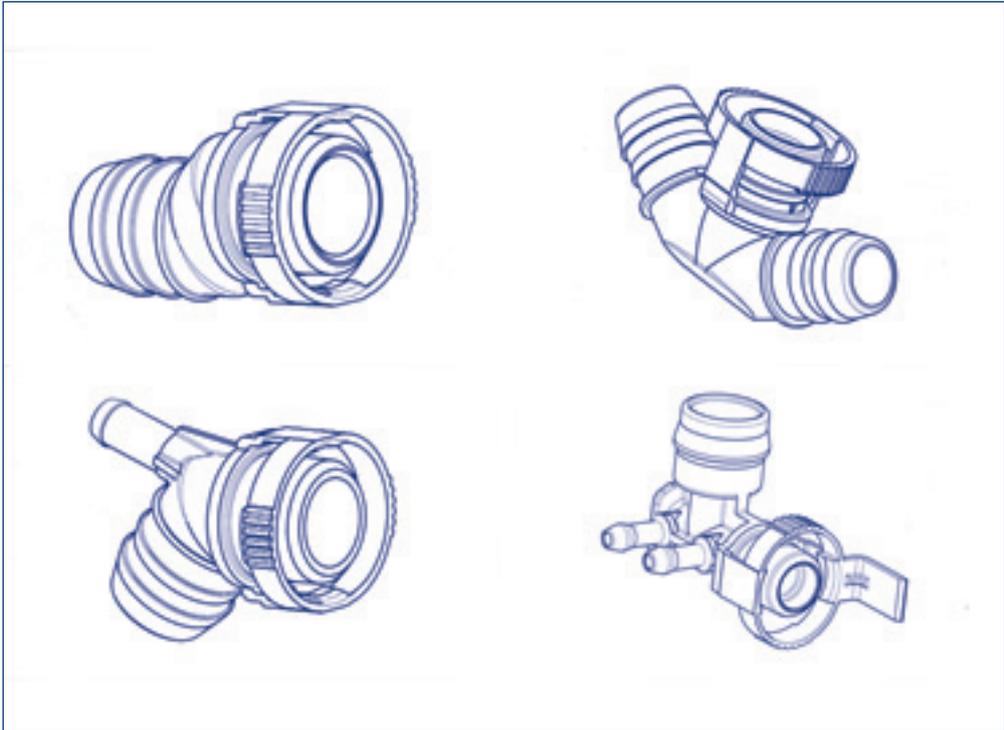
NORMAQUICK® V2-NW 27 with dismantling ring oriented at an angle of 10°, 20°, 30° etc. in steps of 10°

NORMAQUICK® – Quick Connectors

The drawings show the principle as exemplified by the NORMAQUICK® V2 NW 19, 90° quick connector:



During the last couple of years we have built up a selection of approx. 200 special/customised connector types. We will be pleased to inform you in more detail on request.



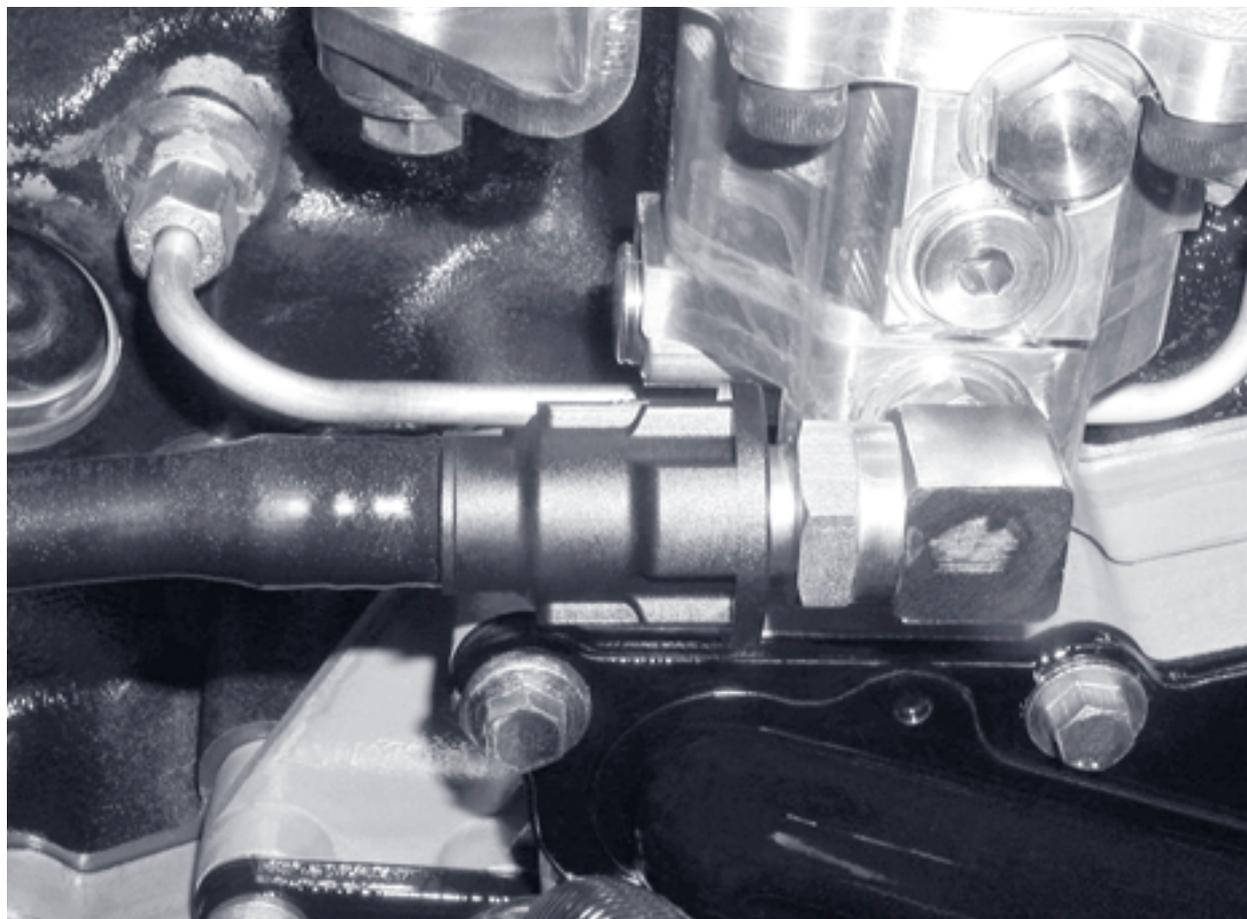
Customised types

NORMAQUICK® – Quick Connectors

Applications

NORMAQUICK® V2 can be used for both line-to-line as well as line-to-device connections.

- Fuel lines
 - Tank breathing
- Ventilation and exhaust lines
 - Secondary air lines
 - Crank case ventilation lines
- Oil cooler lines
- Vacuum brake lines

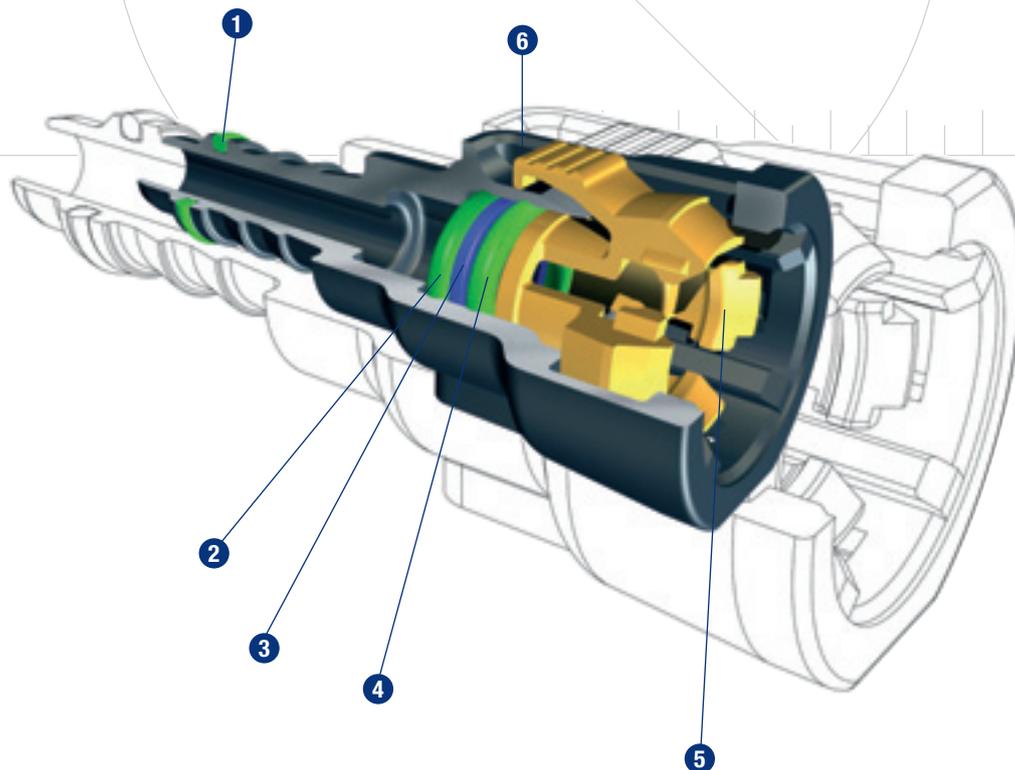


NORMAQUICK® – Quick Connectors

NORMAQUICK® S Quick Connectors

NORMAQUICK® S plastic quick connectors are an ideal means to connect media carrying lines on automobiles and have basically been developed for fuel system applications.

Short description of technical features



1 Firtree plus O-ring (optional)

2 Primary O-ring

3 Spacer

4 Secondary O-ring

5 Retainer (spring)

6 Spigot

Standard materials

NORMAQUICK® S connectors are made from recyclable materials featuring extremely low permeation values. Our standard versions are made from Polyamide 6 or Polyamide

12 with 20 – 50 % glass fiber content. The O-rings are made of FPM and FVMQ as standard equipment.

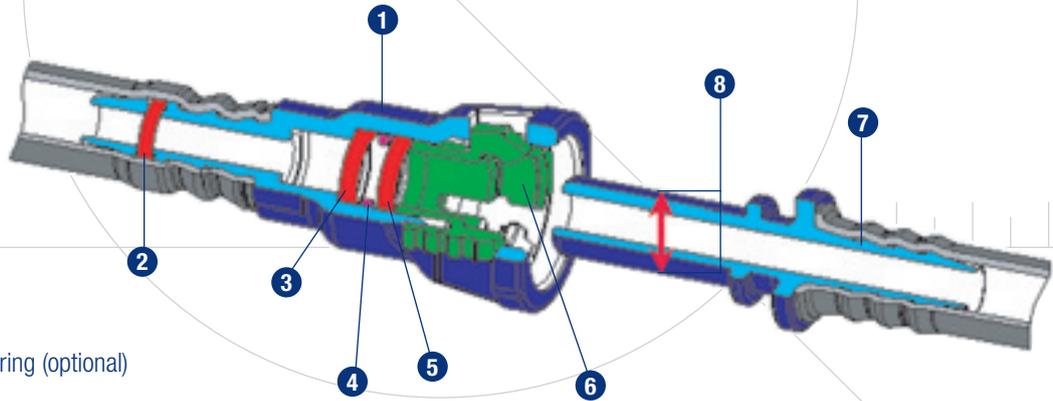
NORMAQUICK® – Quick Connectors

Connecting spigot

to SAE J2044, standard world wide

Please note that all NORMAQUICK® S connectors are delivered without SAE spigot.

However, we will be pleased to offer suitable SAE spigots on request.



- 1 Spigot
- 2 Firtree plus O-ring (optional)
- 3 Primary O-ring
- 4 Spacer
- 5 Secondary O-ring
- 6 Retainer (spring)
- 7 Adapter
- 8 Diameter of Connecting spigot = Nominal Width (NW)

Insiders' Tip

The perfectly matched system is achieved when combining NORMAQUICK® S quick connectors and NORMAFLEX® fluid systems.

Technical features

Medium/Fluid	Operating Pressure	Operating Temperature
Fuel	Approx. 10 bar excess pressure	Engine compartment –40 °C up to +135 °C Short time up to +150 °C (approx. 30 min.)

Meeting the requirements of SAE J2044

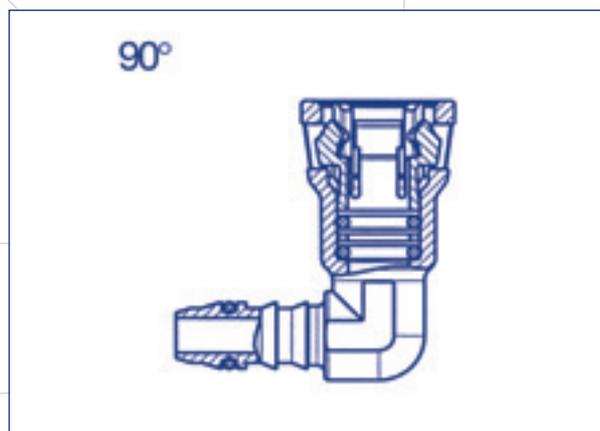
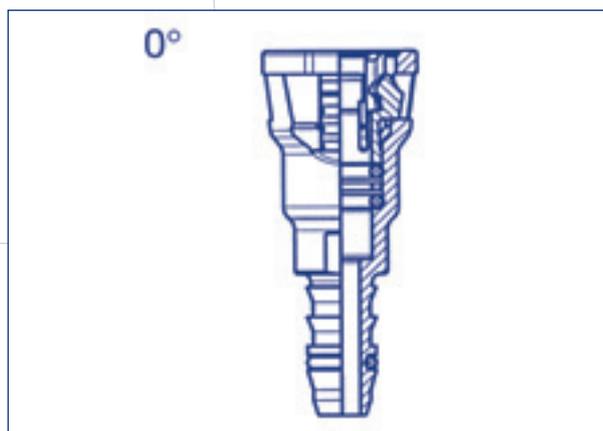
The advantages at a glance

- Fast assembly without tool = time and cost reduction
- Robot assembly possible = automated processes
- Compact building method = employment in extremely close installation conditions possible
- Integrated seal = optimal tightness
- Closing cone principle = NORMAQUICK® S is protected from unintentional opening and cannot be unlocked under pressure

NORMAQUICK® – Quick Connectors

Survey of sizes NORMAQUICK® S

Two types of NORMAQUICK® S (0° and 90°) are available as standard versions.



Nominal width (mm) (outside diameter of the spigot)	0 °	90 °
1/4"	X	X
5/16"	X	X
8 mm	X	X
3/8"	X	X
1/2"	X	X
5/8"	X	X

Additional nominal widths on request.

Enquiries/ordering:

When making enquiries or placing orders please state as follows:

		1. Type	2. Nominal width (outside diameter of SAE spigot)	3. Type	4. Application	5. Inside line- diameter
Example	NORMAQUICK	S	5/16"	0 °	fuel	6 mm

Applications

NORMAQUICK® S can be used to make both line-to-line as well as line-to-equipment connections.

- Fuel lines
 - feed and return lines
 - tank breathing
- Ventilation lines
- Oil cooler lines
- Vacuum control lines

NORMAQUICK® – Quick Connectors

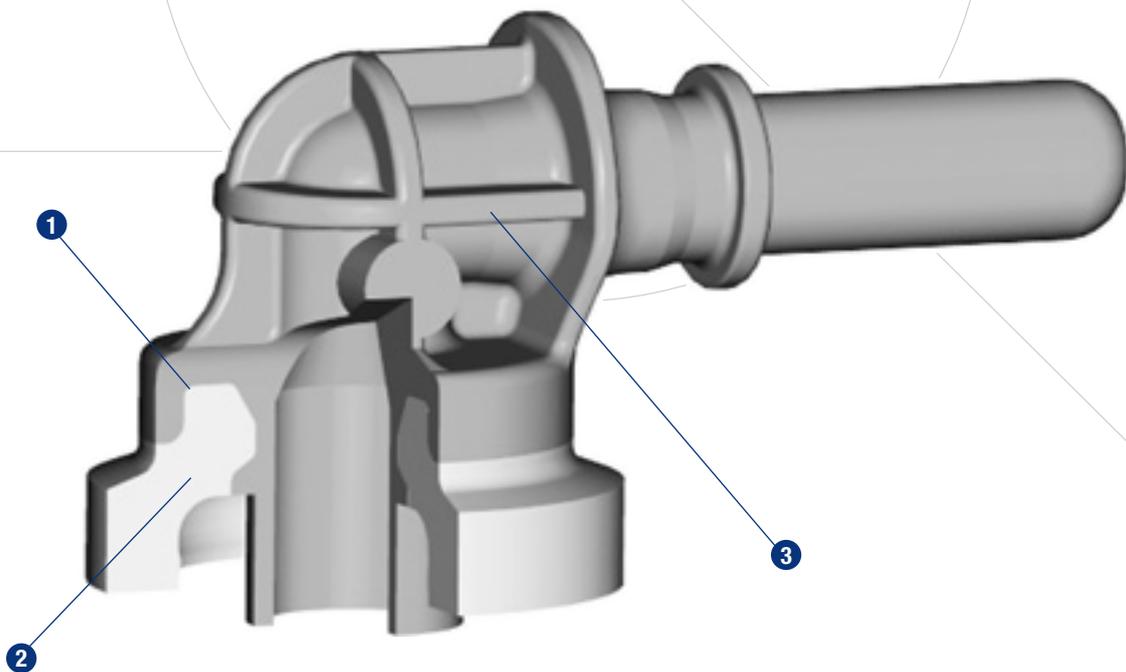
NORMAQUICK® MK Connecting spigot

NORMAQUICK® MK connectors have been developed with the aim to achieve significantly reduced permeation rates. NORMAQUICK® MK provide a perfect link between the tank

and the pipe system in cases where existing standard connectors are prone to a high permeation rate while their tendency to “creep” causes additional micro leakage.

NORMAQUICK® MK for the first time combine reinforced and unreinforced materials and thus enable the safe connection of the connector with the plastic fuel tank.

Short description of technical features



- 1 Chemical bonding
- 2 Welded ring HDPE
- 3 Spigot PA 12 (glass fiber reinforced)

Materials

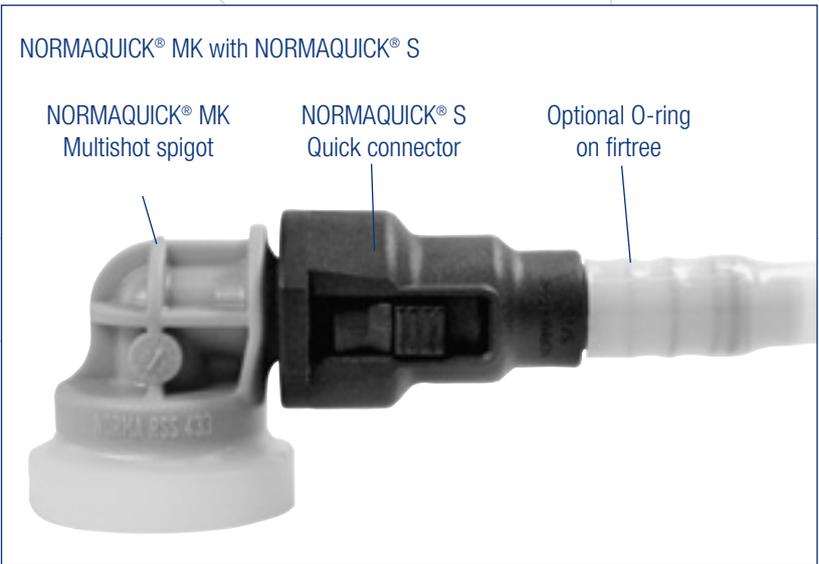
NORMAQUICK® MK combine materials that so far have been incompatible. Welded ring made from HDPE, can be welded onto the plastic fuel tank. Spigot made from Polyamide 12 with 30 % glass fiber content.

NORMAQUICK® – Quick Connectors

Connecting spigot

NORMAQUICK® MK are applicable for use with the following connectors:

- SAE (e.g. NORMAQUICK® S)
- VDA (e.g. NORMAQUICK® PS 3)
- NORMAQUICK® V2
- Firtree



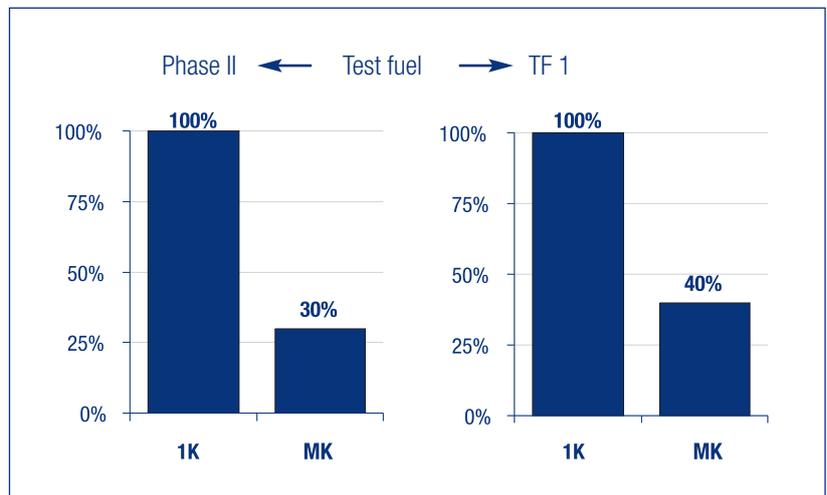
Insiders' Tip:

The perfectly matched system is achieved when combining NORMAQUICK® MK connecting spigots and NORMAQUICK® S Quick connectors with NORMAQUICK® V2 and Firtree fluid systems.

Comparison of permeation rates Shed test to Carb Specification

Technical features

- Meeting the requirements of ENG standard 016, VW TL 82417 and KT-2KDL-0802



Reduced permeation achieved by means of MK connectors

The advantages at a glance

- Drastically reduced permeation rates at the connection between the plastic fuel tank and the fuel lines by means of a 2-component material mixture
- Very good physical and chemical properties

NORMAQUICK® – Quick Connectors

Survey of sizes NORMAQUICK® MK

The NORMAQUICK® MK is not a standard part. All projects are based on special customer requirements. We shall therefore be pleased to receive a precise description of your application in order to be able to offer you an optimal, customised solution.

Applications

- Fuel tank ventilation systems
- Fuel tank filler systems

Connector types



TB: Firtree
V2: NORMAQUICK® V2
SAE: Connecting spigot to SAE



NORMAQUICK® MK