



Application



Suitability for contact with food



Choosing the right fitting is effortless. With a system that includes well over 1000 types of standard and function fittings, Festo offers a secure solution for every connection.

The push-in fittings NPQR are suitable for contact with food. They have the necessary declaration of conformity in accordance with EU Regulation (EC) No. 1935/2004.

Summary of tubing/fitting combinations

Applications	Fitting	Tubing	Description
Standard	QS	PEN	Suitable for a wide range of tasks and attractively priced. Flexible thanks to highly resistant materials, easy to install thanks to optimised bending radii. High level of abrasion resistance in dynamic applications.
	QS	PUN	Maximum flexibility in standard applications thanks to an extremely wide range of options for combining the different types.
	QS	PAN	Meets all requirements, even for standard applications with increased pressure and temperature ranges.
High pressures	NPQM	PAN-MF	Meets DIN standard 73378: ideal for use in mobile pneumatics. Suitable for increased temperature ranges combined with high pressure ranges.
	NPQH	PAN-R	Powerful in pressure ranges up to 20 bar, for example in applications with the pressure booster DPA.
	NPQR	PUN-H-SF	Use in areas with higher pressure ranges and humidity. Tubing PUN-H-SF is resistant to kinking and hydrolysis and is suitable for water applications.
Resistant to chemicals and hydrolysis	NPQP	PLN	Resistant to cleaning agents, FDA-compliant and economical. Can be used instead of the combination with stainless steel fittings.
	NPKA	PUN-H	Hydrolysis-resistant and suitable for water applications. Combination suitable for use in cleanrooms, FDA-com- pliant and corrosion-resistant because it's 100% polymer. Very easy to install with the "one-click principle".
	NPQR	PFAN/PTFEN	Optimised design, fewer edges where dirt can collect – all at an attractive price. For high temperatures up to 150 °C. Pressure range up to 16 bar. Maximum corrosion resistance (CRC 4).
	NPCK	PFAN/PTFEN	Easy to clean thanks to the union nut's edge-free design. Maximum corrosion resistance (CRC 4) and FDA-com- pliant. Suitable for a wide range of media.
Resistant to chemicals and hydrolysis, food-safe	NPQR	PUN-H-F/PFAN	Food-safe to Regulation (EC) No. 1935/2004 and FDA-listed materials. Can be used in the food and packaging industry in combination with PUN-H-F and PFAN.
	NPQH	PFAN/PTFEN	For high temperatures up to 150 °C. Food-safe to Regulation (EC) No. 1935/2004, FDA-listed materials and re- sistant to cleaning agents.
Anti-static	NPQM	PUN-CM	Anti-static tubing plus solid metal fitting: maximum protection for electric and electronic components.
Flame-retardant	NPQM	PUN-V0	Very safe in areas where there is a risk of fire thanks to flame-retardant properties. The tubing has been tested to DIN 5510-2.
Resistant to welding spatter	NPQH	PUN-VO-C	Ideal for applications involving welding spatter. Reliable thanks to a tubing wall thickness of 2 mm for all diam- eters.
	QS-V0	PAN-V0	Safe even in the immediate vicinity of welding spatter thanks to double-walled tubing with special fitting.
Battery production	NPQE-F1A ¹⁾	PUN-H	Suitable in battery production areas.

1) F1A = Free of copper, zinc and nickel

Push-in fittings – Product range QSM, mini series



QS-V0, resistant to welding spatter



NPQM



NPQR, stainless steel



Datasheets → Internet: qsm

Compact push-in fittings for maximum component density in confined spaces. For pneumatic applications with a temperature range up to 80 °C and a pressure range up to 14 bar.

Tubing O.D. of 2, 3, 4 and 6 mm with connecting threads M3, M5, M6, M7, R1/8 and G1/8.

Datasheets → Internet: qs-v0

Flame-retardant push-in fitting for use in all areas where there is a risk of fire, for example welding systems in the automotive industry, and in the construction industry. For pneumatic applications with a temperature range up to 60 °C and a pressure range up to 10 bar.

Tubing O.D. of 4, 6, 8, 10 and 12 mm with connecting thread R1/8 ... R1/2 and G1/8 ... G1/2.

Datasheets → Internet: npqm

Attractively priced metal push-in fitting for pneumatic applications with a temperature range up to 70°C and a pressure range up to 16 bar. Tubing O.D. of 3, 4, 6, 8, 10, 12 and 14 mm with connecting thread M5, M7 and G1/8... G1/2.

Datasheets → Internet: npqr

Stainless steel push-in fitting. Maximum corrosion resistance CRC 4 and chemical resistance. For pneumatic applications with a temperature range up to 150 °C and a pressure range up to 16 bar.

Tubing O.D. of 4, 6, 8, 10 and 12 mm with connecting thread M5, M7 and G1/8 ... G1/2.

QS, standard series



NPQH



Datasheets \rightarrow Internet: qs

Wide selection of push-in fittings for pneumatic applications with a temperature range up to 80°C and a pressure range up to 14 bar. Tubing O.D. of 4, 6, 8, 10, 12, 16 and 22 mm with connecting thread R1/8 ... R1/2 and G1/8 ... G3/4.

Datasheets \rightarrow Internet: npqh

All metal push-in fitting made of chemically nickel-plated brass. High corrosion resistance CRC3 and chemical resistance. For pneumatic applications with a temperature range up to 150 °C and a pressure range up to 20 bar. Tubing O.D. of 4, 6, 8, 10, 12 and 14 mm with connecting thread M5, M7 and G1/8 ... G1/2.

NPQP



Datasheets → Internet: npqp

Polypropylene fitting for use in applications with extreme media influences. For pneumatic applications with a temperature range up to 60 °C and a pressure range up to 10 bar. Tubing O.D. of 4, 6, 8, 10 and 12 mm with connecting thread R1/8 ... R1/2.

2024/08 - Subject to change

Functional push-in fittings – Product range

QSK, push-in fitting, self-sealing

ting, self-sealing

Datasheets \rightarrow Internet: qsk

QSR,

NPKA

push-in fitting, rotatable



Push-in fitting blocks the air flow after the tubing is disconnected. For pneumatic applications with a temperature range up to 60 °C and a pressure range up to 14 bar. Tubing O.D. of 4, 6, 8, 10 and 12 mm

with connecting thread M5, R1/8 ... R1/2 and G1/8 ... G1/2.

Quick connectors – Product range NPCK



Datasheets → Internet: npck

Stainless steel fitting for use in areas subject to intensive cleaning. Maximum corrosion resistance CRC 4. For pneumatic applications with a temperature range up to 120 °C and a pressure range up to 12 bar. Tubing O.D. 4, 6, 8 and 10 mm with connecting thread M5 and G1/8 ... G3/8.



Click fittings - Product range

Datasheets → Internet: qsr

Push-in fitting with swivel joint, rotatable by 360°. The ball bearing enables rotating movements in the application up to max. 500 rpm. For pneumatic applications with a temperature range up to 60 °C and a pressure range up to 14 bar.

Tubing O.D. of 4, 6, 8, 10 and 12 mm with connecting thread M5, R1/8 ... R1/2 and G1/8 ... G1/2.

Datasheets → Internet: npka

Polymer fitting for easy installation with one hand. Hydrolysis-resistant, FDA-compliant and easy to clean. For pneumatic applications with a temperature range up to 60 °C and a pressure range up to 10 bar.

Tubing O.D. of 6 mm with connecting thread G1/8.

Tube mounting/dismounting

Mounting

The prerequisite for ensuring that the inner seal is securely held and protected against damage is that the tube is cut into straight lengths and deburred.

- 1) Insert tubing as far as the stop.
 - It is important to ensure that the tubing is inserted into the inner seal. Depending on the tolerance between the tubing and the seal, the contact of the tubing with the seal may be wrongly interpreted as the stop.
- 2) Check that the tubing connection is secure by pulling gently on the tube.

Dismantling

- 1) The tubing can be detached easily by pressing and holding down the releasing ring. Carefully remove the tubing from the fitting.
- 2) Before re-using the tubing, remove the damaged part by cutting it off.

- Note

When using a push-in sleeve as a quick coupling plug, the only way to guarantee an optimal and secure connection is by using products from the same series.

In other words, a push-in sleeve NPQH may only be used with a push-in connector NPQH. The slot of the push-in sleeve must engage securely in the counterpart.