

Cartridge NPQX

FESTO



Characteristics

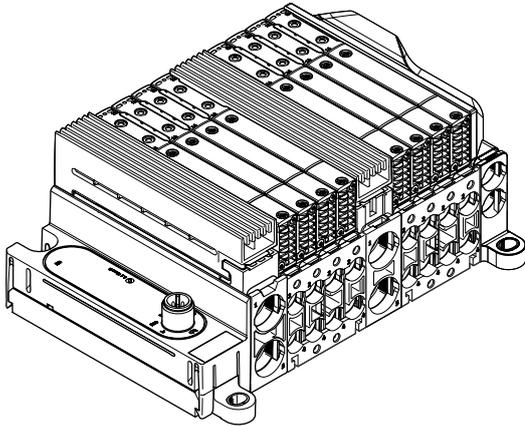
At a glance

Push-in fittings and plug connectors for pneumatic applications with a temperature range up to 60 °C and a pressure range up to 10 bar.

Note: Since the valve terminal VTUX has a compact design, a releasing tool for tubing sizes 4, 6, 8 and 10 is available as an accessory (NPAT-QX-T-V1).

Series

[Link](#)  [vtux](#)



Push-in fitting, specially developed for the valve terminal VTUX.

Design

[D] Straight



[P] Blanking plug



Pneumatic connection 1

The fitting is based on the principle of the „PIN-type cartridge“, so that by loosening the PIN/retaining clip it can be easily replaced for different tubing diameters.

Pneumatic connection 2

The tubing holding function works according to the „push-pull principle“.

Type code

001	Series
NPQX	Push-in fitting
002	Design
D	Straight
P	Blanking plug
003	Pneumatic connection 1
PC10	Cartridge 10 mm
PC12	Cartridge 12 mm
PC15	Cartridge 15 mm
PC19	Cartridge 15 mm (aluminium housing)

004	Pneumatic connection 2
	None
Q4	Push-in connector 4 mm
Q6	Push-in connector 6 mm
Q8	Push-in connector 8 mm
Q10	Push-in connector 10 mm
Q12	Push-in connector 12 mm
Q14	Push-in connector 14 mm
T12	Push-in connector for 1/2"
T14	Push-in connector for 1/4"
T18	Push-in connector for 1/8"
T38	Push-in connector for 3/8"
T516	Push-in connector for 5/16"
T532	Push-in connector for 5/32"

005	Packaging quantity [pieces]
	Standard
P2	2
P10	10

Datasheet

General technical data – Cartridges

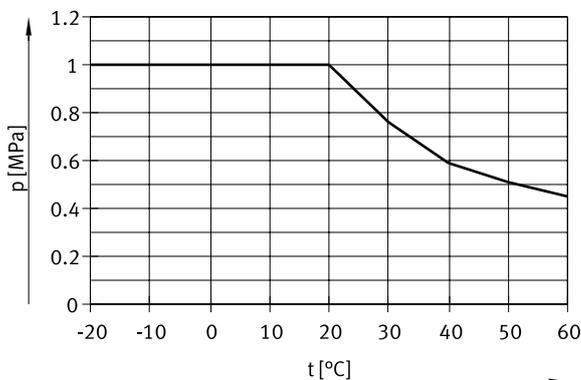
Pneumatic connection, port 2	For tubing outside diameter of 4 mm	For tubing outside diameter of 6 mm	For tubing outside diameter of 8 mm	For tubing outside diameter of 10 mm	For tubing outer diameter of 12 mm	For tubing outside diameter of 14 mm	For tubing outside diameter of 5/32"	For tubing O.D. 1/8"	For tubing outside diameter of 1/4"	For tubing outside diameter of 5/16"	For tubing outside diameter of 3/8"	For tubing outside diameter of 1/2"	
Pneumatic connection, port 1	Cartridge 10 mm Cartridge 12 mm		Cartridge 12 mm Cartridge 15 mm	Cartridge 15 mm			Cartridge 10 mm Cartridge 12 mm	Cartridge 10 mm	Cartridge 10 mm Cartridge 12 mm Cartridge 15 mm	Cartridge 12 mm Cartridge 15 mm	Cartridge 15 mm		
Nominal size	2.6 mm	4 mm	6 mm	8 mm	10 mm		2.6 mm	2.5 mm	4.5 mm	6 mm	6.4 mm	10 mm	
Tubing insertion depth	15 mm	14.9 mm	15.2 mm	15.5 mm	19.5 ... 25 mm	25.4 mm	15 mm	11.7 mm	11.93 mm	15.2 mm	20.1 mm	25.4 mm	
Size	Standard												
Design	Straight design												
Mounting position	optional							Horizontal		optional	Horizontal	optional	
Type of seal on screwed plug	O-ring							No seal		O-ring	No seal	O-ring	
Design	Push-pull principle												
Type of mounting	Via retaining clamp												

Operating and environmental conditions – Cartridges

Material housing	Anodised aluminium	PA-reinforced	High-alloy steel
Operating pressure	-0.095 ... 1 MPa		
Operating pressure	-0.95 ... 10 bar		
Operating pressure	-13.775 ... 145 psi		
Operating pressure complete temperature range	-0.095 ... 1 MPa		
Operating pressure complete temperature range	-0.95 ... 10 bar		
Operating pressure complete temperature range	-13.775 ... 145 psi		
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4], Inert gases		
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)		
Ambient temperature	-10 ... 60°C		-5 ... 60°C
Corrosion resistance class CRC ¹⁾	3 - high corrosion stress		1 - Low corrosion stress, 2 - Moderate corrosion stress

1) More information: www.festo.com/x/topic/crc

Operating pressure p as a function of temperature t



Datasheet

Materials – Cartridges

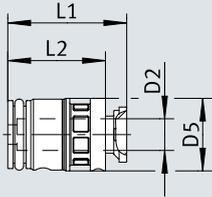
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Material housing	PA-reinforced				Anodised aluminium	High-alloy steel		PA-reinforced				High-alloy steel
Material release ring	POM				PA66	Reinforced PA	–				Reinforced PA	
Material o-ring	HNBR							–	HNBR	–	HNBR	
Material tubing seal	NBR				HNBR		NBR	–	NBR		–	HNBR
Material tubing clamp component	High-alloy stainless steel							–	High-alloy stainless steel		–	High-alloy stainless steel
Colour of release ring	Blue											
Note on materials	RoHS-compliant											
LABS (PWIS) conformity	VDMA24364-B1/B2-L					VD-MA24364-C1-L	VDMA24364-B1/B2-L					VD-MA24364-C1-L

Materials – Blanking plugs

Material blanking plug	PA-reinforced
Material o-ring	HNBR
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Dimensions

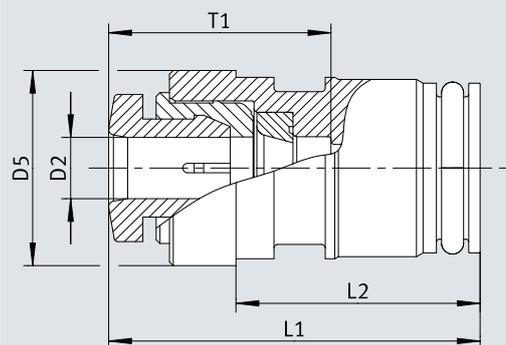
Dimensions – Cartridges (PA housing)

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	D2 ∅	D5 ∅	L1	L2
NPQX-D-PC10-Q4-P10	4	9,6	15,7	12,9
NPQX-D-PC10-Q6-P10	6	9,6	15,7	12,9
NPQX-D-PC12-Q4-P10	4	11,8	15,7	12,9
NPQX-D-PC12-Q6-P10	6	11,8	15,7	12,9
NPQX-D-PC12-Q8-P10	8	12,2	15,7	12,9
NPQX-D-PC15-Q6-P10	6	14,9	15,9	13,2
NPQX-D-PC15-Q8-P10	8	14,9	16	13,2
NPQX-D-PC15-Q10-P10	10	15,5	16	13,2
NPQX-D-PC10-T532-P10	5/32	9,6	15,7	12,9
NPQX-D-PC12-T532-P10	5/32	11,8	15,7	12,9
NPQX-D-PC12-T516-P10	5/16	12,2	15,7	12,9
NPQX-D-PC15-T516-P10	5/16	14,9	16	13,2

Dimensions

Dimensions – Cartridges (PA housing)

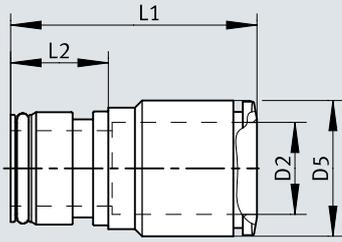
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	D2	D5 ∅	L1	L2	T2
NPQX-D-PC10-T18-P10	1/8	10,4	19,5	12,9	11,7
NPQX-D-PC10-T14-P10	1/4	10,4	23,4	12,9	11,9
NPQX-D-PC12-T14-P10	1/4	12,4	21,4	12,9	11,9
NPQX-D-PC19-T38-P10	3/8	18,4	29	12,9	20,1
NPQX-D-PC15-T14-P10	1/4	15,1	16,5	10,9	11,9

Dimensions

Dimensions – Cartridges (aluminium housing)

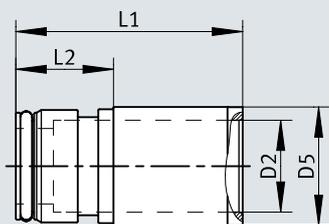
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	D2 ∅	D5 ∅	L1	L2
NPQX-D-PC19-Q12-P10	12	18	29,2	12,9

Dimensions

Dimensions – Cartridges (high-alloy steel housing)

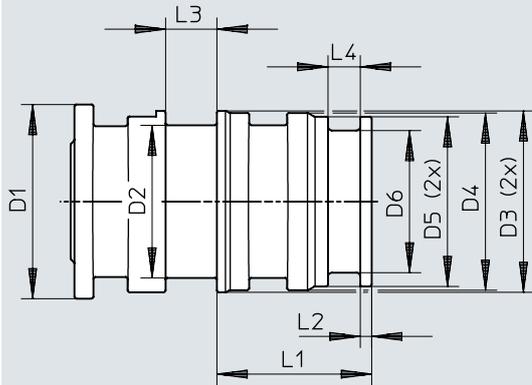
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	D2 ∅	D5 ∅	L1	L2
NPQX-D-PC15-Q12-P2	12	15,7	29,9	12,9
NPQX-D-PC15-Q14-P2	14	18,7	39,2	13
NPQX-D-PC15-T12-P2	1/2	17,5	37,2	13

Dimensions

Dimensions – Blanking plug

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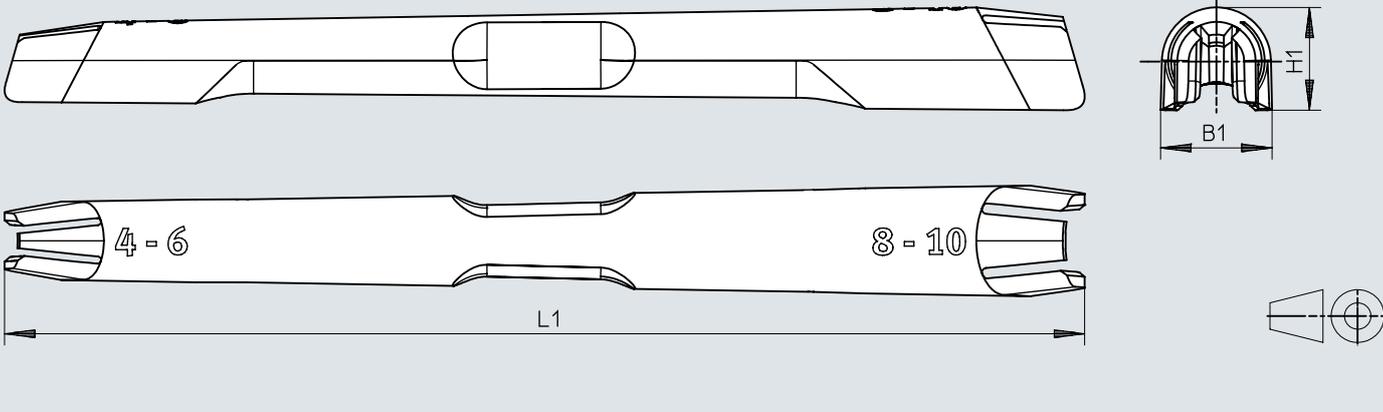


	D1 ∅ ±0,09	D2 ∅ ±0,06	D3 ∅ ±0,06	D4 ∅ ±0,06	D5 ∅ ±0,06	D6 ∅ ±0,06	L1	L2	L3	L4
NPQX-P-PC10	10,3	8,1	9,6	9,4	9	7,6	8,2	0,6	2,7	1,7
NPQX-P-PC12	12,2	10	11,8	11,6	11,2	9,6	8,2	0,6	2,7	1,7
NPQX-P-PC15	15,5	13	15,1	14,9	14,2	12	8,5	0,6	2,7	1,8

Dimensions

Dimensions – Releasing tool NPAT

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	B1	H1	L1
NPAT-QX-T-V1	~14,7	~13,6	142,2

Ordering data

Ordering data – Cartridges (housing PA)

	Pneumatic connection, port 1	Pneumatic connection, port 2	Size of pack	Product weight	Part no.	Type
	Cartridge 10 mm	For tubing outside diameter of 4 mm	10	0.9 g	8174164	NPQX-D-PC10-Q4-P10
		For tubing outside diameter of 6 mm		0.72 g	8174165	NPQX-D-PC10-Q6-P10
		For tubing outside diameter of 5/32"		0.9 g	8184509	NPQX-D-PC10-T532-P10
		For tubing O.D. 1/8"		2 g	8184511	NPQX-D-PC10-T18-P10
		For tubing outside diameter of 1/4"		2.15 g	8184510	NPQX-D-PC10-T14-P10
	Cartridge 12 mm	For tubing outside diameter of 4 mm	10	1.24 g	8174166	NPQX-D-PC12-Q4-P10
		For tubing outside diameter of 6 mm		1.2 g	8174167	NPQX-D-PC12-Q6-P10
		For tubing outside diameter of 8 mm		0.92 g	8174168	NPQX-D-PC12-Q8-P10
		For tubing outside diameter of 5/32"		1.24 g	8184512	NPQX-D-PC12-T532-P10
		For tubing outside diameter of 1/4"		2.6 g	8184514	NPQX-D-PC12-T14-P10
		For tubing outside diameter of 5/16"		0.92 g	8184513	NPQX-D-PC12-T516-P10
		Cartridge 15 mm		For tubing outside diameter of 8 mm	10	1.9 g
	For tubing outside diameter of 10 mm		1.64 g	8174170		NPQX-D-PC15-Q10-P10
	For tubing outside diameter of 1/4"		2.15 g	8230012		NPQX-D-PC15-T14-P10
	For tubing outside diameter of 5/16"		1.9 g	8184515		NPQX-D-PC15-T516-P10
	For tubing outside diameter of 3/8"		10 g	8189810		NPQX-D-PC19-T38-P10

Ordering data – Cartridges (housing aluminium)

	Pneumatic connection, port 1	Pneumatic connection, port 2	Size of pack	Product weight	Part no.	Type
	Cartridge 15 mm	For tubing outer diameter of 12 mm	10	7.6 g	8174171	NPQX-D-PC19-Q12-P10

Ordering data

Ordering data – Cartridges (high-alloy steel housing)						
	Pneumatic connection, port 1	Pneumatic connection, port 2	Size of pack	Product weight	Part no.	Type
	Cartridge 15 mm	For tubing outer diameter of 12 mm	2	11.5 g	8225231	NPQX-D-PC15-Q12-P2
		For tubing outside diameter of 14 mm		25.8 g	8225233	NPQX-D-PC15-Q14-P2
		For tubing outside diameter of 1/2"		20.8 g	8225234	NPQX-D-PC15-T12-P2

Ordering data – Blanking plugs				
	Size of pack	Product weight	Part no.	Type
	10	0.8 g	8191750	NPQX-P-PC12
		1 g	8191749	NPQX-P-PC10
		1.6 g	8191751	NPQX-P-PC15

Accessories

Releasing tool NPAT					
	Size	Releasing tool material	Size of pack	Part no.	Type
	For tubing O.D. 4 mm For tubing O.D. 6 mm For tubing O.D. 8 mm For tubing O.D. 10 mm	POM	1	8214270	NPAT-QX-T-V1