

Customised tubing, inches PEN, PLN, PUN

**FESTO**



## Characteristics

### At a glance

Customised tubing PUN, PEN, PLN for different requirements for pressure, temperature, flexibility and environmental influences.

- PEN: polyethylene tube; highly resistant to chemicals and extremely resistant to hydrolysis; largely resistant to common cleaning agents and lubricants; suitable for energy chains; operating media: compressed air, vacuum, water (for water, see manufacturer's declaration at [www.festo.com/certificates/PEN\\_S](http://www.festo.com/certificates/PEN_S))
- PLN: polyethylene tube; highly resistant to chemicals, microbes and hydrolysis; for suitability in the food industry, see [www.festo.com/certificates/PLN](http://www.festo.com/certificates/PLN); operating media: compressed air, vacuum, water (for water according to manufacturer's declaration, see [www.festo.com/certificates/PLN](http://www.festo.com/certificates/PLN))
- PUN: polyurethane tubing; very resistant to stress cracks; suitable for energy chains; operating media: compressed air, vacuum

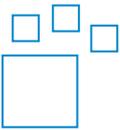
### Additional documents

Link [pxn](#)



The additional document PXN-INCH-ADD contains further information on tubing/fitting combinations, application notes, order quantities, assembly instructions, measuring procedures and optional printing for tubing.

### Ordering data - modular system



This product and all its product options can be ordered online via the configurator.

- Customised lengths: delivery in packs of 150, 500, 1000, 1500 ft
- Customised design: specific printing possible
- Individual colour selection for easier recognition and handling
- Select, size and order quickly, easily and reliably with the configurator

### Engineering tools

Link [engineering tools](#)



Save time with engineering tools: Smart engineering for the optimal solution. Our goal is to increase your productivity. Our engineering tools play an integral part in achieving this goal. They help you size your system correctly, tap into unimagined productivity reserves and generate additional productivity along the entire value chain. In every phase of your project, from the initial contact to the modernisation of your machine, you will come across a number of different tools that will be of use to you.

- Flow calculation: Determine the nominal flow rate by entering parameters such as inlet pressure, outlet pressure, hose length and inside diameter.
- Media resistance: Evaluate the resistance of various material types and hoses from Festo to different chemicals and media.

## Type code

001	Series
<b>PLN</b>	Plastic tubing, polyethylene, standard O.D.
<b>PEN</b>	Plastic tubing
<b>PUN</b>	Plastic tubing, polyurethane

002	Tubing outside diameter
<b>1/8</b>	1/8"
<b>5/32</b>	5/32"
<b>3/16</b>	3/16"
<b>1/4</b>	1/4"
<b>5/16</b>	5/16"
<b>3/8</b>	3/8"
<b>1/2</b>	1/2"
<b>5/8</b>	5/8"

003	Tube colour
<b>BK</b>	Black
<b>BL</b>	Blue
<b>BN</b>	Brown
<b>GN</b>	Green
<b>NT</b>	Natural
<b>RD</b>	Red
<b>SR</b>	Silver
<b>WH</b>	White
<b>YE</b>	Yellow

004	Packaging unit [ft]
<b>150</b>	150 ft
<b>500</b>	500 ft
<b>1000</b>	1000 ft
<b>1500</b>	1500 ft

## Datasheet

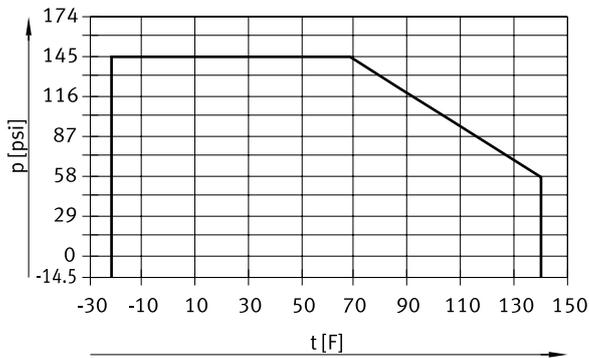
### Operating and environmental conditions

Short type code	PEN	PLN	PUN-
Temperature-dependent operating pressure	-0.95 ... 10 bar	-0.95 ... 14 bar	–
Operating medium	Compressed air to ISO 8573-1:2010 [7:-:], Water (liquid, ice-free)		Compressed air to ISO 8573-1:2010 [7:-:]
Ambient temperature	-22 ... 140°F	-22 ... 177.8°F	-31 ... 140°F
Fire test material	–		UL94 HB
Tubing characteristics	Suitable for energy chains	–	Suitable for energy chains

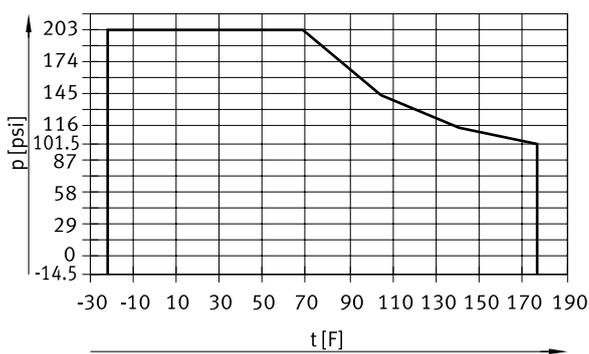
### Materials

Short type code	PEN	PLN	PUN-
Material tubing	PE		TPE-U(PU)
Note on materials	RoHS-compliant		
LABS (PWIS) conformity	VDMA24364-B2-L		
Cleanroom suitability, measured according to ISO 14644-14	Element installed statically, no meaningful evaluation possible according to ISO 14644-1	–	Element installed statically, no meaningful evaluation possible according to ISO 14644-1

### Operating pressure p as a function of temperature t (PEN; NPT)



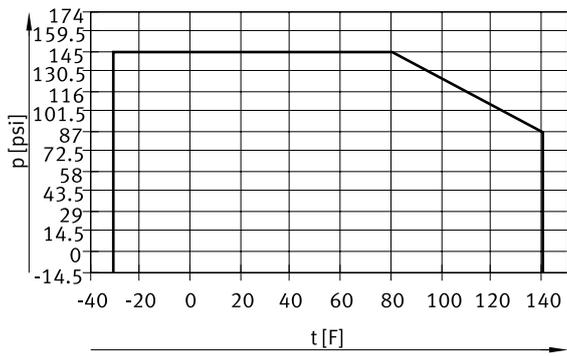
### Operating pressure p as a function of temperature t (PLN; NPT)



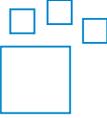
Deviating maximum operating pressures apply to the medium water, with a safety factor of  $s=4$ .

## Datasheet

Operating pressure  $p$  as a function of temperature  $t$  (PUN-H; NPT)



## Ordering data

Ordering information – Modular product system			
	Short type code	Part no.	Type
	PEN	567448	PEN-.-U
	PLN	567449	PLN-.-U
	PUN-	567446	PUN-U