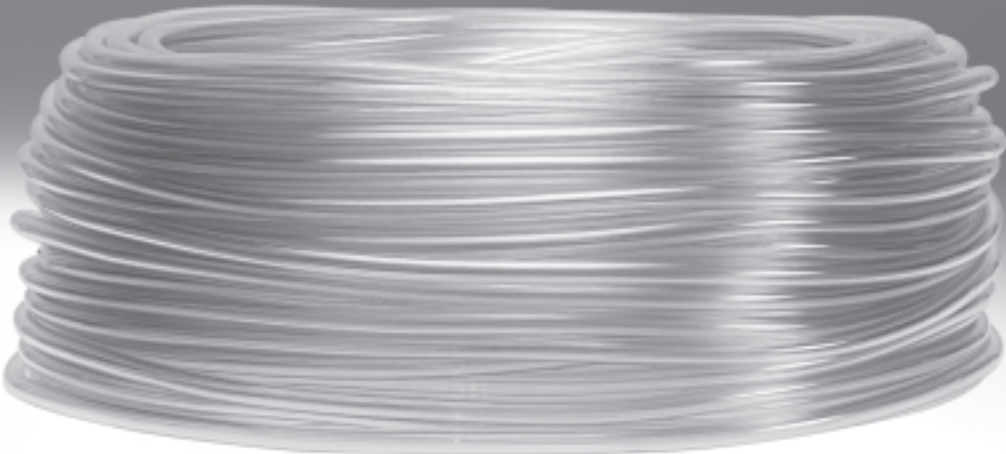



Plastic tubing

FESTO



Plastic tubing

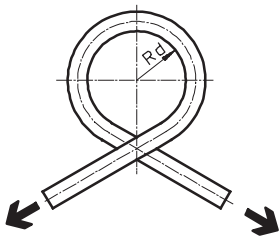
Product range overview and Type codes

Version	Type	Inside Ø [mm]	Colour			Operating medium			Shore hardness	→ Page/ Internet
			Blue	Black	Natural	Compressed air	Vacuum	Water (not drinking water)		
	PCN Polyvinyl chloride	4	-	-	■	■	-	■	76	4
	P Nitrile rubber	6, 9 13, 19	■	■	-	■	■	■	68 71	3

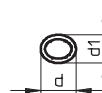
	PCN	4	NT
Material			
PCN	Polyvinyl chloride		
P	Nitrile rubber		
Internal Ø [mm]			
Colour			
SW	Black		
BL	Blue		
NT	Natural		

Measuring methods

Flow-relevant bending radius Rd

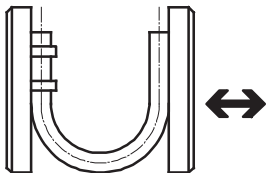


The tubing is bent in the direction of its inherent flexion until a 5% flattening of the tubing O.D. occurs. The Rd is then calculated. There is no reduction in the flow rate up until the Rd is reached.



Cross section flattened as a result of bended tubing
 d = non deformed tubing OD
 d1 = deformed tubing OD

Minimum bending radius Rmin



The tubing attached to a movable plate is bent until the deformation results in a kink. The measured value is the minimum bending radius Rmin. This Rmin leads to considerable reductions in flow.

Rubber hoses P

Technical data



Rubber hose P, with textile reinforcement

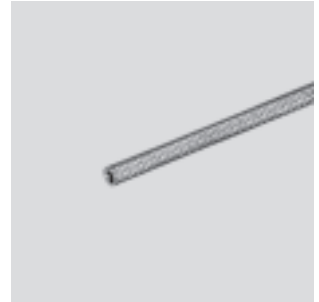
Compressed air tubing with textile reinforcement, for female hose connector type N

-Q- Ambient temperature
-20 ... +80 °C

Pressure
operating pressure
-0.95 ... 16 bar

Material:
P-6/P-9: Nitrile rubber
P-13/P-19: Ethylene propylene rubber, styrene-butadiene rubber

Note on material:
Free of copper and PTFE
RoHS-conform



Dimensions and ordering data								
O.D.	I.D.	Min. bending radius	Flow-relevant bending radius	Weight	Colour	Part No.	Type	PU ¹⁾
[mm]	[mm]	[mm]	[mm]	[kg/m]				[m]
13	6	20	45	0.144	Blue	2231	P-6-BL	40
16	9	30	60	0.186	Blue	2232	P-9-BL	40
23	13	50	100	0.400	Black	2234	P-13-SW	40
31	19	60	200	0.649	Black	2235	P-19-SW	40

1) Packaging unit

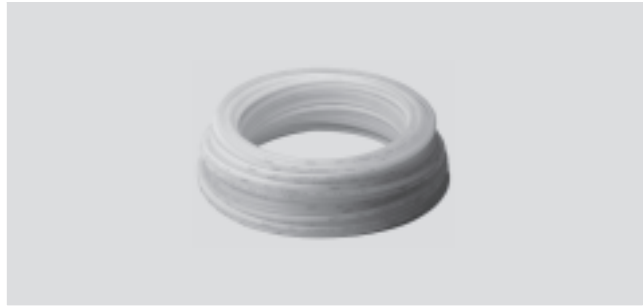
Plastic tubing PCN

Technical data

FESTO

Plastic tubing PCN

for use with condensate drains on D series service units



Operating and environmental conditions		
Temperature dependent operating pressure	[bar]	-0.5 ... +0.25
Ambient temperature	[°C]	-10 ... +60

Materials	
Shore hardness	A 76
Tubing	PVC
Note on materials	Conforms to RoHS

Dimensions and ordering data						
O.D. [mm]	I.D. [mm]	Weight [kg/m]	Colour	Part No.	Type	PU ¹⁾ [m]
6.5	4	0.025	Natural	7134	PCN-4-NT	50

1) Packaging unit

Product Range and Company Overview

A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
Complete custom engineered solutions



Custom Control Cabinets
Comprehensive engineering support and on-site services



Complete Systems
Shipment, stocking and storage services

The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



Electromechanical
Electromechanical actuators, motors, controllers & drives



Pneumatics
Pneumatic linear and rotary actuators, valves, and air supply



PLCs and I/O Devices
PLC's, operator interfaces, sensors and I/O devices

Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



© Copyright 2008, Festo Corporation. While every effort is made to ensure that all dimensions and specifications are correct, Festo cannot guarantee that publications are completely free of any error, in particular typing or printing errors. Accordingly, Festo cannot be held responsible for the same. For Liability and Warranty conditions, refer to our "Terms and Conditions of Sale", available from your local Festo office. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of Festo. All technical data subject to change according to technical update.



Printed on recycled paper at New Horizon Graphic, Inc., FSC certified as an environmentally friendly printing plant.

Festo North America

Festo Regional Contact Center

5300 Explorer Drive
Mississauga, Ontario L4W 5G4
Canada

USA Customers:

For ordering assistance,

Call: 1.800.99.FESTO (1.800.993.3786)

Fax: 1.800.96.FESTO (1.800.963.3786)

Email: customer.service@us.festo.com

For technical support,

Call: 1.866.GO.FESTO (1.866.463.3786)

Fax: 1.800.96.FESTO (1.800.963.3786)

Email: product.support@us.festo.com

Canadian Customers:

Call: 1.877.GO.FESTO (1.877.463.3786)

Fax: 1.877.FX.FESTO (1.877.393.3786)

Email: festo.canada@ca.festo.com

USA Headquarters

Festo Corporation
395 Moreland Road
P.O. Box 18023
Hauppauge, NY 11788, USA
www.festo.com/us

USA Sales Offices

Appleton

North 922 Tower View Drive, Suite N
Greenville, WI 54942, USA

Boston

120 Presidential Way, Suite 330
Woburn, MA 01801, USA

Chicago

1441 East Business Center Drive
Mt. Prospect, IL 60056, USA

Dallas

1825 Lakeway Drive, Suite 600
Lewisville, TX 75057, USA

Detroit – Automotive Engineering Center

2601 Cambridge Court, Suite 320
Auburn Hills, MI 48326, USA

New York

395 Moreland Road
Hauppauge, NY 11788, USA

Silicon Valley

4935 Southfront Road, Suite F
Livermore, CA 94550, USA

United States



USA Headquarters, East: Festo Corp., 395 Moreland Road, Hauppauge, NY 11788

Phone: 1.631.435.0800; Fax: 1.631.435.8026;

Email: info@festo-usa.com

www.festo.com/us

Canada



Headquarters: Festo Inc., 5300 Explorer Drive, Mississauga, Ontario L4W 5G4

Phone: 1.905.624.9000; Fax: 1.905.624.9001;

Email: festo.canada@ca.festo.com

www.festo.ca

Mexico



Headquarters: Festo Pneumatic, S.A., Av. Ceylán 3, Col. Tequesquahuac,
54020 Tlalneantla, Edo. de México

Phone: 011 52 [55] 53 21 66 00; Fax: 011 52 [55] 53 21 66 65;

Email: festo.mexico@mx.festo.com

www.festo.com/mx

Central USA

Festo Corporation
1441 East Business
Center Drive
Mt. Prospect, IL 60056, USA
Phone: 1.847.759.2600
Fax: 1.847.768.9480



Western USA

Festo Corporation
4935 Southfront Road,
Suite F
Livermore, CA 94550, USA
Phone: 1.925.371.1099
Fax: 1.925.245.1286



Festo Worldwide

Argentina Australia Austria Belarus Belgium Brazil Bulgaria Canada Chile China Colombia Croatia Czech Republic Denmark
Estonia Finland France Germany Great Britain Greece Hong Kong Hungary India Indonesia Iran Ireland Israel Italy Japan Latvia
Lithuania Malaysia Mexico Netherlands New Zealand Norway Peru Philippines Poland Romania Russia Serbia Singapore
Slovakia Slovenia South Africa South Korea Spain Sweden Switzerland Taiwan Thailand Turkey Ukraine United States Venezuela

www.festo.com