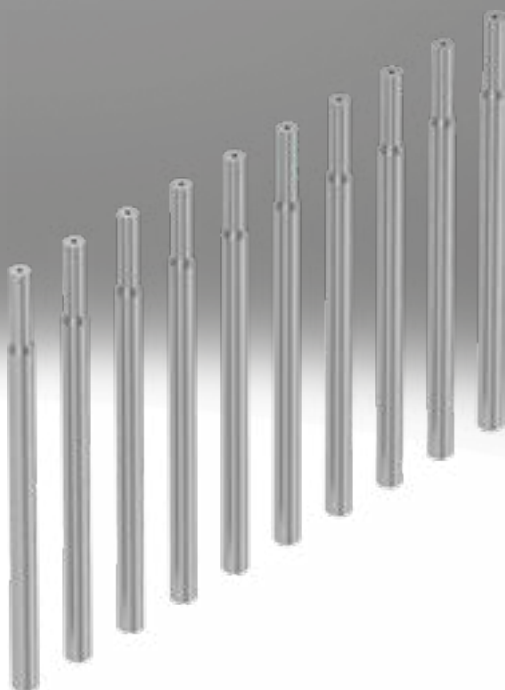


Dosing elements VAVN

FESTO



Key features

At a glance

The dosing needle set VAVN-... is a selection of different needles for fitting in laboratory devices. The needles can be used to dispense liquids or gases in line with their specifications.

The dosing needles VAVN are used in combination with the following products:

- Dispense head VTOE, VTOI
- Solenoid valves VYKA, VYKB, VZDB

Ten different variants each with special features such as tapering or chamfer.

It is the responsibility of the customer to ensure chemical compatibility with the materials of the VAVN that come into contact with the media. A filter with a maximum mesh width of 5 µm must be positioned upstream of the needle. If you have any questions or concerns regarding compatibility and configuration, please contact Festo.

Nominal width

The nominal width describes the smallest cross section in the main flow of the dosing element, and thus has a direct influence on the flow rate that can be achieved.

Chamfer

The chamfer reduces the surface at the tip of the needle, improving the drop separation.

Taper

Reducing the inside diameter for the final 5 mm of the needle improves the flow rate when using media with relatively high viscosity whilst maintaining the pressure.

Type codes

001	Series	
VAVN	Dosing needle set VAVN	
002	Product type	
N	Dosing nozzle	
003	Outside diameter, nozzle	
A1.6	1.6 mm	
004	Nominal width	
03	0.3 mm	
06	0.6 mm	
12	1.2 mm	
005	Length	
30	30 mm	
60	60 mm	
006	Chamfer	
	None	
F	With	
007	Taper	
	None	
V	With	
008	Material	
V1	Stainless steel 1.4404	
009	Package unit	
P10	10	

Datasheet

General technical data	
Type ID code	VAVN
Outside diameter of dosing needle	1.6 mm
Nominal width of dosing needle	0.3 mm; 0.6 mm; 1.2 mm
Length of dosing needle	30 mm; 60 mm
Note on standard nominal flow rate	In case of a pressure drop of 1 → 0 bar (gaseous media)
Design of dosing needle	With chamfer. with taper
Fluid connector	Terminal connection
Mounting position	Any
Product weight	1.9 ... 8.3 g
Pack size	10

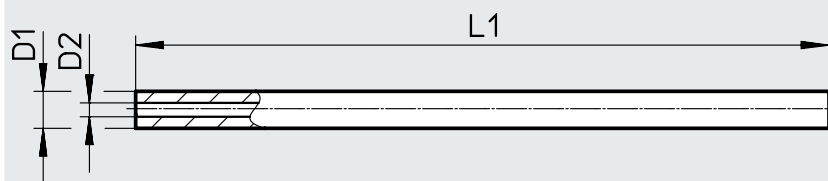
Operating and environmental conditions	
Type ID code	VAVN
Operating pressure	0 ... 0.4 MPa
Operating pressure	0 ... 4 bar
Medium	Liquid media, gaseous media
Note on the medium	Note resistance of materials in contact with the medium; maximum particle size 5 µm
Temperature of medium	5 ... 60°C
Ambient temperature	5 ... 60°C
Storage temperature	-20 ... 70°C
Food-safe	See supplementary material information
Corrosion resistance class CRC ¹⁾	3 - High corrosion stress

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

Materials	
Type ID code	VAVN
Dosing needle material	High-alloy stainless steel
Material number for dosing needle	1.4404
Materials in contact with the media	High-alloy stainless steel
Note on materials	Contains paint-wetting impairment substances; RoHS-compliant

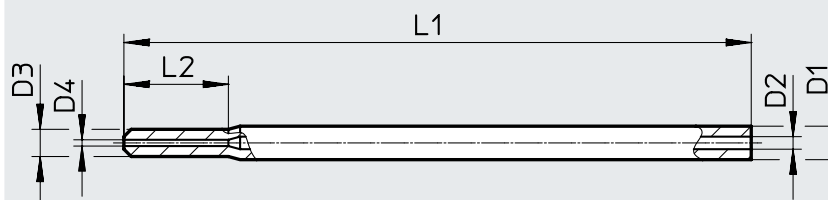
Dimensions

Dimensions – Standard

Download CAD data → www.festo.com

Type	D1 ∅	D2 ∅	L1
VAVN-N-A1.6-06-30-V1-P10	1.6	0.6	30
VAVN-N-A1.6-12-30-V1-P10	1.6	1.2	30
VAVN-N-A1.6-06-60-V1-P10	1.6	0.6	60
VAVN-N-A1.6-12-60-V1-P10	1.6	1.2	60

Dimensions – With taper and optionally with chamfer

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Type	D1 ∅	D2 ∅	D3 ∅	D4 ∅	L1	L2
VAVN-N-A1.6-03-30-VV1-P10	1.6	0.6	1.3	0.3	30	5
VAVN-N-A1.6-03-30-FV1-P10	1.6	0.6	1.3	0.3	30	5
VAVN-N-A1.6-06-30-VV1-P10	1.6	1.2	1	0.6	30	5
VAVN-N-A1.6-03-60-VV1-P10	1.6	0.6	1.3	0.3	60	5
VAVN-N-A1.6-03-60-FV1-P10	1.6	0.6	1.3	0.3	60	5
VAVN-N-A1.6-06-60-VV1-P10	1.6	1.2	1	0.6	60	5

Ordering data

Ordering data						
Nominal width of dosing needle [mm]	Length of dosing needle [mm]	Flow rate Kv ¹⁾ [m ³ /h] ²⁾	Standard nominal flow rate ¹⁾ [l/min]	Part no.	Type	
0.3	30	0.003	1.37	8104295	VAVN-N-A1.6-03-30-F-V1-P10	
			1.38	8104294	VAVN-N-A1.6-03-30-V-V1-P10	
	60		1.31	8104298	VAVN-N-A1.6-03-60-F-V1-P10	
			1.32	8104297	VAVN-N-A1.6-03-60-V-V1-P10	
0.6	30	0.01	4.76	8104290	VAVN-N-A1.6-06-30-V1-P10	
			5.60	8104296	VAVN-N-A1.6-06-30-V-V1-P10	
	60		0.008	3.91	8104292	VAVN-N-A1.6-06-60-V1-P10
			0.012	5.47	8104299	VAVN-N-A1.6-06-60-V-V1-P10
1.2	30	0.039	20.19	8104291	VAVN-N-A1.6-12-30-V1-P10	
	60	0.034	18.15	8104293	VAVN-N-A1.6-12-60-V1-P10	

- 1) As a result of production methods, there may be fluctuations in the flow rate or flow behaviour; these should be taken into account during use.
 2) For water as medium

Accessories

Fittings	Description	Part no.	Type
 Fitting	Straight design; fluidic connection 1 1/4-28 UNF; fluidic connection 2; clamped terminal connection 1.6 mm; pack of 10	8104285	NLFA-D-U14-K1.6-PP-P10