

# POSSIBLE APPLICATIONS FOR VarioSpray II

## Anti-scuffing

The application of anti-scuffing lubricants reduces wear rings while at the same time reducing lubricant consumption as compared to conventional application methods.



## Humidification of dough products

Dough products are humidified to maintain the stability of the production processes. Small amounts must be precisely sprayed onto the dough products. VarioSpray II allows material losses to be greatly minimized.



## Disinfection

Targeted, pulse-width-modulated application of antibacterial liquids to a variety of systems/products for purposes of disinfection reduces liquid consumption, while also ensuring maximum safety and compliance with hygiene guidelines.



## Release agent application for low-viscosity media

For solidifying and improving the quality of surfaces by means of low-viscosity media, e.g. before the press process.



## Coating with VarioSpray II

Coating and metering processes are commonly used in food processing. The VarioSpray II pulse-width-modulated nozzle valve system is impressively flexible, making it possible to spray the smallest liquid volumes with precision.



# VarioSpray II

## VarioSpray II


Nozzle valves in the VarioSpray II range can efficiently atomize the most miniscule liquid volumes. Their size makes these valves ideal for use in tight spaces. VarioSpray II is also available in a food version that complies with EC 1935/2004 and FDA regulations.



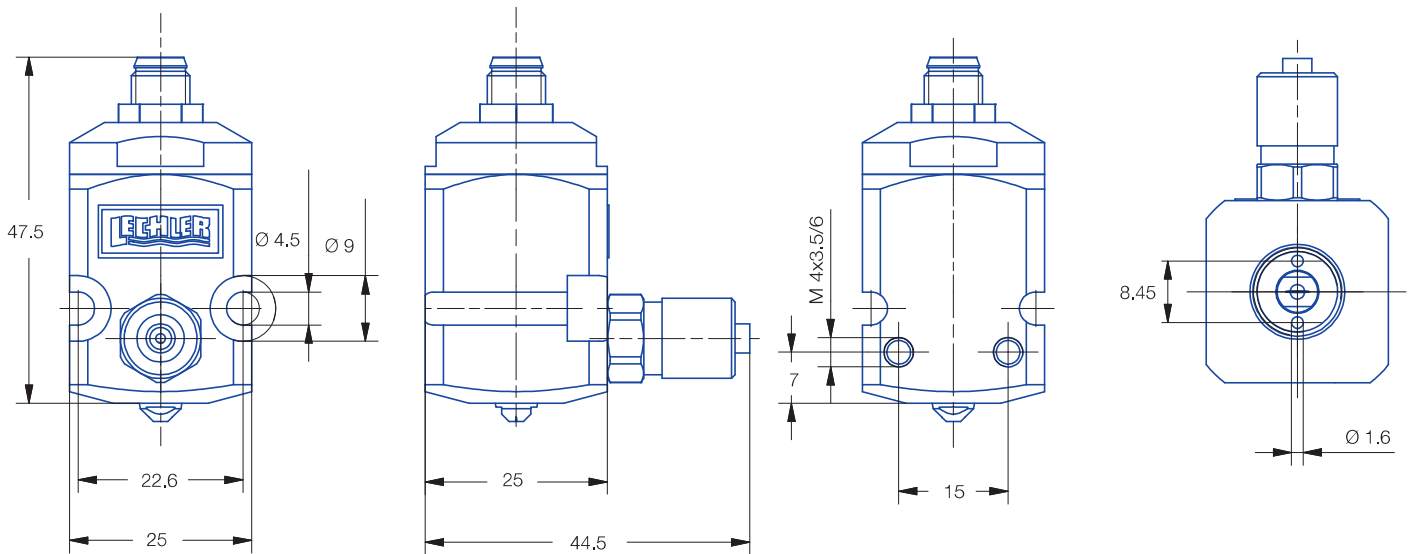
Suitable for the following viscosities in mPas\*



Ordering no.: 742.030.1Y.	0	5	10	15	20	25	30	35	40	45
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Ordering no.: 742.050.1Y.00/10	0	5	10	15	20	25	30	35	40	45
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Valve	742.030.1Y.	742.050.1Y.00	742.050.1Y.10 
Type	2/2-way N.C.		
Nominal diameter	0.3 mm	0.5 mm	0.5 mm
Pressure range	0 – 10 bar	0 – 8 bar	0 – 8 bar
Voltage	24 V DC		
Nominal power	2 W		
Sealing material	FPM		
Housing material	316L SS		
Spring material	301 SS		
Coil resistance	288 ohms		
Protection type	IP 65		
Frequency	0 – 100 Hz		
Hose connection	Ø 6 x 1 mm		

\* Depending on the density of the liquid



Spray angle*	Ordering no.	Suitable for valves		Flow rate range** [ml/min]	
	<b>634.XXX.16.05.00</b>	742.030.1Y.00.00	742.050.1Y.10 	742.050.1Y.00.00	
		DN 0.3 mm	DN 0.5 mm	DN 0.3 mm	DN 0.5 mm
75°	<b>634.145.16.05.00</b>	○	○	8 – 73	11 – 85
	<b>634.165.16.05.00</b>	○	○	10 – 85	15 – 111
	<b>634.185.16.05.00</b>	–	○	–	16 – 128
	<b>634.215.16.05.00</b>	–	○	–	17 – 161
	<b>634.245.16.05.00</b>	–	○	–	22 – 206
	<b>634.275.16.05.00</b>	–	○	–	24 – 239
90°	<b>634.216.16.05.00</b>	–	○	–	18 – 165
	<b>634.246.16.05.00</b>	–	○	–	21 – 211
	<b>634.276.16.05.00</b>	–	○	–	25 – 238
120°	<b>634.187.16.05.00</b>	–	○	–	14 – 130
	<b>634.217.16.05.00</b>	–	○	–	19 – 168
	<b>634.247.16.05.00</b>	–	○	–	23 – 215
	<b>634.277.16.05.00</b>	–	○	–	24 – 237

The available nozzles are listed in the above table.  
Please specify the corresponding nozzle number when ordering.

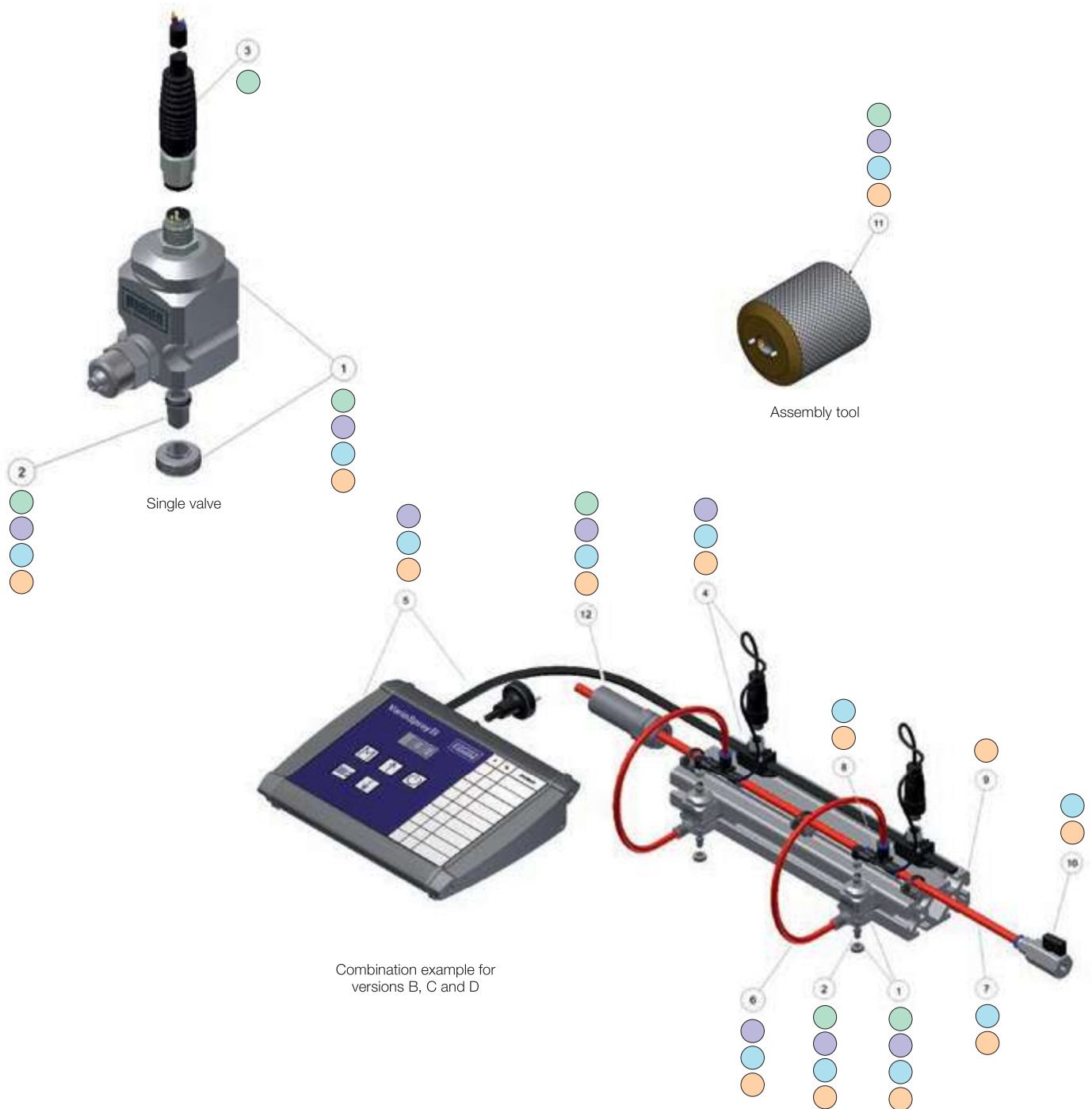
Nozzle material: Stainless steel 303 SS  
incl. O-ring (material: FPM complies with EC 1935, EU 10/2011)

DN = Nominal diameter  
DC = Pulse width ratio

\* Spray angle can differ in PWM operation  
\*\* DC: 10 – 90 %, fluid pressure: 4 – 6 bar

# COMPONENTS AND COMBINATION OPTIONS

## VarioSpray II



### Ordering information

The adjacent table shows the VarioSpray II versions recommended by Lechler. The possible combinations are highlighted in color and are visually represented in the table »Components and combinations«. Please specify the required individual components when ordering.

The liquid supply lines are available in the materials 5N (polyamide) or 5F (polyurethane).

Please replace »WW« in the order number with the required material.

The available nozzles are shown in the adjacent table. Please specify the corresponding nozzle number when ordering.

DN = Nominal diameter

# COMPONENTS AND COMBINATIONS

Version	No.	Description	Ordering no.	Qty.	Technical specification	Length
<b>A</b>	①	Valve, incl. hollow core screw	742.030.1Y.00.00		DN 0.3 mm, see technical data for further information	
		Valve, incl. hollow core screw	742.050.1Y.00.00		DN 0.5 mm, see technical data for further information	
	②	Nozzle	634.XXX.16.05.00		See nozzle overview	
	③	Valve cable, M8, open	074.211.00.00.00		Cable length: 2 m	
		Valve cable, M8, open	074.211.00.01.00		Cable length: 5 m	
	⑪	Assembly tool	074.290.30.00.00	1	For flat spray nozzle, material: Brass	
	⑫	Filter	074.217.1Y.00.00	1	Mesh size: 40 µm, max. pressure: 10 bar, material: 316L SS, connection: 3/8 BSPP	
<b>B</b>	①	Valve, incl. hollow core screw	742.030.1Y.00.00	max. 8	DN 0.3 mm, see technical data for further information	
		Valve, incl. hollow core screw	742.050.1Y.00.00	max. 8	DN 0.5 mm, see technical data for further information	
	②	Nozzle	634.XXX.16.05.00	max. 8	See nozzle overview	
	④	Valve cable, M12 – M8	074.210.00.00.00	max. 8	With bus connector, supplied loose	1 m
	⑤	Control, table version	074.200.00.00.00	1	Incl. bus cable, bus cable end cap, instructions for use and quick start instructions	10 m
	⑥	Hose, dia. 6 x 1 mm	074.212.WW.00.00	1	Valve supply line, for up to 4 valves, material: 5N (polyamide) or 5F (polyurethane)	1.5 m
		Hose, dia. 6 x 1 mm	074.212.WW.01.00	1	Valve supply line, for up to 8 valves, material: 5N (polyamide) or 5F (polyurethane)	2.5 m
		Wall bracket for control	074.257.00.00.00	1	Mounting set for wall installation of control	
		Rubber feet, self-adhesive	074.258.00.00.00	1	4 ea., black, for control	
	⑪	Assembly tool	074.290.30.00.00	1	For flat spray nozzle, material: Brass	
⑫	Filter	074.217.1Y.00.00	1	Mesh size: 40 µm, max. pressure: 10 bar, material: 316L SS, connection: 3/8 BSPP		
<b>C</b>	①	Valve, incl. hollow core screw	742.030.1Y.00.00	max. 8	DN 0.3 mm, see technical data for further information	
		Valve, incl. hollow core screw	742.050.1Y.00.00	max. 8	DN 0.5 mm, see technical data for further information	
	②	Nozzle	634.XXX.16.05.00	max. 8	See nozzle overview	
	④	Valve cable, M12 – M8	074.210.00.00.00	max. 8	With bus connector, supplied loose	1 m
	⑤	Control, table version	074.200.00.00.00	1	Incl. bus cable, bus cable end cap, instructions for use and quick start instructions	10 m
	⑥	Hose, dia. 6 x 1 mm	074.212.WW.00.00	1	Valve supply line, for up to 4 valves, material: 5N (polyamide) or 5F (polyurethane)	1.5 m
		Hose, dia. 6 x 1 mm	074.212.WW.01.00	1	Valve supply line, for up to 8 valves, material: 5N (polyamide) or 5F (polyurethane)	2.5 m
	⑦	Hose, dia. 8 x 1.25 mm	074.213.WW.00.00	1	Central liquid line, material: 5N (polyamide) or 5F (polyurethane)	3 m
		Hose, dia. 8 x 1.25 mm	074.213.WW.01.00	1	Central liquid line, material: 5N (polyamide) or 5F (polyurethane)	5 m
	⑧	Reducing tee	074.214.00.00.00	max. 8	dia. 8 to dia. 6 mm	
	⑩	Ventilation	074.216.00.00.00	1	Ball valve with threaded stud	
		Wall bracket for control	074.257.00.00.00	1	Mounting set for wall installation of control	
		Rubber feet, self-adhesive	074.258.00.00.00	1	4 ea., black, for control	
⑪	Assembly tool	074.290.30.00.00	1	For flat spray nozzle, material: Brass		
⑫	Filter	074.217.1Y.00.00	1	Mesh size: 40 µm, max. pressure: 10 bar, material: 316L SS, connection: 3/8 BSPP		
<b>D</b>	①	Valve, incl. hollow core screw	742.030.1Y.00.00	max. 8	DN 0.3 mm, see technical data for further information	
		Valve, incl. hollow core screw	742.050.1Y.00.00	max. 8	DN 0.5 mm, see technical data for further information	
	②	Nozzle	634.XXX.16.05.00	max. 8	See nozzle overview	
	④	Valve cable, M12 – M8	074.210.00.00.00	max. 8	With bus connector, supplied loose	1 m
	⑤	Control, table version	074.200.00.00.00	1	Incl. bus cable, bus cable end cap, instructions for use and quick start instructions	10 m
	⑥	Hose, dia. 6 x 1 mm	074.212.WW.00.00	1	Valve supply line, for up to 4 valves, material: 5N (polyamide) or 5F (polyurethane)	1.5 m
		Hose, dia. 6 x 1 mm	074.212.WW.01.00	1	Valve supply line, for up to 8 valves, material: 5N (polyamide) or 5F (polyurethane)	2.5 m
	⑦	Hose, dia. 8 x 1.25 mm	074.213.WW.00.00	1	Central liquid line, material: 5N (polyamide) or 5F (polyurethane)	3 m
		Hose, dia. 8 x 1.25 mm	074.213.WW.01.00	1	Central liquid line, material: 5N (polyamide) or 5F (polyurethane)	5 m
	⑧	Reducing tee	074.214.00.00.00	max. 8	dia. 8 to dia. 6 mm	
	⑨	ITEM profile, 80 x 40 mm	074.215.40.00.00	1	incl. T-slot nuts, screws, caps, universal holder; material: Aluminum	1 m
		ITEM profile, 80 x 40 mm	074.215.40.01.00	1	incl. T-slot nuts, screws, caps, universal holder; material: Aluminum	2 m
	⑩	Ventilation	074.216.00.00.00	1	Ball valve with threaded stud	
		Wall bracket for control	074.257.00.00.00	1	Mounting set for wall installation of control	
		Rubber feet, self-adhesive	074.258.00.00.00	1	4 ea., black, for control	
⑪	Assembly tool	074.290.30.00.00	1	For flat spray nozzle, material: Brass		
⑫	Filter	074.217.1Y.00.00	1	Mesh size: 40 µm, max. pressure: 10 bar, material: 316L SS, connection: 3/8 BSPP		

WW = code for material: 5N (polyamide)  
5F (polyurethane)

## Questionnaire

[www.lechler.de/variospray/fragebogen\\_variospray](http://www.lechler.de/variospray/fragebogen_variospray)  
[www.lechler.com/variospray/questionnaire\\_variospray](http://www.lechler.com/variospray/questionnaire_variospray)

# FOOD-COMPLIANT VarioSpray II COMPONENTS

The products listed below comply with the requirements of (EC) No. 1935/2004 for food contact materials as well as the regulations of the Food and Drug Administration (FDA) for repeated food contact.

The other components which are not in direct contact with the food are listed in the table on Page 4.



Ordering no.	Designation	Further information	Technical information	Material	
074.212.54.00.00	Hose, 6 x 1	Valve supply line	1.5 m	LLDPE	natural
074.212.54.01.00	Hose, 6 x 1	Valve supply line	2.5 m	LLDPE	natural
074.213.54.00.00	Hose, 8 x 1*	Central liquid line	3 m	LLDPE	natural
074.213.54.01.00	Hose, 8 x 1*	Central liquid line	5 m	LLDPE	natural
074.214.00.01.00	Equal tee	8 x 8 – 8 x 8		POM	
074.214.00.02.00	Reducer	8 x 6		POM	
074.216.00.01.00	Ventilation*	Shut-off valve with push-in fitting dia. 8 mm		PP	
074.253.00.01.00	Valve cable, M12 – M8		0.3 m		PVC / EPDM / 316L SS
074.254.00.00.06	Hose clamp	Packaging unit 5 ea.			LLDPE
074.217.1Y.00.00	Line filter*	G 3/8 – 40 µm		1.4404	

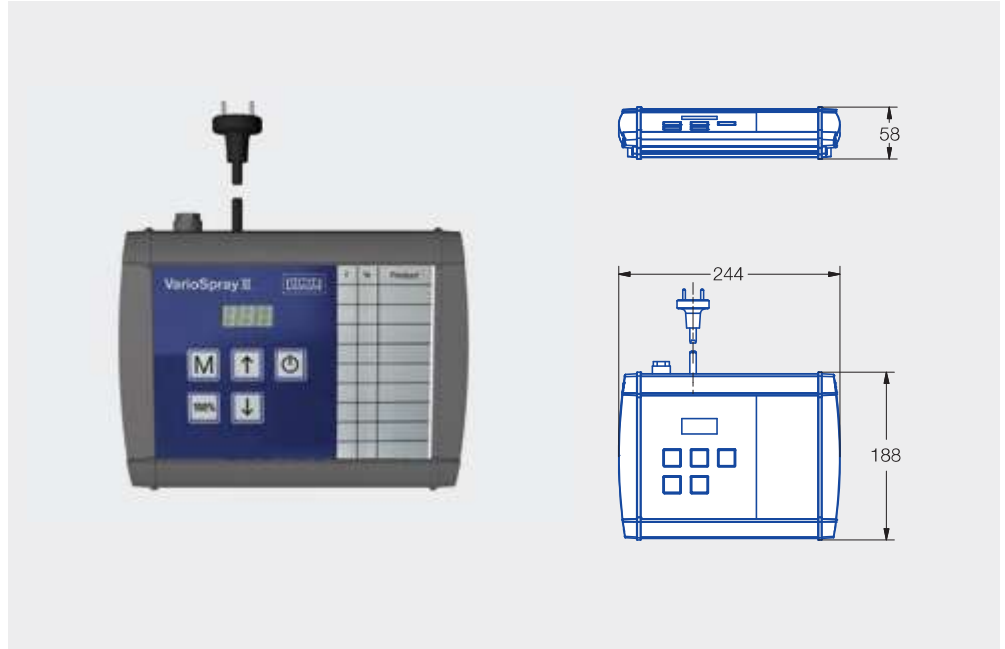
\* Components can also be used for VarioSpray HP



# Control unit for VarioSpray II

The control unit permits optimal operation of the nozzle valves from the VarioSpray II series.

The control elements are kept to a minimum and allow easy operation.



## Benefits:

- Easy operation
- Simultaneous control of all connected valves
- Compact dimensions
- Software ideally matched to the valves
- Valve connection via a central bus line

Maximum number of valves	8
Supply voltage	115 – 230 V AC
Control voltage	24 V DC
Total power	20 W
Frequency	25 / 50 / 75 / 100 Hz
Pulse width	0 – 90 / 100 %
Lag time	0 – 10 s
External signal input	Yes
Protection type	IP 54

Ordering data  
Control unit VarioSpray II

Ordering no.  
074.200.00.00.0