Pneumatic atomizing nozzles, full cone, pressure principle, internal mixing
Series 166.1

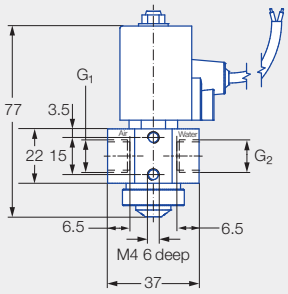
Features:
- Version with magnetic valve
- Fine full cone atomization
- Liquid pressure principle
- Internal mixing

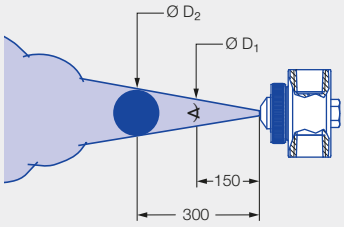
Applications:
- Humidification of air
- Cooling

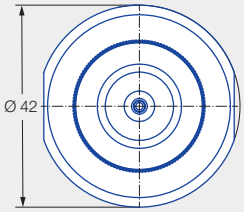
Technical data:
- Operating pressure: 0–6 bar
- Voltage: 24 V DC
- Power: 8 W
- Switching frequency: Approx. 500/min
- Protective system: IP 67
- Ambient temperature: +10 °C/+50 °C
- Cable length: 1,000 mm
- Material of gasket: EPDM



Series 166.1







Air connection G_1	Water connection G_2	Weight [g]
1/4 BSPP	1/4 BSPP	410

Spray angle	Ordering no. Type	Mat. no. 16 Stainless steel 303	Narrowest free cross section Ø [mm]	Liquid pressure p [bar] 0.7 p air [bar]	0.7 V̇ water [l/h]	0.7 V̇n air [m³/h]	1.5 p air [bar]	1.5 V̇ water [l/h]	1.5 V̇n air [m³/h]	3.0 p air [bar]	3.0 V̇ water [l/h]	3.0 V̇n air [m³/h]	4.0 p air [bar]	4.0 V̇ water [l/h]	4.0 V̇n air [m³/h]	Spray dimensions p air [bar]	p water [bar]	Ø D1 [mm]	Ø D2 [mm]
20°	166.115.xx.A2	●	0.5	0.4	**5.9**	0.3	1.4	**5.8**	0.8	2.4	**9.1**	1.1	3.0	**11.0**	1.2	0.8	0.7	60	100
				0.8	**3.8**	0.6	1.8	**4.1**	1.0	2.8	**7.5**	1.2	3.4	**9.6**	1.4	1.8	1.5	60	95
				1.2	**1.7**	0.9	2.2	**2.2**	1.4	3.2	**5.9**	1.5	3.8	**8.2**	1.6	2.6	2.0	60	100
				–	**–**	–	2.6	**1.2**	1.7	3.6	**4.4**	1.8	4.2	**6.8**	1.9	3.2	3.0	55	95
				–	**–**	–	–	**–**	–	4.0	**2.9**	2.1	4.6	**5.5**	2.2	4.4	4.0	55	100
				–	**–**	–	–	**–**	–	4.4	**2.0**	2.5	5.0	**4.1**	2.5	–	–	–	–
				–	**–**	–	–	**–**	–	4.8	**1.1**	2.8	5.4	**2.9**	2.8	–	–	–	–
				–	**–**	–	–	**–**	–	5.2	**0.4**	3.0	5.8	**2.1**	3.1	–	–	–	–
	166.125.xx.A2	●	0.5	0.8	**4.7**	1.5	1.2	**7.0**	1.8	2.8	**9.1**	3.3	3.4	**10.6**	3.9	1.4	0.7	55	90
				1.2	**4.4**	1.9	1.6	**6.6**	2.2	3.2	**8.7**	3.7	3.8	**10.3**	4.3	2.2	1.5	55	95
				1.6	**4.0**	2.3	2.0	**6.2**	2.6	3.6	**8.4**	4.1	4.2	**9.9**	4.6	2.8	2.0	55	100
				2.0	**3.5**	2.6	2.4	**5.8**	3.0	4.0	**8.0**	4.5	4.6	**9.6**	5.0	3.4	3.0	60	100
				2.4	**3.0**	3.0	2.8	**5.4**	3.4	4.4	**7.7**	4.8	5.0	**9.3**	5.4	4.2	4.0	60	100
				2.8	**2.7**	3.2	3.2	**4.9**	3.7	4.8	**7.3**	5.2	5.4	**8.9**	5.8	–	–	–	–
				3.2	**2.0**	3.7	3.6	**4.4**	4.1	5.2	**7.0**	5.6	5.8	**8.6**	6.1	–	–	–	–
				3.6	**1.6**	4.1	4.0	**3.9**	4.5	5.6	**6.6**	5.9	–	**–**	–	–	–	–	–
				4.0	**1.3**	4.5	4.4	**3.5**	4.8	6.0	**6.2**	6.3	–	**–**	–	–	–	–	–
				4.4	**1.0**	4.9	4.8	**3.1**	5.2	–	**–**	–	–	**–**	–	–	–	–	–
				4.8	**0.6**	5.2	5.2	**2.7**	5.6	–	**–**	–	–	**–**	–	–	–	–	–
				–	**–**	–	5.6	**2.3**	5.9	–	**–**	–	–	**–**	–	–	–	–	–
				–	**–**	–	6.0	**1.9**	6.3	–	**–**	–	–	**–**	–	–	–	–	–

Spray angle	Ordering no.		Narrowest free cross section Ø [mm]	Liquid pressure p [bar]												Spray dimensions			
	Type	Mat. no. 16 Stainless steel 303		0.7			1.5			3.0			4.0						
				p air [bar]	V̇ water [l/h]	V̇n air [m³/h]	p air [bar]	V̇ water [l/h]	V̇n air [m³/h]	p air [bar]	V̇ water [l/h]	V̇n air [m³/h]	p air [bar]	V̇ water [l/h]	V̇n air [m³/h]	p air [bar]	p water [bar]	Ø D1 [mm]	Ø D2 [mm]
20°	166.134.xx.A2	●	0.7	1.2	**13.2**	2.7	2.0	**19.4**	3.9	3.0	**28.3**	5.2	3.8	**32.6**	6.2	1.8	0.7	55	95
				1.6	**12.4**	3.3	2.4	**18.1**	4.4	3.4	**27.5**	5.7	4.2	**32.0**	6.8	2.8	1.5	60	105
				2.0	**11.8**	3.9	2.8	**17.3**	4.9	3.8	**26.7**	6.3	4.6	**31.3**	7.3	3.8	2.0	60	105
				2.4	**11.4**	4.4	3.2	**16.7**	5.5	4.2	**25.9**	6.8	5.0	**30.6**	7.8	5.2	3.0	65	110
				2.8	**11.1**	4.9	3.6	**16.1**	6.0	4.6	**25.0**	7.3	5.4	**29.9**	8.4	6.0	4.0	65	110
				3.2	**10.8**	5.5	4.0	**15.6**	6.5	5.0	**24.2**	7.8	5.8	**29.3**	8.9	–	–	–	–
				3.6	**10.6**	6.0	4.4	**15.2**	7.0	5.4	**23.6**	8.4	–	**–**	–	–	–	–	–
				4.0	**10.4**	6.5	4.8	**15.0**	7.6	5.8	**23.1**	8.9	–	**–**	–	–	–	–	–
				4.4	**10.1**	7.0	5.2	**14.6**	8.1	–	**–**	–	–	**–**	–	–	–	–	–
				4.8	**9.9**	7.6	5.6	**14.1**	8.6	–	**–**	–	–	**–**	–	–	–	–	–
				5.2	**9.5**	8.1	6.0	**13.8**	9.1	–	**–**	–	–	**–**	–	–	–	–	–
				5.6	**9.0**	8.6	–	**–**	–	–	**–**	–	–	**–**	–	–	–	–	–
				6.0	**8.5**	9.2	–	**–**	–	–	**–**	–	–	**–**	–	–	–	–	–
	166.142.xx.A2	●	2.5	1.4	**24.2**	5.1	1.6	**53.4**	4.7	3.2	**70.8**	8.0	3.8	**93.2**	9.2	0.8	0.7	60	100
				1.8	**20.4**	6.3	2.0	**42.6**	5.9	3.6	**62.5**	9.2	4.2	**83.1**	10.1	1.6	1.5	65	105
				2.2	**20.0**	7.2	2.4	**35.3**	7.2	4.0	**55.7**	10.6	4.6	**75.3**	11.3	3.0	2.0	60	105
				2.6	**19.3**	8.2	2.8	**30.4**	8.4	4.4	**49.3**	11.7	5.0	**69.0**	12.5	4.0	3.0	65	110
				3.0	**17.6**	9.3	3.2	**28.6**	9.5	4.8	**44.6**	12.9	5.4	**63.4**	13.7	6.0	4.0	65	110
				3.4	**16.5**	10.4	3.6	**28.2**	10.5	5.2	**41.9**	14.1	5.8	**57.5**	14.9	–	–	–	–
				3.8	**17.0**	11.4	4.0	**27.3**	11.5	5.6	**40.4**	15.1	–	**–**	–	–	–	–	–
				4.2	**16.3**	12.4	4.4	**25.9**	12.5	6.0	**39.7**	16.1	–	**–**	–	–	–	–	–
				4.6	**15.1**	13.3	4.8	**24.3**	13.5	–	**–**	–	–	**–**	–	–	–	–	–
				5.0	**14.0**	14.3	5.2	**22.3**	14.6	–	**–**	–	–	**–**	–	–	–	–	–
				5.4	**13.1**	15.3	5.6	**21.8**	15.7	–	**–**	–	–	**–**	–	–	–	–	–
				5.8	**12.4**	16.2	6.0	**21.4**	16.7	–	**–**	–	–	**–**	–	–	–	–	–

Ordering example:	Type	+	Material no.	=	Ordering no.
	166.134.xx.A2	+	16	=	166.134.16.A2