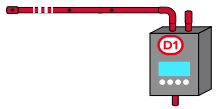
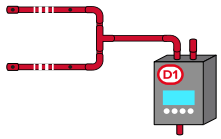
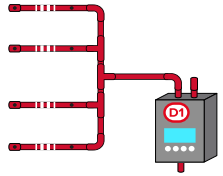
Table B1

Detection class	B
Number of detectors	1
Anti-dust filter	No
Condensation trap	No

D1	detector 1 module

Øn	diameter of the hole "n" (mm)
S	detection sensitivity (10^{-5} dB/m)
V	aspiration speed (RPM)
F	expected airflow (l/min)
B	air aspiration balancing between the holes (%)
T	transit time of the smoke (s)

1 branch	2 branches	4 branches
		

Number of branches	Length of branches (m)	parameters	Number of holes for each branch																	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	60 ÷ 90	Ø	Ø 1: 10	Ø 1: 5.5 Ø 2: 10	Ø 1: 4.5 Ø 2: 5 Ø 3: 7	Ø 1: 4 Ø 2: 4.5 Ø 3: 5 Ø 4: 7	Ø 1: 3.5 Ø 2..3: 4 Ø 4: 4.5 Ø 5: 5.5	Ø 1: 3 Ø 2..4: 3.5 Ø 5: 4 Ø 6: 4.5	Ø 1: 3 Ø 2..3: 3.5 Ø 4..5: 4 Ø 6: 4.5 Ø 7: 5.5	Ø 1: 2.5 Ø 2..5: 3 Ø 6..7: 3.5 Ø 8: 4	Ø 1: 2.5 Ø 2..4: 3 Ø 5..7: 3.5 Ø 8: 4 Ø 9: 4.5									
		S	6000	2455	1684	1275	1022	841	725	617	563									
		V	3000	3000	3750	3750	4000	4500	4500	4750	4500									
		F	23.6	31.0	37.0	41.0	42.9	51.6	53.0	56.2	52.9									
		B	100	74	72	69	73	70	69	66	70									
		T	57	60	60	61	68	60	61	60	67									
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 5 Ø 2: 6.5	Ø 1: 4.5 Ø 2: 5.5 Ø 3: 7	Ø 1..2: 4 Ø 3: 4.5 Ø 4: 5	Ø 1: 3.5 Ø 2..4: 4 Ø 5: 5	Ø 1..3: 3 Ø 4..5: 3.5 Ø 6: 4	Ø 1: 3 Ø 2..4: 3.5 Ø 5..6: 4 Ø 7: 4.5	Ø 1: 2.5 Ø 2..7: 3 Ø 8: 3.5	Ø 1..2: 2.5 Ø 3..8: 3 Ø 9: 3.5	Ø 1: 2.5 Ø 2..4: 3 Ø 5..9: 3.5 Ø 10: 4	Ø 1..3: 2.5 Ø 4..10: 3 Ø 11: 3.5	Ø 1..4: 2.5 Ø 5..11: 3 Ø 12: 3.5	Ø 1..2: 2.5 Ø 3..5: 3 Ø 6..8: 3.5 Ø 9..10: 4 Ø 11..12: 4.5 Ø 13: 5	Ø 1..4: 2.5 Ø 5..8: 3 Ø 9..14: 3.5	Ø 1..14: 2 Ø 15: 2.5	Ø 1..15: 2 Ø 16: 2.5	Ø 1..17: 2	
		S	6000	2490	1599	1297	994	819	719	606	542	480	449	410	379	349	353	329	320	
		V	2000	2250	2250	2500	2500	2750	2750	3000	3000	3000	3250	3250	3250	3500	3750	3750	4250	
		F	17.1	21.9	27.9	30.4	30.7	30.7	37.4	36.3	37.2	42.3	43.6	45.2	51.0	53.4	42.5	45.5	51.5	
		B	100	79	74	80	69	66	75	73	70	77	74	71	75	75	64	64	75	
		T	47	52	48	52	55	57	52	57	57	54	53	53	49	52	57	55	59	
1	15 ÷ 30	Ø	Ø 1: 5	Ø 1: 3.5 Ø 2: 4.5	Ø 1..2: 3.5 Ø 3: 4	Ø 1..3: 3.5 Ø 4: 4	Ø 1..2: 3 Ø 3..4: 3.5 Ø 5: 4	Ø 1..5: 3 Ø 6: 3.5	Ø 1..6: 3 Ø 7: 3.5	Ø 1: 2.5 Ø 2..7: 3 Ø 8: 3.5	Ø 1: 2.5 Ø 2..8: 3 Ø 9: 3.5	Ø 1..2: 2.5 Ø 3..9: 3 Ø 10: 3.5	Ø 1..3: 2.5 Ø 4..10: 3 Ø 11: 3.5	Ø 1..5: 3 Ø 6..9: 3.5 Ø 10..12: 4	Ø 1..12: 2.5 Ø 13: 3	Ø 1..5: 2.5 Ø 6..13: 3 Ø 14: 3.5	Ø 1..6: 2.5 Ø 7..14: 3 Ø 15: 3.5	Ø 1..9: 2.5 Ø 10..16: 3	Ø 1..9: 2.5 Ø 10..17: 3	Ø 1..18: 2
		S	6000	2342	1805	1340	965	881	746	585	529	481	440	412	389	352	328	305	290	307
		V	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1750	2000
		F	7.2	9.6	11.9	14.9	16.1	16.2	18.2	19.4	21.1	22.1	23.0	28.6	22.0	26.1	26.9	26.8	32.9	27.8
		B	100	66	80	80	66	75	75	69	72	71	70	75	70	72	71	70	72	81
		T	56	56	58	53	50	57	55	53	51	50	49	44	57	48	48	52	43	55
2	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 5 Ø 2: 7	Ø 1: 4 Ø 2: 4.5 Ø 3: 5.5	Ø 1..3: 3.5 Ø 4: 4.5	Ø 1: 3.5 Ø 2: 4 Ø 3: 4.5 Ø 4: 5 Ø 5: 5.5	Ø 1..3: 3 Ø 4..5: 3.5 Ø 6: 4	Ø 1: 3 Ø 2..5: 3.5 Ø 6: 4 Ø 7: 4.5	Ø 1: 2.5 Ø 2..7: 3 Ø 8: 3.5	Ø 1..8: 2.5 Ø 9: 3									
		S	3000	1177	824	618	463	409	358	304	294									
		V	2000	2250	2500	2750	2750	3000	3000	3250	3750									
		F	31.7	41.5	48.4	51.7	64.0	64.1	71.3	71.5	74.7									
		B	100	74	74	64	79	66	69	70	70									
		T	51	53	55	58	54	54	54	57	56									
2	15 ÷ 30	Ø	Ø 1: 5	Ø 1: 3.5 Ø 2: 4.5	Ø 1..2: 3.5 Ø 3: 4.5	Ø 1: 3 Ø 2..3: 3.5 Ø 4: 4	Ø 1..2: 3 Ø 3..4: 3.5 Ø 5: 4	Ø 1..5: 3 Ø 6: 3.5	Ø 1..6: 2.5 Ø 7: 3	Ø 1..7: 2.5 Ø 8: 3	Ø 1..8: 2.5 Ø 9: 3									
		S	3000	1172	822	590	484	443	385	333	294									
		V	1500	1500	1500	1500	1500	1750	2000	1750	1750									
		F	14.3	18.6	24.2	26.4	29.6	35.5	35.8	33.9	36.6									
		B	100	66	65	68	67	75	70	70	70									
		T	57	58	53	57	55	52	52	59	57									
4	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 3.5 Ø 2: 4.5	Ø 1..2: 3 Ø 3: 3.5	Ø 1..3: 2.5 Ø 4: 3														
		S	1500	586	445	333														
		V	1750	2250	2750	3000														
		F	37.4	50.5	61.4	63.8														
		B	100	66	76	70														
		T	58	57	59	62														
4	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 3 Ø 2: 3.5	Ø 1..2: 2.5 Ø 3: 3	Ø 1..3: 2 Ø 4: 2.5														
		S	1500	639	436	327														
		V	1500	1500	1750	2000														
		F	20.2	26.2	31.3	31.4														
		B	100	76	70	64														
		T	44	47	46	50														