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991n/01

FA | 100 Aspirating smoke detector

PRE-CALCULATED
INSTALLATIONS

100

The installer can use the tables provided below to design aspirator pipe systems without using the FA/STUDIO software. These are standard type systems, to be considered as a subset of the various possible systems and equally programmable via software.

Tables

These systems are grouped in the following tables provided, which differ from each other by detection class, number of detector modules used and use of dust filter or condensate traps:

detection class	number of detectors	anti-dust filter	condensation trap
A	1	No	No
A	2	No	No
B	1	No	No
B	2	No	No
C	1	No	No
C	2	No	No
A	1	Yes	No
A	2	Yes	No
B	1	Yes	No
B	2	Yes	No
C	1	Yes	No
C	2	Yes	No
A	1	No	Yes
A	2	No	Yes
B	1	No	Yes
B	2	No	Yes
C	1	No	Yes
C	2	No	Yes
A	1	Yes	Yes
A	2	Yes	Yes
B	1	Yes	Yes
B	2	Yes	Yes
C	1	Yes	Yes
C	2	Yes	Yes

Once the table for the type of system to be configured has been identified, based on the construction needs (number of branches, length of branches or number of holes for each branch, the table provides pre-calculated programming data, to be entered via the device programming menu.

The tables show, distributed over the rows, the number of branches and their lengths, divided by intervals. "Length" is the distance the air drawn into the pipe travels from the most distant hole to the detector.

The columns show the required number of holes for each branch. The holes are numbered from the nearest (hole #1) to the furthest (hole with maximum number) from the detector.

Parameters

In the boxes at the intersection of number/length of branches and number of holes are the programming parameters to be used:

- Holes diameter, in mm ("Ø")
- Detection sensitivity (depending on sampling hole balance, "S")
- Aspiration speed, in RPM (fan revolutions per minute, "V")
- Expected airflow, in l/min ("F")
- Balancing of the air aspiration between the holes ("B")
- Transit time of the smoke from the most distant hole to the detector ("T")
The calculation of this parameter is based on the length of the branches. Since the length is indicated in the table as a range, the calculation is carried out using the average length.

These parameters, in addition to the length of the branches and the total length of the piping, determine the validity of the system for the selected sensitivity class.

Conditions of use

The use of these tables requires the following constraints to be satisfied:

- The pipe system connected to the detector is considered as divided into 1, 2 or 4 branches.
- All the branches into which the installation is divided are equal to each other in terms of length and number of holes.
"Branch length" stands for the distance from the fork (T fitting) to the last hole (farthest from the FA100 device).
- The sampling holes must be equidistant from each other (with a 10% tolerance).
- For each pipe line only one dust filter may be used, this must be positioned upstream of the detector and downstream of any sampling holes.
- For each line only one condensate trap may be used, this must be positioned upstream of the detector and downstream of any sampling hole.
- The length of the drain piping should not exceed 3 meters.
- If both FAD100 detector modules are used for only one FA100, both pipes must have the same class, same filter and condensate trap, the same number of branches, length and number of holes.
The sampling holes must be equidistant from each other (with a maximum tolerance of 10%).
- The distance between the FA100 device and a T fitting must be at most 10% of the total length of the branch.
- The ambient temperature must be between 10 and 40°C.

Design constraints

The details of the project design constraints that must be respected are provided in the following table:

Constraint	Detection class		
	A	B	C
Number of piping branches for a one-channel system (min. and max.)	1; 2; 4	1; 2; 4	1; 2; 4
Number of piping branches for a system with all channels (min. and max.)	2; 4; 8	2; 4; 8	2; 4; 8
Maximum linear length of piping for a single-channel systems	100m	100m	100m
Maximum overall length of a branch for a single channel system	160m	160m	160m
Maximum linear length of piping for a system with all channels	100m	100m	100m
Maximum length of all piping for a system with all channels	160m	160m	160m
Minimum number of sampling holes for a one-channel system (branched or not)	1	1	1
Maximum number of sampling holes for a one-channel system (branched or not)	8	18	51
Minimum number of sampling holes for a system with all channels (branched or not)	2	2	2
Maximum number of sampling holes for a system with all channels (branched or not)	16	36	102
Minimum number of sampling holes for each branch of the system	1	1	1
Maximum number of sampling holes for each branch of the system	8	18	51
Maximum distance of the hole furthest from the FA100	100m	100m	100m
Distance between the FA100 and 1st hole (min.)	0.25m	0.25m	0.25m

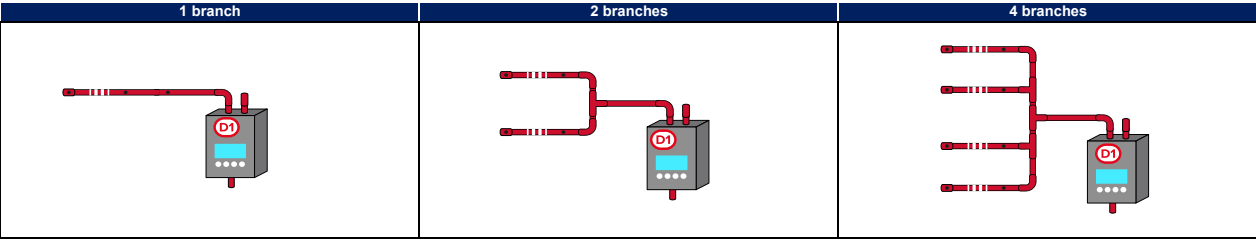
Constraint	Detection class		
	A	B	C
Distance between the FA100 and 1st hole (max.)	100m	100m	100m
Distance between the two sampling holes (min.)	0.10m	0.10m	0.10m
Number of dust filters (504F075ABS) per piping network (max.)	1	1	1
Number of condensate traps (WT025) per piping network (max.)	1	1	1
Maximum number of dust filters and condensate traps for each piping network	2	2	2
Distance between FA100 with filter and condensate trap (max.)	2m	2m	2m
Distance between filter and condensate trap (min.)	0	0	0
Transport time (min. & max.)	0 – 85s	0 – 85s	0 – 85s
System balancing (% min. & max.)	72.7 – 100%	69.4 – 100%	59.5 – 100%
Exhaust pipe length (min. & max.)	0.5 – 10m	0.5 – 10m	0.5 – 10m
Fan speed	2500 RPM (default) 1500 – 4750 RPM (at 250 RPM intervals)		
Pipe diameter	internal 21mm external 25mm		
Maximum length of capillaries	2m		
Diameter of sampling holes on standard pipes	0; 2; 2.5; 3.0; 3.5; 4.0; 4.5; 5.0; 5.5; 6.0; 6.5; 7.0; 7.5; 8.0; 10.0 (mm)		
Diameter of sampling holes on capillaries	0; 2; 2.5; 3.0; 3.5; 4.0; 4.5; 5.0; 5.5; 6.0; 6.5; 7.0; 7.5; 8.0 (mm)		

Table A1

Detection class	A
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)

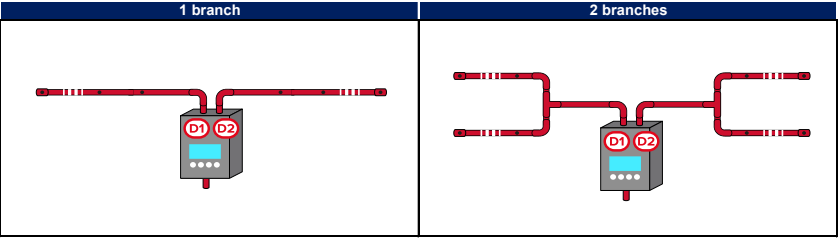


Number of branches	Length of branches (m)	parameters	Number of holes for each branch							
			1	2	3	4	5	6	7	8
1	60 ÷ 90	Ø	Ø 1: 10	Ø 1: 5 Ø 2: 10	Ø 1: 3.5 Ø 2: 4 Ø 3: 5.5	Ø 1: 3.5 Ø 2.3: 4 Ø 4: 6	Ø 1: 3.5 Ø 2: 4 Ø 3: 4.5 Ø 4: 5 Ø 5: 7.5	Ø 1: 3 Ø 2..3: 3.5 Ø 4..5: 4 Ø 6: 5.5	Ø 1: 3 Ø 2..3: 3.5 Ø 4..5: 4 Ø 6: 4.5 Ø 7: 5.5	
		S	2500	903	641	476	421	343	302	
		V	3000	3000	3500	3750	4000	4250	4500	
		F	23.6	30	31.8	37.4	44.6	50.1	53	
		B	100	60	57	53	62	58	69	
		T	57	59	64	62	60	56	61	
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 5.5 Ø 2: 10	Ø 1: 4 Ø 2: 4.5 Ø 3: 6	Ø 1.2: 4 Ø 3: 4.5 Ø 4: 6	Ø 1.3: 3.5 Ø 4: 4 Ø 5: 5	Ø 1.2: 3 Ø 3..5: 3.5 Ø 6: 4.5	Ø 1: 3 Ø 2..4: 3.5 Ø 5..6: 4 Ø 7: 4.5	Ø 1.2: 3 Ø 3..5: 3.5 Ø 6..8: 4
		S	2500	854	650	493	397	334	300	260
		V	2000	2000	2250	2250	2500	2500	2750	3250
		F	17.1	22.2	23.9	27.7	30.7	30.3	37.4	44.2
		B	100	68	66	63	59	60	75	83
		T	47	49	53	53	51	55	52	49
1	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: 3 Ø 4: 4	Ø 1..4: 3 Ø 5: 4	Ø 1..5: 3 Ø 6: 4	Ø 1..6: 3 Ø 7: 3.5	Ø 1..8: 2.5
		S	2500	976	685	510	412	344	311	296
		V	1500	1500	1500	1500	1500	1500	1500	2000
		F	7.2	9.6	12.8	12.6	14.8	16.9	18.2	20.4
		B	100	66	64	58	58	58	75	87
		T	56	56	50	56	52	50	55	56
2	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 4.5 Ø 2: 7	Ø 1..2: 4 Ø 3: 5.5	Ø 1: 3.5 Ø 2..3: 4 Ø 4: 4.5				
		S	1250	427	325	267				
		V	2000	2250	2500	2750				
		F	31.7	39.7	46.8	55.4				
		B	100	59	61	81				
		T	51	53	55	57				
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: 3.5 Ø 4: 4				
		S	1250	488	343	278				
		V	1500	1500	1500	1500				
		F	14.3	18.6	24.2	27.8				
		B	100	66	65	80				
		T	57	58	53	58				
4	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 3.5 Ø 2: 4						
		S	625	277						
		V	1750	2500						
		F	37.4	52.1						
		B	100	81						
		T	58	58						
4	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 3 Ø 2: 3.5						
		S	625	266						
		V	1500	1500						
		F	20.2	26.2						
		B	100	76						
		T	44	47						

Table A2

Detection class	A
Number of detectors	2
Anti-dust filter	No
Condensation trap	No

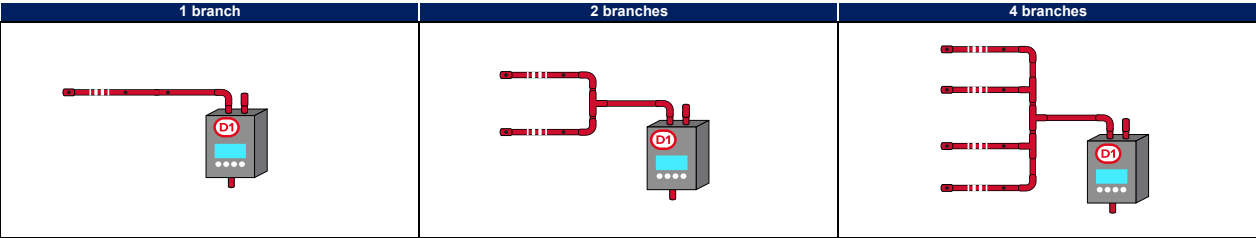
D1	detector 1 module
D2	detector 2 module
Øn	diameter of the hole "n" (mm)
S	detection sensitivity (10 ⁻⁵ dB/m)
V	aspiration speed (RPM)
F	expected airflow (l/min)
B	air aspiration balancing between the holes (%)
T	transit time of the smoke (s)



Number of branches	Length of branches (m)	parameters	Number of holes for each branch							
			1	2	3	4	5	6	7	8
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 4.5 Ø 2: 7	Ø 1,2: 4 Ø 3: 5.5	Ø 1: 3.5 Ø 2,3: 4 Ø 4: 5.5	Ø 1,2: 3 Ø 3,4: 3.5 Ø 5: 4.5	Ø 1,2: 3 Ø 3,5: 3.5 Ø 6: 4.5	Ø 1: 3 Ø 2,5: 3.5 Ø 6: 4 Ø 7: 4.5	Ø 1,2: 3 Ø 3,5: 3.5 Ø 6,8: 4
		S	2500	854	650	490	384	334	298	266
		V	2000	2250	2500	2500	2750	2750	3000	3250
		F	31.7	39.7	46.8	52	54.5	60.6	71.3	78.8
		B	100	59	61	60	56	60	69	81
		T	51	53	55	55	55	55	54	56
1	10 ÷ 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: 3 Ø 4: 4	Ø 1,4: 3 Ø 5: 4	Ø 1,4: 2.5 Ø 5: 3 Ø 6: 3.5	Ø 1,6: 2.5 Ø 7: 3	Ø 1,8: 2.5
		S	2500	964	684	512	414	334	322	298
		V	1500	1500	1500	1500	1500	1750	2000	2250
		F	14.6	18.9	24.7	24.4	28.1	30.8	36.2	43.5
		B	100	65	64	58	58	53	70	89
		T	49	50	46	51	49	45	46	47
2	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 3.5 Ø 2: 4.5	Ø 1,2: 3 Ø 3: 4	Ø 1,4: 2.5				
		S	1250	488	332	306				
		V	1750	2250	2500	3750				
		F	37.4	50.5	59.3	74.9				
		B	100	66	59	96				
		T	58	57	56	61				
2	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 2.5 Ø 2: 3.5	Ø 1,2: 2.5 Ø 3: 3	Ø 1,4: 2.5				
		S	1250	426	364	308				
		V	1500	1500	1750	2000				
		F	20.2	23.3	31.3	40.6				
		B	100	52	70	97				
		T	44	49	46	47				

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

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)

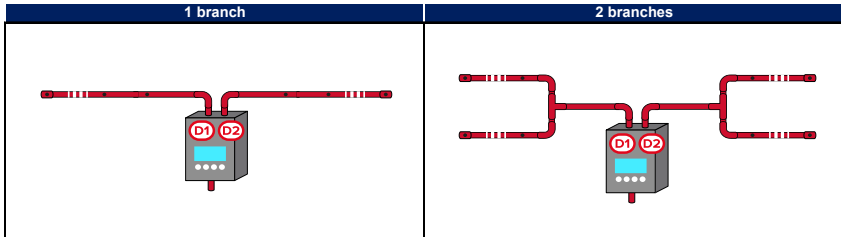


Number of branches	Length of branches (m)	parameters	Number of holes for each branch																		
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	60 ÷ 90	Ø	Ø 1: 10	Ø 1: 5.5 Ø 2: 10	Ø 1: 4.5 Ø 2: 5 Ø 3: 7	Ø 1: 4 Ø 2: 4.5 Ø 3: 5 Ø 4: 7	Ø 1: 3.5 Ø 2: 3: 4 Ø 4: 4.5 Ø 5: 5.5	Ø 1: 3 Ø 2.4: 3.5 Ø 5: 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	75			
		T	47	52	48	52	55	57	52	57	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	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															

Table B2

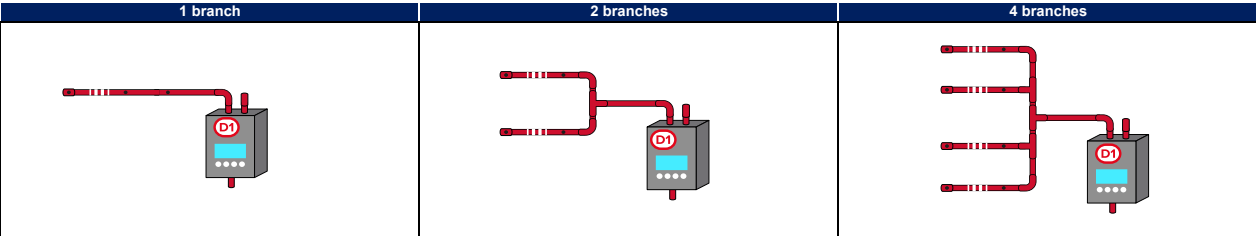
Detection class	B
Number of detectors	2
Anti-dust filter	No
Condensation trap	No

D1	detector 1 module
D2	detector 2 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)

[illegible]

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

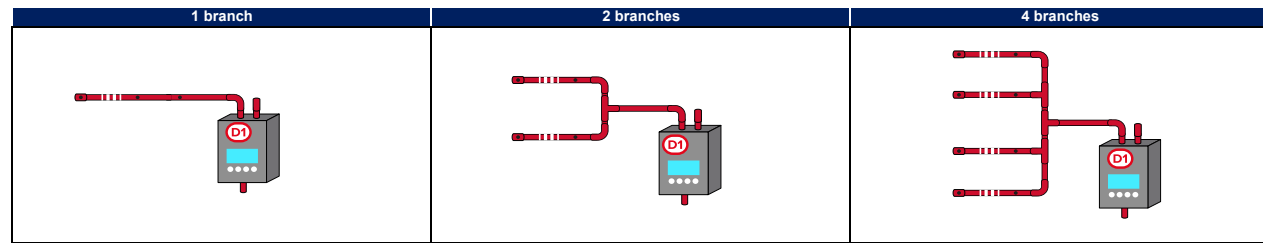
$\varnothing n$	diameter of the hole "n" (mm)
S	detection sensitivity (10^{-5} dB/m)
V	aspiration speed (RPM)
F	expected airflow (l/min)
B	air aspiration balancing between the holes (%)
T	transit time of the smoke (s)



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: 4.5 Ø 2: 10	Ø 1.2: 3.5 Ø 3: 5.5	Ø 1: 3.5 Ø 2: 4 Ø 3: 4.5 Ø 4: 7.5	Ø 1: 3 Ø 2: 3.5 Ø 3: 4.4 Ø 5: 6	Ø 1.3: 3 Ø 4.5: 3.5 Ø 6: 5	Ø 1: 2.5 Ø 2.5: 3 Ø 6: 3.5 Ø 7: 4.5	Ø 1: 2.5 Ø 2.3: 3 Ø 4.6: 3.5 Ø 7: 4 Ø 8: 5.5	Ø 1.4: 2.5 Ø 5.8: 3 Ø 9: 4	Ø 1.5: 2.5 Ø 6.9: 3 Ø 10: 4	Ø 1.4: 2.5 Ø 5.6: 3 Ø 7.9: 3.5 Ø 9: 10: 3.5 Ø 11: 4.5	Ø 1.4: 2.5 Ø 5.6: 3 Ø 7.9: 3.5 Ø 10: 11: 4 Ø 12: 5.5	Ø 1.4: 2.5 Ø 3.7: 2.5 Ø 7.8: 3.5 Ø 9: 4 Ø 8: 11: 3 Ø 12: 13: 3.5 Ø 11: 5 Ø 12: 6 Ø 13: 10	Ø 1.2: 2 Ø 3.7: 2.5 Ø 8: 11: 3 Ø 12: 13: 3.5 Ø 14: 4.5					
		S	20000	6228	4603	3880	3070	2502	2228	1997	1706	1505	1448	1322	1267	1089					
		V	3000	3000	3500	3500	3750	4000	4250	4000	4750	4500	4750	4750	4500	4500					
		F	23.6	28.9	30.4	35.9	40.3	40.8	46.1	45.3	50.8	50.1	56.8	59.7	65.5	55.0					
		B	100	48	47	51	52	48	50	51	50	50	53	56	53	51					
		T	57	58	65	61	61	66	63	67	64	67	61	55	67						
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 5.5 Ø 2: 10	Ø 1.2: 4 Ø 3: 6	Ø 1: 3.5 Ø 2.3: 4 Ø 4: 4.5 Ø 4: 6	Ø 1: 3.5 Ø 2.3: 4 Ø 4: 4.5 Ø 5: 6.5	Ø 1.2: 3 Ø 3.5: 3.5 Ø 6: 5	Ø 1.5: 3 Ø 6: 3.5 Ø 7: 4.5	Ø 1.3: 2.5 Ø 4.7: 3 Ø 8: 4	Ø 1.3: 2.5 Ø 4.8: 3 Ø 9: 4	Ø 1.4: 2.5 Ø 5.9: 3 Ø 10: 4	Ø 1.5: 2.5 Ø 6.10: 3 Ø 11: 4	Ø 1.11: 2.5 Ø 12: 3.5	Ø 1.7: 2.5 Ø 8.12: 3 Ø 13: 4	Ø 1: 2 Ø 2.10: 2.5 Ø 11.13: 3 Ø 14: 3.5	Ø 1: 2 Ø 2.8: 2.5 Ø 9.14: 3 Ø 15: 4	Ø 1.3: 2 Ø 4.12: 2.5 Ø 13.15: 3 Ø 16: 3.5	Ø 1.10: 2 Ø 11.16: 2.5 Ø 17: 3	Ø 1.11: 2 Ø 12.17: 2.5 Ø 18: 3	
		S	20000	6836	4814	3747	3139	2543	2182	1885	1705	1556	1408	1336	1177	1088	1010	947	891	840	
		V	2000	2000	2250	2250	2250	2500	2500	2750	2750	2750	2750	3000	3000	3000	3000	3000	3250	3250	
		F	17.1	22.2	23.1	25.9	30.4	31.1	31.4	31.7	34.5	35.7	36.7	39.3	44.1	43.3	44.2	44.4	42.9	44.1	
		B	100	68	53	52	55	51	50	50	52	52	51	52	50	56	53	56	51	51	
		T	47	49	54	52	50	50	54	55	54	55	55	55	49	53	52	52	53	53	
1	15 ÷ 30	Ø	Ø 1: 5	Ø 1: 3 Ø 2: 4.5	Ø 1.2: 3 Ø 3: 4.5	Ø 1.3: 3 Ø 4: 4	Ø 1.4: 3 Ø 5: 4	Ø 1: 2.5 Ø 2.5: 3 Ø 6: 4	Ø 1.6: 2.5 Ø 7: 3.5	Ø 1.7: 2.5 Ø 8: 3.5	Ø 1.8: 2.5 Ø 9: 3.5	Ø 1.9: 2.5 Ø 10: 3.5	Ø 1.10: 2.5 Ø 11: 3.5	Ø 1.11: 2.5 Ø 12: 3.5	Ø 1.7: 2 Ø 8.12: 2.5 Ø 13: 3	Ø 1.8: 2 Ø 9.13: 2.5 Ø 14: 3	Ø 1.8: 2 Ø 9.14: 2.5 Ø 15: 3	Ø 1.9: 2 Ø 10.15: 2.5 Ø 16: 3	Ø 1.10: 2 Ø 11.16: 2.5 Ø 17: 3	Ø 1.11: 2 Ø 12.17: 2.5 Ø 18: 3	
		S	20000	6395	4742	4084	3297	2376	2364	2072	1839	1648	1489	1355	1174	1096	1021	960	903	851	
		V	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	
		F	7.2	8.7	11.1	12.6	14.8	16.1	14.5	16.0	17.4	18.8	20.1	21.3	18.5	19.3	20.4	21.2	21.9	22.6	
		B	100	48	47	58	58	50	52	52	52	52	52	52	50	51	51	51	50	50	
		T	56	58	53	56	52	50	58	56	54	55	53	51	50	55	54	53	52	51	51
2	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 4 Ø 2: 6.5	Ø 1: 3.5 Ø 2: 4 Ø 3: 5.5	Ø 1.2: 3.5 Ø 3: 4 Ø 4: 5.5	Ø 1.3: 3.5 Ø 4: 4 Ø 5: 5.5	Ø 1.2: 3 Ø 3.5: 3.5 Ø 6: 4.5	Ø 1.5: 3 Ø 6: 3.5 Ø 7: 4.5	Ø 1.3: 2.5 Ø 4.7: 3 Ø 8: 4	Ø 1.3: 2.5 Ø 4.8: 3 Ø 9: 4	Ø 1.4: 2.5 Ø 5.9: 3 Ø 10: 4	Ø 1.5: 2.5 Ø 6.10: 3 Ø 11: 4	Ø 1.6: 2.5 Ø 7.11: 3 Ø 12: 4	Ø 1.7: 2.5 Ø 8.12: 3 Ø 13: 4	Ø 1.7: 2 Ø 8.13: 2.5 Ø 14: 3	Ø 1.8: 2 Ø 9.14: 2.5 Ø 15: 3	Ø 1.8: 2 Ø 9.15: 2.5 Ø 16: 3	Ø 1.10: 2 Ø 11.16: 2.5 Ø 17: 3	Ø 1.11: 2 Ø 12.17: 2.5 Ø 18: 3	
		S	10000	3135	2381	1856	1508	1305	1090	944	855	776	703	643	593	541	507	473	444	415	
		V	2000	2250	2500	2500	2500	2750	2750	3000	3000	3000	3250	3250	3250	3500	3500	3500	3500	3500	
		F	31.7	36.5	44.5	50.5	55.4	61.2	62.2	67.7	70.3	77.8	78.8	80.9	76.9	80.4	81.2	83.1	86.2		
		B	100	51	55	53	52	51	50	50	53	52	51	51	50	50	51	51	51	51	
		T	51	56	54	54	55	56	55	55	55	55	51	53	53	55	55	56	56	55	
2	15 ÷ 30	Ø	Ø 1: 5	Ø 1: 3 Ø 2: 4.5	Ø 1.2: 3 Ø 3: 4.5	Ø 1.3: 3 Ø 4: 4	Ø 1.4: 3 Ø 5: 4	Ø 1: 2.5 Ø 2.5: 3 Ø 6: 4	Ø 1.6: 2.5 Ø 7: 3.5	Ø 1.6: 2 Ø 7: 2.5 Ø 8: 3	Ø 1.7: 2 Ø 8: 2.5 Ø 9: 3	Ø 1.8: 2 Ø 9: 2.5 Ø 10: 3	Ø 1.5: 2 Ø 6.10: 2.5 Ø 11: 3	Ø 1.11: 2 Ø 12: 2.5	Ø 1.12: 2 Ø 13: 2.5	Ø 1.13: 2 Ø 14: 2.5	Ø 1.14: 2 Ø 15: 2.5	Ø 1.16: 2	Ø 1.17: 2	Ø 1.18: 2	
		S	10000	3200	2372	2039	1643	1198	1189	991	873	794	677	752	692	641	595	582	552	521	
		V	1500	1500	1500	1500	1500	1500	1750	1750	1750	1750	1750	2000	2000	2000	2000	2250	2750	3000	
		F	14.3	17.0	21.4	23.9	27.6	29.7	32.2	27.0	29.7	31.7	36.6	38.2	40.3	42.4	44.3	51.4	65.6	73.4	
		B	100	49	47	59	58	51	52	46	45	45	50	64	64	64	64	83	85	83	
		T	57	59	55	59	56	54	52	60	58	57	53	58	56	55	54	56	45	41	
4	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 3 Ø 2: 4.5	Ø 1.2: 3 Ø 3: 4	Ø 1.3: 2.5 Ø 4: 3.5	Ø 1.3: 2 Ø 4: 2.5 Ø 5: 3	Ø 1.4: 2 Ø 5: 2.5 Ø 6: 3	Ø 1.5: 2 Ø 6: 2.5 Ø 7: 3	Ø 1.7: 2 Ø 8: 2.5	Ø 1.9: 2										
		S	5000	1599	1326	995	735	636	559	568	539										
		V	1750	2250	2500	2750	3000	3000	3250	3500	4000										
		F	37.4	46.9	59.3	62.5	62.8	69.2	81.5	87.2	103.6										
		B	100	48	59	52	46	46	45	64	93										
		T	58	57	56	57	59	57	50	57	60										
4	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 2.5 Ø 2: 3.5	Ø 1.2: 2.5 Ø 3: 3.5	Ø 1.3: 2 Ø 4: 2.5	Ø 1.4: 2 Ø 5: 2.5	Ø 1.5: 2 Ø 6: 2.5	Ø 1.7: 2	Ø 1.8: 2											
		S	5000	1702	1264	1091	891	751	703	617											
		V	1500	1500	1500	2000	2000	1750	2250	3000											
		F	20.2	23.3	29.7	31.4	37.1	36.8	50.0	73.6											
		B	100	52	52	64	64	64	96	96											
		T	44	49	44	50	47	50	47	34											

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

Ø_n	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)

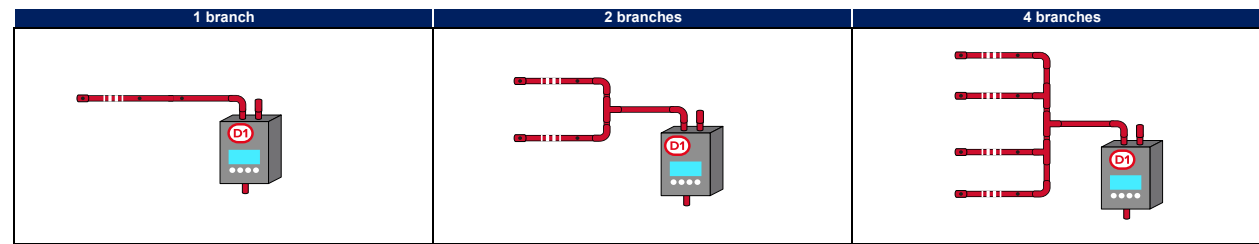


Number of branches	Length of branches (m)	parameters	Number of holes for each branch																		
			19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
1	60 ÷ 90	Ø	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 19: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 20: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 21: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 22: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 23: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 24: 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		S	791	759	693	651	613	575	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		V	4250	4250	4500	4500	4500	4750	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		F	60.6	61.7	65.6	66.5	67.4	72.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		B	45	47	47	47	47	45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
T	85	84	82	83	84	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
1	30 ÷ 60	Ø	Ø 1..12: 2 Ø 13..18: 2.5 Ø 19: 3	Ø 1..13: 2 Ø 14..19: 2.5 Ø 20: 3	Ø 1..14: 2 Ø 15..20: 2.5 Ø 21: 3	Ø 1..15: 2 Ø 16..21: 2.5 Ø 22: 3	Ø 1..16: 2 Ø 17..22: 2.5 Ø 23: 3	Ø 1..17: 2 Ø 18..23: 2.5 Ø 24: 3	Ø 1..18: 2 Ø 19..24: 2.5 Ø 25: 3	Ø 1..9: 2 Ø 10..17: 2.5 Ø 18..25: 3 Ø 26: 4	Ø 1..26: 2 Ø 27: 2.5	Ø 1..28: 2	Ø 1..28: 2 Ø 29: 2.5	Ø1 + 30: 2	Ø1 + 31: 2	Ø 1..32: 2	N/A	N/A	N/A	N/A	
		S	789	746	702	667	634	599	570	589	592	589	522	489	477	496	N/A	N/A	N/A	N/A	N/A
		V	3250	3250	3250	3250	3250	3250	3250	3500	4000	4500	3750	4250	4250	4750	N/A	N/A	N/A	N/A	N/A
		F	44.8	45.9	48.9	47.6	48.6	49.2	50.1	57.6	66.8	77.1	60.2	75.7	77.3	87.4	N/A	N/A	N/A	N/A	N/A
		B	50	50	50	50	50	50	50	56	59	60	50	45	45	55	N/A	N/A	N/A	N/A	N/A
T	53	53	51	54	54	54	54	50	48	49	49	57	84	83	46	N/A	N/A	N/A	N/A	N/A	
1	15 ÷ 30	Ø	Ø 1..12: 2 Ø 13..18: 2.5 Ø 19: 3	Ø 1..13: 2 Ø 14..19: 2.5 Ø 20: 3	Ø 1..14: 2 Ø 15..20: 2.5 Ø 21: 3	Ø 1..15: 2 Ø 16..21: 2.5 Ø 22: 3	Ø 1..16: 2 Ø 17..22: 2.5 Ø 23: 3	Ø 1..17: 2 Ø 18..23: 2.5 Ø 24: 3	Ø 1..17: 2 Ø 18..24: 2.5 Ø 25: 3	Ø 1..18: 2 Ø 19..25: 2.5 Ø 26: 3	Ø 1..19: 2 Ø 20..26: 2.5 Ø 27: 3	Ø 1..20: 2 Ø 21..27: 2.5 Ø 28: 3	Ø 1..21: 2 Ø 22..28: 2.5 Ø 29: 3	Ø 1..22: 2 Ø 23..29: 2.5 Ø 30: 3	Ø 1..30: 2 Ø 31: 2.5	Ø 1..31: 2 Ø 32: 2.5	Ø 1..32: 2 Ø 33: 2.5	Ø 1..33: 2 Ø 34: 2.5	Ø 1..35: 2	Ø 1..36: 2	
		S	804	762	722	686	653	622	596	569	544	520	498	477	513	492	473	453	456	439	
		V	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1750	1750	1750	1750	2000	2000
		F	23.3	23.9	24.5	25.1	25.7	26.3	27.0	27.6	28.1	28.5	29.0	29.5	33.7	34.3	34.9	35.0	40.2	40.7	
		B	50	50	50	50	50	50	51	51	51	51	51	51	60	58	57	55	56	55	
T	50	50	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	50	51	51	
2	30 ÷ 60	Ø	Ø 1..12: 2 Ø 13..18: 2.5 Ø 19: 3	Ø 1..12: 2 Ø 13..19: 2.5 Ø 20: 3	Ø 1..12: 2 Ø 13..20: 2.5 Ø 21: 3	Ø 1..11: 2 Ø 12..21: 2.5 Ø 22: 3															
		S	391	370	355	342															
		V	3750	4000	3750	4000															
		F	92.1	100.5	95.4	103.4															
		B	50	51	54	57															
T	53	52	55	53																	
2	15 ÷ 30	Ø	Ø 1..19: 2	Ø 1..20: 2																	
		S	493	468																	
		V	3500	4250																	
		F	88.1	109.7																	
		B	82	81																	
T	34	28																			

Table C1, holes from 37 to 44

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

D1	detector 1 module
$\varnothing_n$	diameter of the hole "n" (mm)
S	detection sensitivity (10^{-6} 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)



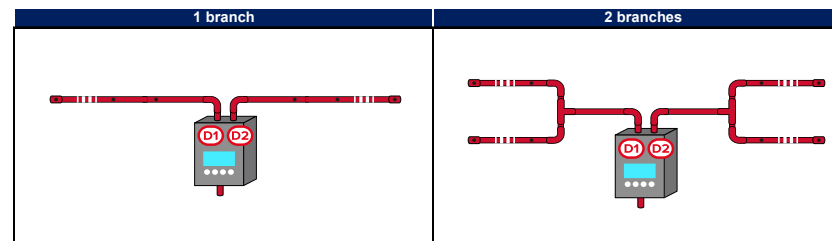
Number of branches	Length of branches (m)	parameters	Number of holes for each branch							
			37	38	39	40	41	42	43	44
1	60 ÷ 90	Ø								
		S								
		V								
		F								
		B								
1	30 ÷ 60	T								
		Ø								
		S								
		V								
		F								
1	15 ÷ 30	B								
		T								
		Ø	Ø 1..37: 2	Ø 1..38: 2	Ø 1..39: 2	Ø 1..39: 2 Ø 40: 2.5	Ø 1..40: 2 Ø 41: 2.5	Ø 1..42: 2	Ø 1..42: 2 Ø 43: 2.5	Ø 1..21: 2 Ø 22..44: 2.5
		S	429	416	414	388	377	375	358	348
		V	2250	2250	2750	3250	3500	4000	4500	4250
1	15 ÷ 30	F	46.3	48.4	61.1	69.6	75.9	87.9	100.5	98.6
		B	54	55	57	52	51	52	51	52
		T	45	44	34	26	24	25	19	21

Table C2, holes from 1 to 18

Detection class	C
Number of detectors	2
Anti-dust filter	No
Condensation trap	No

D1	detector 1 module
D2	detector 2 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)



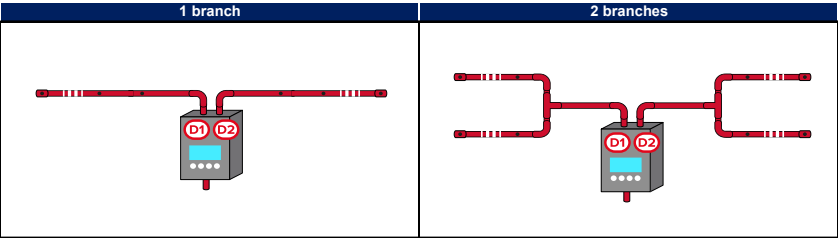
Number of branches	Length of branches (m)	parameters	Number of holes for each branch																		
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 4 Ø 2: 6.5	Ø 1: 3.5 Ø 2: 4 Ø 3: 5.5	Ø 1.2: 3.5 Ø 3: 4 Ø 4: 5.5	Ø 1.3: 3.5 Ø 4: 4 Ø 5: 5.5	Ø 1.2: 3 Ø 3.5: 3.5 Ø 6: 4.5	Ø 1.5: 3 Ø 6: 3.5 Ø 7: 4.5	Ø 1.3: 2.5 Ø 4.7: 3 Ø 8: 4	Ø 1.3: 2.5 Ø 4.8: 3 Ø 9: 4	Ø 1.4: 2.5 Ø 5.9: 3 Ø 10: 4	Ø 1.5: 2.5 Ø 6.10: 3 Ø 11: 4	Ø 1.6: 2.5 Ø 7.11: 3 Ø 12: 4	Ø 1.7: 2.5 Ø 8.12: 3 Ø 13: 4	Ø 1.7: 2 Ø 8.13: 2.5 Ø 14: 3	Ø 1.8: 2 Ø 9.14: 2.5 Ø 15: 3	Ø 1.8: 2 Ø 9.15: 2.5 Ø 16: 3	Ø 1.10: 2 Ø 11.16: 2.5 Ø 17: 3	Ø 1.10: 2 Ø 11.17: 2.5 Ø 18: 3	
		S	20000	6270	4762	3712	3016	2610	2180	1888	1710	1552	1406	1286	1186	1082	1014	946	888	830	
		V	2000	2250	2500	2500	2500	2750	2750	3000	3000	3000	3250	3250	3250	3500	3500	3500	3500	3500	
		F	31.7	36.5	44.5	50.5	55.4	61.2	62.2	63.2	67.7	70.3	77.8	78.8	80.9	76.9	80.4	81.2	83.1	86.2	
		B	100	51	55	53	52	51	50	50	53	52	51	51	50	50	51	51	51	51	
		T	51	56	54	54	55	56	55	55	55	55	55	51	53	53	55	55	56	56	55
		1	10 ÷ 30	Ø	Ø 1: 5	Ø 1: 3 Ø 2: 4.5	Ø 1.2: 3 Ø 3: 4.5	Ø 1.3: 3 Ø 4: 4	Ø 1.4: 3 Ø 5: 4	Ø 1.5: 2.5 Ø 6: 3.5	Ø 1.6: 2.5 Ø 7: 3.5	Ø 1.2: 2 Ø 3.7: 2.5 Ø 8: 3	Ø 1.3: 2 Ø 4.8: 2.5 Ø 9: 3	Ø 1.4: 2 Ø 5.9: 2.5 Ø 10: 3	Ø 1.10: 2 Ø 11: 2.5	Ø 1.11: 2 Ø 12: 2.5	Ø 1.12: 2 Ø 13: 2.5	Ø 1.13: 2 Ø 14: 2.5	Ø 1.14: 2 Ø 15: 2.5	Ø 1.16: 2	Ø 1.17: 2
S	20000			6314	4730	4092	3306	2770	2394	1718	1574	1450	1654	1514	1396	1292	1202	1174	1114	1050	
V	1500			1500	1500	1500	1500	1750	1750	1750	1750	1750	2000	2000	2000	2000	2000	2250	2750	3000	
F	14.6			17.3	21.8	24.4	28.1	29.5	32.7	31.9	33.7	35.5	36.3	38.6	40.8	42.9	44.8	51.9	66.3	74.2	
B	100			48	47	58	58	52	52	50	50	50	64	64	64	64	64	85	86	85	
T	49			52	47	51	49	47	46	51	49	47	52	50	49	48	47	49	39	36	
2	20 ÷ 40			Ø	Ø 1: 6	Ø 1: 3 Ø 2: 4.5	Ø 1.2: 3 Ø 3: 4	Ø 1.3: 2.5 Ø 4: 3.5	Ø 1.3: 2 Ø 4: 2.5 Ø 5: 3	Ø 1.4: 2 Ø 5: 2.5 Ø 6: 3	Ø 1.5: 2 Ø 6: 2.5 Ø 7: 3	Ø 1.7: 2 Ø 8: 2.5	Ø 1.9: 2								
		S	10000	3198	2652	1990	1470	1272	1118	1136	1078										
		V	1750	2250	2500	2750	3000	3000	3250	3500	4000										
		F	37.4	46.9	59.3	62.5	62.8	69.2	81.5	87.2	103.6										
		B	100	48	59	52	46	46	45	64	93										
		T	58	57	56	57	59	57	50	57	60										
2	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 2.5 Ø 2: 3.5	Ø 1.2: 2.5 Ø 3: 3.5	Ø 1.3: 2 Ø 4: 2.5	Ø 1.4: 2 Ø 5: 2.5	Ø 1.5: 2 Ø 6: 2.5	Ø 1.7: 2	Ø 1.8: 2											
		S	10000	3404	2528	2182	1782	1502	1406	1234											
		V	1500	1500	1500	2000	2000	1750	2250	3000											
		F	20.2	23.3	29.7	31.4	37.1	36.8	50.0	73.6											
		B	100	52	52	64	64	64	96	96											
		T	44	49	44	50	47	50	47	34											

Table C2, holes from 19 to 26

Detection class	C
Number of detectors	2
Anti-dust filter	No
Condensation trap	No

D1	detector 1 module
D2	detector 2 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)



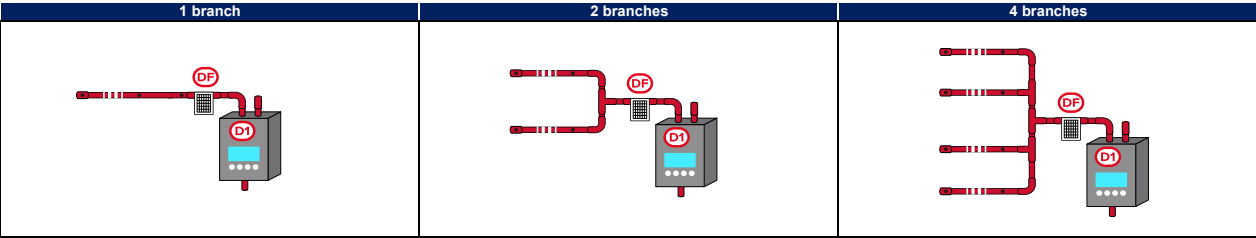
Number of branches	Length of branches (m)	parameters	Number of holes for each branch							
			19	20	21	22	23	24	25	26
1	30 ÷ 60	Ø	Ø 1..12: 2 Ø 13..18: 2.5 Ø 19: 3	Ø 1..13: 2 Ø 14..19: 2.5 Ø 20: 3	Ø 1..14: 2 Ø 15..20: 2.5 Ø 21: 3	Ø 1..15: 2 Ø 16..21: 2.5 Ø 22: 3	Ø 1..22: 2 Ø 23: 2.5	Ø 1..23: 2 Ø 24: 2.5	Ø 1..24: 2 Ø 25: 2.5	Ø 1..25: 2 Ø 26: 2.5
		S	782	740	696	662	710	670	638	610
		V	3750	3750	3750	4000	4250	4250	4250	4750
		F	92.1	93.7	94.9	102.6	107.1	108.6	110.3	125.3
		B	50	50	50	50	60	58	56	55
		T	53	55	55	51	56	56	57	51
1	10 ÷ 30	Ø	Ø 1..19: 2	Ø 1..20: 2						
		S	996	942						
		V	3750	4250						
		F	95.3	111.0						
		B	84	83						
		T	28	25						

Table A1_DF

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

D1	detector 1 module
DF	filter for dust

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)

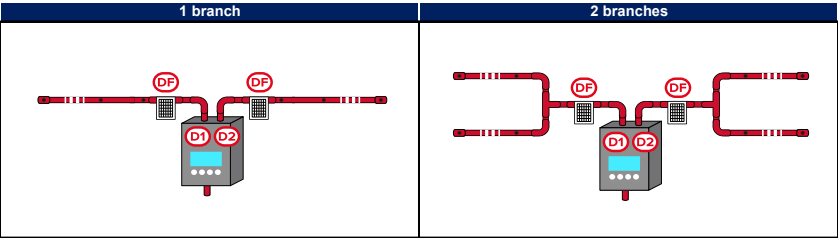


Number of branches	Length of branches (m)	parameters	Number of holes for each branch							
			1	2	3	4	5	6	7	8
1	60 ÷ 90	Ø	Ø 1: 10	Ø 1: 4.5 Ø 2: 7.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 7	Ø 1..2: 4 Ø 3: 4.5 Ø 4: 7	Ø 1..2: 3.5 Ø 3: 4 Ø 4: 4.5 Ø 5: 6	Ø 1: 3 Ø 2: 3.5 Ø 3..4: 4 Ø 5: 4.5 Ø 6: 6	Ø 1: 3 Ø 2..3: 3.5 Ø 4..5: 4 Ø 6: 4.5 Ø 7: 5.5	
		S	2500	856	641	479	381	352	302	
		V	3000	3250	3750	3750	4250	4250	4750	
		F	22.8	28.8	34.1	38.2	43.7	46	53.5	
		B	100	58	57	55	58	62	69	
		T	59	60	60	62	61	62	60	
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 4.5 Ø 2: 6.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 6.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 5.5 Ø 4: 8	Ø 1..2: 3 Ø 3..4: 3.5 Ø 5: 4.5	Ø 1..2: 3 Ø 3..5: 3.5 Ø 6: 4.5	Ø 1..3: 3 Ø 4..6: 3.5 Ø 7: 4	Ø 1..2: 3 Ø 3..5: 3.5 Ø 6..8: 4
		S	2500	915	623	491	382	331	295	264
		V	2000	2250	2250	2250	2750	2750	3000	3250
		F	16.4	19.9	23.4	28.5	28.5	30.7	35.5	43.4
		B	100	64	61	64	55	61	71	82
		T	49	54	53	50	53	55	54	50
1	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: 3 Ø 4: 4	Ø 1..4: 3 Ø 5: 4	Ø 1..5: 3 Ø 6: 4	Ø 1..3: 3 Ø 4..6: 3.5 Ø 7: 4	Ø 1..8: 2.5
		S	2500	976	685	510	411	342	295	296
		V	1500	1500	1500	1500	1500	1500	1500	2000
		F	7.2	9.4	12.4	12.2	14.3	16.1	18.9	19.7
		B	100	66	65	58	58	58	70	87
		T	56	57	52	58	55	53	50	58
2	30 ÷ 60	Ø	Ø 1: 7.5	Ø 1: 4 Ø 2: 6	Ø 1: 4 Ø 2: 4.5 Ø 3: 6	Ø 1: 4 Ø 2: 4.5 Ø 3: 5 Ø 4: 5.5				
		S	1250	427	327	270				
		V	2250	2500	2750	3000				
		F	29.3	36.1	48.2	59.2				
		B	100	56	66	89				
		T	55	58	53	55				
2	15 ÷ 30	Ø	Ø 1: 5	Ø 1: 3.5 Ø 2: 5	Ø 1..2: 3.5 Ø 3: 4.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 5 Ø 4: 5.5				
		S	1250	433	343	270				
		V	1500	1500	1500	1500				
		F	13.8	19	22.1	29.9				
		B	100	55	65	89				
		T	59	54	59	54				
4	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 4.5 Ø 2: 5.5						
		S	625	268						
		V	2000	2500						
		F	37.2	55.9						
		B	100	80						
		T	58	54						
4	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 3.5 Ø 2: 4						
		S	625	274						
		V	1500	1500						
		F	19	28.1						
		B	100	80						
		T	47	45						

Table A2_DF

Detection class	A
Number of detectors	2
Anti-dust filter	Yes
Condensation trap	No

D1	detector 1 module
D2	detector 2 module
DF	filter for dust
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)

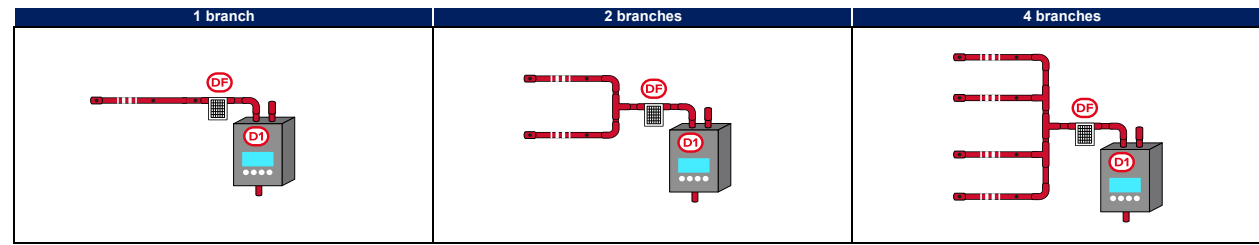


Number of branches	Length of branches (m)	parameters	Number of holes for each branch							
			1	2	3	4	5	6	7	8
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 4.5 Ø 2: 7	Ø 1: 4 Ø 2: 4.5 Ø 3: 6	Ø 1..3: 3.5 Ø 4: 5	Ø 1..3: 3.5 Ø 4: 4 Ø 5: 5	Ø 1: 3 Ø 2..4: 3.5 Ø 5: 4 Ø 6: 5	Ø 1..2: 3 Ø 3..6: 3.5 Ø 7: 4	Ø 1..2: 3 Ø 3..5: 3.5 Ø 6..8: 4
		S	2500	860	654	478	398	332	300	266
		V	2000	2250	2500	2750	2750	2750	3250	3500
		F	30.6	38.3	47.7	51.6	58.2	60.9	71.2	81.1
		B	100	60	66	53	59	58	78	80
		T	53	55	54	54	54	54	56	54
1	10 ÷ 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: 3.5 Ø 4: 4.5	Ø 1..4: 3 Ø 5: 4	Ø 1..5: 3 Ø 6: 4	Ø 1..6: 2.5 Ø 7: 3	Ø 1..8: 2.5
		S	2500	964	684	518	412	344	322	298
		V	1500	1500	1500	1500	1500	1500	2000	2250
		F	14.4	18.6	24.1	28.5	27.2	30.2	35.1	42.1
		B	100	66	64	64	58	58	70	89
		T	50	51	47	46	51	50	47	48
2	20 ÷ 40	Ø	Ø 1: 5.5	Ø 1: 3.5 Ø 2: 4.5	Ø 1..2: 3 Ø 3: 4	Ø 1..4: 3				
		S	1250	490	332	302				
		V	2000	2250	2500	3250				
		F	38.4	48.2	56.4	78.2				
		B	100	66	59	92				
		T	56	60	59	59				
2	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 2.5 Ø 2: 3.5	Ø 1..2: 2.5 Ø 3: 3	Ø 1..4: 2.5				
		S	1250	426	364	308				
		V	1500	1500	1750	2000				
		F	19.9	22.8	30.4	39.2				
		B	100	53	70	97				
		T	45	50	48	48				

Table B1_DF

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

D1	detector 1 module
DF	filter for dust
$\varnothing_n$	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)

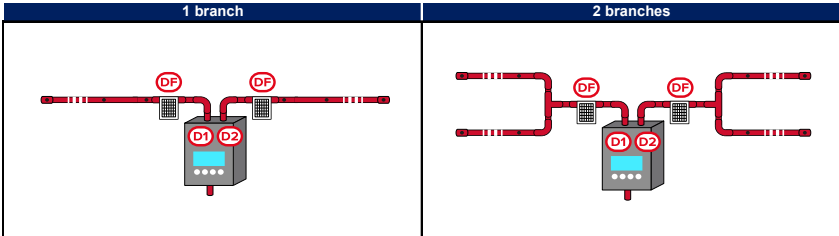


Number of branches	Length of branches (m)	parameters	Number of holes for each branch																		
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	60 ÷ 90	Ø	Ø 1: 10	Ø 1: 5 Ø 2: 7.5	Ø 1: 4.5 Ø 2: 5.5 Ø 3: 8	Ø 1: 4 Ø 2: 4.5 Ø 3: 5 Ø 4: 7	Ø 1: 3 Ø 2.4: 3.5 Ø 5: 4.5	Ø 1: 3 Ø 2.3: 3.5 Ø 2.4: 3.5 Ø 4.5: 4 Ø 6: 5	Ø 1: 3 Ø 2.3: 3.5 Ø 4: 4 Ø 4.5: 4 Ø 5: 4.5 Ø 6: 4.5 Ø 7: 5.5	Ø 1: 3 Ø 2.3: 3.5 Ø 4: 4 Ø 4.5: 4 Ø 5: 4.5 Ø 6: 5.5 Ø 7: 7 Ø 8: 10	Ø 1.2: 2.5 Ø 3: 6: 3 Ø 7..8: 3.5 Ø 9: 4										
		S	6000	2435	1643	1264	1012	850	725	693	552										
		V	3000	3250	3750	4000	4500	4500	4750	4750	4750										
		F	22.8	30.0	36.5	43.8	41.7	50.3	53.5	62.8	51.0										
		B	100	72	76	68	64	69	69	82	66										
		T	59	61	61	59	66	59	60	55	68										
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 5 Ø 2: 6.5	Ø 1: 5 Ø 2: 6.5 Ø 3: 10	Ø 1: 4 Ø 2.3: 4.5 Ø 4: 5.5	Ø 1.4: 3.5 Ø 5: 4.5	Ø 1.2: 3.5 Ø 3.4: 4 Ø 5: 4.5 Ø 6: 5	Ø 1.4: 3 Ø 5.6: 3.5 Ø 7: 4	Ø 1.4: 3 Ø 5.7: 3.5 Ø 8: 4	Ø 1.2: 2.5 Ø 3.8: 3 Ø 9: 3.5	Ø 1.2: 2.5 Ø 3.8: 3 Ø 9..10: 3.5	Ø 1..10: 2.5 Ø 11: 3	Ø 1.4: 2.5 Ø 5.11: 3 Ø 12: 3.5	Ø 1.4: 2.5 Ø 5.9: 3 Ø 10..13: 3.5	Ø 1.4: 2.5 Ø 5.8: 3 Ø 9..14: 3.5	Ø 1.2: 2 Ø 3.10: 2.5 Ø 11..15: 3	Ø 1.15: 2 Ø 16: 2.5	Ø 1..17: 2		
		S	6000	2503	1614	1302	978	848	699	619	541	487	468	414	372	350	304	328	321		
		V	2000	2250	2250	2500	2750	2750	3000	3250	3250	3250	3500	3250	3500	3750	3500	3750	4750		
		F	16.4	20.9	28.9	30.1	30.9	34.6	31.6	37.6	38.5	40.4	41.5	44.0	47.7	53.0	46.1	42.3	54.8		
		B	100	80	82	76	64	78	65	70	69	76	70	73	75	75	69	64	75		
		T	49	54	48	53	54	53	59	54	55	55	56	54	53	53	56	59	56		
1	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: 3.5 Ø 4: 4	Ø 1.2: 3 Ø 3..4: 3.5 Ø 5: 4	Ø 1..2: 3 Ø 3.5: 3.5 Ø 6: 4	Ø 1.3: 3 Ø 4.6: 3.5 Ø 7: 4	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: 2.5 Ø 3.9: 3 Ø 10: 3.5	Ø 1..3: 2.5 Ø 4..10: 3 Ø 11: 3.5	Ø 1.4: 2.5 Ø 5..11: 3 Ø 12: 3.5	Ø 1.5: 2.5 Ø 6..12: 3 Ø 13: 3.5	Ø 1.6: 2.5 Ø 7..13: 3 Ø 14: 3.5	Ø 1.6: 2.5 Ø 7..14: 3 Ø 15: 3.5	Ø 1.7: 2.5 Ø 8..15: 3 Ø 16: 3.5	Ø 1..17: 2	Ø 1..18: 2	
		S	6000	2343	1644	1338	967	820	708	589	531	486	444	409	377	350	327	306	328	305	
		V	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1750	1750	2250	2000
		F	7.2	9.4	12.4	14.4	15.4	17.6	18.9	18.2	19.0	20.3	21.0	21.7	22.4	23.0	28.6	29.3	28.4	25.9	
		B	100	66	65	80	66	71	70	70	69	73	72	71	71	70	70	70	83	79	
		T	56	57	52	56	53	51	50	57	55	55	54	54	54	54	44	44	52	59	
2	30 ÷ 60	Ø	Ø 1: 7.5	Ø 1: 5 Ø 2: 7	Ø 1..2: 4.5 Ø 3: 6	Ø 1: 3.5 Ø 2: 3: 4 Ø 4: 5	Ø 1..3: 3.5 Ø 5: 4.5	Ø 1..3: 3 Ø 4.5: 3.5 Ø 6: 4	Ø 1.3: 3 Ø 4.6: 3.5 Ø 7: 4	Ø 1..2: 3 Ø 3.6: 3.5 Ø 7: 4 Ø 8: 4.5	Ø 1.8: 2.5 Ø 9: 3										
		S	3000	1182	803	614	499	410	356	313	294										
		V	2250	2500	2750	3000	3250	3250	3500	3500	4000										
		F	29.3	41.4	49.7	54.2	61.6	60.0	67.4	72.3	71.2										
		B	100	74	68	70	70	67	71	69	70										
		T	55	53	55	55	54	58	57	55	59										
2	15 ÷ 30	Ø	Ø 1: 5	Ø 1: 4 Ø 2: 5	Ø 1..2: 3.5 Ø 3: 4.5	Ø 1.3: 3.5 Ø 4: 4.5	Ø 1.2: 3 Ø 3..4: 3.5 Ø 5: 4	Ø 1..2: 3 Ø 3.5: 3.5 Ø 6: 4	Ø 1.3: 3 Ø 4.6: 3.5 Ø 7: 4	Ø 1..4: 3 Ø 5..7: 3.5 Ø 8: 4 Ø 9: 3											
		S	3000	1229	822	617	484	412	356	311	294										
		V	1500	1500	1500	1500	1750	1750	1750	1750	2000										
		F	13.8	20.4	22.1	25.4	30.8	33.6	35.2	36.5	36.7										
		B	100	73	65	64	66	71	71	70	70										
		T	59	54	59	59	53	54	54	55	57										
4	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 3.5 Ø 2: 4.5 Ø 3: 4.5	Ø 1: 3.5 Ø 2: 3: 3.5 Ø 4: 4																
		S	1500	587	410	296															
		V	2000	2500	2750	3000															
		F	37.2	48.1	62.3	69.2															
		B	100	66	73	69															
		T	58	60	57	58															
4	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 3.5 Ø 2: 4	Ø 1..2: 3 Ø 3: 3.5	Ø 1.3: 2.5 Ø 4: 3															
		S	1500	657	445	334															
		V	1500	1500	1500	1750															
		F	19.0	28.1	29.4	33.0															
		B	100	80	75	70															
		T	47	45	51	50															

Table B2 DF

Detection class	B
Number of detectors	2
Anti-dust filter	Yes
Condensation trap	No

D1	detector 1 module
D2	detector 2 module
DF	filter for dust
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)

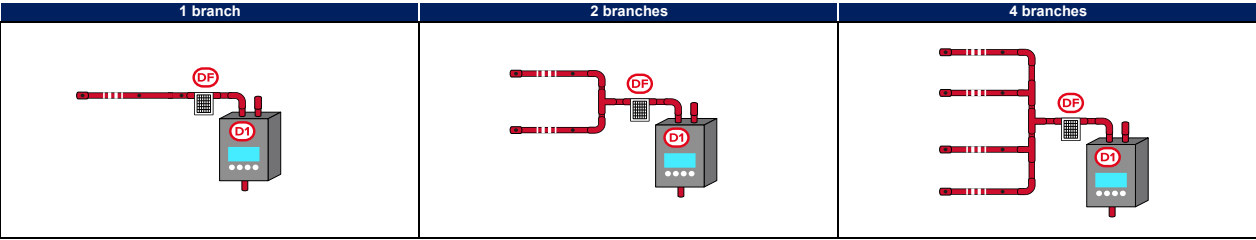


Number of branches	Length of branches (m)	parameters	Number of holes for each branch																		
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 4.5 Ø 2: 6	Ø 1.2: 4.5 Ø 3: 6	Ø 1.2: 4 Ø 3: 4.5 Ø 4: 5 Ø 4: 5	Ø 1.2: 4 Ø 3: 4.5 Ø 4: 5 Ø 5: 6	Ø 1.3: 3 Ø 4.5: 3.5 Ø 6: 4	Ø 1.4: 3 Ø 5.6: 3.5 Ø 7: 4	Ø 1.4: 3 Ø 5.7: 3.5 Ø 8: 4	Ø 1.3: 3 Ø 4.6: 3.5 Ø 7.8: 4 Ø 9: 4.5	Ø 1.9: 2.5 Ø 10: 3	Ø 1.10: 2.5 Ø 11: 3	Ø 1.11: 2.5 Ø 12: 3	Ø 1.5: 2.5 Ø 6.12: 3 Ø 13: 3.5	Ø 1.6: 2.5 Ø 7.13: 3 Ø 14: 3.5	Ø 1.14: 2 Ø 15: 2.5	Ø 1.15: 2 Ø 16: 2.5	Ø 1.6: 2 Ø 7.17: 2.5		
		S	6000	2368	1606	1302	1004	816	698	620	536	522	470	422	370	344	354	330	276		
		V	2000	2500	2500	2750	2750	3000	3000	3250	3250	3750	3750	3750	3750	3750	3750	4250	4250	4500	
		F	30.6	40.9	49.6	57.8	62.6	61.3	63.1	73.5	77.3	76.3	80.0	82.3	89.2	91.1	85.2	88.2	103.6		
		B	100	71	68	81	78	66	65	70	75	70	69	71	68	64	64	64	68		
		T	53	54	55	56	55	57	59	55	55	58	58	59	55	56	57	57	55		
1	10 ÷ 30	Ø	Ø 1: 5	Ø 1: 3.5 Ø 2: 4.5	Ø 1.2: 3.5 Ø 3: 4.5	Ø 1.2: 3.5 Ø 3: 4 Ø 4: 4.5	Ø 1: 3 Ø 2.4: 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	Ø 1.9: 2.5 Ø 10: 3	Ø 1.10: 2 Ø 11: 2.5	Ø 1.11: 2 Ø 12: 2.5	Ø 1.12: 2 Ø 13: 2.5	Ø 1.13: 2 Ø 14: 2.5	Ø 1.14: 2 Ø 15: 2.5	Ø 1.15: 2 Ø 16: 2.5	Ø 1.17: 2	Ø 1.18: 2	
		S	6000	2316	1644	1236	942	890	774	676	598	536	498	454	418	386	360	336	328	310	
		V	1500	1500	1500	1500	1500	1750	2000	2000	2000	2000	2250	2000	2000	2000	2000	2000	2250	2500	
		F	14.4	18.6	24.1	29.5	30.1	34.7	35.1	38.3	41.2	43.8	39.9	37.3	39.3	41.1	42.8	44.4	51.3	59.2	
		B	100	66	64	69	72	75	70	70	70	64	64	64	64	64	64	64	83	83	
		T	50	51	47	45	50	47	47	46	45		44	47	52	51	50	50	49	51	45
2	20 ÷ 40	Ø	Ø 1: 5.5	Ø 1: 3.5 Ø 2: 4.5	Ø 1.2: 3 Ø 3: 3.5	Ø 1.3: 2.5 Ø 4: 3	Ø 1.4: 2.5 Ø 5: 3	Ø 1.5: 2 Ø 6: 2.5	Ø 1.6: 2 Ø 7: 2.5	Ø 1.7: 2 Ø 8: 2.5	Ø 1.9: 2										
		S	3000	1174	890	668	538	450	388	340	324										
		V	2000	2250	2750	3250	3250	3750	3500	3500	4250										
		F	38.4	48.2	58.7	66.7	75.8	75.0	76.7	82.7	104.2										
		B	100	66	76	70	70	64	64	64	93										
		T	56	60	61	59	57	60	62	61	60										
2	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 3 Ø 2: 3.5	Ø 1.2: 2.5 Ø 3: 3	Ø 1.3: 2.5 Ø 4: 3	Ø 1.4: 2 Ø 5: 2.5	Ø 1.5: 2 Ø 6: 2.5	Ø 1.6: 2 Ø 7: 2.5	Ø 1.8: 2	Ø 1.9: 2										
		S	3000	1280	872	670	534	452	390	368	328										
		V	1500	1500	1750	1750	2000	2000	2000	2250	3250										
		F	19.9	25.5	30.4	36.7	36.0	40.6	44.7	52.3	81.3										
		B	100	76	70	70	64	64	64	95	96										
		T	45	49	48	45	48	46	44	47	32										

Table C1_DF, holes from 1 to 18

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

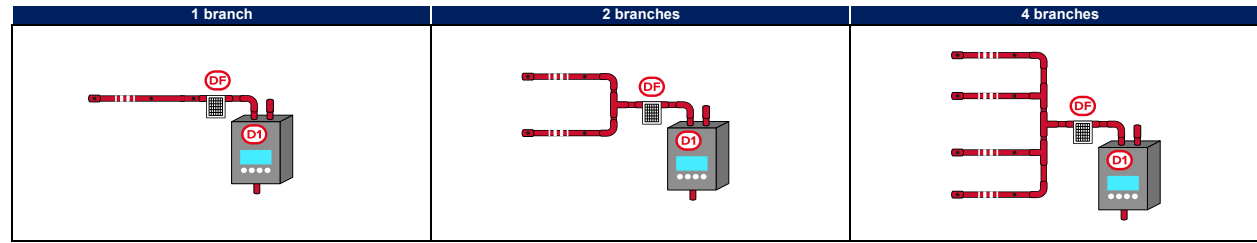
D1	detector 1 module
DF	filter for dust
Øn	diameter of the hole "n" (mm)
S	detection sensitivity (10 ⁻⁵ dB/m)
V	aspiration speed (RPM)
F	expected airflow (l/min)
B	air aspiration balancing between the holes (%)
T	transit time of the smoke (s)



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: 4.5 Ø 2: 7.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 7.5	Ø 1: 3.5 Ø 2: 4 Ø 3: 4.5 Ø 4: 7	Ø 1.2: 3.5 Ø 3: 4 Ø 4: 4.5 Ø 5: 7	Ø 1: 2.5 Ø 2.4: 3 Ø 5: 3.5 Ø 6: 4.5	Ø 1: 2.5 Ø 2.4: 3 Ø 4.6: 3.5 Ø 7: 5	Ø 1: 2.5 Ø 2.4: 3 Ø 5.7: 3.5 Ø 8: 5	Ø 1: 2.5 Ø 2.3: 3 Ø 4.5: 3.5 Ø 6: 4 Ø 7: 4.5 Ø 8: 5 Ø 9: 7.5	Ø 1.3: 2.5 Ø 4.7: 3 Ø 8.9: 3.5 Ø 10: 4.5		Ø 1: 2 Ø 2.7: 2.5 Ø 8.11: 3 Ø 12: 4		Ø 1.2: 2 Ø 3.7: 2.5 Ø 8.11: 3 Ø 12.13: 3.5 Ø 14: 4.5				
		S	20000	6845	4928	3936	2982	2463	2166	1978	1757	1612		1276		1089				
		V	3000	3250	3500	3750	3750	4250	4500	4250	4500	4750		4750		4750				
		F	22.8	28.8	33.0	37.2	40.7	39.3	45.9	45.3	51.9	56.8		52.6		55.3				
		B	100	58	54	54	53	50	51	53	55	53		50		51				
T	59	60	62	60	61	67	62	67	61	58		67		66						
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 4 Ø 2: 6.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 6.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 5 Ø 4: 8	Ø 1: 3 Ø 2.4: 3.5 Ø 5: 5	Ø 1.2: 3 Ø 3.5: 3.5 Ø 6: 5	Ø 1.3: 3 Ø 4.6: 3.5 Ø 7: 5	Ø 1.3: 2.5 Ø 4.7: 3 Ø 8: 4	Ø 1.3: 2.5 Ø 4.8: 3 Ø 9: 4	Ø 1.2: 2.5 Ø 3.7: 3 Ø 8.9: 3.5 Ø 10: 4.5	Ø 1.5: 2.5 Ø 6.10: 3 Ø 11: 4	Ø 1.6: 2.5 Ø 7.11: 3 Ø 12: 4	Ø 1.7: 2.5 Ø 8.12: 3 Ø 13: 4	Ø 1.8: 2 Ø 9.13: 2.5 Ø 14: 3	Ø 1.9: 2 Ø 10.14: 2.5 Ø 15: 3	Ø 1.9: 2 Ø 10.15: 2.5 Ø 16: 3	Ø 1.10: 2 Ø 11.16: 2.5 Ø 17: 3	Ø 1.11: 2 Ø 12.17: 2.5 Ø 18: 3
		S	20000	6244	4981	3932	2999	2580	2214	1892	1730	1556	1406	1293	1186	1085	1019	948	894	842
		V	2000	2250	2250	2250	2500	2500	2500	2750	2750	2750	3000	3000	3000	3250	3250	3250	3250	3250
		F	16.4	18.8	23.4	28.2	27.1	29.2	31.1	31.4	32.4	35.6	37.9	39.5	39.7	37.6	38.4	40.4	40.6	41.6
		B	100	50	61	57	53	52	51	50	53	52	51	51	51	50	50	51	51	51
T	49	54	53	49	55	54	54	56	58	55	53	53	55	56	56	56	56	56	56	
1	15 ÷ 30	Ø	Ø 1: 5	Ø 1: 3 Ø 2: 4.5	Ø 1.2: 3 Ø 3: 4.5	Ø 1.3: 3 Ø 4: 4	Ø 1.4: 3 Ø 5: 4	Ø 1: 2.5 Ø 2.5: 3 Ø 6: 4	Ø 1: 2.5 Ø 2.6: 3 Ø 7: 4	Ø 1.7: 2.5 Ø 8: 3.5	Ø 1.8: 2.5 Ø 9: 3.5	Ø 1.9: 2.5 Ø 10: 3.5	Ø 1.10: 2.5 Ø 11: 3.5	Ø 1.11: 2.5 Ø 12: 3.5	Ø 1.12: 2.5 Ø 13: 3.5	Ø 1.10: 2.5 Ø 11.13: 3 Ø 14: 3.5	Ø 1: 2 Ø 2.11: 2.5 Ø 12.14: 3 Ø 15: 3.5	Ø 1.2: 2 Ø 3.12: 2.5 Ø 13.15: 3 Ø 16: 3.5	Ø 1.3: 2 Ø 4.13: 2.5 Ø 14.16: 3 Ø 17: 3.5	Ø 1.3: 2 Ø 4.14: 2.5 Ø 15.17: 3 Ø 18: 3.5
		S	20000	6398	4743	4081	3291	2387	2107	2065	1830	1638	1478	1341	1224	1102	951	902	857	825
		V	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
		F	7.2	8.6	10.9	12.2	14.3	15.4	17.1	15.3	16.5	17.7	18.7	19.7	20.6	22.1	22.3	22.6	22.9	23.5
		B	100	49	47	58	58	50	53	52	52	52	52	52	52	57	56	56	55	56
T	56	59	54	58	55	52	51	59	57	56	55	55	55	55	52	52	51	51	52	
2	30 ÷ 60	Ø	Ø 1: 7.5	Ø 1: 4 Ø 2: 6.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 7	Ø 1: 3.5 Ø 2.3: 4 Ø 4: 6	Ø 1.4: 3 Ø 5: 4.5	Ø 1.2: 3 Ø 3.5: 3.5 Ø 6: 4 Ø 7: 5.5	Ø 1.3: 2.5 Ø 4.7: 3 Ø 8: 4	Ø 1.4: 2.5 Ø 5.8: 3 Ø 9: 4	Ø 1.4: 2.5 Ø 5.9: 3 Ø 10: 4	Ø 1.3: 2.5 Ø 4.8: 3 Ø 9.10: 3.5 Ø 11: 4.5	Ø 1.10: 2 Ø 11: 2.5 Ø 12: 3	Ø 1.7: 2 Ø 8.12: 2.5 Ø 13: 3	Ø 1.7: 2 Ø 8.13: 2.5 Ø 14: 3	Ø 1.9: 2 Ø 10.14: 2.5 Ø 15: 3	Ø 1.9: 2 Ø 10.15: 2.5 Ø 16: 3	Ø 1.9: 2 Ø 10.16: 2.5 Ø 17: 3	Ø 1.11: 2 Ø 12.17: 2.5 Ø 18: 3	
		S	10000	3135	2429	1899	1510	1282	1122	951	853	777	711	640	585	541	505	474	441	415
		V	2250	2500	2500	2750	3000	3000	3000	3250	3250	3500	3500	3750	4000	4000	4000	4000	4000	4250
		F	29.3	37.5	44.3	50.5	50.1	57.4	61.2	61.2	63.2	69.7	72.3	66.0	74.6	76.0	77.6	79.8	80.0	86.6
		B	100	50	56	52	47	52	50	50	50	52	52	45	50	50	50	51	50	51
T	55	54	55	54	58	55	55	57	58	56	55	61	55	56	56	56	56	58	55	
2	15 ÷ 30	Ø	Ø 1: 5	Ø 1: 3.5 Ø 2: 5	Ø 1.2: 3 Ø 3: 4.5	Ø 1.3: 3 Ø 4: 4.5	Ø 1.4: 3 Ø 5: 4.5	Ø 1.2: 3 Ø 3.5: 3.5 Ø 6: 5	Ø 1.6: 2.5 Ø 7: 3.5	Ø 1.7: 2.5 Ø 8: 3.5	Ø 1.8: 2.5 Ø 9: 3.5	Ø 1.9: 2.5 Ø 10: 3.5	Ø 1.5: 2.5 Ø 6.10: 3 Ø 11: 4	Ø 1.6: 2.5 Ø 7.11: 3 Ø 12: 4	Ø 1.7: 2 Ø 8.12: 2.5 Ø 13: 3	Ø 1.7: 2 Ø 8.13: 2.5 Ø 14: 3	Ø 1.8: 2 Ø 9.14: 2.5 Ø 15: 3	Ø 1.9: 2 Ø 10.15: 2.5 Ø 16: 3	Ø 1.10: 2 Ø 11.16: 2.5 Ø 17: 3	Ø 1.11: 2 Ø 12.17: 2.5 Ø 18: 3
		S	9999	3464	2374	1861	1511	1280	1182	1033	913	815	710	652	587	543	510	480	451	425
		V	1500	1500	1500	1500	1500	1500	1750	1750	1750	1750	1750	1750	2000	2000	2000	2000	2000	2000
		F	13.8	19.0	19.9	22.9	25.3	29.0	28.7	30.7	32.3	33.8	36.9	37.6	38.7	40.1	40.9	41.6	42.3	42.9
		B	100	55	48	47	47	52	52	52	52	52	51	51	50	51	51	51	51	51
T	59	54	59	58	58	55	59	59	59	59	59	54	55	52	53	53	53	53	54	
4	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 4 Ø 2: 6	Ø 1.2: 3 Ø 3: 4.5	Ø 1.2: 3 Ø 4: 3.5 Ø 4: 4.5	Ø 1.3: 3 Ø 4: 3.5 Ø 5: 4.5	Ø 1: 2.5 Ø 2.5: 3 Ø 6: 4	Ø 1.5: 2 Ø 6: 2.5 Ø 7: 3	Ø 1.6: 2 Ø 7: 2.5 Ø 8: 3	Ø 1.6: 2 Ø 7.8: 2.5 Ø 9: 3	Ø 1.6: 2 Ø 7.9: 2.5 Ø 10: 3	Ø 1.2: 2 Ø 3.10: 2.5 Ø 11: 3	Ø 1.11: 2 Ø 12: 2.5						
		S	5000	1709	1187	926	763	607	557	495	432	383	330	376						
		V	2000	2250	2500	2750	2750	3000	3250	3250	3500	3500	3750	4250						
		F	37.2	49.6	51.9	63.1	65.9	72.2	67.5	70.5	79.8	83.0	94.3	101.3						
		B	100	56	48	51	51	52	46	46	45	48	57	64						
T	58	56	60	57	60	60	61	62	58	58	61	58								
4	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 3 Ø 2: 4	Ø 1.2: 2.5 Ø 3: 3.5	Ø 1.3: 2.5 Ø 4: 3.5	Ø 1.4: 2.5 Ø 5: 3	Ø 1.5: 2 Ø 6: 2.5	Ø 1.6: 2 Ø 7: 2.5	Ø 1.7: 2 Ø 8: 2.5	Ø 1.8: 2 Ø 9: 2.5	Ø 1.9: 2 Ø 10: 2.5	Ø 1.11: 2	Ø 1.12: 2						
		S	5000	1820	1264	997	900	751	649	570	507	458	440	403						
		V	1500	1500	1500	1500	1750	2000	2000	2000	2000	2250	2500	2750						
		F	19.0	26.2	26.2	29.8	36.6	36.8	39.8	42.2	44.2	51.7	58.3	66.0						
		B	100	59	52	52	70	64	64	64	64	64	92	91						
T	47	44	50	50	49	50	50	49	49	49	44	48	44							

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

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)

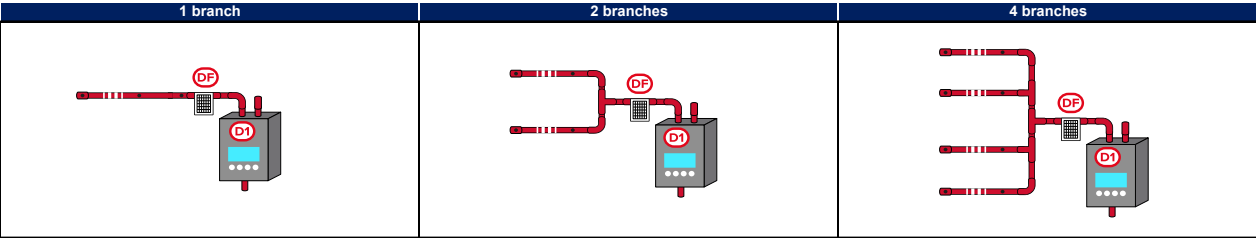


Number of branches	Length of branches (m)	parameters	Number of holes for each branch																		
			19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
1	60 ÷ 90	Ø	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 19: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 20: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 21: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 22: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 23: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 24: 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		S	791	759	693	651	613	575	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		V	4250	4250	4500	4500	4500	4750	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		F	60.6	61.7	65.6	66.5	67.4	72.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		B	45	47	47	47	47	45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
T	85	84	82	83	84	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
1	30 ÷ 60	Ø	Ø 1..12: 2 Ø 13..18: 2.5 Ø 19: 3	Ø 1..17: 2 Ø 18..19: 2.5 Ø 20: 3	Ø 1..14: 2 Ø 15..20: 2.5 Ø 21: 3	Ø 1..16: 2 Ø 16..21: 2.5 Ø 22: 3	Ø 1..16: 2 Ø 17..22: 2.5 Ø 23: 3	Ø 1..17: 2 Ø 18..23: 2.5 Ø 24: 3	Ø 1..18: 2 Ø 19..24: 2.5 Ø 25: 3	Ø 1.25: 2 Ø 26: 2.5	Ø 1..10: 2 Ø 11..17: 2.5 Ø 18..26: 3 Ø 27: 4	Ø 1 + 28: 2	Ø 1..28: 2 Ø 29: 2.5	Ø 1..30: 2	Ø 1 + 31: 2	N/A	N/A	N/A	N/A	N/A	
		S	791	766	703	667	634	599	570	606	555	506	520	517	477	N/A	N/A	N/A	N/A	N/A	N/A
		V	3250	3500	3500	3500	3500	3500	3500	4250	3750	3250	4000	4750	4250	N/A	N/A	N/A	N/A	N/A	N/A
		F	42.1	45.1	47.0	47.8	48.7	49.2	49.9	60.3	61.1	55.8	59.0	71.3	77.3	N/A	N/A	N/A	N/A	N/A	N/A
		B	51	46	50	50	50	50	50	55	56	45	50	50	45	N/A	N/A	N/A	N/A	N/A	N/A
T	57	52	53	53	53	54	55	53	47	84	58	57	83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
1	15 ÷ 30	Ø	Ø 1..4: 2 Ø 5..15: 2.5 Ø 16..18: 3 Ø 19: 3.5	Ø 1..5: 2 Ø 6..16: 2.5 Ø 17..19: 3 Ø 20: 3.5	Ø 1..6: 2 Ø 7..17: 2.5 Ø 18..20: 3 Ø 21: 3.5	Ø 1..21: 2 Ø 22: 2.5	Ø 1..22: 2 Ø 23: 2.5	Ø 1..23: 2 Ø 24: 2.5	Ø 1..24: 2 Ø 25: 2.5	Ø 1..25: 2 Ø 26: 2.5	Ø 1..26: 2 Ø 27: 2.5	Ø 1..27: 2 Ø 28: 2.5	Ø 1..28: 2 Ø 29: 2.5	Ø 1..22: 2 Ø 23..29: 2.5 Ø 30: 3	Ø 1..28: 2 Ø 29..30: 2.5 Ø 31: 3	Ø 1..32: 2 Ø 33: 2.5	Ø 1..32: 2 Ø 33: 2.5	Ø 1..33: 2 Ø 34: 2.5	Ø 1..34: 2 Ø 35: 2.5	Ø 1..36: 2	
		S	786	750	717	769	730	694	660	629	600	573	547	480	468	506	473	454	436	438	
		V	1500	1500	1500	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	2000	2000	2000	2000	2250	
		F	23.7	24.0	24.2	25.5	26.1	26.7	27.3	27.9	28.4	28.9	29.3	30.7	30.6	34.7	35.0	35.4	35.8	40.3	
		B	56	56	56	64	64	64	64	64	63	62	60	50	45	60	57	55	54	54	
T	52	52	52	56	56	55	55	55	55	55	56	56	46	47	57	49	49	50	52		
2	30 ÷ 60	Ø	Ø 1..11: 2 Ø 12..18: 2.5 Ø 19: 3	Ø 1..11: 2 Ø 12..19: 2.5 Ø 20: 3	Ø 1..12: 2 Ø 13..20: 2.5 Ø 21: 3	Ø 1..11: 2 Ø 12..21: 2.5 Ø 22: 3	Ø 1..11: 2 Ø 12..22: 2.5 Ø 23: 3														
		S	394	373	355	342	331														
		V	4250	4250	4500	4500	4750														
		F	87.6	88.5	95.0	96.4	102.5														
		B	51	52	54	58	60														
T	55	57	55	57	56																
2	15 ÷ 30	Ø	Ø 1..12: 2 Ø 13..18: 2.5 Ø 19: 3	Ø 1..12: 2 Ø 13..19: 2.5 Ø 20: 3	Ø 1..12: 2 Ø 13..20: 2.5 Ø 21: 3	Ø 1..21: 2 Ø 22: 2.5	Ø 1..22: 2 Ø 23: 2.5	Ø 1..23: 2 Ø 24: 2.5	Ø 1..24: 2 Ø 25: 2.5												
		S	401	381	364	383	363	350	333												
		V	2000	2000	2000	2250	2250	2500	2500												
		F	43.5	44.2	44.9	49.5	50.2	56.8	57.4												
		B	51	52	54	64	64	64	64												
T	54	55	57	58	58	52	52														

Table C1_DF, holes from 37 to 42

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

D1	detector 1 module
DF	filter for dust
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)

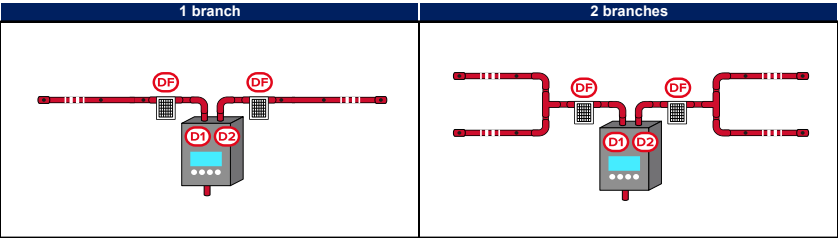


Number of branches	Length of branches (m)	parameters	Number of holes for each branch					
			37	38	39	40	41	42
1	60 ÷ 90	Ø						
		S						
		V						
		F						
		B						
		T						
1	30 ÷ 60	Ø						
		S						
		V						
		F						
		B						
		T						
1	15 ÷ 30	Ø	Ø 1..37: 2	Ø 1..38: 2	Ø 1..39: 2	Ø 1..40: 2	Ø 1..41: 2	Ø 1..41: 2 Ø 42: 2.5
		S	427	416	407	401	386	368
		V	2500	2750	3250	4500	4000	4500
		F	45.1	50.1	59.9	84.3	75.2	85.7
		B	54	53	53	54	52	51
		T	46	42	35	25	29	22

Table C2_DF, holes from 19 to 27

Detection class	C
Number of detectors	2
Anti-dust filter	Yes
Condensation trap	No

D1	detector 1 module
D2	detector 2 module
DF	filter for dust
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)

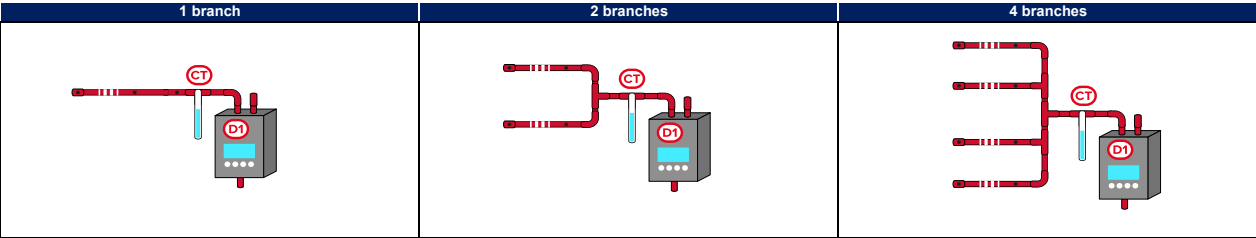


Number of branches	Length of branches (m)	parameters	Number of holes for each branch								
			19	20	21	22	23	24	25	26	27
1	30 ÷ 60	Ø	Ø 1..12: 2 Ø 13..18: 2.5 Ø 19: 3	Ø 1..6: 2 Ø 7..15: 2.5 Ø 16..19: 3 Ø 20: 3.5	Ø 1..14: 2 Ø 15..20: 2.5 Ø 21: 3	Ø 1..11: 2 Ø 12..21: 2.5 Ø 22: 3	Ø 1..22: 2 Ø 23: 2.5	Ø 1..16: 2 Ø 17..23: 2.5 Ø 24: 3	Ø 1..13: 2 Ø 14..24: 2.5 Ø 25: 3	Ø 1..25: 2 Ø 26: 2.5	Ø 1..26: 2 Ø 27: 2.5
		S	786	756	698	662	706	598	566	608	576
		V	3750	3750	4000	4000	4250	4250	4250	4750	4750
		F	87.8	92.0	96.1	97.4	101.3	105.9	106.8	118.2	119.4
		B	51	56	50	50	60	51	50	55	53
		T	57	55	54	56	59	53	55	54	55
1	10 ÷ 30	Ø	Ø 1..19: 2	Ø 1..20: 2	Ø 1..21: 2	Ø 1..22: 2	Ø 1..23: 2				
		S	982	932	886	844	806				
		V	2750	3000	3500	4000	4500				
		F	66.9	74.2	88.1	102.7	117.7				
		B	83	82	80	79	78				
		T	40	37	32	28	24				

Table A1_CT

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

D1	detector 1 module
CT	trap for condensation
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)

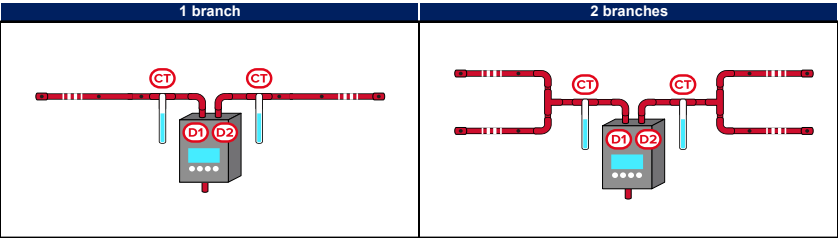


Number of branches	Length of branches (m)	parameters	Number of holes for each branch							
			1	2	3	4	5	6	7	8
1	60 ÷ 90	Ø	Ø 1: 10	Ø 1: 5 Ø 2: 10	Ø 1: 3.5 Ø 2: 4 Ø 3: 5.5	Ø 1: 3.5 Ø 2.3: 4 Ø 4: 6	Ø 1: 3.5 Ø 2: 4 Ø 3: 4.5 Ø 4: 5 Ø 5: 7.5	Ø 1: 3 Ø 2..3: 3.5 Ø 4..5: 4 Ø 6: 5.5	Ø 1: 3 Ø 2..3: 3.5 Ø 4..5: 4 Ø 6: 4.5 Ø 7: 5.5	
		S	2500	903	641	476	421	343	302	
		V	3000	3000	3500	3750	4000	4250	4500	
		F	23.6	29.9	31.7	37.3	44.5	47	52.9	
		B	100	60	57	53	62	59	69	
		T	57	59	64	62	61	60	61	
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 5.5 Ø 2: 10	Ø 1: 4 Ø 2: 4.5 Ø 3: 5 Ø 3: 6	Ø 1: 4 Ø 2: 4.5 Ø 3: 5 Ø 4: 7	Ø 1..3: 3.5 Ø 4: 4 Ø 5: 5	Ø 1: 3.5 Ø 2..3: 4 Ø 4: 4.5 Ø 5: 5 Ø 6: 6.5	Ø 1: 3 Ø 2..4: 3.5 Ø 5..6: 4 Ø 7: 4.5	Ø 1..2: 3 Ø 3..5: 3.5 Ø 6..8: 4
		S	2500	855	651	512	394	341	300	260
		V	2000	2000	2250	2250	2500	2500	2750	3250
		F	17.1	22.2	23.9	29.9	30.6	35.1	37.2	44.1
		B	100	68	66	66	59	67	75	83
		T	47	49	54	48	51	49	53	50
1	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: 3 Ø 4: 4	Ø 1..4: 3 Ø 5: 4	Ø 1..5: 3 Ø 6: 4	Ø 1..6: 3 Ø 7: 3.5	Ø 1..8: 2.5
		S	2500	976	685	510	412	344	311	296
		V	1500	1500	1500	1500	1500	1500	1500	2000
		F	7.2	9.6	12.7	12.6	14.8	16.8	18.2	20.4
		B	100	66	64	58	58	58	75	87
		T	56	56	51	56	53	50	55	56
2	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 4.5 Ø 2: 7	Ø 1..2: 4 Ø 3: 5.5	Ø 1..2: 4 Ø 3: 4.5 Ø 4: 5				
		S	1250	428	325	270				
		V	2000	2250	2500	2750				
		F	31.5	39.4	46.4	60.2				
		B	100	59	61	81				
		T	51	53	56	53				
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: 3.5 Ø 4: 4				
		S	1250	488	343	278				
		V	1500	1500	1500	1500				
		F	14.2	18.6	24.1	27.7				
		B	100	66	65	80				
		T	57	58	54	58				
4	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 3.5 Ø 2: 4						
		S	625	277						
		V	1750	2500						
		F	37.1	51.7						
		B	100	81						
		T	58	59						
4	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 3 Ø 2: 3.5						
		S	625	266						
		V	1500	1500						
		F	20.2	26.1						
		B	100	76						
		T	45	47						

Table A2_CT

Detection class	A
Number of detectors	2
Anti-dust filter	No
Condensation trap	Yes

D1	detector 1 module
D2	detector 2 module
CT	trap for condensation
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)

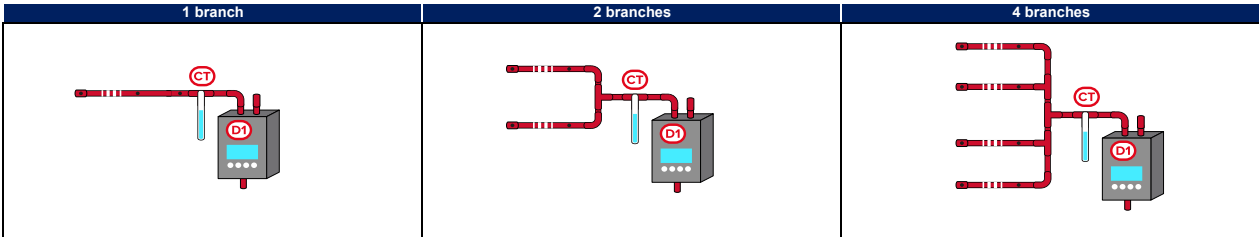


Number of branches	Length of branches (m)	parameters	Number of holes for each branch							
			1	2	3	4	5	6	7	8
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 5 Ø 2: 8	Ø 1..2: 4 Ø 3: 5.5	Ø 1: 3.5 Ø 2..3: 4 Ø 4: 5.5	Ø 1..2: 3 Ø 3..4: 3.5 Ø 5: 4.5	Ø 1..2: 3 Ø 3..5: 3.5 Ø 6: 4.5	Ø 1: 3 Ø 2..5: 3.5 Ø 6: 4 Ø 7: 4.5	Ø 1: 3 Ø 2..4: 3.5 Ø 5..6: 4 Ø 7..8: 4.5
		S	2500	876	650	490	384	334	298	268
		V	2000	2250	2500	2500	2750	2750	3000	3250
		F	31.6	43.3	46.7	51.8	54.4	60.4	71.1	81.2
		B	100	64	61	60	56	60	69	80
		T	51	49	55	55	56	56	54	53
1	10 ÷ 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: 3 Ø 4: 4	Ø 1..4: 3 Ø 5: 4	Ø 1..4: 2.5 Ø 5: 3 Ø 6: 3.5	Ø 1..6: 2.5 Ø 7: 3	Ø 1..8: 2.5
		S	2500	964	684	512	414	334	322	298
		V	1500	1500	1500	1500	1500	1750	2000	2250
		F	14.6	18.9	24.7	24.3	28.1	30.7	36.1	43.5
		B	100	65	64	58	58	53	70	89
		T	49	50	46	51	49	45	46	47
2	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 3.5 Ø 2: 4.5	Ø 1..2: 3 Ø 3: 4	Ø 1..4: 2.5				
		S	1250	488	332	306				
		V	1750	2250	2500	3750				
		F	37.3	50.4	59.2	74.8				
		B	100	66	59	96				
		T	58	57	56	61				
2	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 2.5 Ø 2: 3.5	Ø 1..2: 2.5 Ø 3: 3	Ø 1..4: 2.5				
		S	1250	426	364	308				
		V	1500	1500	1750	2000				
		F	20.2	23.3	31.2	40.6				
		B	100	53	70	97				
		T	44	49	46	47				

Table B1_CT

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

D1	detector 1 module
CT	trap for condensation
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)

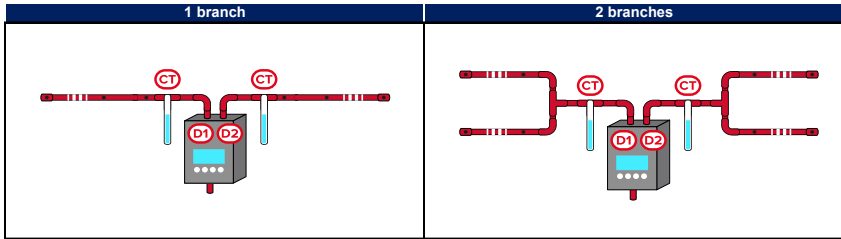


Number of branches	Length of branches (m)	parameters	Number of holes for each branch																		
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	60 ÷ 90	Ø	Ø 1: 10	Ø 1: 5.5 Ø 2: 10	Ø 1: 4.5 Ø 2: 5 Ø 3: 7	Ø 1: 4 Ø 2: 4.5 Ø 3: 5 Ø 4: 7	Ø 1: 3 Ø 2.4: 3.5 Ø 5: 4.5	Ø 1.2: 3.5 Ø 3: 4 Ø 4: 4.5 Ø 5: 5 Ø 6: 6.5	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	2456	1684	1275	1010	856	725	617	563										
		V	3000	3000	3750	3750	4250	4250	4500	4750	4500										
		F	23.6	31.0	36.9	41.0	40.4	54.2	52.9	56.0	52.8										
		B	100	75	72	69	65	70	69	66	70										
		T	57	60	60	61	68	55	61	60	68										
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 2.5: 3.5 Ø 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: 2 Ø 2.9: 2.5 Ø 10.14: 3	Ø 1.14: 2 Ø 15: 2.5	Ø 1.15: 2 Ø 16: 2.5	Ø 1.17: 2		
		S	6000	2491	1600	1297	994	819	717	607	542	480	449	410	379	327	353	329	320		
		V	2000	2250	2250	2500	2500	2750	2750	3000	3000	3000	3250	3250	3250	3250	3750	3750	4250		
		F	17.1	21.8	27.8	30.3	30.6	32.1	36.8	36.2	37.1	42.2	45.9	45.1	50.8	45.3	42.5	45.4	51.3		
		B	100	79	75	80	69	66	68	73	70	77	73	71	75	68	64	64	75		
		T	47	52	48	53	56	54	52	57	57	54	50	53	49	56	57	55	60		
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 3.4: 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 1.9: 2.5 Ø 10.15: 3	Ø 1.9: 2.5 Ø 10.16: 3	Ø 1.8: 2.5 Ø 9.17: 3	Ø 1.18: 2	
		S	6000	2342	1805	1340	965	880	746	585	529	481	440	412	398	352	323	305	292	307	
		V	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1750	1500	1500	1750	2000	
		F	7.2	9.6	11.9	14.9	16.1	16.2	18.2	19.3	21.0	22.0	22.9	28.4	26.3	25.9	25.5	26.6	33.0	27.7	
		B	100	66	80	80	66	75	75	69	72	71	70	75	70	72	70	69	73	81	
		T	56	56	58	54	50	57	55	53	52	50	49	44	47	48	53	53	44	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 1.2: 4 Ø 3: 4.5 Ø 4: 5	Ø 1.3: 3.5 Ø 4: 4 Ø 5: 4.5	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 1.4: 3 Ø 5.7: 3.5 Ø 8: 4	Ø 1.8: 2.5 Ø 9: 3										
		S	3000	1178	825	649	503	410	357	309	294										
		V	2000	2250	2500	2750	2750	3000	3000	3250	3750										
		F	31.5	41.2	48.0	60.2	59.3	63.5	70.6	74.8	74.2										
		B	100	74	74	81	70	66	69	70	70										
		T	51	54	55	53	57	55	54	54	57										
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	485	443	385	333	294										
		V	1500	1500	1500	1500	1500	1750	2000	1750	1750										
		F	14.2	18.6	24.1	26.2	29.4	35.3	35.6	33.7	36.4										
		B	100	66	65	68	67	75	70	70	70										
		T	57	58	54	57	55	52	53	59	58										
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	334															
		V	1750	2250	2750	3250															
		F	37.1	50.1	60.9	68.9															
		B	100	66	76	70															
		T	58	57	59	57															
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	26.1	31.1	31.2															
		B	100	76	70	64															
		T	45	47	47	51															

Table B2_CT

Detection class	B
Number of detectors	2
Anti-dust filter	No
Condensation trap	Yes

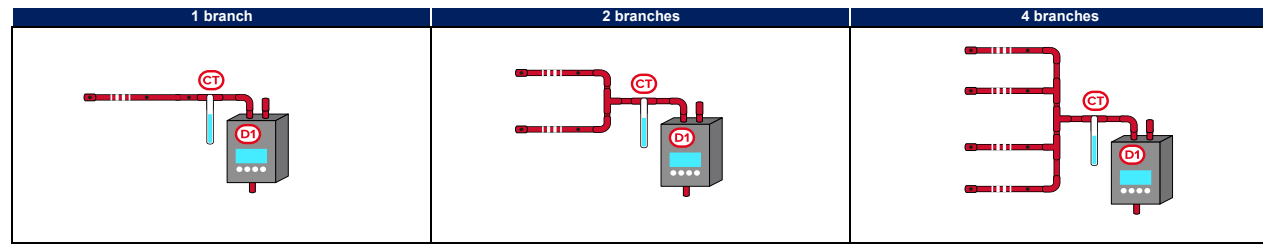
D1	detector 1 module
D2	detector 2 module
CT	trap for condensation
Øn	diameter of the hole "n" (mm)
S	detection sensitivity (10^{-5} dB/m)
V	aspiration speed (RPM)
F	expected airflow (l/min)
B	air aspiration balancing between the holes (%)
T	transit time of the smoke (s)



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	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: 3.5 Ø 4: 4 Ø 5: 4.5	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 1.4: 3 Ø 5.7: 3.5 Ø 8: 4	Ø 1.2: 2.5 Ø 3.8: 3 Ø 7.9: 3.5 Ø 9: 3.5	Ø 1: 2.5 Ø 2.6: 3 Ø 7.9: 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 1.12: 2 Ø 13: 2.5	Ø 1.13: 2 Ø 14: 2.5	Ø 1.2: 2 Ø 3.10: 2.5 Ø 11..15: 3	Ø 1.15: 2 Ø 16: 2.5	Ø 1.8: 2 Ø 9..17: 2.5		
		S	6000	2354	1648	1234	998	818	716	618	532	492	452	414	412	382	304	328	274		
		V	2000	2250	2500	2750	2750	3000	3000	3250	3250	3250	3500	3500	3500	4000	4000	3750	4000	4000	
		F	31.6	41.4	48.3	51.6	59.7	63.9	71.1	75.3	72.5	80.2	84.0	88.4	77.6	80.2	92.4	86.0	94.8		
		B	100	74	74	64	70	66	69	70	70	69	72	73	64	64	69	64	66		
		T	51	53	55	58	56	54	54	54	59	54	55	54	59	59	55	58	57		
1	10 ÷ 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: 3.5 Ø 4: 4	Ø 1.4: 3 Ø 5: 3.5	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	Ø 1.9: 2 Ø 10: 2.5	Ø 1.10: 2 Ø 11: 2.5	Ø 1.11: 2 Ø 12: 2.5	Ø 1.12: 2 Ø 13: 2.5	Ø 1.13: 2 Ø 14: 2.5	Ø 1.14: 2 Ø 15: 2.5	Ø 1.16: 2	Ø 1.17: 2	Ø 1.18: 2	
		S	6000	2316	1644	1342	1076	892	776	672	594	548	496	454	418	388	360	352	334	314	
		V	1500	1500	1500	1500	1750	1750	2000	1750	1750	2250	2000	2000	2000	2000	2000	2250	2750	3000	
		F	14.6	18.9	24.7	28.3	31.9	36.0	36.1	34.3	37.1	38.3	36.2	38.5	40.7	42.8	44.7	51.8	66.1	74.0	
		B	100	65	64	79	75	75	70	70	70	64	64	64	64	64	64	85	86	85	
		T	49	50	46	50	47	45	46	51	50		47	52	50	49	48	47	49	39	36
2	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 3.5 Ø 3: 4.5	Ø 1.2: 3 Ø 3: 3.5	Ø 1.3: 2.5 Ø 4: 3	Ø 1.4: 2.5 Ø 5: 3	Ø 1.5: 2 Ø 6: 2.5	Ø 1.6: 2 Ø 7: 2.5	Ø 1.7: 2 Ø 8: 2.5	Ø 1.9: 2										
		S	3000	1172	890	668	538	450	388	340	324										
		V	1750	2250	2750	3250	3000	3500	3500	3500	4000										
		F	37.3	50.4	61.2	69.3	73.2	72.3	80.1	86.9	103.3										
		B	100	66	76	70	70	64	64	64	93										
		T	58	57	59	57	59	62	59	57	61										
2	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	Ø 1.4: 2 Ø 5: 2.5	Ø 1.5: 2 Ø 6: 2.5	Ø 1.7: 2	Ø 1.8: 2											
		S	3000	1278	872	654	534	450	422	370											
		V	1500	1500	1750	2000	2000	1750	2250	3000											
		F	20.2	26.2	31.2	31.3	37.0	36.8	49.9	73.4											
		B	100	76	70	64	64	64	96	96											
		T	44	47	46	50	47	50	47	34											

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

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)



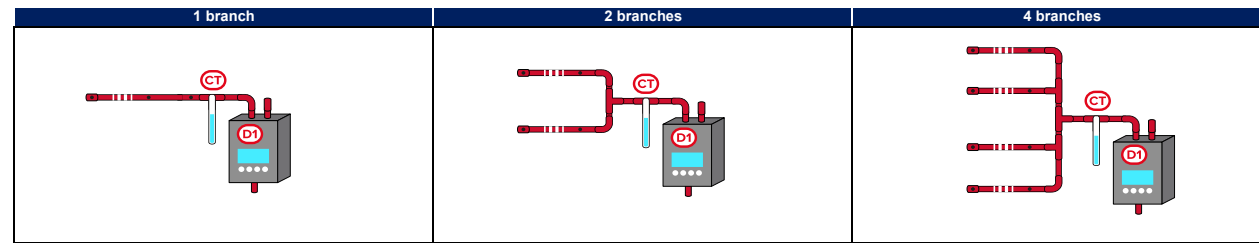
Number of branches	Length of branches (m)	parameters	Number of holes for each branch																		
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	60 ÷ 90	Ø	Ø 1: 10	Ø 1: 4.5 Ø 2: 10	Ø 1: 4 Ø 2: 4.5 Ø 3: 7.5	Ø 1: 3.5 Ø 2: 4 Ø 3: 4.5 Ø 4: 7.5	Ø 1: 3 Ø 2: 3.5 Ø 3: 4.4 Ø 5: 6	Ø 1..3: 3 Ø 4..5: 3.5 Ø 6: 5	Ø 1: 2.5 Ø 2..5: 3 Ø 6: 3.5 Ø 7: 4.5	Ø 1: 2.5 Ø 2..3: 3 Ø 4..6: 3.5 Ø 7: 4 Ø 8: 5.5	Ø 1..2: 2.5 Ø 3..5: 3 Ø 6..8: 3.5 Ø 9: 5	Ø 1..5: 2.5 Ø 6..9: 3 Ø 10: 4	Ø 1..4: 2.5 Ø 5..8: 3 Ø 7..9: 3.5 Ø 9..10: 3.5 Ø 11: 4.5	Ø 1..4: 2.5 Ø 5..6: 3 Ø 7..8: 3.5 Ø 9: 4 Ø 7..9: 3.5 Ø 10: 4.5 Ø 11: 5 Ø 12: 6 Ø 13: 10	Ø 1: 2 Ø 2..6: 2.5 Ø 7..9: 3 Ø 10..13: 3.5 Ø 14: 5				Ø 1..3: 2 Ø 4..8: 2.5 Ø 9..11: 3 Ø 12..13: 3.5 Ø 14..15: 4 Ø 16: 4.5 Ø 17: 6		
		S	20000	6231	4908	3880	3071	2503	2228	2005	1774	1506	1449	1322	1268	1111				931	
		V	3000	3000	3500	3500	3750	4000	4250	4250	4500	4500	4750	4750	4500	4500				4750	
		F	23.6	28.8	32.8	35.9	40.2	40.7	46.0	48.5	51.3	50.0	56.7	59.5	65.2	62.5				69.2	
		B	100	48	54	51	52	48	50	50	51	51	53	56	54	51				51	
		T	57	58	62	61	61	66	62	61	61	67	61	61	56	60			56		
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 5.5 Ø 2: 10	Ø 1..2: 4 Ø 3: 6	Ø 1: 3.5 Ø 2..3: 4 Ø 4: 6	Ø 1: 3.5 Ø 2..3: 4 Ø 4: 4.5 Ø 5: 6.5	Ø 1..2: 3 Ø 3..5: 3.5 Ø 6: 5	Ø 1..5: 3 Ø 6: 3.5 Ø 7: 4.5	Ø 1..3: 2.5 Ø 4..7: 3 Ø 8: 4	Ø 1..3: 2.5 Ø 4..8: 3 Ø 9: 4	Ø 1..4: 2.5 Ø 5..9: 3 Ø 10: 4	Ø 1..5: 2.5 Ø 6..10: 3 Ø 11: 4	Ø 1..11: 2.5 Ø 12: 3.5	Ø 1..7: 2.5 Ø 8..12: 3 Ø 13: 4	Ø 1: 2 Ø 2..10: 2.5 Ø 11..13: 3 Ø 14: 3.5	Ø 1: 2 Ø 2..8: 2.5 Ø 9..14: 3 Ø 15: 4	Ø 1..3: 2 Ø 4..12: 2.5 Ø 13..15: 3 Ø 16: 3.5	Ø 1..10: 2 Ø 11..16: 2.5 Ø 17: 3	Ø 1..11: 2 Ø 12..17: 2.5 Ø 18: 3	
		S	20000	6843	4815	3749	3141	2544	2182	1885	1705	1547	1408	1335	1177	1089	1010	948	891	840	
		V	2000	2000	2250	2250	2250	2500	2500	2750	2750	2750	2750	3000	3000	3000	3000	3000	3250	3250	
		F	17.1	22.2	23.0	25.9	30.3	31.0	31.3	31.6	34.4	35.5	36.6	39.2	43.9	43.1	44.0	44.2	42.7	43.9	
		B	100	68	53	52	55	51	50	50	52	52	51	52	50	56	53	56	51	51	
		T	47	49	54	53	50	51	54	56	54	55	55	56	49	53	52	52	54	53	
1	15 ÷ 30	Ø	Ø 1: 5	Ø 1: 3 Ø 2: 4.5	Ø 1..2: 3 Ø 3: 4.5	Ø 1..3: 3 Ø 4: 4	Ø 1..4: 3 Ø 5: 4	Ø 1: 2.5 Ø 2..5: 3 Ø 6: 4	Ø 1..6: 2.5 Ø 7: 3.5	Ø 1..7: 2.5 Ø 8: 3.5	Ø 1..8: 2.5 Ø 9: 3.5	Ø 1..9: 2.5 Ø 10: 3.5	Ø 1..10: 2.5 Ø 11: 3.5	Ø 1..11: 2.5 Ø 12: 3.5	Ø 1..7: 2 Ø 8..12: 2.5 Ø 13: 3	Ø 1..8: 2 Ø 9..13: 2.5 Ø 14: 3	Ø 1..8: 2 Ø 9..14: 2.5 Ø 15: 3	Ø 1..9: 2 Ø 10..15: 2.5 Ø 16: 3	Ø 1..10: 2 Ø 11..16: 2.5 Ø 17: 3	Ø 1..11: 2 Ø 12..17: 2.5 Ø 18: 3	
		S	20000	6395	4742	4084	3297	2376	2364	2072	1838	1648	1489	1354	1174	1096	1021	960	903	851	
		V	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	
		F	7.2	8.7	11.1	12.6	14.8	16.1	14.5	16.0	17.4	18.7	20.0	21.2	18.4	19.2	20.4	21.1	21.8	22.5	
		B	100	48	47	58	58	50	52	52	52	52	52	52	50	50	51	51	50	50	
		T	56	58	53	56	53	50	59	56	54	53	52	51	55	54	53	52	52	51	
2	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 4.5 Ø 2: 7	Ø 1: 3.5 Ø 2: 4 Ø 3: 5.5	Ø 1..2: 3.5 Ø 3: 4 Ø 4: 5.5	Ø 1..3: 3.5 Ø 4: 4 Ø 5: 5.5	Ø 1..2: 3 Ø 3..5: 3.5 Ø 6: 5	Ø 1..5: 3 Ø 6: 3.5 Ø 7: 4.5	Ø 1..4: 3 Ø 5..7: 3.5 Ø 8: 4.5	Ø 1: 2.5 Ø 2..5: 3 Ø 6..8: 3.5 Ø 9: 4.5	Ø 1..4: 2.5 Ø 5..9: 3 Ø 10: 4	Ø 1..5: 2.5 Ø 6..10: 3 Ø 11: 4	Ø 1..6: 2.5 Ø 7..11: 3 Ø 12: 4	Ø 1..7: 2.5 Ø 8..12: 3 Ø 13: 4	Ø 1..8: 2 Ø 9..13: 2.5 Ø 14: 3	Ø 1..8: 2 Ø 9..14: 2.5 Ø 15: 3	Ø 1..9: 2 Ø 10..15: 2.5 Ø 16: 3	Ø 1..10: 2 Ø 11..16: 2.5 Ø 17: 3	Ø 1..10: 2 Ø 11..17: 2.5 Ø 18: 3	
		S	10000	3422	2383	1857	1508	1286	1090	997	841	776	703	647	593	541	506	473	444	415	
		V	2000	2250	2500	2500	2500	2750	2750	3000	3000	3000	3250	3250	3250	3500	3500	3500	3500	3500	
		F	31.5	39.4	44.3	50.1	54.9	61.2	61.6	70.8	71.7	69.6	77.0	79.7	80.1	76.3	78.5	80.5	82.3	85.3	
		B	100	59	55	53	52	51	50	58	57	52	51	51	51	50	50	51	51	51	
		T	51	53	55	54	55	51	55	53	54	56	52	52	54	56	55	56	56	56	
2	15 ÷ 30	Ø	Ø 1: 5	Ø 1: 3 Ø 2: 4.5	Ø 1..2: 3 Ø 3: 4.5	Ø 1..3: 3 Ø 4: 4	Ø 1..4: 3 Ø 5: 4	Ø 1: 2.5 Ø 2..5: 3 Ø 6: 4	Ø 1..6: 2.5 Ø 7: 3.5	Ø 1..6: 2 Ø 7: 2.5 Ø 8: 3	Ø 1..7: 2 Ø 8: 2.5 Ø 9: 3	Ø 1..7: 2 Ø 8..9: 2.5 Ø 10: 3	Ø 1..5: 2 Ø 6..10: 2.5 Ø 11: 3	Ø 1..6: 2 Ø 7..11: 2.5 Ø 12: 3	Ø 1..12: 2 Ø 13: 2.5	Ø 1..13: 2 Ø 14: 2.5	Ø 1..14: 2 Ø 15: 2.5	Ø 1..16: 2	Ø 1..17: 2	Ø 1..18: 2	
		S	10000	3200	2372	2039	1643	1199	1189	991	873	794	678	629	692	640	595	582	549	521	
		V	1500	1500	1500	1500	1500	1500	1750	1750	1750	1750	1750	1750	2000	2000	2000	2250	2500	3000	
		F	14.2	16.9	21.3	23.8	27.5	29.4	32.1	26.9	29.5	31.5	36.3	37.8	40.1	42.0	43.9	50.9	59.2	73.1	
		B	100	49	47	59	58	51	52	46	45	45	50	50	64	64	64	83	83	84	
		T	57	59	55	59	57	55	53	60	59		57	54	53	57	56	57	50	41	
4	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 3 Ø 2: 4.5	Ø 1..2: 3 Ø 3: 4	Ø 1..3: 2.5 Ø 4: 3.5	Ø 1..3: 2 Ø 4: 2.5 Ø 5: 3	Ø 1..4: 2 Ø 5: 2.5 Ø 6: 3	Ø 1..5: 2 Ø 6: 2.5 Ø 7: 3	Ø 1..7: 2 Ø 8: 2.5	Ø 1..9: 2										
		S	5000	1599	1326	995	735	636	558	568	539										
		V	1750	2250	2500	2750	3000	3000	3000	3500	4000										
		F	37.1	46.6	58.8	62.0	62.4	68.6	74.2	86.3	102.5										
		B	100	48	59	52	46	46	46	64	92										
		T	58	58	56	58	59	57	56	58	61										
4	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 2.5 Ø 2: 3.5	Ø 1..2: 2.5 Ø 3: 3.5	Ø 1..3: 2 Ø 4: 2.5	Ø 1..4: 2 Ø 5: 2.5	Ø 1..5: 2 Ø 6: 2.5	Ø 1..7: 2	Ø 1..8: 2	Ø 1..9: 2										
		S	5000	1702	1264	1091	891	751	703	616	550										
		V	1500	1500	1500	2000	2000	1750	2250	2750	4500										
		F	20.2	23.2	29.5	31.2	36.9	36.6	49.7	66.7	118.3										
		B	100	53	52	64	64	64	96	96	97										
		T	45	49	45	51	47	51	48	37	22										

Table C1_CT, holes from 19 to 36

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

D1	detector 1 module
CT	trap for condensation

Ø_n	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)



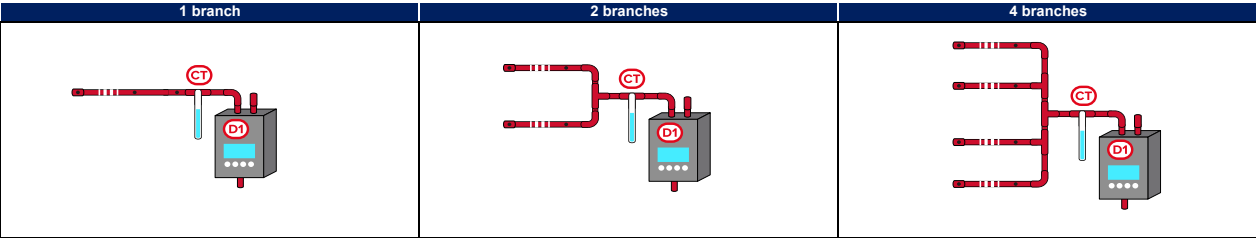
Number of branches	Length of branches (m)	parameters	Number of holes for each branch																		
			19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
1	60 ÷ 90	Ø	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6: 19: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6: 20: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6: 21: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6: 22: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6: 23: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6: 24: 2	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	
		S	791	759	693	651	613	575	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	
		V	4250	4250	4500	4500	4500	4750	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	
		F	60.6	61.7	65.6	66.5	67.4	72.5	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	
		B	45	47	47	47	47	45	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	
		T	85	84	82	83	84	80	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	
1	30 ÷ 60	Ø	Ø 1..12: 2 Ø 13..18: 2.5 Ø 19: 3	Ø 1..13: 2 Ø 14..19: 2.5 Ø 20: 3	Ø 1..14: 2 Ø 15..20: 2.5 Ø 21: 3	Ø 1..15: 2 Ø 16..21: 2.5 Ø 22: 3	Ø 1..16: 2 Ø 17..22: 2.5 Ø 23: 3	Ø 1..17: 2 Ø 18..23: 2.5 Ø 24: 3	Ø 1..18: 2 Ø 19..24: 2.5 Ø 25: 3	Ø 1..25: 2 Ø 26: 2.5	Ø 1..26: 2 Ø 27: 2.5	Ø 1..28: 2 Ø 29: 2.5	Ø1 + 30: 2	Ø1 + 31: 2	Ø 1..32: 2	N/D	N/D	N/D	N/D		
		S	789	746	702	667	633	599	571	607	579	589	521	489	477	475	N/D	N/D	N/D	N/D	
		V	3250	3250	3250	3250	3250	3250	3500	4000	4000	4500	3750	4250	4250	4750	N/D	N/D	N/D	N/D	
		F	44.7	45.7	48.7	47.4	48.4	49.0	53.9	61.0	62.2	76.7	59.9	75.7	77.3	79.8	N/D	N/D	N/D	N/D	
		B	50	50	50	50	50	50	55	54	60	50	45	45	48	N/D	N/D	N/D	N/D		
		T	54	53	51	54	54	55	50	52	53	49	57	84	83	53	N/D	N/D	N/D	N/D	
1	15 ÷ 30	Ø	Ø 1..12: 2 Ø 13..18: 2.5 Ø 19: 3	Ø 1..13: 2 Ø 14..19: 2.5 Ø 20: 3	Ø 1..14: 2 Ø 15..20: 2.5 Ø 21: 3	Ø 1..15: 2 Ø 16..21: 2.5 Ø 22: 3	Ø 1..16: 2 Ø 17..22: 2.5 Ø 23: 3	Ø 1..17: 2 Ø 18..23: 2.5 Ø 24: 3	Ø 1..18: 2 Ø 19..24: 2.5 Ø 25: 3	Ø 1..18: 2 Ø 19..25: 2.5 Ø 26: 3	Ø 1..19: 2 Ø 20..26: 2.5 Ø 27: 3	Ø 1..20: 2 Ø 21..27: 2.5 Ø 28: 3	Ø 1..21: 2 Ø 22..28: 2.5 Ø 29: 3	Ø 1..22: 2 Ø 23..29: 2.5 Ø 30: 3	Ø 1..30: 2 Ø 31: 2.5	Ø 1..31: 2 Ø 32: 2.5	Ø 1..32: 2 Ø 33: 2.5	Ø 1..33: 2 Ø 34: 2.5	Ø 1..34: 2 Ø 35: 2.5	Ø 1..36: 2	
		S	804	761	722	686	652	621	593	568	543	520	497	477	513	492	472	453	434	438	
		V	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1750	1750	1750	1750	1750	2000
		F	23.1	23.8	24.4	25.0	25.6	26.1	26.7	27.4	27.9	28.3	28.8	29.2	33.1	34.1	34.6	34.6	35.3	40.4	
		B	50	50	50	50	50	50	50	51	51	51	51	51	58	58	57	54	54	55	
		T	50	50	50	49	49	49	49	49	49	49	49	49	50	50	50	50	51	51	51
2	30 ÷ 60	Ø	Ø 1..10: 2 Ø 11..18: 2.5 Ø 19: 3	Ø 1..12: 2 Ø 13..19: 2.5 Ø 20: 3	Ø 1..12: 2 Ø 13..20: 2.5 Ø 21: 3	Ø 1..21: 2 Ø 22: 2.5	Ø 1..10: 2 Ø 11..22: 2.5 Ø 23: 3														
		S	391	373	355	375	332														
		V	3750	3750	3750	4250	4250														
		F	91.2	93.0	94.3	104.1	111.0														
		B	50	52	54	62	61														
		T	54	55	56	56	52														
2	15 ÷ 30	Ø	Ø 1..19: 2	Ø 1..20: 2	Ø 1..21: 2																
		S	492	466	443																
		V	3250	3750	4500																
		F	81.0	95.6	117.7																
		B	82	80	79																
		T	38	32	27																

Table C1_CT, holes from 37 to 46

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

D1	detector 1 module
CT	trap for condensation

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)

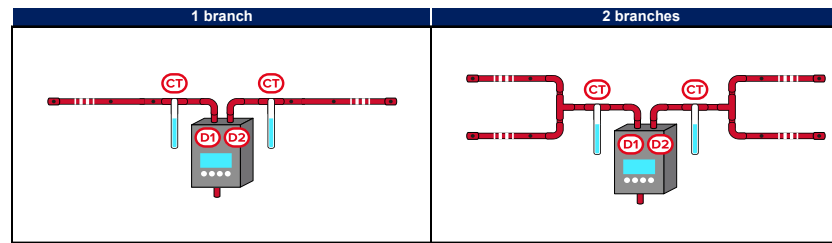


Number of branches	Length of branches (m)	parameters	Number of holes for each branch									
			37	38	39	40	41	42	43	44	45	46
1	60 ÷ 90	Ø										
		S										
		V										
		F										
		B										
		T										
1	30 ÷ 60	Ø										
		S										
		V										
		F										
		B										
		T										
1	15 ÷ 30	Ø	Ø 1..37: 2	Ø 1..38: 2	Ø 1..39: 2	Ø 1..40: 2					Ø 1..20: 2 Ø 21..45: 2.5	Ø 1..18: 2 Ø 19..29: 2.5 Ø 30..46: 3
		S	422	413	409	391					348	332
		V	2000	2250	3000	2750					4750	4750
		F	41.0	46.5	62.9	58.0					110.9	125.6
		B	53	53	53	51					54	61
		T	51	46	33	37					20	15

Table C2_CT, holes from 1 to 18

Detection class	C
Number of detectors	2
Anti-dust filter	No
Condensation trap	Yes

D1	detector 1 module
D2	detector 2 module
CT	trap for condensation
Øn	diameter of the hole "n" (mm)
S	detection sensitivity (10^{-2} 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)

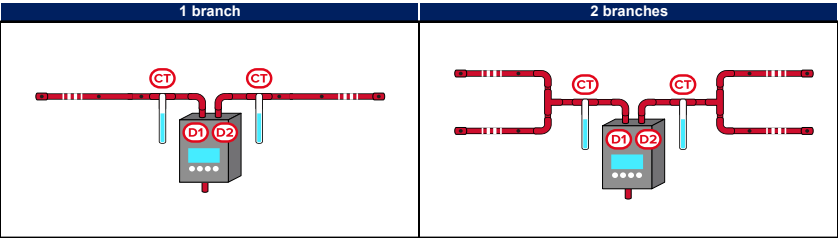


Number of branches	Length of branches (m)	parameters	Number of holes for each branch																	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 5 Ø 2: 8	Ø 1: 3: 5 Ø 2: 4 Ø 3: 5.5	Ø 1.2: 3: 5 Ø 3: 4 Ø 4: 5.5	Ø 1.3: 3: 5 Ø 4: 4 Ø 5: 5.5	Ø 1.2: 2: 3 Ø 3.5: 5: 3.5 Ø 6: 5	Ø 1.5: 3 Ø 6: 3.5 Ø 7: 4.5	Ø 1.3: 2: 5 Ø 4.7: 3 Ø 8: 4	Ø 1.3: 2: 5 Ø 4.8: 3 Ø 9: 4	Ø 1.4: 2: 5 Ø 5.9: 3 Ø 10: 4	Ø 1.5: 2: 5 Ø 6.10: 3 Ø 11: 4	Ø 1.6: 2: 5 Ø 7.11: 3 Ø 12: 4	Ø 1.7: 2: 5 Ø 8.12: 3 Ø 13: 4	Ø 1.7: 2 Ø 8.13: 2.5 Ø 14: 3	Ø 1.8: 2 Ø 9.14: 2.5 Ø 15: 3	Ø 1.8: 2 Ø 9.15: 2.5 Ø 16: 3	Ø 1.10: 2 Ø 11.16: 2.5 Ø 17: 3	Ø 1.10: 2 Ø 11.17: 2.5 Ø 18: 3
		S	20000	7004	4764	3714	3016	2550	2180	1888	1710	1552	1406	1286	1186	1082	1014	946	888	830
		V	2000	2250	2500	2500	2500	2750	2750	3000	3000	3000	3250	3250	3250	3500	3500	3500	3500	3500
		F	31.6	43.3	44.5	50.4	55.3	61.7	62.0	63.1	67.5	70.1	77.6	78.6	80.7	76.8	79.4	81.0	82.9	86.0
		B	100	64	55	53	52	51	50	50	53	52	51	51	50	50	51	51	51	51
		T	51	49	55	54	55	51	55	56	55	55	55	53	54	55	55	56	56	55
1	10 ÷ 30	Ø	Ø 1: 5	Ø 1: 3 Ø 2: 4.5	Ø 1.2: 3 Ø 3: 4.5	Ø 1.3: 3 Ø 4: 4	Ø 1.4: 3 Ø 5: 4	Ø 1.5: 2.5 Ø 6: 3.5	Ø 1.6: 2.5 Ø 7: 3.5	Ø 1.2: 2 Ø 3.7: 2.5 Ø 8: 3	Ø 1.3: 2 Ø 4.8: 2.5 Ø 9: 3	Ø 1.4: 2 Ø 5.9: 2.5 Ø 10: 3	Ø 1.10: 2 Ø 11: 1: 2 Ø 12: 2.5	Ø 1.11: 2 Ø 12: 2.5	Ø 1.12: 2 Ø 13: 2.5	Ø 1.13: 2 Ø 14: 2.5	Ø 1.14: 2 Ø 15: 2.5	Ø 1.16: 2	Ø 1.17: 2	Ø 1.18: 2
		S	20000	6314	4730	4092	3306	2770	2394	1718	1574	1450	1654	1514	1396	1292	1202	1174	1114	1050
		V	1500	1500	1500	1500	1500	1750	1750	1750	1750	1750	2000	2000	2000	2000	2000	2250	2750	3000
		F	14.6	17.3	21.8	24.3	28.1	29.5	32.7	31.9	33.7	35.4	36.2	38.5	40.7	42.8	44.7	51.8	66.1	74.0
		B	100	48	47	58	58	52	52	50	50	50	64	64	64	64	64	85	86	85
		T	49	52	48	51	49	47	46	51	49	47	52	50	49	48	47	49	39	36
2	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 3 Ø 2: 4.5	Ø 1.2: 3 Ø 3: 4	Ø 1.3: 2.5 Ø 4: 3.5	Ø 1.3: 2 Ø 4: 2.5 Ø 5: 3	Ø 1.4: 2 Ø 5: 2.5 Ø 6: 3	Ø 1.5: 2 Ø 6: 2.5 Ø 7: 3	Ø 1.7: 2 Ø 8: 2.5	Ø 1.9: 2									
		S	10000	3198	2652	1990	1470	1272	1118	1136	1078									
		V	1750	2250	2500	2750	3000	3000	3250	3500	4000									
		F	37.3	46.8	59.2	62.4	62.7	69.1	81.3	86.9	103.3									
		B	100	48	59	52	46	46	45	64	93									
		T	58	57	56	57	59	57	51	57	61									
2	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 2.5 Ø 2: 3.5	Ø 1.2: 2.5 Ø 3: 3.5	Ø 1.3: 2 Ø 4: 2.5	Ø 1.4: 2 Ø 5: 2.5	Ø 1.5: 2 Ø 6: 2.5	Ø 1.7: 2	Ø 1.8: 2										
		S	10000	3404	2528	2182	1782	1502	1406	1232										
		V	1500	1500	1500	2000	2000	1750	2250	3000										
		F	20.2	23.3	29.7	31.3	37.0	36.8	49.9	73.4										
		B	100	53	52	64	64	64	96	96										
		T	44	49	45	50	47	50	47	34										

Table C2_CT, holes from 19 to 36

Detection class	C
Number of detectors	2
Anti-dust filter	No
Condensation trap	Yes

D1	detector 1 module
D2	detector 2 module
CT	trap for condensation
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)

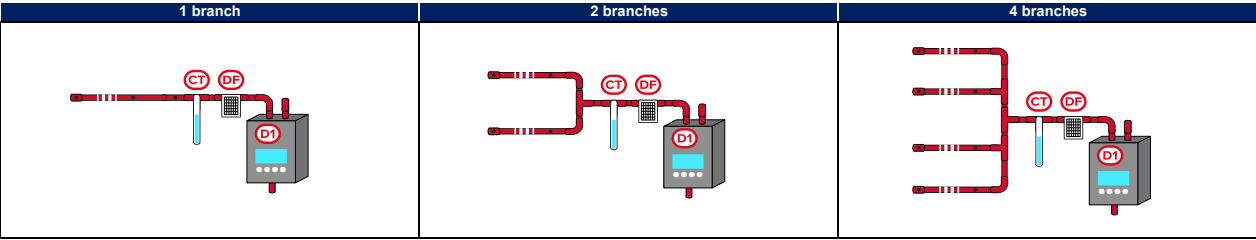


Number of branches	Length of branches (m)	parameters	Number of holes for each branch							
			19	20	21	22	23	24	25	26
1	30 ÷ 60	Ø	Ø 1..12: 2 Ø 13..18: 2.5 Ø 19: 3	Ø 1..13: 2 Ø 14..19: 2.5 Ø 20: 3	Ø 1..14: 2 Ø 15..20: 2.5 Ø 21: 3	Ø 1..21: 2 Ø 22: 2.5	Ø 1..22: 2 Ø 23: 2.5	Ø 1..23: 2 Ø 24: 2.5	Ø 1..24: 2 Ø 25: 2.5	Ø 1..25: 2 Ø 26: 2.5
		S	782	740	696	750	710	670	638	608
		V	3750	3750	3750	4250	4250	4250	4500	4500
		F	91.8	93.4	94.6	104.9	106.9	108.3	116.6	118.2
		B	50	50	50	62	60	58	57	55
		T	53	55	55	56	56	57	54	54
1	10 ÷ 30	Ø	Ø 1..19: 2	Ø 1..20: 2						
		S	994	942						
		V	3500	4250						
		F	88.8	110.7						
		B	84	83						
		T	30	25						

Table A1_DF_CT

Detection class	A
Number of detectors	1
Anti-dust filter	Yes
Condensation trap	Yes

D1	detector 1 module
DF	filter for dust
CT	trap for condensation
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)

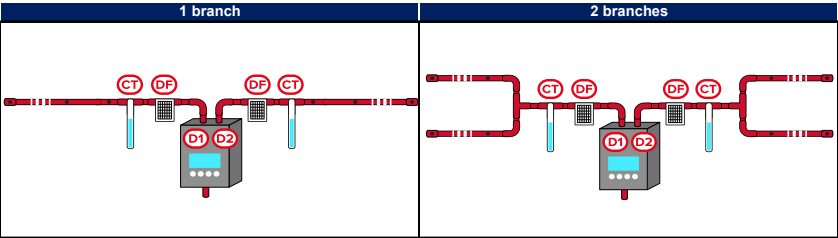


Number of branches	Length of branches (m)	parameters	Number of holes for each branch							
			1	2	3	4	5	6	7	8
1	60 ÷ 90	Ø	Ø 1: 10	Ø 1: 4.5 Ø 2: 7.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 7	Ø 1..2: 4 Ø 3: 4.5 Ø 4: 7	Ø 1..2: 3.5 Ø 3: 4 Ø 4: 4.5 Ø 5: 6	Ø 1: 3 Ø 2: 3.5 Ø 3: 4 Ø 4..5: 4.5 Ø 6: 6.5	Ø 1: 3 Ø 2..3: 3.5 Ø 4..5: 4 Ø 6: 4.5 Ø 7: 5.5	
		S	2500	856	642	479	381	335	302	
		V	3000	3250	3750	3750	4250	4250	4750	
		F	22.8	28.7	34	38.1	43.6	49.2	53.4	
		B	100	58	57	56	58	57	69	
		T	59	60	60	62	61	58	61	
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 4.5 Ø 2: 6.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 6.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 5.5 Ø 4: 8	Ø 1..2: 3 Ø 3..4: 3.5 Ø 5: 4.5	Ø 1: 3 Ø 2..4: 3.5 Ø 5: 4 Ø 6: 5	Ø 1..3: 3 Ø 4..6: 3.5 Ø 7: 4	Ø 1..2: 3 Ø 3..5: 3.5 Ø 6..8: 4
		S	2500	915	623	491	382	332	295	264
		V	2000	2250	2250	2250	2750	2500	3000	3250
		F	16.4	19.8	23.3	28.4	28.5	30.4	35.5	43.3
		B	100	64	61	64	55	58	71	82
		T	49	54	53	50	53	54	54	50
1	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: 3 Ø 4: 4	Ø 1..4: 3 Ø 5: 4	Ø 1..5: 3 Ø 6: 4	Ø 1..3: 3 Ø 4..6: 3.5 Ø 7: 4	Ø 1..8: 2.5
		S	2500	976	685	510	411	342	295	295
		V	1500	1500	1500	1500	1500	1500	1500	2000
		F	7.2	9.4	12.4	12.2	14.2	16	18.9	19.6
		B	100	66	65	58	58	58	70	87
		T	56	57	52	58	55	53	50	59
2	30 ÷ 60	Ø	Ø 1: 7.5	Ø 1: 4.5 Ø 2: 6.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 6	Ø 1: 4 Ø 2: 4.5 Ø 3: 5 Ø 4: 5.5				
		S	1250	460	327	271				
		V	2250	2500	2750	3000				
		F	29.1	38.8	47.9	58.7				
		B	100	65	66	89				
		T	56	55	53	55				
2	15 ÷ 30	Ø	Ø 1: 5	Ø 1: 3.5 Ø 2: 5	Ø 1..2: 3.5 Ø 3: 4.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 5 Ø 4: 5.5				
		S	1250	433	343	270				
		V	1500	1500	1500	1500				
		F	13.7	19	22	29.7				
		B	100	55	65	89				
		T	59	54	59	54				
4	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 4.5 Ø 2: 5.5						
		S	625	269						
		V	2000	2500						
		F	37	55.5						
		B	100	80						
		T	58	54						
4	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 3.5 Ø 2: 4						
		S	625	274						
		V	1500	1500						
		F	19	27.9						
		B	100	80						
		T	47	45						

Table A2_DF_CT

Detection class	A
Number of detectors	2
Anti-dust filter	Yes
Condensation trap	Yes

D1	detector 1 module
D2	detector 2 module
DF	filter for dust
CT	trap for condensation
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)

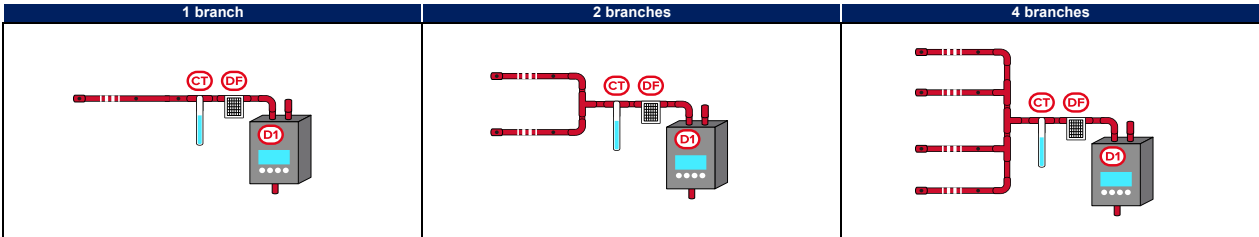


Number of branches	Length of branches (m)	parameters	Number of holes for each branch							
			1	2	3	4	5	6	7	8
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 4.5 Ø 2: 7	Ø 1: 4 Ø 2: 4.5 Ø 3: 6	Ø 1..3: 3.5 Ø 4: 5	Ø 1..3: 3.5 Ø 4: 4 Ø 5: 5	Ø 1: 3 Ø 2..4: 3.5 Ø 5: 4 Ø 6: 5	Ø 1..2: 3 Ø 3..6: 3.5 Ø 7: 4	Ø 1..2: 3 Ø 3..5: 3.5 Ø 6..8: 4
		S	2500	860	654	478	398	332	300	266
		V	2000	2250	2500	2750	2750	2750	3250	3500
		F	30.6	38.3	47.6	51.5	58.1	60.7	71.1	80.9
		B	100	60	66	53	59	58	78	80
		T	53	55	54	54	54	55	56	54
1	10 ÷ 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: 3.5 Ø 4: 4.5	Ø 1..4: 3 Ø 5: 4	Ø 1..5: 3 Ø 6: 4	Ø 1..6: 2.5 Ø 7: 3	Ø 1..8: 2.5
		S	2500	964	684	518	412	344	322	298
		V	1500	1500	1500	1500	1500	1500	2000	2250
		F	14.4	18.6	24	28.5	27.2	30.1	35.1	42.1
		B	100	66	64	64	58	58	70	89
		T	50	51	48	46	51	50	47	48
2	20 ÷ 40	Ø	Ø 1: 5.5	Ø 1: 3.5 Ø 2: 4.5	Ø 1..2: 3 Ø 3: 4	Ø 1..4: 3				
		S	1250	490	332	302				
		V	2000	2250	2500	3250				
		F	38.3	48.1	56.3	78				
		B	100	66	59	92				
		T	56	60	59	59				
2	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 2.5 Ø 2: 3.5	Ø 1..2: 2.5 Ø 3: 3	Ø 1..4: 2.5				
		S	1250	426	364	308				
		V	1500	1500	1750	2000				
		F	19.9	22.8	30.4	39.2				
		B	100	53	70	97				
		T	45	50	48	48				

Table B1_DF_CT

Detection class	B
Number of detectors	1
Anti-dust filter	Yes
Condensation trap	Yes

D1	detector 1 module
DF	filter for dust
CT	trap for condensation
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)

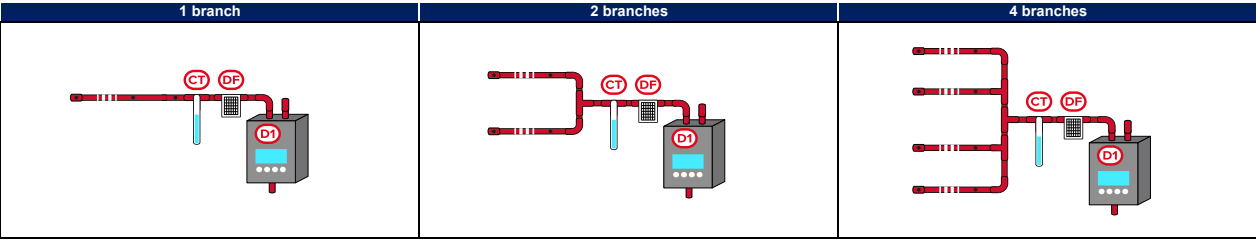


Number of branches	Length of branches (m)	parameters	Number of holes for each branch																	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	60 ÷ 90	Ø	Ø 1: 10	Ø 1: 5 Ø 2: 7.5	Ø 1: 4.5 Ø 2: 5.5 Ø 3: 8	Ø 1: 4 Ø 2: 4.5 Ø 3: 5 Ø 4: 7	Ø 1: 3 Ø 2.4: 3.5 Ø 5: 4.5	Ø 1: 3 Ø 2.3: 3.5 Ø 4.5: 4 Ø 6: 5	Ø 1: 3 Ø 2.3: 3.5 Ø 4.5: 4 Ø 6: 4.5 Ø 7: 5.5	Ø 1: 3 Ø 2.3: 3.5 Ø 4: 4 Ø 5: 4.5 Ø 6: 5.5 Ø 7: 7 Ø 8: 10	Ø 1.2: 2.5 Ø 3.6: 3 Ø 7.8: 3.5 Ø 9: 4									
		S	6000	2436	1644	1264	1012	850	725	693	552									
		V	3000	3250	3750	4000	4500	4500	4750	4750										
		F	22.8	30.0	36.4	43.7	41.7	50.1	53.4	62.8	50.9									
		B	100	72	76	68	64	69	69	82	66									
		T	59	61	61	59	66	59	61	55	69									
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 5 Ø 2: 6.5	Ø 1: 5 Ø 2: 6.5 Ø 3: 10	Ø 1.2: 4 Ø 3: 4.5 Ø 4: 5.5	Ø 1.4: 3.5 Ø 5: 4.5	Ø 1.2: 3.5 Ø 3.5: 4 Ø 6: 5	Ø 1.3: 3 Ø 4.6: 3.5 Ø 7: 4	Ø 1.4: 3 Ø 5.7: 3.5 Ø 8: 4	Ø 1.2: 2.5 Ø 3.8: 3 Ø 9: 3.5	Ø 1.2: 2.5 Ø 3.8: 3 Ø 9.10: 3.5	Ø 1.10: 2.5 Ø 11: 3	Ø 1.11: 2.5 Ø 12: 3	Ø 1.5: 2.5 Ø 6.12: 3 Ø 13: 3.5	Ø 1: 2 Ø 2.8: 2.5 Ø 9.14: 3	Ø 1.14: 2 Ø 15: 2.5	Ø 1.15: 2 Ø 16: 2.5	Ø 1.17: 2	
		S	6000	2503	1615	1238	977	839	707	619	541	487	468	423	376	320	354	328	320	
		V	2000	2250	2250	2500	2750	2750	3000	3000	3250	3250	3500	3500	3500	3500	3750	4000	3750	4750
		F	16.4	20.9	28.8	29.2	30.8	34.2	35.5	37.5	38.4	40.3	41.4	42.4	48.9	49.4	43.5	42.2	54.7	
		B	100	80	82	70	64	69	71	70	69	76	70	69	71	69	64	64	75	
		T	49	54	48	52	54	53	54	54	55	55	55	56	57	50	52	56	59	
1	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: 3.5 Ø 4: 4	Ø 1.2: 3 Ø 3.4: 3.5 Ø 5: 4	Ø 1.2: 3 Ø 3.5: 3.5 Ø 6: 4	Ø 1.3: 3 Ø 4.6: 3.5 Ø 7: 4	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: 2.5 Ø 3.9: 3 Ø 10: 3.5	Ø 1.3: 2.5 Ø 4.10: 3 Ø 11: 3.5	Ø 1.4: 2.5 Ø 5.11: 3 Ø 12: 3.5	Ø 1.5: 2.5 Ø 6.12: 3 Ø 13: 3.5	Ø 1.6: 2.5 Ø 7.13: 3 Ø 14: 3.5	Ø 1.6: 2.5 Ø 7.14: 3 Ø 15: 3.5	Ø 1.7: 2.5 Ø 8.15: 3 Ø 16: 3.5	Ø 1.17: 2	Ø 1.18: 2
		S	6000	2343	1644	1338	967	820	708	589	531	486	444	409	378	350	327	306	328	305
		V	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1750	1750	2250	2000
		F	7.2	9.4	12.4	14.4	15.4	17.5	18.9	18.1	19.0	20.2	21.0	21.6	22.3	22.9	28.5	29.1	28.3	25.8
		B	100	66	65	80	66	71	70	70	69	73	72	71	71	70	70	70	83	79
		T	56	57	52	56	53	51	50	57	55		55	55	54	54	54	44	45	52
2	30 ÷ 60	Ø	Ø 1: 7.5	Ø 1: 5 Ø 2: 7	Ø 1.2: 4.5 Ø 3: 6	Ø 1: 3.5 Ø 2.3: 4 Ø 4: 5	Ø 1.3: 3.5 Ø 4: 4 Ø 5: 4.5	Ø 1.3: 3 Ø 4.5: 3.5 Ø 6: 4	Ø 1.3: 3 Ø 4.6: 3.5 Ø 7: 4	Ø 1: 2.5 Ø 2.7: 3 Ø 8: 3.5	Ø 1.8: 2.5 Ø 9: 3									
		S	3000	1183	803	614	499	410	356	305	294									
		V	2250	2500	2750	3000	3250	3250	3500	3750	4000									
		F	29.1	41.2	49.4	53.9	61.2	59.7	67.0	70.9	70.8									
		B	100	74	68	70	70	67	72	71	70									
		T	56	54	55	55	55	59	57	58	60									
2	15 ÷ 30	Ø	Ø 1: 5	Ø 1: 4 Ø 2: 5	Ø 1.2: 3.5 Ø 3: 4.5	Ø 1: 4 Ø 2.3: 4.5 Ø 4: 5.5	Ø 1.2: 3 Ø 3.4: 3.5 Ø 5: 4	Ø 1.2: 3 Ø 3.5: 3.5 Ø 6: 4	Ø 1.3: 3 Ø 4.6: 3.5 Ø 7: 4	Ø 1.2: 3 Ø 3.5: 3.5 Ø 6.7: 4 Ø 8: 4.5	Ø 1.8: 2.5 Ø 9: 3									
		S	3000	1229	822	650	484	412	356	306	294									
		V	1500	1500	1500	1500	1750	1750	1750	1750	2000									
		F	13.7	20.3	22.0	29.4	30.6	33.4	34.9	37.7	36.4									
		B	100	73	65	76	66	72	71	75	70									
		T	59	54	59	54	53	54	55	54	58									
4	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 3.5 Ø 2: 4 Ø 2: 4.5	Ø 1: 3.5 Ø 2: 4 Ø 3: 4.5	Ø 1: 3 Ø 2.3: 3.5 Ø 4: 4														
		S	1500	587	410	296														
		V	2000	2500	2750	3000														
		F	37.0	47.8	61.8	68.6														
		B	100	66	73	69														
		T	58	60	58	59														
4	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 3.5 Ø 2: 4	Ø 1.2: 2.5 Ø 3: 3	Ø 1.3: 2.5 Ø 4: 3														
		S	1500	657	436	334														
		V	1500	1500	1750	1750														
		F	19.0	27.9	28.1	32.8														
		B	100	80	70	70														
		T	47	45	52	50														

Table C1_DF_CT, holes from 1 to 18

Detection class	C
Number of detectors	1
Anti-dust filter	Yes
Condensation trap	Yes

D1	detector 1 module
DF	filter for dust
CT	trap for condensation
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)

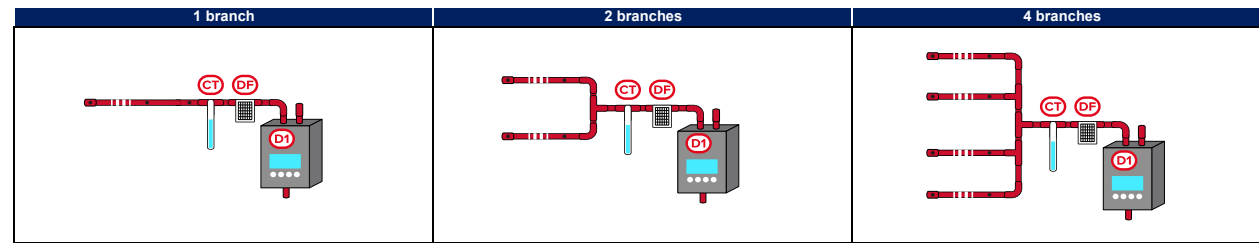


Number of branches	Length of branches (m)	parameters	Number of holes for each branch																	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	60 ÷ 90	Ø	Ø 1: 10	Ø 1: 4.5 Ø 2: 7.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 7.5	Ø 1: 3.5 Ø 2: 4 Ø 3: 4.5 Ø 4: 7	Ø 1.2: 3.5 Ø 3: 4 Ø 4: 4.5 Ø 5: 7	Ø 1: 2.5 Ø 2.4: 3 Ø 5: 3.5 Ø 6: 4.5	Ø 1: 2.5 Ø 2.3: 3 Ø 4.6: 3.5 Ø 7: 5	Ø 1: 2.5 Ø 2.4: 3 Ø 5.7: 3.5 Ø 8: 5	Ø 1: 2.5 Ø 2.3: 3 Ø 4.5: 3.5 Ø 6: 4 Ø 7: 4.5 Ø 8: 5 Ø 9: 7.5	Ø 1.3: 2.5 Ø 4.6: 3 Ø 7.8: 3.5 Ø 9: 3.5 Ø 10: 4.5	Ø 1.3: 2.5 Ø 4.6: 3 Ø 7.8: 3.5 Ø 9: 3.5 Ø 10: 4.5 Ø 11: 5.5			Ø 1.2: 2 Ø 3.7: 2.5 Ø 8.11: 3 Ø 12.13: 3.5 Ø 14: 4.5				
		S	20000	6848	4929	3937	2983	2463	2166	2018	1758	1541	1468			1089				
		V	3000	3250	3500	3750	3750	4250	4500	4250	4500	4500	4750			4750				
		F	22.8	28.7	32.9	37.1	40.6	39.2	45.8	45.2	51.8	49.4	55.3			55.2				
		B	100	58	54	54	53	50	51	53	55	50	53			51				
T	59	60	62	60	62	67	62	67	62	68	61			66						
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 4 Ø 2: 6.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 6.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 5 Ø 4: 8	Ø 1: 3 Ø 2.4: 3.5 Ø 5: 5	Ø 1.2: 3 Ø 3.5: 3.5 Ø 6: 5	Ø 1.3: 3 Ø 4.6: 3.5 Ø 7: 5	Ø 1.3: 2.5 Ø 4.7: 3 Ø 8: 4	Ø 1.3: 2.5 Ø 4.8: 3 Ø 9: 4	Ø 1.2: 2.5 Ø 3.7: 3 Ø 8.9: 3.5 Ø 10: 4.5	Ø 1.5: 2.5 Ø 6.10: 3 Ø 11: 4	Ø 1.6: 2.5 Ø 7.11: 3 Ø 12: 4	Ø 1.7: 2.5 Ø 8.12: 3 Ø 13: 4	Ø 1.8: 2 Ø 9.13: 2.5 Ø 14: 3	Ø 1.9: 2 Ø 10.14: 2.5 Ø 15: 3	Ø 1.9: 2 Ø 10.15: 2.5 Ø 16: 3	Ø 1.10: 2 Ø 11.16: 2.5 Ø 17: 3	Ø 1.11: 2 Ø 12.17: 2.5 Ø 18: 3
		S	20000	6246	4983	3932	3000	2550	2215	1892	1716	1557	1407	1293	1186	1085	1019	948	894	842
		V	2000	2250	2250	2250	2500	2500	2500	2750	2750	2750	3000	3000	3000	3250	3250	3250	3250	3250
		F	16.4	18.8	23.3	28.1	27.1	29.1	31.0	31.3	32.4	35.5	37.8	39.4	39.6	37.5	38.3	40.3	40.5	41.5
		B	100	50	61	57	53	52	51	50	53	52	51	51	51	50	50	51	51	51
T	49	54	53	50	55	54	54	56	58	55	53	53	55	56	56	56	57	56		
1	15 ÷ 30	Ø	Ø 1: 5	Ø 1: 3 Ø 2: 4.5	Ø 1.2: 3 Ø 3: 4.5	Ø 1.3: 3 Ø 4: 4	Ø 1.4: 3 Ø 5: 4	Ø 1: 2.5 Ø 2.5: 3 Ø 6: 4	Ø 1: 2.5 Ø 2.6: 3 Ø 7: 4	Ø 1.2: 2.5 Ø 3.7: 3 Ø 8: 4	Ø 1.8: 2.5 Ø 9: 3.5	Ø 1.9: 2.5 Ø 10: 3.5	Ø 1.10: 2.5 Ø 11: 3.5	Ø 1.11: 2.5 Ø 12: 3.5	Ø 1.12: 2.5 Ø 13: 3.5	Ø 1.10: 2.5 Ø 11.13: 3 Ø 14: 3.5	Ø 1: 2 Ø 2.11: 2.5 Ø 12.14: 3 Ø 15: 3.5	Ø 1.2: 2 Ø 3.12: 2.5 Ø 13.15: 3 Ø 16: 3.5	Ø 1.3: 2 Ø 4.13: 2.5 Ø 14.16: 3 Ø 17: 3.5	Ø 1.3: 2 Ø 4.14: 2.5 Ø 15.17: 3 Ø 18: 3.5
		S	20000	6398	4743	4081	3291	2387	2108	1883	1830	1638	1477	1341	1223	1102	952	903	857	825
		V	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
		F	7.2	8.6	10.9	12.2	14.2	15.4	17.0	18.0	16.5	17.6	18.7	19.6	20.5	22.0	22.2	22.5	22.8	23.4
		B	100	49	47	58	58	50	53	52	52	52	52	52	52	57	56	56	56	56
T	56	59	54	58	55	52	51	50	57	56	56	55	55	52	52	52	52	52	52	
2	30 ÷ 60	Ø	Ø 1: 7.5	Ø 1: 4 Ø 2: 6.5	Ø 1: 4 Ø 2: 4.5 Ø 3: 7	Ø 1: 3.5 Ø 2.3: 4 Ø 4: 6	Ø 1.4: 3 Ø 5: 4.5	Ø 1.2: 3 Ø 3.5: 3.5 Ø 6: 4 Ø 7: 5.5	Ø 1.3: 2.5 Ø 4.7: 3 Ø 8: 4	Ø 1.3: 2.5 Ø 4.8: 3 Ø 9: 4	Ø 1.2: 2.5 Ø 3.6: 3 Ø 7.9: 3.5 Ø 10: 4.5	Ø 1.3: 2.5 Ø 4.8: 3 Ø 9: 4 Ø 11: 4.5	Ø 1.10: 2 Ø 11: 2.5 Ø 12: 3	Ø 1.7: 2.5 Ø 8.12: 3 Ø 13: 4	Ø 1.8: 2 Ø 9.13: 2.5 Ø 14: 3	Ø 1.9: 2 Ø 10.14: 2.5 Ø 15: 3	Ø 1.9: 2 Ø 10.15: 2.5 Ø 16: 3	Ø 1.9: 2 Ø 10.16: 2.5 Ø 17: 3	Ø 1.11: 2 Ø 12.17: 2.5 Ø 18: 3	
		S	10000	3137	2432	1902	1509	1283	1123	948	865	743	712	649	596	541	505	478	444	415
		V	2250	2500	2500	2750	3000	3000	3000	3250	3500	3500	3500	3750	3750	4000	4000	4000	4000	4250
		F	29.1	37.3	44.0	50.2	49.9	57.0	60.8	60.8	67.5	71.0	71.7	66.6	78.3	75.5	77.1	78.8	79.7	86.0
		B	100	50	56	52	47	52	50	50	53	56	52	45	51	50	50	51	51	51
T	56	54	55	54	59	56	55	58	55	56	56	59	56	56	56	56	57	58	56	
2	15 ÷ 30	Ø	Ø 1: 5	Ø 1: 3.5 Ø 2: 5	Ø 1.2: 3 Ø 3: 4.5	Ø 1.3: 3 Ø 4: 4.5	Ø 1.4: 3 Ø 5: 4.5	Ø 1.2: 3 Ø 3.5: 3.5 Ø 6: 5	Ø 1.6: 2.5 Ø 7: 3.5	Ø 1.7: 2.5 Ø 8: 3.5	Ø 1.8: 2.5 Ø 9: 3.5	Ø 1.4: 2.5 Ø 5.9: 3 Ø 10: 4	Ø 1.5: 2.5 Ø 6.10: 3 Ø 11: 4	Ø 1.6: 2.5 Ø 7.11: 3 Ø 12: 4	Ø 1.7: 2 Ø 8.12: 2.5 Ø 13: 3	Ø 1.7: 2 Ø 8.13: 2.5 Ø 14: 3	Ø 1.8: 2 Ø 9.14: 2.5 Ø 15: 3	Ø 1.9: 2 Ø 10.15: 2.5 Ø 16: 3	Ø 1.10: 2 Ø 11.16: 2.5 Ø 17: 3	Ø 1.11: 2 Ø 12.17: 2.5 Ø 18: 3
		S	9999	3465	2374	1861	1510	1281	1181	1032	913	777	710	652	587	543	511	480	451	425
		V	1500	1500	1500	1500	1500	1500	1750	1750	1750	1750	1750	1750	2000	2000	2000	2000	2000	2000
		F	13.7	19.0	19.8	22.8	25.2	28.9	28.6	30.5	32.2	35.8	36.6	37.3	38.5	39.8	40.6	41.3	42.0	42.6
		B	100	55	48	47	47	52	52	52	52	52	51	51	50	51	51	51	51	51
T	59	54	59	58	58	55	59	59	59	54	55	56	53	53	53	54	54	54		
4	20 ÷ 40	Ø	Ø 1: 6	Ø 1: 4 Ø 2: 6.5	Ø 1.2: 3 Ø 3: 4.5	Ø 1.2: 3 Ø 3: 3.5 Ø 4: 4.5	Ø 1.4: 3 Ø 5: 4	Ø 1: 2.5 Ø 2.5: 3 Ø 6: 4	Ø 1.5: 2 Ø 6: 2.5 Ø 7: 3	Ø 1.6: 2 Ø 7: 2.5 Ø 8: 3	Ø 1.7: 2 Ø 8: 2.5 Ø 9: 3	Ø 1.6: 2 Ø 7.9: 2.5 Ø 10: 3	Ø 1.10: 2 Ø 11: 2.5	Ø 1.11: 2 Ø 12: 2.5						
		S	5000	1575	1187	926	819	608	557	496	432	383	410	376						
		V	2000	2250	2500	2750	3000	3000	3250	3500	3500	3500	4000	4250						
		F	37.0	50.2	51.5	62.6	69.8	71.6	67.1	75.6	79.1	82.2	92.2	100.4						
		B	100	50	48	51	58	52	46	45	45	48	64	64						
T	58	54	61	57	60	61	62	57	59	59	62	58								
4	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 3 Ø 2: 4	Ø 1.2: 2.5 Ø 3: 3.5	Ø 1.3: 2.5 Ø 4: 3.5	Ø 1.4: 2.5 Ø 5: 3	Ø 1.5: 2 Ø 6: 2.5	Ø 1.6: 2 Ø 7: 2.5	Ø 1.7: 2 Ø 8: 2.5	Ø 1.8: 2 Ø 9: 2.5	Ø 1.9: 2 Ø 10: 2.5	Ø 1.11: 2	Ø 1.12: 2						
		S	5000	1820	1264	997	900	751	649	570	507	458	440	401						
		V	1500	1500	1500	1500	1750	2000	2000	2000	2000	2250	2500	2500						
		F	19.0	26.0	26.1	29.6	36.3	36.6	39.5	41.9	43.9	51.2	57.8	59.4						
		B	100	59	52	52	70	64	64	64	64	64	92	90						
T	47	45	51	50	50	51	50	50	50	44	48	48								

Table C1_DF_CT, holes from 19 to 36

Detection class	C
Number of detectors	1
Anti-dust filter	Yes
Condensation trap	Yes

D1	detector 1 module
DF	filter for dust
CT	trap for condensation
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)



Number of branches	Length of branches (m)	parameters	Number of holes for each branch																	
			19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
1	60 ÷ 90	Ø	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 19: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 20: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 21: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 22: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 23: 2	Ø1: 6 Ø2: 5 Ø3: 4.5 Ø4: 4 Ø5: 3.5 Ø6, 24: 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		S	791	759	693	651	613	575	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		V	4250	4250	4500	4500	4500	4750	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		F	60.6	61.7	65.6	66.5	67.4	72.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		B	45	47	47	47	47	45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		T	85	84	82	83	84	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	30 ÷ 60	Ø	Ø 1..12: 2 Ø 13..18: 2.5 Ø 19: 3	Ø 1..17: 2 Ø 18..19: 2.5 Ø 20: 3	Ø 1..14: 2 Ø 15..20: 2.5 Ø 21: 3	Ø 1..15: 2 Ø 16..21: 2.5 Ø 22: 3	Ø 1..16: 2 Ø 17..22: 2.5 Ø 23: 3	Ø 1..17: 2 Ø 18..23: 2.5 Ø 24: 3	Ø 1..18: 2 Ø 19..24: 2.5 Ø 25: 3	Ø 1..18: 2 Ø 19..25: 2.5 Ø 26: 3	Ø 1..26: 2 Ø 27: 2.5	Ø1 + 28: 2	Ø1 + 29: 2	Ø 1..29: 2 Ø 30: 2.5	Ø1 + 31: 2	N/A	N/A	N/A	N/A	
		S	791	765	703	667	634	599	571	542	577	506	510	503	477	N/A	N/A	N/A	N/A	
		V	3250	3500	3500	3500	3500	3500	3750	4000	4250	3250	3750	4750	4250	N/A	N/A	N/A	N/A	
		F	42.0	45.0	46.8	47.7	48.5	49.0	53.4	57.9	61.0	55.8	65.9	71.2	77.3	N/A	N/A	N/A	N/A	
		B	51	46	50	50	50	50	50	51	53	45	47	49	45	N/A	N/A	N/A	N/A	
		T	57	52	53	53	54	55	51	49	54	84	84	49	83	N/A	N/A	N/A	N/A	
1	15 ÷ 30	Ø	Ø 1..4: 2 Ø 5..15: 2.5 Ø 16..18: 3 Ø 19: 3.5	Ø 1..5: 2 Ø 6..16: 2.5 Ø 17..19: 3 Ø 20: 3.5	Ø 1..6: 2 Ø 7..17: 2.5 Ø 18..20: 3 Ø 21: 3.5	Ø 1..21: 2 Ø 22: 2.5	Ø 1..22: 2 Ø 23: 2.5	Ø 1..23: 2 Ø 24: 2.5	Ø 1..24: 2 Ø 25: 2.5	Ø 1..25: 2 Ø 26: 2.5	Ø 1..26: 2 Ø 27: 2.5	Ø 1..27: 2 Ø 28: 2.5	Ø 1..26: 2 Ø 27..28: 2.5 Ø 29: 3	Ø 1..27: 2 Ø 28..29: 2.5 Ø 30: 3	Ø 1..28: 2 Ø 29..30: 2.5 Ø 31: 3	Ø 1..31: 2 Ø 32: 2.5	Ø 1..32: 2 Ø 33: 2.5	Ø 1..33: 2 Ø 34: 2.5	Ø 1..34: 2 Ø 35: 2.5	Ø 1..36: 2
		S	787	751	718	769	730	693	660	628	599	572	510	488	467	494	473	453	436	437
		V	1500	1500	1500	1750	1750	1750	1750	1750	1750	1750	1750	1750	2000	2000	2000	2000	2250	
		F	23.6	23.9	24.1	25.4	26.0	26.6	27.2	27.7	28.2	28.7	29.6	30.0	30.4	34.7	34.7	35.2	35.6	40.1
		B	56	56	56	64	64	64	64	64	63	62	45	45	45	59	56	55	54	54
		T	52	52	52	56	56	56	56	56	56	56	47	47	47	49	50	50	50	52
2	30 ÷ 60	Ø	Ø 1..11: 2 Ø 12..18: 2.5 Ø 19: 3	Ø 1..12: 2 Ø 13..19: 2.5 Ø 20: 3	Ø 1..12: 2 Ø 13..20: 2.5 Ø 21: 3	Ø 1..11: 2 Ø 12..21: 2.5 Ø 22: 3														
		S	394	372	355	340														
		V	4250	4250	4500	4750														
		F	86.9	89.7	94.3	100.9														
		B	51	52	54	58														
		T	56	56	56	54														
2	15 ÷ 30	Ø	Ø 1..12: 2 Ø 13..18: 2.5 Ø 19: 3	Ø 1..12: 2 Ø 13..19: 2.5 Ø 20: 3	Ø 1..12: 2 Ø 13..20: 2.5 Ø 21: 3	Ø 1..21: 2 Ø 22: 2.5	Ø 1..22: 2 Ø 23: 2.5	Ø 1..23: 2 Ø 24: 2.5	Ø 1..24: 2 Ø 25: 2.5											
		S	401	381	364	383	362	350	332											
		V	2000	2000	2000	2250	2250	2500	2500											
		F	43.2	43.9	44.5	49.1	49.8	56.3	56.9											
		B	51	52	54	64	64	64	64											
		T	55	56	57	58	59	52	53											

Table C1_DF_CT, holes from 37 to 41

Detection class	C
Number of detectors	1
Anti-dust filter	Yes
Condensation trap	Yes

D1	detector 1 module
DF	filter for dust
CT	trap for condensation
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)

Number of branches	Length of branches (m)	parameters	Number of holes for each branch				
			37	38	39	40	41
1	60 ÷ 90	Ø					
		S					
		V					
		F					
		B					
		T					
1	30 ÷ 60	Ø					
		S					
		V					
		F					
		B					
		T					
1	15 ÷ 30	Ø	Ø 1..37: 2	Ø 1..38: 2	Ø 1..39: 2	Ø 1..40: 2	Ø 1..40: 2 Ø 41: 2.5
		S	429	416	405	401	390
		V	2500	2750	3000	4500	4000
		F	46.0	49.8	54.9	83.8	78.7
		B	56	53	53	54	57
		T	45	42	39	25	23

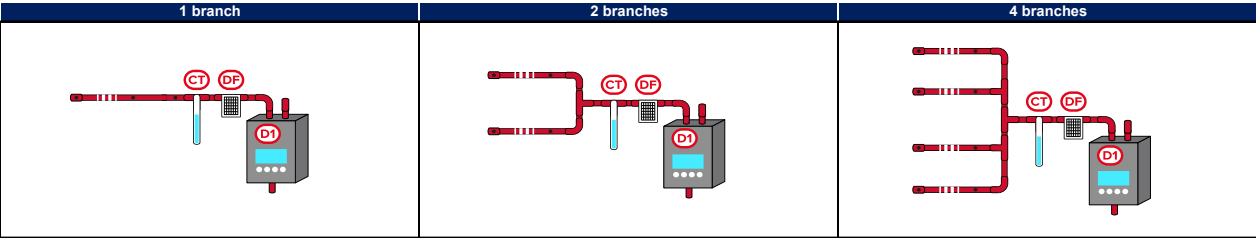
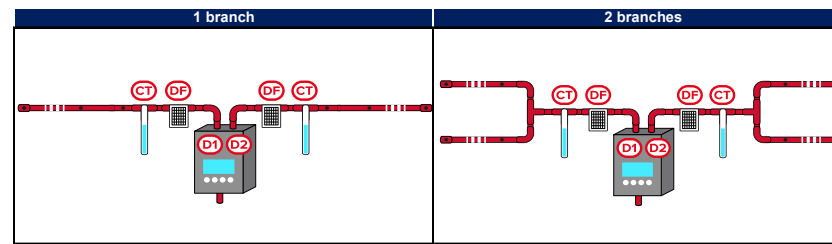


Table C2_DF_CT, holes from 1 to 18

Detection class	C
Number of detectors	2
Anti-dust filter	Yes
Condensation trap	Yes

D1	detector 1 module
D2	detector 2 module
DF	filter for dust
CT	trap for condensation
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)

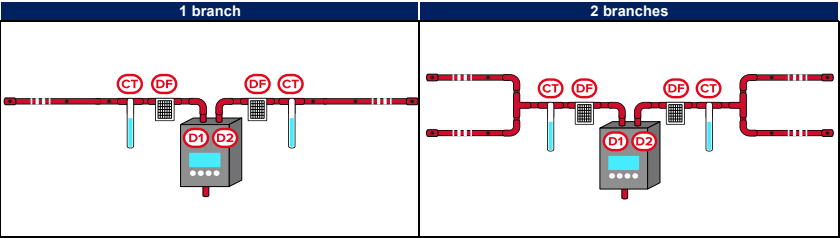


Number of branches	Length of branches (m)	parameters	Number of holes for each branch																		
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	30 ÷ 60	Ø	Ø 1: 10	Ø 1: 4.5 Ø 2: 7	Ø 1..2: 4 Ø 3: 6	Ø 1: 3.5 Ø 2.4: 3.4 Ø 4: 6	Ø 1: 3 Ø 2.4: 3.5 Ø 5: 5	Ø 1..2: 3 Ø 3.5: 3.5 Ø 6: 5	Ø 1..3: 3 Ø 4.6: 3.5 Ø 7: 5	Ø 1..3: 2.5 Ø 4.7: 3 Ø 8: 4	Ø 1..3: 2.5 Ø 4.8: 3 Ø 9: 4	Ø 1..4: 2.5 Ø 5.9: 3 Ø 10: 4	Ø 1..5: 2.5 Ø 6..10: 3 Ø 11: 4	Ø 1..6: 2.5 Ø 7..11: 3 Ø 12: 4	Ø 1..6: 2 Ø 7..12: 2.5 Ø 13: 3	Ø 1..6: 2 Ø 7..13: 2.5 Ø 14: 3	Ø 1..8: 2 Ø 9..14: 2.5 Ø 15: 3	Ø 1..2: 2 Ø 3..8: 2.5 Ø 9..15: 3 Ø 16: 4	Ø 1..9: 2 Ø 10..16: 2.5 Ø 17: 3	Ø 1..9: 2 Ø 10..17: 2.5 Ø 18: 3	
		S	20000	6878	4818	3786	3000	2554	2218	1894	1720	1548	1410	1294	1158	1080	1004	938	884	832	
		V	2000	2250	2500	2500	2750	2750	2750	3000	3000	3250	3250	3250	3250	3500	3500	3750	3500	3750	3750
		F	30.6	38.3	46.4	50.5	55.3	58.6	61.6	62.6	64.4	72.1	73.6	75.6	72.2	74.3	81.4	87.3	86.2	86.1	
		B	100	60	53	52	53	52	51	50	53	52	51	51	50	50	51	54	51	51	
T	53	55	53	54	54	54	54	55	56	58	54	55	55	57	59	55	54	54	56		
1	10 ÷ 30	Ø	Ø 1: 5	Ø 1: 3 Ø 2: 4.5	Ø 1..2: 3 Ø 3: 4.5	Ø 1..3: 3 Ø 4: 4.5	Ø 1..4: 3 Ø 5: 4	Ø 1..5: 3 Ø 6: 4	Ø 1..6: 2.5 Ø 7: 3.5	Ø 1..7: 2.5 Ø 8: 3.5	Ø 1..3: 2 Ø 4..8: 2.5 Ø 9: 3	Ø 1..4: 2 Ø 5..9: 2.5 Ø 10: 3	Ø 1..5: 2 Ø 6..10: 2.5 Ø 11: 3	Ø 1..5: 2 Ø 6..11: 2.5 Ø 12: 3	Ø 1..12: 2 Ø 13: 2.5	Ø 1..13: 2 Ø 14: 2.5	Ø 1..14: 2 Ø 15: 2.5	Ø 1..15: 2 Ø 16: 2.5	Ø 1..17: 2	Ø 1..18: 2	
		S	20000	6316	4730	3736	3302	2750	2390	2098	1574	1452	1326	1228	1392	1288	1198	1118	1096	1036	
		V	1500	1500	1500	1500	1500	1500	1750	1750	1750	1750	1750	1750	1750	2000	2000	2000	2000	2250	2500
		F	14.4	17.0	21.3	25.1	27.2	30.1	31.6	34.2	32.6	34.1	36.0	37.7	39.2	41.1	42.8	44.3	51.2	59.1	
		B	100	48	47	47	58	58	52	52	50	50	50	51	64	64	64	64	83	83	
T	50	52	49	46	51	50	47	46	51	49	48	48	51	50	50	50	49	51	45		
2	20 ÷ 40	Ø	Ø 1: 5.5	Ø 1: 3 Ø 2: 4.5	Ø 1..2: 3 Ø 3: 4	Ø 1..3: 2.5 Ø 4: 3.5	Ø 1..4: 2.5 Ø 5: 3.5	Ø 1..4: 2 Ø 5: 2.5 Ø 6: 3	Ø 1..5: 2 Ø 6: 2.5 Ø 7: 3	Ø 1..7: 2 Ø 8: 2.5	Ø 1..8: 2 Ø 9: 2.5	Ø 1..10: 2									
		S	10000	3202	2652	1990	1630	1204	1066	1134	1008	966									
		V	2000	2250	2500	2750	2750	3000	3000	3500	3500	4250									
		F	38.3	45.0	56.3	59.6	66.3	68.6	73.1	82.5	87.6	109.8									
		B	100	49	59	52	52	46	46	64	64	91									
T	56	60	59	60	59	60	59	61	60	59											
2	5 ÷ 20	Ø	Ø 1: 4	Ø 1: 2.5 Ø 2: 3.5	Ø 1..2: 2.5 Ø 3: 3.5	Ø 1..3: 2.5 Ø 4: 3	Ø 1..4: 2 Ø 5: 2.5	Ø 1..5: 2 Ø 6: 2.5	Ø 1..6: 2 Ø 7: 2.5	Ø 1..8: 2	Ø 1..9: 2										
		S	10000	3404	2528	2230	1782	1504	1300	1226	1094										
		V	1500	1500	1500	1750	2000	2000	2000	2250	3250										
		F	19.9	22.8	28.7	36.6	35.9	40.6	44.6	52.2	81.1										
		B	100	53	52	70	64	64	64	95	96										
T	45	50	46	45	48	46	44	48	32												

Table C2_DF_CT, holes from 19 to 27

Detection class	C
Number of detectors	2
Anti-dust filter	Yes
Condensation trap	Yes

D1	detector 1 module
D2	detector 2 module
DF	filter for dust
CT	trap for condensation
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)



Number of branches	Length of branches (m)	parameters	Number of holes for each branch								
			19	20	21	22	23	24	25	26	27
1	30 ÷ 60	Ø	Ø 1..12: 2 Ø 13..18: 2.5 Ø 19: 3	Ø 1..10: 2 Ø 11..19: 2.5 Ø 20: 3	Ø 1..14: 2 Ø 15..20: 2.5 Ø 21: 3	Ø 1..11: 2 Ø 12..21: 2.5 Ø 22: 3	Ø 1..22: 2 Ø 23: 2.5	Ø 1..17: 2 Ø 18..23: 2.5 Ø 24: 3	Ø 1..13: 2 Ø 14..24: 2.5 Ø 25: 3	Ø 1..25: 2 Ø 26: 2.5	Ø 1..26: 2 Ø 27: 2.5
		S	780	734	696	662	712	594	566	608	576
		V	3750	4000	4000	4000	4250	4250	4250	4750	4750
		F	89.5	97.7	95.9	97.1	104.5	105.5	106.6	117.9	119.1
		B	50	50	50	50	63	50	50	55	53
		T	55	52	54	56	57	53	55	54	55
1	10 ÷ 30	Ø	Ø 1..19: 2	Ø 1..20: 2	Ø 1..21: 2	Ø 1..22: 2	Ø 1..23: 2				
		S	982	932	884	844	804				
		V	2750	3000	3250	3750	4250				
		F	66.7	74.1	81.7	96.1	110.9				
		B	83	82	80	79	78				
		T	41	37	34	29	26				



ISO 9001 Quality Management
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