DFA05

High sensitivity air sampling detection

- ***EN54-20 certified***
- ***CE certified according to CPD***

DFA05 is a high sensitivity air sampling detector. *It takes continuous air samples via one or two sampling pipe tube networks, then supply the samples to one or two smoke sensors. Thanks to this detection method and the product's excellent properties under severe ambient conditions, DFA05 aspirating smoke detector is used wherever problems are to be expected related to a* ***difficult access*** *to a monitored area or other variable disturbance so optimal protection can no longer be guaranteed with regular fire detectors.*

DFA05 exists in ***1 or 2 smoke detection zones****. Each zone is monitored by the means of an aspirating system and a smoke analysing detector. Two ranges of sensitivity are available for the detectors:* ***0,01%/m to 10%/m and 0,002%/m to 10%/m****, according to the class of fire detection to fulfil.*

DFA05 is perfect used for high buildings, false ceiling or floor, high risks areas (laboratories, computer rooms), discrete installation (Prisons, museums)...

Optional 5-relay interface module *and* ***memory card module*** *for memory events storage are also available.*

The configuration of the device and the pipe network design can be done through a complete set of software: ***Sampling Pipe Config*** *engineering software for* ***calculation*** *allowing to* ***engineer EN54-20 compliant systems****;* ***DFA05 Config*** *software for the direct connection and configuration of the DFA05 device with a computer.*

Main characteristics

- Early and accurate smoke detection
- 1 or 2 sampling lines with separate air flow monitoring
- 1 or 2 detection channel with smoke level display
- Two sensitivities for detection: 0,01%/m and 0,002%/m
- Online dirty status compensation
- Option 5-relay board for information repetition
- Option SD memory card to save memory events
- Calculation software: Sampling Pipe Config
- Low noise level, compliant with ISO 11690-1
- Elegant design and discrete installation

Power supply specification		
	DFA05- 1 detector	**DFA05-2 detectors**
Main supply voltage Nominal	10,5 to 30 VDC 24V	
Fault	260 mA	290 mA
Alarm	310 mA	385 mA
Additional RIM35	7 mA (per optional board)	
Additional MCM35	10 mA (per optional board)	
Mechanical characteristics		
Unit weight	max. 3.850 Kg	
Unit dimensions (in mm)	265 x 348 x 146 mm	
Unit row material and color	ABS Blend / Grey - anthracite violet	
Noise level (at fan speed level 3)	43 dB	
IP rating	54	
Climatic characteristics		
Detector housing temperature range	-20 to +60°C	
Max approved temperature fluctuation	20°C (fluctuation between sampling pipe and housing)	
Ambient pressure difference	Must be identical (from housing to sampling pipes environment)	
Detector housing humidity	95 % rel.hum. without condensation (ambient condition)	
Humidity ambient temperature	70 %rel.hum.	
General characteristics		
Detector sensitivity range	0,01%/m or 0,002%/m	
Display	Leds for alarm, fault, dirty status and 10 level of smoke status	
Relay contacts	Fault, Alarm line 1, Alarm line 2 or freely programmable (50 VDC, 1A, 30W)	
Communication port	USB	

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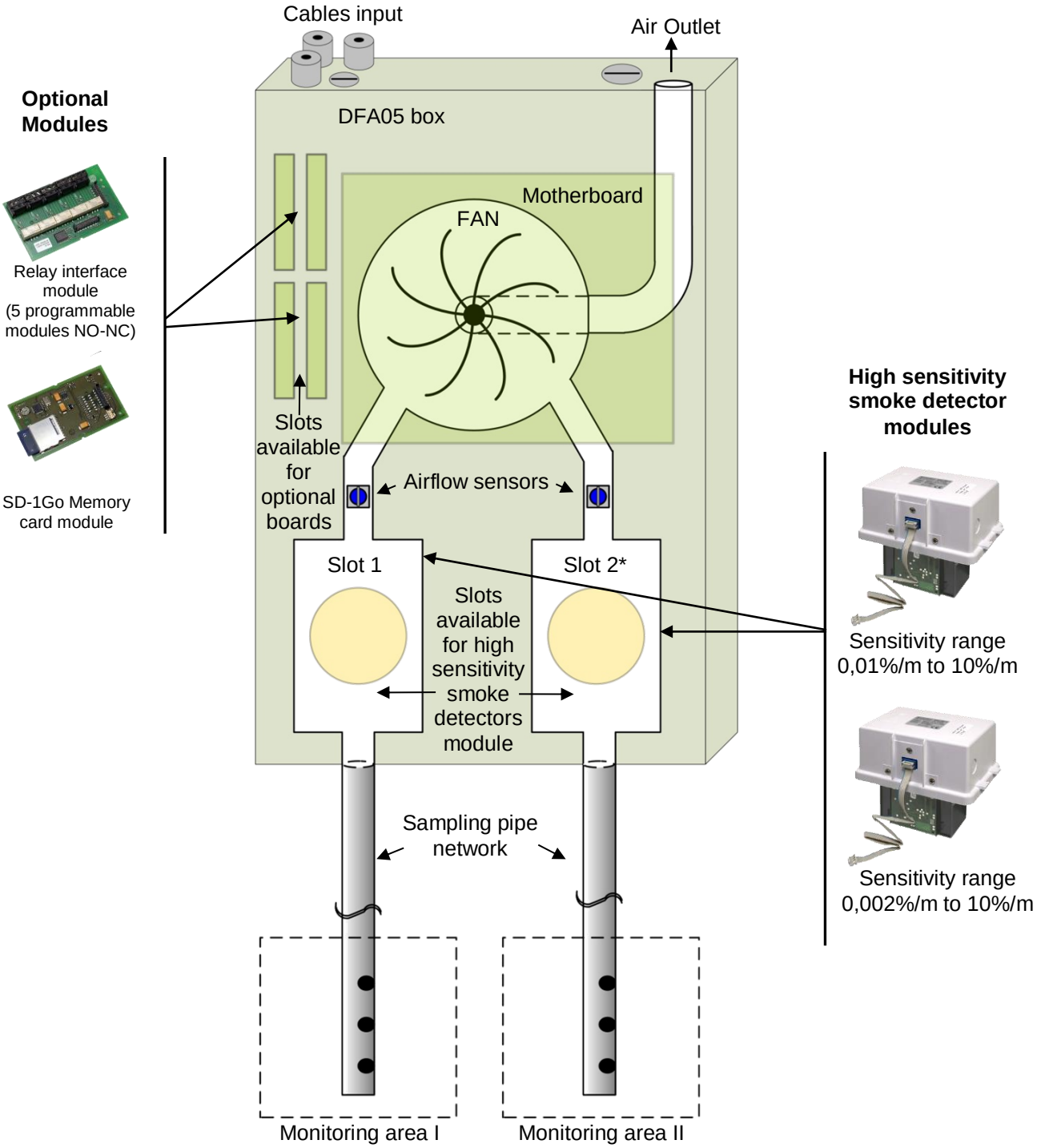
Operating principle generality



*Slot 2 only available on DFA05-2X-B version.

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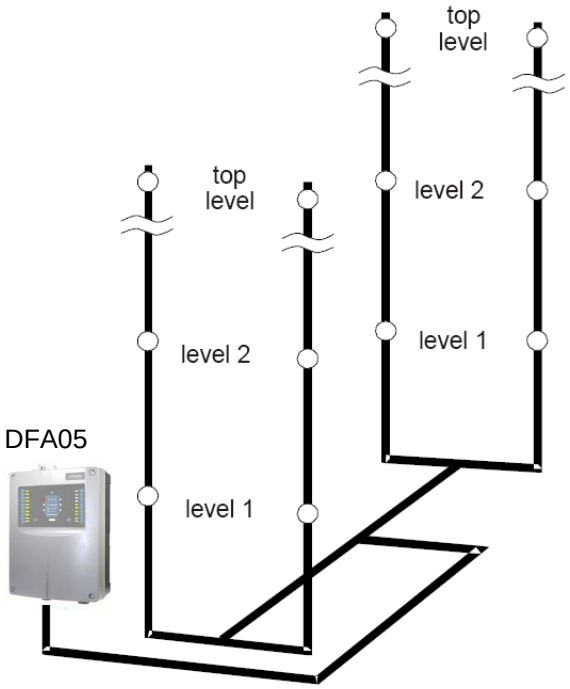
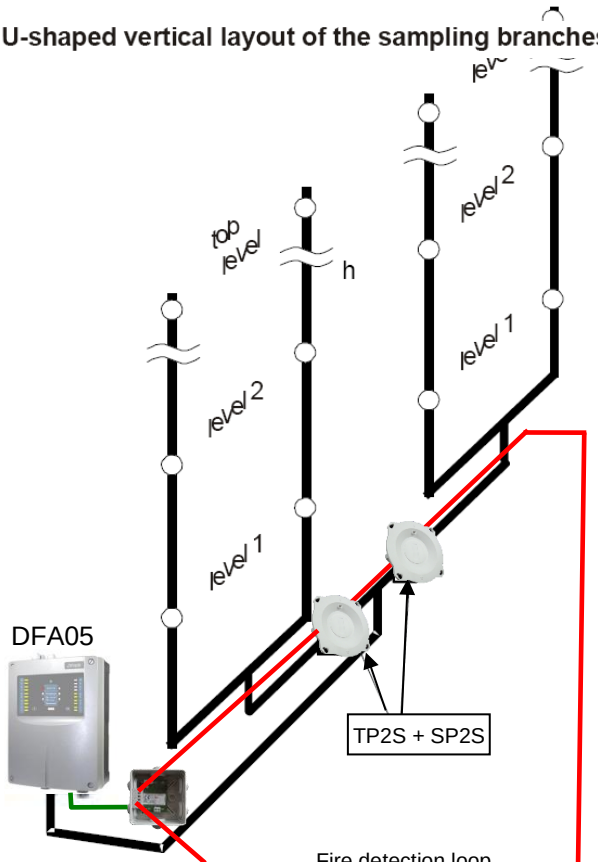
Examples of Easy Configuration tubes planning.

For “real world” topologies

Forme H- vertical



2 x U-shaped vertical layout of the sampling branches



PIPE NETWORK			
Tube diameter	25mm		
Max.Number of holes per channel	24		
Max. length per pipe network:	Class A: 100m	Class B: 140m	Class C: 300m
Max. area to cover (48 holes)*:	60m²/hole: 2000 m²		80m²/hole: 2000 m²
Configuring/Modelling	Predefined as per EN54-20 (Easy Config) Application specific (Sampling Pipe Config)		

*Based upon the regulation rules of the country.

Addressable system

Héphaïs 128

Or

Héphaïs 1600 (+ NE)

Optional addressable fire localisation device

SP2S + TP2S: Fire localisation device (Head + base)
To be connected to aspirating pipe with high sensitive detector. Allows to address the air sampling points. To be connected also on the addressable SD3 Fire detection system

SP2S + TP2S features	
Standby consumption: Closed isolator 150µA Opened isolator: 350µA	**Voltage**: From 10Vdc to 30Vdc **Nominal**: 20Vdc
Alarm consumption: 5mA	**Fault consumption**: 150µA
Size(mm): ∅120 x h64, Length 148	**Operating temperature**: -30° to -60°C
Weight: 240 grs	**Relative operating humidity :**≤93%
IP index: IP54	**Storage temperature:** -10° to +50°C

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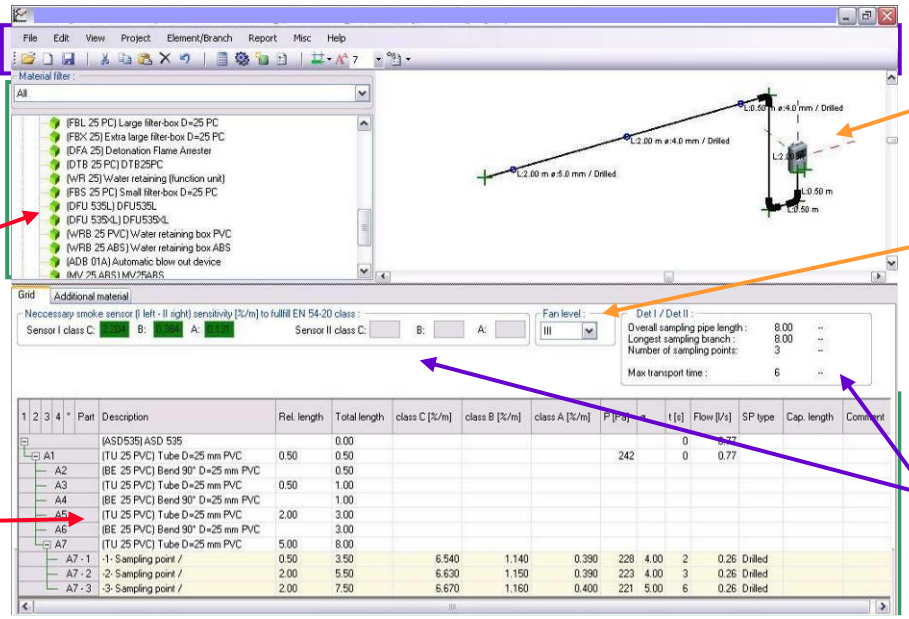
Calculation software: Sampling Pipe Config

For properly engineered systems with asymmetric topologies

Menu and tools

Material selections list (Pipes & accessories)

Components list (pipe sections used, sampling holes, and accessories)

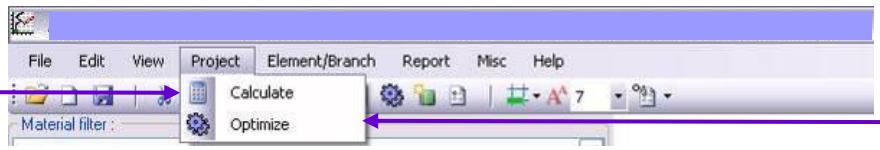


Drawing area

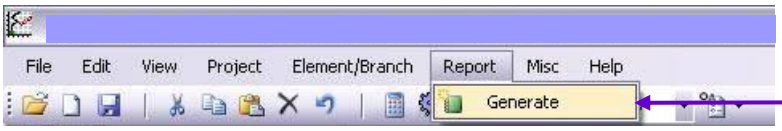
Fan speed setting

Window for the calculation results.

Calculation of the current configuration (transport time, pressure, sensitivity by hole)



Optimization of the holes diameter



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REFERENCE	***DESCRIPTION***
DFA05-1C-B	**Conventional single channel high sensitivity detector base with smoke level indicator**
DFA05-2C-B	**Conventional dual channel high sensitivity detector base with smoke level indicator**
DFA05-1C	**Conventional single channel high sensitivity detector base**
DFA05-2C	**Conventional dual channel high sensitivity detector base**
SSD 535-2	**High sensitivity smoke detector module, alarm sensitivity range 0,01%/m to 10%/m**
SSD 535-3	**High sensitivity smoke detector module, alarm sensitivity range 0,002%/m to 10%/m**
RIM35	**Relay interface module**
MCM35	**SD-1GO Memory card module**
Sampling Pipe Config	**System design software**
DFA05 Config	**Programming software**
TP2S	**Fire localisation device head**
SP2S	**Fire localisation device base**

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