



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	10,5 to 30 VDC	
Nominal	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	

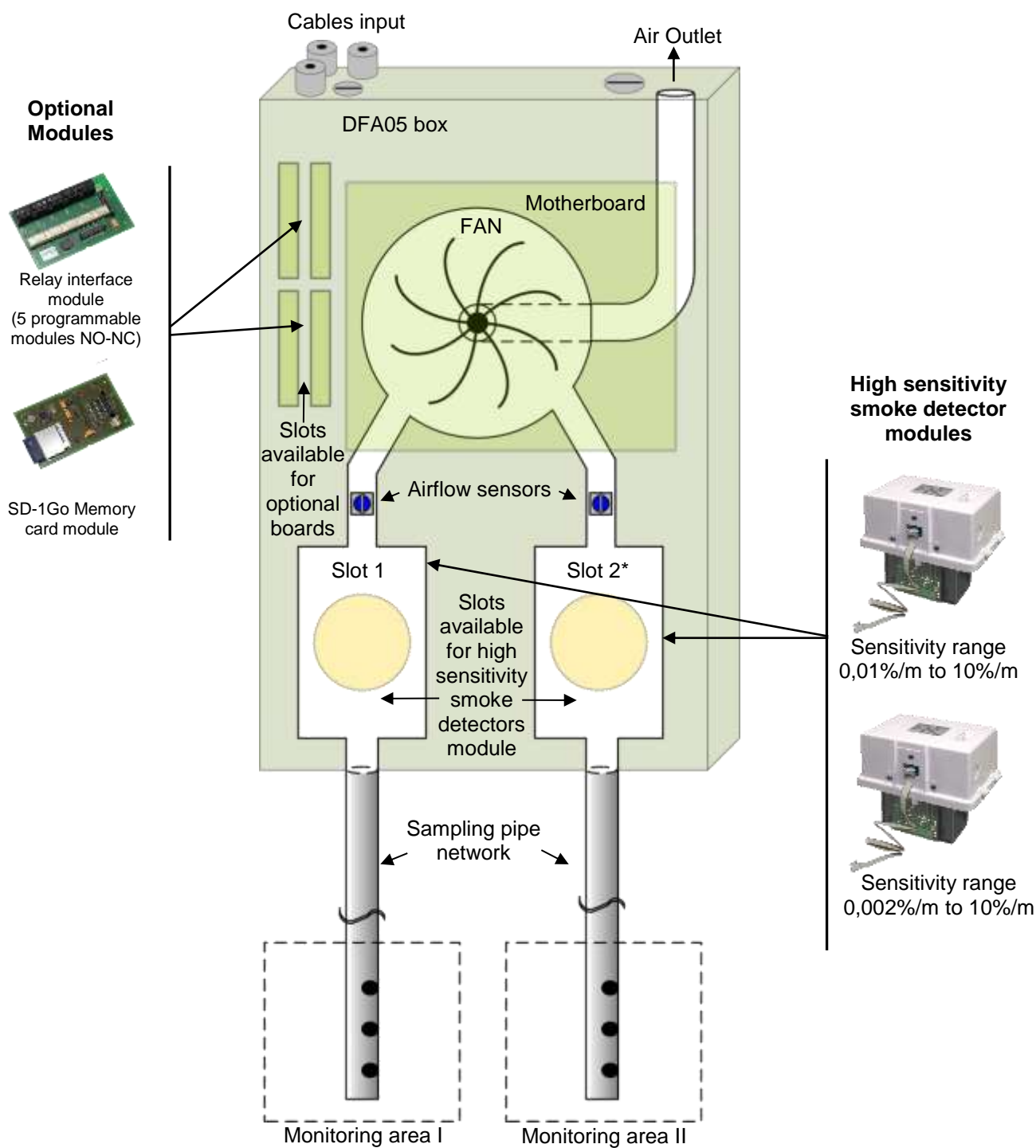




DFA05

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Operating principle generality.



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





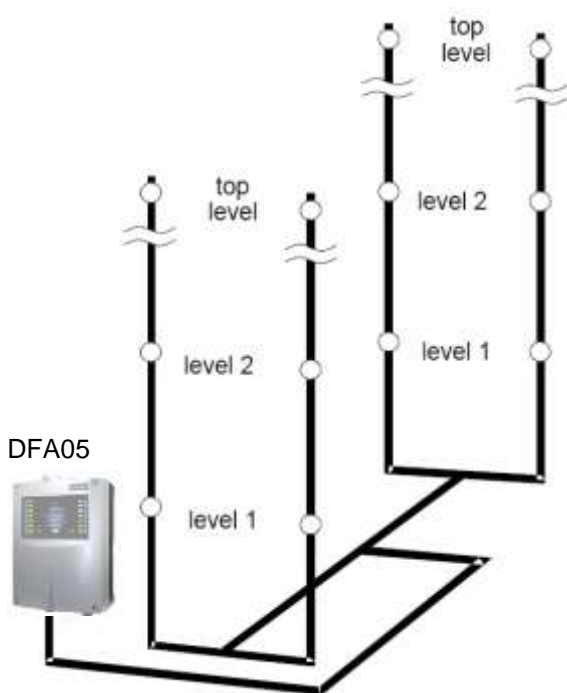
DFA05

High sensitivity air sampling detection

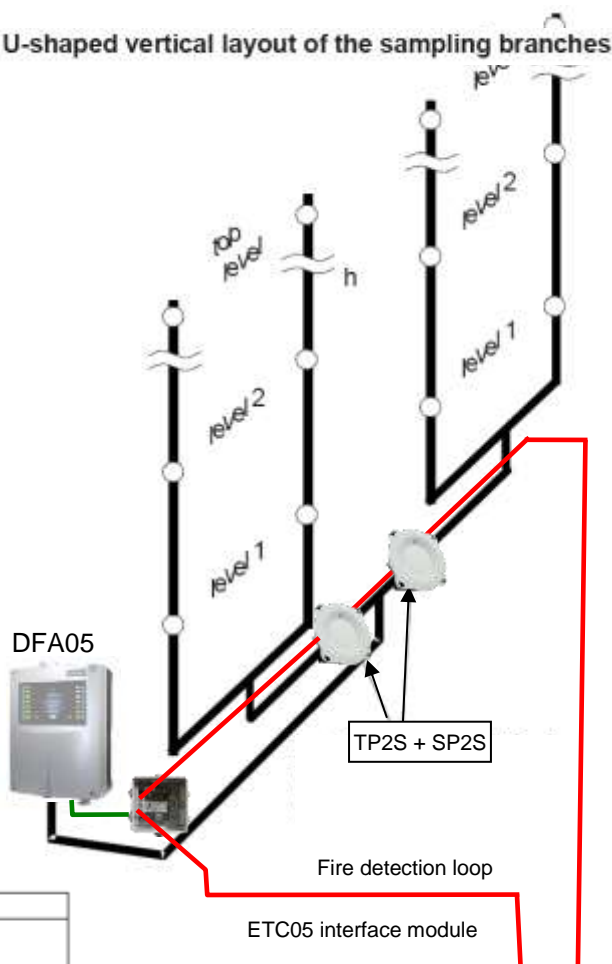
Examples of Easy Configuration tubes planning.

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: 200m
Max. area to cover (48 holes)*:	60m ² /hole: 2000 m ²		80m ² /hole: 2000 m ²
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

Alarm consumption: 5mA

Size(mm): Ø120 x h64, Length 148

Weight: 240 grs

IP index: IP54

Voltage: From 10Vdc to 30Vdc

Nominal: 20Vdc

Fault consumption: 150µA

Operating temperature: -30° to -60°C

Relative operating humidity : ≤93%

Storage temperature: -10° to +50°C



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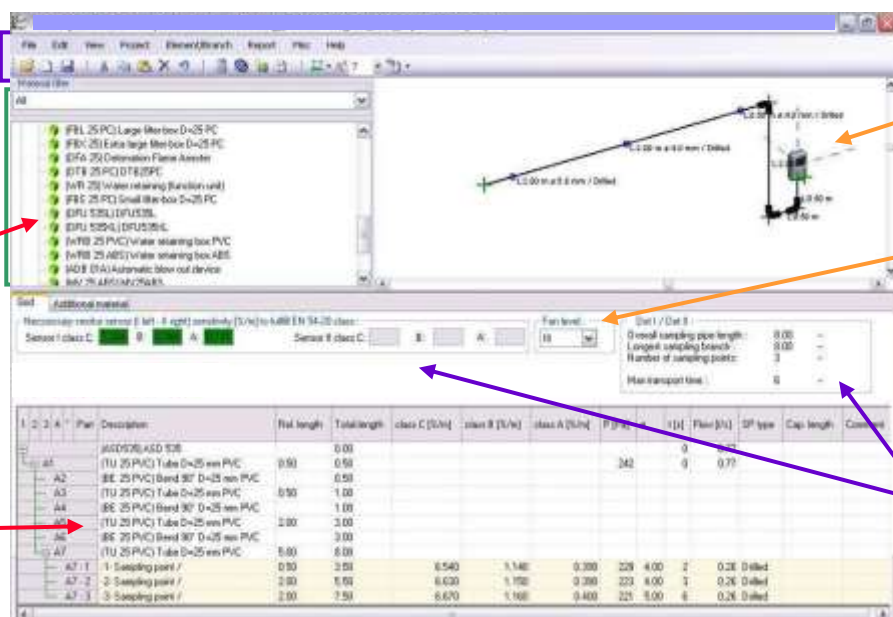
Calculation software: Sampling Pipe Config

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



Generate a
project pdf
document
report

REFERENCE

DFA05-1C-B
DFA05-2C-B
DFA05-1C
DFA05-2C
SSD 535-2
SSD 535-3
RIM35
MCM35
Sampling Pipe Config
DFA05 Config
TP2S
SP2S

DESCRIPTION

Conventional single channel high sensitivity detector base with smoke level indicator
Conventional dual channel high sensitivity detector base with smoke level indicator
Conventional single channel high sensitivity detector base
Conventional dual channel high sensitivity detector base
High sensitivity smoke detector module, alarm sensitivity range 0,01%/m to 10%/m
High sensitivity smoke detector module, alarm sensitivity range 0,002%/m to 10%/m
Relay interface module
SD-1GO Memory card module
System design software
Programming software
Fire localisation device head
Fire localisation device base

