BTG05

Air duct detector housing

BTG05 is an analysis chamber equipped with analogue or conventional detector for the control of the **air ducts**.

BTG05 withdraws the air circulating through the duct (Pitot tube principle) and carries out an **analysis** of the protected local through its optical smoke sensor.

The **BTG05** is adapted for an air circulation speed comprised between **1m/s and 10 m/s**.

For ducts equipped with **filter**, it is necessary to make sure that the particles attended to be analysed by BTG05 are not filtered (**approximately 1 µm**).

BTG05 has a specific version for both **analogue** and **conventiona**l fire detection systems.
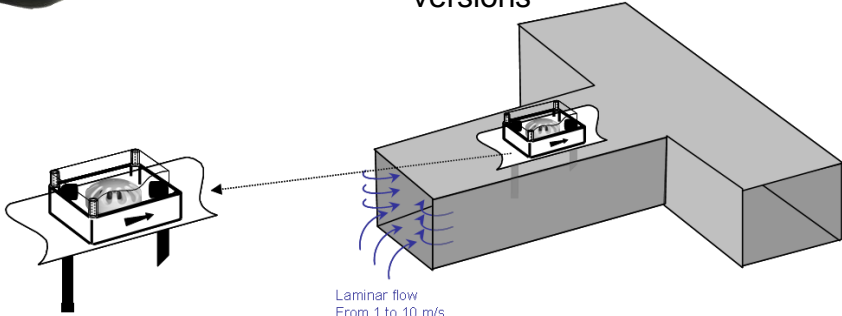
<u>*Size of the ducts supported by BTG05*</u>:

- **Rectangular shape**: 350mm < length < 500mm
  200mm < width < 500mm
- **Square shape**   : 350mm < side < 500mm
- **Circle shape**   : 330mm < diameter < 500mm

Main characteristics

- Tyndall effect (detector)
- Pitot tube principle (aspiration)
- Analogue and conventional versions
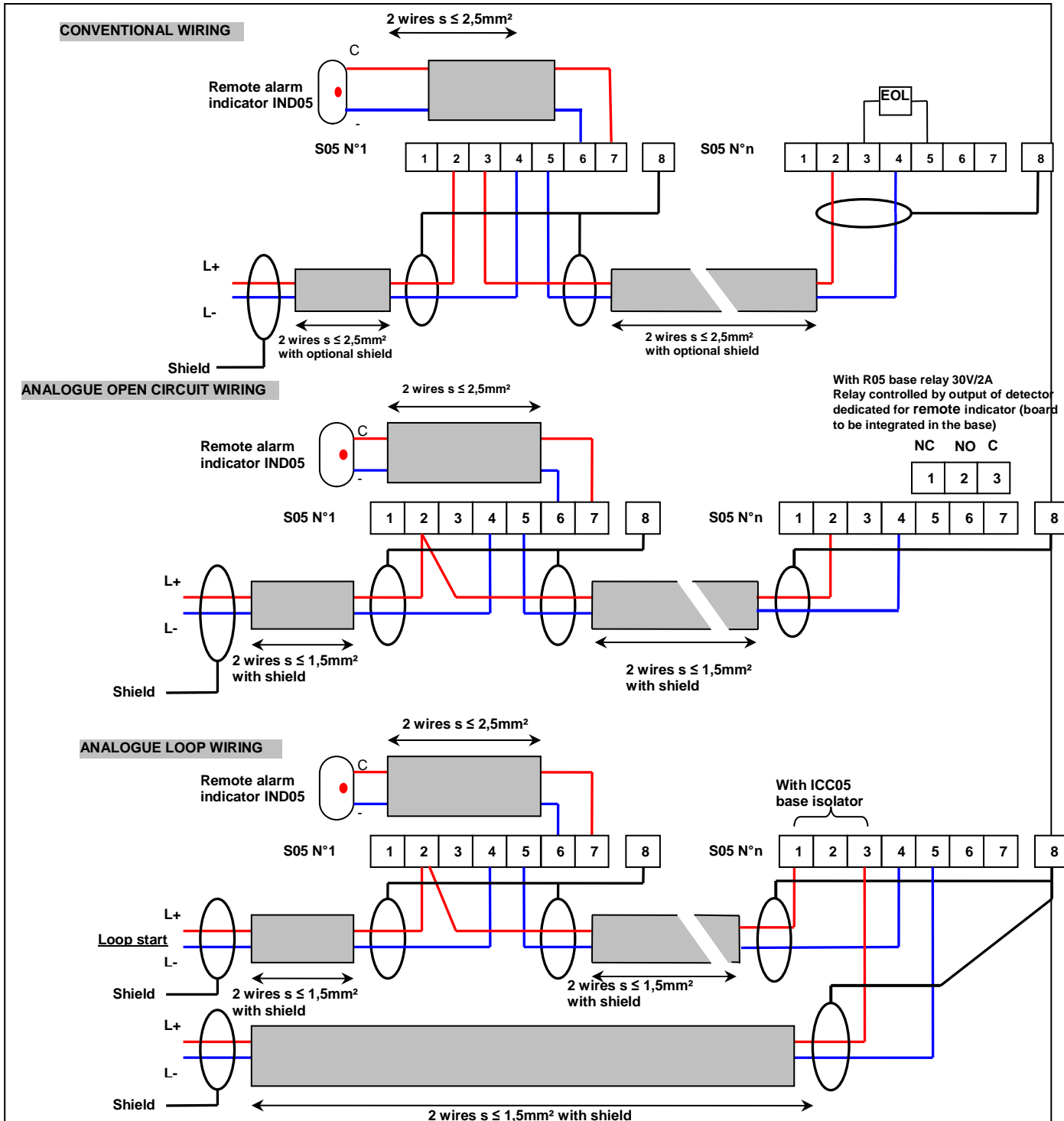
Laminar flow
From 1 to 10 m/s

Electric specifications		
	Conventional version	**Analogue version**
Main supply voltage	13Vdc to 27 Vdc	12Vdc to 28 Vdc
Nominal main supply voltage	20 Vdc	24 Vdc
Quiescent current (20 Vdc)	25µA	140µA without base isolator / 240µA with base isolator
Alarm current (20 Vdc)	32mA	5mA
1 programmable open collector	No	40V/100mA
1 programmable address	No	Yes
1 Alarm activated open collector	40V/100mA	
Mechanical characteristics		
Unit weight	0,560 Kg	
Total unit dimensions	300 x 150 x 300 mm	
Unit colour	Soft Gray (transparent cover)	
Protection class	IP55	
Climatic characteristics		
Operating temperature	-10°C to +60°C	
Storage temperature	+10°C to +50°C	
Operating relative humidity	≤ 93%	
Storage relative humidity	≤ 85%	

BTG05

Air duct detector housing

CONVENTIONAL WIRING

2 wires s ≤ 2,5mm²

Remote alarm indicator IND05

C

-

S05 N°1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

EOL

S05 N°n | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

L+
L-

2 wires s ≤ 2,5mm² with optional shield

2 wires s ≤ 2,5mm² with optional shield

Shield

ANALOGUE OPEN CIRCUIT WIRING

2 wires s ≤ 2,5mm²

Remote alarm indicator IND05

C

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With R05 base relay 30V/2A
Relay controlled by output of detector dedicated for remote indicator (board to be integrated in the base)

NC | NO | C
1 | 2 | 3

S05 N°1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

S05 N°n | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

L+
L-

2 wires s ≤ 1,5mm² with shield

2 wires s ≤ 1,5mm² with shield

Shield

ANALOGUE LOOP WIRING

2 wires s ≤ 2,5mm²

Remote alarm indicator IND05

C

-

With ICC05 base isolator

S05 N°1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

S05 N°n | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

L+
Loop start
L-

2 wires s ≤ 1,5mm² with shield

2 wires s ≤ 1,5mm² with shield

Shield

L+
L-

Shield

2 wires s ≤ 1,5mm² with shield

REFERENCE	*DESCRIPTION*
BTG05	**Conventional/analogue air duct detector chamber (without detector)**
OC05+S05	**Conventional optical smoke detector**
OA05+S05	**Interactive optical smoke detector**
OC05.12+S05	**Conventional optical smoke detector for 12V security type systems**
ACCESSORIES	
IND05	**Remote alarm indicator for conventional 05 range**