

# Aspirating Smoke Detector

## TITANUS TOP-SENS®

### Standard and *SILENT* Version

#### TITANUS® aspirating smoke detector

The TITANUS® family of aspirating smoke detectors covers standard to very early warning fire detection as well as a wide range of extreme applications without compromising high levels of sensitivity and performance. Coverage up to 2 x 3,000 m<sup>2</sup>.



#### Technology

TITANUS TOP-SENS® aspirating smoke detection system combines High-Power-Light-Source (HPLS) technology with patented LOGIC-SENS® fire pattern recognition algorithms and a large portfolio of custom accessories to ensure that each system will maintain high levels of sensitivity and false alarm immunity even in challenging environments. Its modular design facilitates cost effective solutions for a wide range of specialized requirements. Optional second plug-in detector module allows one aspirating unit to economically monitor two separate areas or alternatively to be used for cross-zoning alarm verification. TITANUS TOP-SENS® comes with dry contacts for connection to any fire panel as well as free slots for inserting bus modules.

#### Advantages

- Modular design for cost effective solutions to fit the needs on site.
- High reliability and extended service life due to physical separation of disturbing influences such as dust, vapor or radiation from the measuring chamber.
- 3 alarm levels per detector module for tiered alerting
- Bar graph smoke level display
- TITANUS PipeXpress® software for highly reliable ASD planning with just a few mouse clicks.
- Time-saving Installation and commissioning thanks to plug & play philosophy.
- Discreet installation for maintaining aesthetics and providing safety against vandalism.
- Cost-optimized: Only as much technology as necessary, to be expanded and customized.
- Intelligent diagnostics tool gives support at inspection and service.

#### Features

- Max. fire alarm sensitivity 0.015% obsc./m
- System coverage up to 2 x 3,000 m<sup>2</sup>
- Up to 2 x 300 m pipe length and depending on version up to 2 x 72 holes
- Operating temperature: from -20°C up to 60°C depending on version
- Display of info-alarm, pre-alarm and main alarm as well as bar graph display of smoke level
- PIPE-GUARD patented airflow monitoring system, sensing changes in total airflow as little as +/-10%
- Dry contacts for connection to any fire panel
- Free slots for integration of additional modules such as bus modules
- Optional 2<sup>nd</sup> detector module for double-knock alarm verification or for increased area of coverage
- Sensitivity control input
- Optional Ethernet/SNMP/data logger
- Sound pressure level from 23 dB(A) for *SILENT* version
- Designed for harsh environments, with a wide range of accessories for special applications
- Also available as cold storage version from -40°C

#### Approvals



G 216069

Versions TT-1(-SL)-U available, approved according to UL, ULC, FM, GL and LR. Further information: see corresponding data sheet. Standard version is NF approved.

Further approvals on request and at [www.wagnergroup.com](http://www.wagnergroup.com)

# Aspirating Smoke Detector | TITANUS TOP-SENS®

## TITANUS TOP-SENS® | Components



The aspirating smoke detector consists of the basic device (1), one or two detector modules (2) and an adhesive front film sheet (3).

TITANUS TOP-SENS®		TITANUS TOP-SENS® Standard Version	TITANUS TOP-SENS®-SL SILENT Version
<b>1 Basic device</b>			
	Type	TT-1/a <sup>1</sup>	TT-1-SL
	Max. fire alarm sensitivity	0.015% obsc./m	
	No. of pipe connections	1–2 aspiration pipes, d <sub>a</sub> = 25 mm (plus 1 air return)	
	No. of detector modules (zones)	1–2	
	Max. no. of aspiration holes	2 x 63	2 x 63 (1 x 100 or 2 x 72) <sup>2</sup>
	Max. area of coverage	2 x 3,000 m <sup>2</sup>	
	Max. pipe length	2 x 300 m	
	Double-knock alarm verification	optional	
	No. of alarm levels per zone	3	
	Supply voltage	24 VDC (14 to 30 VDC) according to EN 54-4	
	Front indicators	fault; operation; per zone: 3 x alarm, 1 x bar graph display (smoke level)	
Current consumption min. (24 VDC, 1 detector module)	Operational	200 mA	150 mA
	Alarm	230 mA	180 mA
Current consumption min. (24 VDC, 2 detector modules)	Operational	230 mA	190 mA
	Alarm	290 mA	220 mA
	Operating temperature	-20°C to +60°C	0°C to +40°C
	Sound pressure level (ISO 3744)	as low as 45 dB(A)	as low as 23 dB(A) <sup>3</sup>
	Weight (basic configuration)	1.35 kg	1.5 kg
	Humidity range	10% to 95% (noncondensing)	
	Dimensions	292 x 200 x 113 mm	
	Material and colour	ABS, papyrus white (RAL 9018)	
	Cable entries	5 x M20 and 2 x M25	
	Terminal connections	max. 1.5 mm <sup>2</sup>	
	IP rating	standard: IP 20, optional: IP 52	
	No. of output relays	8 relays (changeover/form C)	
	Contact load, max.	1 A, 30 V, max. 24 W	
<b>2 Detector modules</b>			
	Type	DM-TT-50-L	DM-TT-10-L
	Weight	0.10 kg	
<b>Sensitivity</b>			
	Earliest possible fire detection, class A+ <sup>4</sup>	--	special excellence
EN 54-20	Max. coverage class A	600 m <sup>2</sup>	3,000 m <sup>2</sup>
	Max. coverage class B	1,800 m <sup>2</sup>	3,000 m <sup>2</sup>
	Max. coverage class C	3,000 m <sup>2</sup>	3,000 m <sup>2</sup>
	Max. fire alarm sensitivity	0.50% obsc./m	0.015% obsc./m
<b>Max. no. of aspiration holes</b>			
	EN 54-20 class A/B/C	4/12/32	40/100/100
<b>3 Adhesive front film sheets</b>			
	Using 1 (2) detector modules, type	FW-TT-1 (FW-TT-2; for indicating external shutdown: FW-TT-3)	

Data sheet, Art. no. 68-20-1450, VM/HÄ, Last revised 01/2020

<sup>1</sup> NF approved version: TT-1NF/a

<sup>2</sup> Fan controller type FC-3 required

<sup>3</sup> with sound absorber type SD-1/a

<sup>4</sup> Detection of 2 g material decomposition at 180 seconds cable pyrolysis with pyrolysis generator type PYS 100