



# Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
<b>afp - 2432</b>	28-Jul-2010	Number 10	Issue date 1-May-2019	30-Apr-2020

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## Product designation

**Titanus, TOP•SENS® (/2), air sampling smoke detection system**

(Refer to the Schedule/enclosures for further specified details)

## Agent/distributor

Ampac Technologies Pty Ltd  
7 Ledger Road, BALCATTA, WA, AUSTRALIA, 6021

## Registrant

Wagner Group GmbH  
Schleswigstraße 1-5, LANGENHAGEN, GERMANY, D-30853

### Producer

Wagner Group GmbH  
Schleswigstraße 1-5, LANGENHAGEN, GERMANY, D-30853

## Conformance criteria and evaluation

The Titanus, TOP•SENS® (/2), air sampling smoke detection system has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 1603.8-1996, 'Automatic fire detection and alarm systems - Multi-point aspirated smoke detectors'.

## Limitations/conditions of conformance

Limitations/conditions of conformance, where identified on this certificate, are derived from qualifications from evaluation(s) for conformity and/or other related technical documentation. All details with respect to design, assembly and installation instructions and restrictions should be checked against the producer's current technical manual/data sheets and the requirements of the Authority having Jurisdiction.

Specified limitations/conditions, determined from the evaluation for conformity, include the following.

- i. The detector is used indoor dry environments.
- ii. The maximum operating temperature of the detector is 45° C.
- iii. The maximum size of a single alarm zone is no more than 2000 m<sup>2</sup> (Ref.: Australian Standard AS 1670.1-2004, 'Fire detection, warning, control and intercom systems - System design, installation and commissioning - Fire').
- iv. Installations and maintenance as recommended by the manufacturer.

This certification is issued within the scope of CSIRO Verification Services – Rules governing ActivFire Scheme and is valid only for the product(s) as submitted for evaluation and verification of conformity, subject to the following conditions.

- Reference to details, limitations and requirements, where documented as a schedule/enclosure with this certificate.
- The Registrant is responsible for their attestation of conformity and ensuring that on-going production complies with the conformance criteria defined in this certificate.
- This certificate will not be valid if any changes or modifications are made to the product which have not been notified and validated by CSIRO Verification Services.
- This certificate is subject to periodical re-validation upon verification that all requirements, as determined by the conformity assessment body, continue to be satisfactorily met by the Registrant.
- This certificate may only be reproduced in its published form, without modification and inclusive of all schedules/enclosures.
- Any changes, errors or omissions, must be submitted in writing and if necessary or requested, substantiated with relevant evidence.
- Any representations, such as advertising or other marketing related activities or articles shall reflect the correct contents of this certificate and conform with all relevant trade practices and consumer protection legislation and regulations.
- Any terms or conditions of use as applicable to content and documentation as published or accessed through web sites administered by the CSIRO Verification Services.

Issued by

David Whittaker  
Executive Officer – ActivFire Scheme



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## Producer's description

The Titanus, TOP•SENS® (/2), air sampling smoke detection system operates with an inbuilt aspirator which samples the environment from the protected area via a pipe system with defined air sampling points. The sampled air passes into the detection unit where evaluation takes place.

This equipment is externally powered from a nominal 24 Vdc source.

The detector modules of this equipment are replaceable. The modules locate in the main housing of the Titanus unit between the aspirator fan and the incoming pipe network. Three modules are available, each with switch selectable sensitivities as detailed in the following table.

Detector module	Sensitivity range (% obsc./m)			
DM-TT-01-L	0.015	0.03	0.06	0.12
DM-TT-10-L	0.1	0.2	0.4	0.8
DM-TT-50-L	0.5	1	-	-

The Titanus, TOP•SENS® (/2), air sampling smoke detection system includes a front panel display including indication of fault, and discrete LEDs for indication of alert, action and fire alarms. The display also included a LED bar graph type indication of smoke level.

Potential free changeover contact outputs are provided for each alarm level (alert, action, fire) and fault.

The TOP•SENS® 2 is similar to the TOP•SENS®, with the addition of facility for a second detector module, permitting monitoring of a second pipe network. The display of the TOP•SENS® 2 incorporates separate alarm and level indications for each head. The system includes individual outputs for the alarm status of each detector module.

The Titanus, TOP•SENS® (/2), air sampling smoke detection system is supplied in a plastic housing approximately 292mm x 200mm x 113mm, designed to mount vertically (wall mounted). The associated pipe network is designed according to individual project requirements.

The stated maximum coverage for the TOP•SENS® is 2,400 m<sup>2</sup> with a maximum length of 180 m and 24 sampling points. For the TOP•SENS® 2 this increases to 4,800 m<sup>2</sup>, maximum length of 360 m and 48 sampling points.

Note: Australian Standard AS 1670.1 'Fire detection, warning, control and intercom systems – System design, installation and commissioning. Part 1: Fire', limits the maximum size of a single alarm zone to no more than 2,000 m<sup>2</sup> (clause 2.4).

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## Technical specification

The following details are a representative extract of the technical specification for the Titanus, TOP•SENS® (/2), air sampling smoke detection system and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Detection unit	Titanus TOP•SENS®	Titanus TOP•SENS® 2
Operating voltage range	14 up to 30 Vdc	
Nominal supply voltage	24 Vdc	
Current consumption quiescent (at 24 V)	200 mA	235 mA
Current consumption alarm (at 24 V)	230 mA	295 mA
Starting current limitation up to	355 mA	385 mA
Dimensions cable screw joints inclusive (h x w x d)	113 x 200 x 292 mm	113 x 200 x 292 mm
Weight	1.42 kg	1.52 kg
Protection class	IP 20 (IP 54*)	
Temperature range	-20 °C up to +60 °C	
- deep freeze version	-40 °C up to +60 °C	
Humidity	10 up to 95% rh	
Displays	green operating display 3 red alarm displays (alert, action and fire alarm) yellow fault display 10-digit bar graph display	green operating display 6 red alarm displays (alert, action and fire alarm) yellow fault display 2 10-digit bar graph displays
Number of detector modules	1	2
Display sensitivity detector module (at different stages)		
Type DM-TT-01	highest level 0.015 % obsc./m	
Type DM-TT-10	highest level 0.1 % obsc./m	
Fire output (potential-free change-over-contacts)	3 alarm signals (alert, action and fire alarm)	6 alarm signals (alert, action and fire alarm)
Fault signals	collective signal for device and air flow fault (1 potential free contact, break contact or make contact)	
Load on contact/relay	1 A, 30 Vdc, max. 24 W	
Terminal connections	max. 1.5 mm <sup>2</sup>	
Event memory	yes	
Number of remote displays	1 possible	2 possible
Pipe system		
According to project planning guidelines		
- Maximum monitoring area	2,400 m <sup>2</sup>	4,800 m <sup>2</sup>
	Note: System design and regulatory requirements may restrict the monitoring area to a lesser amount. (Ref.: AS 1670.1-2004: Maximum single alarm zone 2,000 m <sup>2</sup> )	
- Maximum total length of pipe	180 m	360 m
- Maximum number of air sampling points	24	48
- monitored area per air sampling point	Corresponds to a point detector.	
Air flow monitoring in pipe system	Can be set individually up to single hole monitoring.	
- for blockage and rupture		
Validated system design tool	Wagner TF-SC-1 (Titanus PipeXpress)	

\* expandable