Certificate

of

Approval

of

Components and Systems

Holder of the Approval:

WAGNER Group GmbH
Schleswigstraße 1 - 5
DE-30853 Langenhagen

Approval No.:	*No. of pages:*	*Valid from:*	*Valid to:*
G 202064	34	29.04.2009	23.04.2013

Subject matter of the Approval:

Aspirating Smoke Detectors
Type TITANUS *PRO·SENS*® /-2 /-net /-LSNi /-SL;
TITANUS *TOP·SENS*® /-2 /-LSNi /-SL

Use:

in Automatic Fire Detection and Fire Alarm Systems

Basis for approval:

DIN EN 54-20 (09/06) - Aspirating Smoke Detectors
DIN EN 54, Teil 17 (03/06) - Short Circuit Isolators
VdS 2504 (12/96) - Smoke Detectors, Sect. 5.6
VdS 2344 (12/05) - Procedure Guidelines

This approval
is valid only for the specified component/system as submitted for the test
- together with the parts listed in enclosure 1
- documented in the technical papers acc. to enclosure 2 (n/a for systems)
- for application in the specified fire protection and security installations. Use of the subject matter of the approval, is subject to the hints/comments of enclosure 3.

The validity of the approval can be extended upon application. Application for extension shall be submitted six months before expiry of the current approval at the latest.

This certificate may only be reproduced in its present form without any modification including all enclosures. All changes of the underlying conditions of this approval shall be reported at once to the VdS Certification Body enclosing the required documentation.

Any advertising with this VdS approved component/system shall reflect the correct contents of the certificate and shall not violate the trade practice rules.

Deutscher Akkreditierungs Rat
DAR
DAT-ZE 005/92

Köln (Cologne), 07.08.2009

Schüngel
Managing Director

i.V. Hesels
Head of the VdS Certification Body

VdS Schadenverhütung GmbH
Zertifizierungsstelle
Amsterdamer Str. 174
D-50735 Köln

A company of the German Insurance Association (GDV) (German federation of insurance companies)

Accredited by the "Deutsche Akkreditierungsstelle Technik (DATech)" as a certification body for the areas of fire protection and security

VdS

Enclosure 1

To Certificate of Approval No. G 202064 Date 07.08.2009

The approved component/system comprises the following parts:

Description of component	Type	Applicant's Registration No.	Approval number of component (only complete for system approval)
Basic device TITANUS *PRO·SENS*® Rev. a	TP-1/a, TP-1-F/a, TP-1-SL, TP-1-B/a, TP-2-B/a, TP-50L-B/a, TP-80L-B/a, TP-1-E/a, TP-1-SL-E/a, TP-2-E/a, TP-2-SL-E/a, TP-50L-E/a, TP-80L-E/a		
Basic device TITANUS *PRO·SENS*® /net	TP-3, TP-3-F, TP-3-SL		
Basic device TITANUS *PRO·SENS*® /net with pre-alarm	TP-4, TP-4-F, TP-4-SL		
Basic device TITANUS *PRO·SENS*® /net with info and pre-alarm	TP-5, TP-5-F, TP-5-SL		
Basic device TITANUS *PRO·SENS*® LSNi	TP-L1, TP-L1-SL, TP-L1-B, TP-L1-SL-B, TP-L2-B, TP-L2-SL-B		

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The approved component/system comprises the following parts:

Description of component	Type	Applicant's Registration No.	Approval number of component (only complete for system approval)
Basic device TITANUS *TOP·SENS*®	TT-1/s, TT-1-F/s, TT-1-SL/s, TT-1-B, TT-2-B		
Basic device TITANUS *TOP·SENS*®	TT-1-E, TT-1-SL-E, TT-2-E, TT-2-SL-E		
Basic device TITANUS *TOP·SENS*® Rev. a	TT-1/a, TT-1-F/a, TT-1-SL		
Basic device TITANUS *TOP·SENS*® LSNi	TT-L1, TT-L1-SL, TT-L1-B, TT-L1-SL-B, TT-L2-B, TT-L2-SL-B		
Basic devices as listed above, version for France	Tx-xNF(-xx)		
Detector module TITANUS *PRO·SENS*®	DM-TP-xx x		
Detector module TITANUS *TOP·SENS*®	DM-TT-xx x		
EsserBus coupler 808613.10	TP-x-ZE, TT-x-ZE		
Siemens coupler	DC 1157-AA, DC 1131-AA, FDCIO222, SPF5300		

Enclosure 1

To Certificate of Approval No. G 202064 Date 07.08.2009

The approved component/system comprises the following parts:

Description of component	Type	Applicant's Registration No.	Approval number of component (only complete for system approval)
Air filter	LF-AD (-1/-2)		
Special filter	SF-400 (/-650)		
Detector box	DM-MB-TM (V)-xx		
Sound damper	SD-1		
Condensate separator	KA-DN 25		
Condensate separator	KA-1		
Shut-off valve for automatic free-blow-device VSK	AVK-PV (-F)		
Ball valve	2KH (-F), 3KH (-F), 3KH-PVC, 3KH-ABS		
Detonation protection	EG IIA, EG IIB3, EG IIC		
OxySens detector	OA 1, OA 11, OA 2, OA 22, OP 1, OP 11, OP 2, OP 22		
Pipe adapter	PA-Y-P (/-A)		
Sound absorber	SD-1		
Aspiration reduction foils	AF-x.y		
Aspiration reductions	AK-x.y		
Ceiling penetration	ABS-DF		
Collection hood	SH300 (-E)		

Enclosure 1

To Certificate of Approval No. G 202064 Date 07.08.2009

The approved component/system comprises the following parts:

Description of component	Type	Applicant's Registration No.	Approval number of component (only complete for system approval)
Pipe hood	R-RH, ABS-RH		
Aspirating funnel	ASTW		
Testing adapter	PA-PVC, PA-ABS		

Enclosure 2 **Sheet 1**

To Certificate of Approval No. G 202064 Date 07.08.2009

The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
VdS Test Report No. BMA 03044 dated 22.09.2003			
VdS Test Report No. BMA 04101 dated 15.12.2004			
VdS Software Test Report No. SW-2002250 dated 16.08.2004			
VdS Test Report No. BMA 09050 dated 20.04.2009			
Basic device: **TITANUS *PRO·SENS*®, Rev. a:** TP-1/a, TP-1-F/a, TP-1-SL, TP-1-B/a, TP-2-B/a, TP-50L-B/a, TP-80L-B/a, TP-1-E/a, TP-1-SL-E/a, TP-2-E/a, TP-2-SL-E/a, TP-50L-E/a, TP-80L-E/a:			
Technical manual smoke aspirating system TITANUS *PRO SENS*®	69-30-0221	04/09	210
Manufacturing documentation CD 2.07 dated 13.12.07			
1. Assembly diagrams, overall parts list:			
Housing bottom part with fittings	G581.02, Rev. b	07.01.04	1
Mounting housing bottom part	G581.02, Rev. b	19.11.03	1
Mounting indicator board	G581.02, Rev. a	15.12.05	1
Assembly housing	G581.02	21.02.02	1
Mounting ventilation unit	G581.02, Rev. a	18.11.03	1

Enclosure 2

To Certificate of Approval No. G 202064 Date 07.08.2009

The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Machining housing bottom part for mounting of 2nd detector module	G586.02, Rev. a	30.08.02	1
Housing bottom part with fittings incl. 2nd detector module	G586.02	22.05.02	1
NF sticker	G582.02	27.02.06	1
Bottom part with note plate for detector type	G584.02	17.02.06	1
Sealing plate	G581.06, Rev. b	20.06.03	1
Duplocoll 3720	Duplocoll_3720	20.06.03	2
Housing bottom part with sealing plate	G586.08	05.09.02	1
Variants parts lists	G581.03	24.02.06	1
Parts list	G581.03, Rev. i	24.02.06	1
2. Plastic injection parts, control drawings:			
Cover ventilation duct	G581.04, Rev. a	16.09.02	1
Grid ventilation duct	G581.04	16.10.01	1
Housing fan	G581.04, Rev. b	11.09.03	1
Housing upper part	G581.04	16.11.01	1
Housing upper part	G581.04	19.11.01	1
Housing bottom part	G581.04, Rev. a	30.08.02	1
4. Cable connecting plans:			
Cable connecting plan for indicator board E621	W728.02	14.12.05	1

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
5. Front membranes, type labels:			
Wagner - type label for housing	G581.07, Rev. h	04.12.07	1
Label for terminal usage connection board E619	G581.08	05.03.02	1
Type label Notifier for housing TP-1/a	G581.21	07.10.05	1
Indicating label	G584.04	24.02.06	
6. Test instructions:			
Test instruction TITANUS *PRO·SENS*® TP-1	PATPS.doc, Rev. 06	24.10.06	3
Test protocoll TITANUS *PRO·SENS*®	PPTPS.xls	30.03.05	1
Test instruction for housing bottom part all production statuses	PAGU.doc	30.03.05	3
Test device type PGGU	G581.12, Rev.a	31.03.05	1
10. Connection board E619:			
Circuit diagram	E619.41, Rev. a	30.01.07	2
Component mounting diagram	E619.42, Rev.a	05.02.07	1
Parts list E619	E619.43, Rev. a	30.01.07	2
Parts list E619 - annexes	E619_Anlagen	01.08.02	2
11. Indicator board E621:			
Circuit diagram	E621.11	22.11.05	1
Component mounting diagram	E621.12	22.11.05	1
Parts list	E621.13	22.11.05	1

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
VdS Test Report No. BMA 02053 dated 08.12.2002			
VdS Test Report No. BMA 041001 dated 15.12.2004			
VdS Test Report No. BMA 07073, dated 15.11.2007			
VdS Software Test Report No. SW-2002219 dated 02.10.2002			
1. Supplement to VdS Software Test Report No. SW-2002219 dated 16.08.2004			
VdS Test Report No. BMA 090050 dated 20.04.2009			
Basic device: **TITANUS *TOP·SENS*®:** TT-1/s, TT-1-F/s, TT-1-SL/s, TT-1-B, TT-2-B, TT-1-E, TT-1-SL-E, TT-2-E, TT-2-SL-E:			
Technical manual smoke aspirating system TITANUS *TOP·SENS*®	69-30-0330	04/09	222
Manufacturing documentation CD 1.02 dated 20.06.03			
1. Assembly diagrams, overall parts list:			
Housing bottom part with fittings	G586.04	14.11.02	1
Mounting housing bottom part	G586.04	14.11.02	1
Mounting indicator board	G586.04	14.11.02	1

Enclosure 2

To Certificate of Approval No. G 202064 Date 07.08.2009

The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Housing bottom part with fittings incl. 2nd detector module	G586.04	15.11.02	1
Mounting ventilation unit	G586.04	15.11.02	1
Assembly housing	G581.02	21.02.02	1
HAT-870, Offer No.: 07-694	HAT-870_Angebot	15.08.02	1
BISCO® HAT-870	HT-870	12.09.02	1
1. Assembly diagrams, overall parts list:			
Machining housing bottom part for mounting of 2nd detector module	G586.02, Rev. a	30.08.02	1
Sealing plate	G581.06, Rev. b	20.06.03	1
Duplocoll 3720	Duplocoll_3720	20.06.03	2
Housing bottom part with sealing plate	G586.08	05.09.02	1
Programming note	S00023.00	13.11.02	1
Drilling stencil	G615.04	02.05.03	1
Parts list	G586.03, Rev. a	25.04.03	1
2. Plastic injection parts, , control drawings:			
Cover ventilation duct	G581.04, Rev. a	16.09.02	1
Grid ventilation duct	G581.04	16.10.01	1
Housing fan	G581.04	25.10.01	1
Housing upper part	G581.04	16.11.01	1
Housing upper part	G581.04	19.11.01	1
Housing bottom part	G581.04, Rev. a	30.08.02	1

Enclosure 2

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
4. Cable connecting plans:			
Cable connecting plan for indicator board E621	W696.02	29.05.01	1
5. Front membranes, type labels:			
Wagner type label for housing	G586.07	17.02.03	1
Terminal usage connection board E627	G586.09	06.11.02	1
6. Test instruction:			
Initial batch test instruction TITANUS *TOP·SENS*® /-2	PANTTS	24.03.03	5
Test protocol TITANUS *TOP·SENS*® /-2	ppntts	24.03.03	1
Test instruction für housing bottom part	PAGU	26.09.02	3
Test device type PGGU	G581.12	26.09.02	1
Board test specification TITANUS *TOP·SENS*® /-2	PPSPTTS	27.03.03	1
10. Connection board E627:			
Circuit diagram	E627.11	15.10.02	2
Component mounting diagram	E627.12	15.10.02	1
Parts list	E627.13, Rev. d	21.11.02	2
11. Indicator board E622:			
Revision notice 23/02	Rev02023	15.11.02	1
Circuit diagram	E622.11	15.11.02	1
Component mounting diagram	E622.12	15.11.02	1

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Parts list E622-T	E622.13	15.11.02	1
Parts list E622-O	E622.13	15.11.02	1
Programming notice	S00022.02	15.11.02	1
VdS Test Report No. BMA 03044, dated 22.09.2003			
VdS Test Report No. BMA 04101, dated 15.12.2004			
VdS Software Test Report No. SW-2002250, dated 14.07.2003			
1. Supplement to VdS Software Test Report No. SW-2002219, dated 16.08.2004			
VdS Test Report No. BMA 090050, dated 20.04.2009			

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Basic devices: **TITANUS *TOP·SENS*® Rev. a** TT-1/a, TT-1-F/a, TT-1-SL, **TITANUS *TOP·SENS*® LSNi** TT-L1, TT-L1-SL, TT-L1-B, TT-L1-SL-B, TT-L2-B, TT-L2-SL-B, **TITANUS *PRO·SENS*® /net** TP-3, TP-3-F, TP-3-SL, **TITANUS *PRO·SENS*® /net** TP-4, TP-4-F, TP-4-SL, **TITANUS *PRO·SENS*® /net** TP-5, TP-5-F, TP-5-SL, **TITANUS *PRO·SENS*® /net LSNi** TP-L1, TP-L1-SL, TP-L1-B, TP-L1-SL-B, TP-L2-B, TP-L2-SL-B:			
Technical manual smoke aspirating system TITANUS *TOP·SENS*®	69-30-0330	04/09	222
Technical manual smoke aspirating system TITANUS *PRO SENS*® /net	69-30-0360	04/09	224
Technical manual smoke aspirating system TITANUS *TOP·SENS*® LSNi	69-30-0380	04/09	210
Technical manual smoke aspirating system TITANUS *PRO SENS*® LSNi	69-30-0300	04/09	210
Manufacturing documentation CD 2.15 dated 10.02.09			
1. Assembly diagrams, overall parts list:			
Housing bottom part with fittings	G621.02, Rev. a	18.12.06	1
Explosion view housing bottom part	G621.02, Rev. b	18.12.06	1

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Mounting indicator board E641 TITANUS *PRO·SENS*® /net	G619.12	03.04.07	1
Mounting indicator board E641 TITANUS *PRO·SENS*® /net LSN	G619.15	03.04.07	1
Mounting indicator board E622 TITANUS *TOP·SENS*® /a	G619.13	03.04.07	1
Mounting indicator board E622 TITANUS *TOP·SENS*® /a LSN	G619.14	03.04.07	1
Mounting ventilation unit	G621.02	10.09.03	1
Assembly housing	G581.02	21.02.02	1
Assembly for LSN	G587.02, Rev. a	18.12.06	1
NF sticker	G620.02, Rev. a	03.04.07	1
Lower part with notice plate for detector	G619.02, Rev. a	18.12.06	1
Sealing plate	G581.06, Rev. b	20.06.03	1
Duplocoll 3720	Duplocoll_3720	20.06.03	2
Housing bottom part with sealing plate	G586.08	05.09.02	1
Isolating plate	G619.04	08.12.03	2
Parts list	G621.51, Rev. c	10.02.09	1
1. Assembly diagrams, overall parts list:			
Parts list variante 01 TITANUS *TOP·SENS*® /a	G621.61, Rev. a	23.01.09	1
Parts list variante 02 TITANUS *PRO·SENS*® /net	G621.62, Rev. a	23.01.09	1

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Parts list variante 03 TITANUS *TOP·SENS*® /a (France)	G621.63, Rev. a	23.01.09	1
Parts list variante 04 TITANUS *TOP·SENS*® /a LSN	G621.64	18.12.06	1
Parts list variante 05 TITANUS *PRO·SENS*® / net LSN	G621.65	18.12.06	1
Parts list variante 06 TITANUS *TOP·SENS*® /a LSN Bosch	G621.66	18.12.06	1
Parts list variante 07 TITANUS *TOP·SENS*® /net LSN Bosch	G621.67	18.12.06	1
Parts list variante 08 TITANUS *PRO·SENS*® /net with VA	G621.67, Rev. a	23.01.09	1
Parts list variante 09 TITANUS *PRO·SENS*® /net with VA and IA	G621.67, Rev. a	20.02.09	1
2. Plastic injection parts, control drawings:			
Cover ventilation duct	G581.04, Rev. a	16.09.02	1
Grid ventilation duct	G581.04	16.10.01	1
Housing fan	G581.04, Rev. b	28.03.08	1
Housing upper part	G581.04	16.11.01	1
Housing upper part	G581.04	19.11.01	1
Housing bottom part	G581.04, Rev. a	30.08.02	1
4. Cable connecting plans:			
Cable connecting plans	W696.02	29.05.01	1
Cable connecting plans	W712.02	11.04.03	1

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
5. Labels, type labels:			
Type label WAGNER for basic device TT-x, TP-x	G620.07, Rev. g	10.02.09	1
Type label BOSCH for basic device LSN	G620.22, Rev. a	13.11.08	1
Sticker for terminal wiring E639	G619.08, Rev. b	02.03.04	1
Sign	G584.04	24.02.06	1
Plug labelling E651 (LSNi)	G687.11	06.07.06	1
6. Test instruction:			
Test instruction TT-1 and TP-3	PATTS, Rev. 02	09.06.04	3
Test record TITANUS *TOP·SENS*® /a	PPTTS, Rev. 02	09.06.04	1
Test instruction TITANUS *TOP·SENS*® LSN	Prüf_LSN, Rev. 01	08.12.06	8
Test instruction for housing bottom part - density	PAGU, Rev 03	30.03.05	3
Test device type PGGU	G581.12, Rev. a	31.03.05	1
PCB test specification TITANUS *TOP·SENS*® /a	PPSPTTS	16.09.03	1
9. Mother board E651 (for basic devices LSN):			
Circuit diagram	E651.41, Rev. a	15.01.09	3
Component mounting diagram	E651.42	05.12.06	1
Parts list	E651.43, Rev. a	15.01.09	3

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Programming note	S00023.03, Rev. c	07.12.07	1
Programming note	S00023.04, Rev. c	07.12.07	1
Programming note	S00023.05, Rev. c	07.12.07	1
Programming note	S00023.06, Rev. c	07.12.07	1
Programming instruction	ProgAnweisung, Rev. 01	08.05.06	4
10. Connection board E627:			
Circuit diagram	E627.41	17.09.08	2
Component mounting diagram	E627.42	17.09.08	1
Parts list	E627.43	17.09.08	4
Programming note	S00023.03, Rev. c	07.12.07	1
Programming note	S00023.04, Rev. c	07.12.07	1
Programming note	S00023.05, Rev. c	07.12.07	1
Programming note	S00023.06, Rev. c	07.12.07	1
Programming instruction	ProgAnweisung, Rev. 01	08.05.06	4
11. Indicator board E622 (for basic device TT-1):			
Circuit diagram	E622.11	15.11.02	1
Component mounting diagram	E622.12	15.11.02	1
Parts list E622-T	E622.13	15.11.02	1
Programming note	S00022.02	15.11.02	1
Test instruction E622	Paxe622.doc, Rev. 01	10.11.03	4

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
12. Relay board E639:			
Circuit diagram	E639.31	04.02.09	1
Component mounting diagram	E639.32	04.02.09	1
Parts list	E639.33	04.02.09	1
Test points and test procedure Plt. E639.2	prfE639, Rev. 01	04.02.09	5
13. Indicator board E641 (for basic device TP-3):			
Circuit diagram	E641.01	09.05.03	1
Component mounting diagram	E641.02	09.05.03	1
Parts list	E641.03	15.05.03	1
Programming note	S00022.02	15.11.02	1
Test instruction E641	paxe641, Rev. 01	10.11.03	4
14. Alternative mounting E627			
Alternative mounting E627.1	Alt-Bestueck_TTa	28.07.08	1
Circuit diagram	E627.11	15.10.02	2
Component mounting diagram	E627.12	15.10.02	1
Parts list	E627.13, Rev. d	21.11.02	2
Detector modules: **DM-TP, DM-TT /a:**			
Manufacturing documentation CD 1.13 dated 05.12.06			
1. Assembly diagrams, overall parts list:			
Output sealing	G577.04, Rev. b	28.01.03	1

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Input sealing	G577.04, Rev. c	28.01.03	1
Mounting O ring Phd housing	G580.02	01.08.01	1
Assembly Phd housing	G580.02, Rev. a	16.01.06	1
Mounting springs Phd housing	G580.02	01.08.01	1
Assembly and grouting Phd housing	G580.02, Rev. a	29.11.05	1
Components and angling LED, LED holder	G580.02, Rev. b	30.11.05	1
Mounting lens and LED, LED holder	G580.02, Rev. a	28.05.02	1
Assembly LED holder	G580.02, Rev. a	28.05.02	1
Mounting measuring board	G580.02, Rev. c	13.06.06	1
Mounting of fittings	G580.02, Rev. a	09.06.06	1
1. Assembly diagrams, overall parts list:			
Mounting MZ upper part	G580.02, Rev. a	12.06.06	1
Ultrasonic welding mini cell	G580.02	13.09.01	1
Measuring board - soldering and sealing	G580.02, Rev. h	12.06.06	1
Mounting MZ cover	G580.02	10.09.01	1
Mounting of sealings	G580.02	10.09.01	1
Position signs	G580.02, Rev. c	03.07.03	1
Description assembly	G580.02, Rev. l	22.09.06	1
MZ lower part	G580.04, Rev. b	07.06.06	2

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
MZ cover - notes for surface coating	G580.05	14.02.02	1
Phd housing, left - notes for surface coating	G580.08, Rev. a	26.08.04	1
Phd housing, right - notes for surface coating	G580.08, Rev. a	26.08.04	1
Grouting, mixing note	G580.10, Rev. a	26.07.05	1
HT-870, Offer No.: 07-694	HT-870_Angebot	15.08.02	1
BISCO® HT-870	HT-870	12.09.02	1
Datasheet	GR4000neu	15.01.03	1
Safety datasheet TSE 397 C	safety_TSE397c	21.06.05	5
Safety datasheet TSE 397 C	sicher_TSE397c	21.06.05	5
TSE399-C	TSE399_c	--	3
Building regulation for measuring board	G580.15, Rev. b	28.09.06	1
Variants parts list *PRO·SENS*® /a	G580.03, Rev. e	17.07.06	1
1. Assembly diagrams, overall parts list:			
Variants parts list *TOP·SENS*® /a	G580.03, Rev. d	17.07.06	1
Overall parts list *PRO·SENS*® /a and *TOP·SENS*® /a	G580.03, Rev. n	21.11.06	1
2. Plastic injection parts, control drawings:			
MZ lower part	G580.04, Rev. b	07.06.06	1
MZ upper part	G580.04	24.07.01	3

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Type of document	Manufacturer's identification	Date	Number of Pages
MZ cover	G580.04	24.07.01	1
LED holder	G580.04	23.07.01	1
Phd housing, left	G580.04	24.07.01	1
Phd housing, right	G580.04	24.07.01	1
Lens	G580.04, Rev. a	01.07.02	1
4. Cable connecting plans:			
Cable connecting plans for mini cell	W697.02	30.11.01	1
Test specification cable W697	paw697	11.04.02	1
5. Front membranes, type labels:			
Type label detector, *PRO·SENS*® /a	G580.07, Rev. e	24.02.06	1
Type label detector, *TOP·SENS*® /a	G621.07	24.02.06	1
6. Test, calibration and adjustment:			
Test instruction E617.3/a	pa_e617, Rev. 2	01.11.05	2
Test instruction E617.3/a (English)	pa_e617_E, Rev. 2	01.11.05	2
Test setup E617	G580.11	07.01.02	1
Test instruction detector module (density)	padm.doc, Rev. 02	25.09.03	3
Test instruction detector module (electronics)	PaDmEl Rev. 01	05.02.04	11
Test device type PGMZ	G580.13, Rev. a	25.09.03	1
Test procedure with test device PGMZ	G580.14	25.09.03	1
Test instruction smoke detector (Measuring cell)	PaTpsDk.doc	09.04.02	4

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Calibration instruction detector cell TP-XX-YY; TT-XX.YY	KalanwMzTxs, Rev. 04	13.04.06	8
Standard adjustment DIL switch	G578.08, Rev. b	28.04.06	1
Test specification for mounted Phd housing	paphd, Rev. 02	20.09.05	1
7. Programming notes:			
Programming instruction	TxsMzProgAnl	07.01.03	3
Programming note *PRO·SENS*® variante 1 (-L)	S00018.01, Rev. e	07.07.06	1
Programming note *PRO·SENS*® variante 2 (-N)	S00018.02, Rev. e	07.07.06	1
Programming note *PRO·SENS*® variante 3 (-Lp)	S00018.03, Rev. f	21.11.06	1
Programming note *PRO·SENS*® variante 4 (-Np)	S00018.04, Rev. f	21.11.06	1
Programming note *PRO·SENS*® variante 7 (-L)	S00018.07, Rev. b	07.07.06	1
Programming note *PRO·SENS*® variante 8 (-N)	S00018.08, Rev. b	07.07.06	1
Programming note *PRO·SENS*® variante 1 (-L)	S00018.11, Rev. a	21.11.06	1
Programming note *PRO·SENS*® variante 2 (-N)	S00018.12, Rev. a	21.11.06	1
Programming note *TOP·SENS*® /a variante 1 (-L/a)	S00031.01 , Rev. d	27.06.06	1

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Programming note *TOP·SENS*® /a variante 2 (-N/a)	S00031.02, Rev. c	27.06.06	1
Programming note *TOP·SENS*® /a variante 3 (-Lp/a)	S00031.03, Rev. d	21.11.06	1
Programming note *TOP·SENS*® /a variante 4 (-Np/a)	S00031.04, Rev. d	21.11.06	1
Programming note *TOP·SENS*® variante 5 (-L/a)	S00031.05, Rev. a	27.06.06	1
Programming note *TOP·SENS*® variante 6 (-N/a)	S00031.06, Rev. a	27.06.06	1
Programming note *TOP·SENS*® variante 7 (-L/a)	S00031.07, Rev. a	21.11.06	1
Programming note *TOP·SENS*® variante 8 (-N/a)	S00031.08, Rev. a	21.11.06	1
8. Photodiode amplifier E617:			
Circuit diagram	E617.31, Rev. a	20.06.05	1
Component mounting diagram	E617.32, Rev. a	27.07.05	1
Parts list	E617.33, Rev. a	20.06.05	1
9. Measuring board E618:			
Circuit diagram	E618.91	21.11.06	2
Component mounting diagram	E618.92	21.11.06	1
Parts list	E618.93	21.11.06	2
Accessory for: **TITANUS *PRO·SENS*® /a** **TITANUS *TOP·SENS*® /a:**			

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Manufacturing documentation CD 1.07 dated 09.01.08			
1. Front foils (WAGNER):			
Front foil WAGNER AD10-1035	G581.05, Rev. a	21.02.02	2
Front foil WAGNER AD10-1037	G581.05, Rev. a	21.02.02	2
Front foil WAGNER AD10-1205	G586.05, Rev. a	21.02.02	3
Front foil WAGNER AD10-1210	G586.05, Rev. a	21.02.02	3
Front foil WAGNER AD10-1215	G621.11	25.06.03	2
Front foil WAGNER AD10-1225	G621.12	25.06.03	2
Front foil WAGNER AD10-1065	G621.13	25.06.03	2
Front foil WAGNER AD10-1075	G621.14	25.06.03	2
Front foil WAGNER AD10-1076	G621.15	27.04.07	1
Front foil WAGNER AD10-1077	G621.16	27.04.07	1
Front foil WAGNER AD10-1076	G621.18	27.04.07	1
Front foil Notifier (NFAS)	G607.05, Rev. a	03.02.06	2
Front foiln Bosch	G622.11 ... G622.14	04.08.03	2
Front foiln Bosch (LSN)	G622.16 ... G622.19	04.08.06	2
Front foil Siemens	G622.21 ... G622.24	06.04.05	2
Front foil D+H	G622.31	16.11.05	2
Front foil D+H	G622.31, Rev. a	25.01.06	2
Front foiln Esser	G622.41 ... G622.44	10.05.06	2
4. Cable connecting plans:			
Connecting cable	W714.02	09.07.03	1

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Cable connecting plan	W715.02	09.07.03	1
6. Shut-off kit for basic devices TT-1 and TP-3:			
Variants parts list	G623.03	30.03.04	1
7. Shut-off board E640:			
Circuit diagram	E640.01	03.07.03	1
Component mounting diagram	E640.02	03.07.03	1
Parts list	E640.03, Rev. a	10.09.03	1
Circuit diagram	pge640.01	10.11.03	1
8. Indicator board E642 for shut-off in basic device TT-1:			
Circuit diagram	E642.01	03.07.03	1
Component mounting diagram	E642.02	03.07.03	1
Parts list	E642.03, Rev. a	19.08.03	1
9. Indicator board E643 for shut-off in basic device TP-3:			
Circuit diagram	E643.01	25.06.03	1
Component mounting diagram	E643.02, Rev. a	21.08.06	1
Parts list	E643.03, Rev. b	17.08.06	1
10. IP-52 Kit:			
Assembly	G598.02	22.03.04	1
Sealing glue strip	G598.04	23.03.04	1
Sealing plate	G598.05, Rev. a	15.11.05	1

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Type of document	Manufacturer's identification	Date	Number of Pages
Upper part with sealing	G598.06	21.10.05	1
Mounting note	G598.07	24.10.05	1
Parts list	G598.03, Rev. a	15.11.05	1
Accessory for WAGNER devices 1, dated 15.02.08:			
1. Aspirating reductions, banderole			
Aspirating reduction foil AF	G409.04, Rev. e	06.09.01	1
Aspirating reduction foil AFW	G409.04, Rev. b	06.09.01	1
Banderole AF-BR	G409.04, Rev. c	15.01.96	1
Banderole OS-A	G616.04	02.06.03	1
3. Aspirating reductions (freezing rooms)			
Aspirating reductions for freezing rooms	G491.04, Rev. c	14.03.07	1
Plastic clip for freezing rooms	G491.04	04.04.96	1
4. Pipe hood			
T part with disk	G366.02	29.06.94	1
Disk for pipe hood	G366.04	20.07.94	1
7. Air filter LF-AD (-1/-2)			
Air filter	G482.02, Rev. b	30.03.07	1
Housing lower part with extensions	G482.02, Rev. c	30.03.07	1
Housing cover with extensions	G482.02	17.02.00	1
Housing lower part	G482.04, Rev. c	30.03.07	1

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Filter insert 1	G482.04, Rev. b	02.12.04	1
Filter pad	G482.04, Rev. a	20.03.06	1
Type label Wagner	G482.05, Rev. a	03.04.07	1
Sticker 1	G482.05	21.02.00	1
Filter insert 2	G482.09, Rev. a	30.03.07	1
Sticker 2	G482.09	17.03.06	1
Variants parts list	G482.03, Rev. b	10.12.07	1
Parts list	G482.03, Rev. e	30.03.07	1
Cable connection with guide washer	G369.02, Rev. a	10.04.07	1
Parts list	G369.03, Rev. b	30.03.07	1
Guide washer	G369.04, Rev. c	10.04.07	1
9. Air filter SF-400, SF-650			
Air filter SF-400, SF-650	G549.02, Rev. c	23.03.07	1
Plug output	G549.04, Rev. b	15.02.05	2
Parts list SF-400	G549.03, Rev. b	28.02.05	1
Parts list SF-650	G550.03, Rev. b	28.02.05	1
Type label WAGNER	G549.05, Rev. c	03.04.07	1
18. Reset board (confirmation board)			
Circuit diagram	E548.11, Rev. c	21.06.06	1
Component mounting diagram	E548.12	30.08.95	1
Parts list	E548.13, Rev. g	11.02.08	2

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Accessory for WAGNER devices 2, CD 1.21, dated 19.01.09:			
31. Y adapter			
Assembly Y adapter	G583.02	04.03.03	1
37. Ethernet network interface E638:			
Circuit diagram	E638.11, Rev. a	21.10.03	1
Component mounting diagram	E631.12	17.01.03	1
Parts list	E638.13, Rev. a	21.10.03	4
Connecting cable	W713.02	25.04.03	1
Programming note	S00034.00, Rev. d	06.02.06	1
Test specification	prfe638.doc	09.12.03	3
38. Sound damper			
Sound damper assembly	G657.02	12.05.05	1
Side part	G657.11	11.05.05	1
Middel part	G657.12	11.05.05	1
Sound damper - parts list	G657.03	12.05.05	1
Type label	G657.07	12.05.05	1
43. Reconstruction kit „quiet fan“:			
Parts list - reconstruction kit quiet fan	G696.03, Rev. a	31.07.08	1
Cover air duct	G581.04, Rev. a	16.09.02	1
Sealing	G621.09	08.03.07	1

Enclosure 2

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The approved component/system is described as follows:

Type of document	Manufacturer's identification	Date	Number of Pages
Reconstruction TP, TT with quiet fan	G696.02, Rev. a	31.07.08	1
Fan hood	G969.11	22.02.07	1
Fan angle	G969.12	14.02.07	1
Lower part processed	G969.13	03.04.07	1
Fan complete	G969.14, Rev. a	13.07.08	1
Mounting cable and board		16.07.07	1
To 43. board E682:			
Circuit diagram	E682.31	29.07.08	1
Component mounting diagram	E682.32, Rev. a	19.01.09	1
Parts list	E682.33, Rev. a	19.01.09	1
Parts list high power variante	E682.33, Rev. a	19.01.09	1
To 43. board E686 - relay board:			
Circuit diagram	E686.11	18.06.07	1
Component mounting diagram	E686.12	18.06.07	1
Parts list	E686.13	18.06.07	1
99. Couplers:			
DC1157-AA	„Interaktiv“ G 299031		
DC1131-AA	„AnalogPlus“ G 299030		
FDCIO222	„Sinteso“ G 204029		
SPF5300	„SigmaSys“ G 299022		
808613.10 „TP-x-ZE”, “TT-x-ZE”	“EsserBus” G 206042		

Enclosure 3 **Sheet 1**

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Instructions for the application of the approval component/system (see enclosure 1):

TITANUS *PRO·SENS*®; TITANUS *PRO·SENS*® 2

The following limit values shall be observed while adjusting the air flow monitoring against the pipework size:
Admissible limit value for fault indications is 20% modification of the overall air flow per pipework. This fault shall be detected within 300 s.
The design instructions according to the manufacturer's technical manual „Smoke aspirating system TITANUS *PRO·SENS*®“ Version 04/09 or according to the design software TF-SC-1 of the manufacturer shall be regarded.

Technical data:

Operating voltage:	14 to 30 V DC

Current consumption at highest fan voltage, without additional modules:

- Starting current (at 24 V):	max. 300 mA TITANUS *PRO·SENS*® max. 320 mA TITANUS *PRO·SENS*® 2 max. 300 mA TITANUS *PRO·SENS*® (SL)* max. 330 mA TITANUS *PRO·SENS*® 2 (SL)*
- Starting current quiesc. (at 24 V):	max. 275 mA TITANUS *PRO·SENS*® max. 295 mA TITANUS *PRO·SENS*® 2 max. 180 mA TITANUS *PRO·SENS*® (SL)* max. 210 mA TITANUS *PRO·SENS*® 2 (SL)*
- Starting current alarm (at 24 V):	max. 285 mA TITANUS *PRO·SENS*® max. 315 mA TITANUS *PRO·SENS*® 2 max. 190 mA TITANUS *PRO·SENS*® (SL)* max. 220 mA TITANUS *PRO·SENS*® 2 (SL)*

*) higher current consumption by use of fan board type FC-3

- Current consumption reset board:	max. 20 mA
Contact rating of alarm and fault relais: Switching capacity:	 30 V, 1 A max. 24 W

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Instructions for the application of the approval component/system (see enclosure 1):

Restrictions of the range of use by use of couplers: The respective manufacturer´s spcifications shall be regarded.

TITANUS *PRO·SENS*®/net; TITANUS *PRO·SENS*® 2 /net

The following limit values shall be observed while adjusting the air flow monitoring against the pipework size:
Admissible limit value for fault indications is 20% modification of the overall air flow per pipework. This fault shall be detected within 300 s.
The design instructions according to the manufacturer's technical manual „Smoke aspirating system TITANUS *PRO·SENS*®/net" Version 04/09 or according to the design software TF-SC-1 of the manufacturer shall be regarded.

Technical data:

Operating voltage: 14 to 30 V DC

Current consumption at highest fan voltage, without additional modules:

- Starting current (at 24 V):
  max. 390 mA TITANUS *PRO·SENS*® /net
  max. 400 mA TITANUS *PRO·SENS*® 2 /net
  max. 230 mA TITANUS *PRO·SENS*® /net (SL)*
  max. 260 mA TITANUS *PRO·SENS*® 2 /net (SL)*
- Current consumption quiesc. (at 24 V):
  max. 290 mA TITANUS *PRO·SENS*® /net
  max. 320 mA TITANUS *PRO·SENS*® 2 /net
  max. 170 mA TITANUS *PRO·SENS*® /net (SL)*
  max. 200 mA TITANUS *PRO·SENS*® 2 /net (SL)*
- Current consumption alarm (at 24 V):
  max. 300 mA TITANUS *PRO·SENS*® /net
  max. 330 mA TITANUS *PRO·SENS*® 2 /net
  max. 180 mA TITANUS *PRO·SENS*® /net (SL)*
  max. 210 mA TITANUS *PRO·SENS*® 2 /net (SL)*

*) higher current consumption by use of fan board type FC-3

- Current consumption reset board: max. 20 mA

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Instructions for the application of the approval component/system (see enclosure 1):

Contact rating of
alarm and fault relais: 30 V, 1 A
Switching capacity: max. 24 W

Restrictions of the range of use by use of couplers: The respective manufacturer´s spcifications shall be regarded.

TITANUS *PRO·SENS*® LSNi; TITANUS *PRO·SENS*® 2 LSNi

The following limit values shall be observed while adjusting the air flow monitoring against the pipework size:
Admissible limit value for fault indications is 20% modification of the overall air flow per pipework. This fault shall be detected within 300 s.
The design instructions according to the manufacturer's technical manual „Smoke aspirating system TITANUS *PRO·SENS*® LSNi" Version 04/09 or according to the design software TF-SC-1 of the manufacturer shall be regarded.

Technical data:

Operating voltage: 14 to 30 V DC

Current consumption at highest fan voltage, without additional modules:

- Starting current (at 24 V):
  max. 400 mA TITANUS *PRO·SENS*® LSNi
  max. 400 mA TITANUS *PRO·SENS*® 2 LSNi
  max. 190 mA TITANUS *PRO·SENS*® LSNi (SL)*
  max. 250 mA TITANUS *PRO·SENS*® 2 LSNi (SL)*
- Current consumption quiesc. (at 24 V):
  max. 285 mA TITANUS *PRO·SENS*® LSNi
  max. 325 mA TITANUS *PRO·SENS*® 2 LSNi
  max. 170 mA TITANUS *PRO·SENS*® LSNi (SL)*
  max. 210 mA TITANUS *PRO·SENS*® 2 LSNi (SL)*
- Current consumption alarm (at 24 V):
  max. 285 mA TITANUS *PRO·SENS*® LSNi
  max. 325 mA TITANUS *PRO·SENS*® 2 LSNi
  max. 190 mA TITANUS *PRO·SENS*® LSNi (SL)*
  max. 230 mA TITANUS *PRO·SENS*® 2 LSNi (SL)*

*) higher current consumption by use of fan board type FC-3

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Instructions for the application of the approval component/system (see enclosure 1):

TITANUS *TOP·SENS*®; TITANUS *TOP·SENS*® 2,

The following limit values shall be observed while adjusting the air flow monitoring against the pipework size:
Admissible limit value for fault indications is 20% modification of the overall air flow per pipework. This fault shall be detected within 300 s.
The design instructions according to the manufacturer's technical manual „Smoke aspirating system TITANUS *TOP·SENS*®" Version 04/09 or according to the design software TF-SC-1 of the manufacturer shall be regarded.

Technical data:

Operating voltage:	14 to 30 V DC

Current consumption at highest fan voltage, without additional modules:

- Starting current (at 24 V):	max. 300 mA TITANUS *TOP·SENS*® max. 330 mA TITANUS *TOP·SENS*® 2 max. 300 mA TITANUS *TOP·SENS*® (SL)* max. 330 mA TITANUS *TOP·SENS*® 2 (SL)*
- Current consumption quiesc. (at 24 V):	max. 260 mA TITANUS *TOP·SENS*® max. 310 mA TITANUS *TOP·SENS*® 2 max. 210 mA TITANUS *TOP·SENS*® (SL)* max. 250 mA TITANUS *TOP·SENS*® 2 (SL)*
- Current consumption alarm (at 24 V):	max. 290 mA TITANUS *TOP·SENS*® max. 370 mA TITANUS *TOP·SENS*® 2 max. 240 mA TITANUS *TOP·SENS*® (SL)* max. 280 mA TITANUS *TOP·SENS*® 2 (SL)*

*) higher current consumption by use of fan board type FC-3

- Current consumption reset board:	max. 20 mA
Contact rating of alarm and fault relais:	30 V, 1 A
Switching capacity:	max. 24 W

Enclosure 3

To Certificate of Approval No.: G 202064 Date 07.08.2009

Instructions for the application of the approval component/system (see enclosure 1):

Restrictions of the range of use by use of couplers: The respective manufacturer´s spcifications shall be regarded.

TITANUS *TOP·SENS*® LSNi; TITANUS *TOP·SENS*® 2 LSNi

The following limit values shall be observed while adjusting the air flow monitoring against the pipework size:
Admissible limit value for fault indications is 20% modification of the overall air flow per pipework. This fault shall be detected within 300 s.
The design instructions according to the manufacturer's technical manual „Smoke aspirating system TITANUS *TOP·SENS*® LSNi" Version 04/09 or according to the design software TF-SC-1 of the manufacturer shall be regarded.

Technical data:

Operating voltage: 14 to 30 V DC

Current consumption at highest fan voltage, without additional modules:

- Starting current (at 24 V):	max. 400 mA TITANUS *TOP·SENS*® LSNi max. 400 mA TITANUS *TOP·SENS*® 2 LSNi max. 190 mA TITANUS *TOP·SENS*® LSNi (SL)* max. 250 mA TITANUS *TOP·SENS*® 2 LSNi (SL)*
- Current consumption quiesc. (at 24 V):	max. 290 mA TITANUS *TOP·SENS*® LSNi max. 330 mA TITANUS *TOP·SENS*® 2 LSNi max. 170 mA TITANUS *TOP·SENS*® LSNi (SL)* max. 210 mA TITANUS *TOP·SENS*® 2 LSNi (SL)*
- Current consumption alarm (at 24 V):	max. 305 mA TITANUS *TOP·SENS*® LSNi max. 360 mA TITANUS *TOP·SENS*® 2 LSNi max. 190 mA TITANUS *TOP·SENS*® LSNi (SL)* max. 230 mA TITANUS *TOP·SENS*® 2 LSNi (SL)*

*) higher current consumption by use of fan board type FC-3