SecuriSens ADW 535

Product Catalogue 2016

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For your safety

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Content

Introduction

When it comes to safety, don’t play with fire

Danger is never far away in locations where fires are possible, with human life, assets and data being put at risk. Securiton has decades of experience in the area of fire detection and fire alarm systems.

The SecuriSens ADW 535 comes into its own where conventional fire detectors reach their physical limits. It copes well with both extreme temperatures and constantly high atmospheric humidity, whilst precise measurements are also possible when corrosive gases and contaminated air are present.

Effective fire protection

The ADW 535 is an integrated line type heat detector with a response behaviour based on heat differential and/or maximum heat. Thanks to its self-check feature and the periodic, automatic test, the ADW 535 is particularly suitable for use in applications where the legally prescribed functional and maintenance checks cannot be performed due to the given ambient conditions or only with difficulty.

With the installation of an XLM 35 SecuriLine eXtended line module, the ADW 535 line type heat detector can be easily connected to the SecuriFire (SecuriLine eXtended) and Integral (X-Line) fire alarm systems via the addressable loop.

The response behaviour of the ADW 535 is tested in compliance with EN 54-22
- Class A1I, A2I and BI from Firmware V01.00.15
- Class A1I to GI (in preparation)

Application depending sensing tubes

Depending on the application, various sensing tubes are used (all of which have VdS approval):
- Copper: standard applications, property surveillance
- Stainless steel: food industry and high temperature applications
- PTFE (Teflon): aggressive ambient conditions (e.g. chemical industry)

Powerful software tools, efficient commissioning

ADW HeatCalc is used for sketching the sensing tube system and calculating the necessary system settings. The PC tool is rounded off by the parts list and report for the plant documentation.

Diverse setting options are offered directly on the device via EasyConfig or using the comfortable ADW Config tool for perfect adaptation to existing environmental conditions

How to read this catalogue

Example of a typical entry for an item

Type & Article Number
Please quote this number when making an enquiry or ordering.

Sensing tube

TU 6/4 PTFE 25 **30-6900053-01-01**

Tube to create the sensor part.
(delivery in units of 25m)

Technical data	
Diameter outside	6 mm
Diameter inside	4 mm
Length	25 m
Material	teflon

Illustration

Description and technical data

1. Line type heat detector

Line Type Heat detector

ADW 535-1

ADW 535-2

ADW 535-1 one sensing tube **11-1000000-01-01**

ADW 535-2 two sensing tubes **11-1000000-02-01**

The SecuriSens ADW 535 line-type heat detector combines a proven functional principle with the latest developments in sensor and processor technology.
A sensing tube filled with normal air is installed in the area to be monitored. A fully electronic pressure sensor permanently records the pressure in the sensing tube and compares it with the alarm criteria.
Commissioning and configuration is done either directly on the device or via the comfortable ADW Config software tool for a perfect adaptation to existing environmental conditions.
For planning the ADW HeatCalc software allows an optimized design of any installation.

Technical data

Operating voltage:	9 to 30 V DC
Length of sensing tube:	115 m
Relay contact:	50 VDC/1A (UL 30 VDC)
Ambient temperature evaluation unit:	-30°C to +70 °C
Ambient temperature sensing tube*:	- 40 °C to +180 °C
Dimensions (H x W x D):	134 x 250.5 x 160.5 mm
Protection category of case:	IP 65
Case Colour:	Light grey RAL 280 70 05 Charcoal RAL 300 20 05
Weight:	1.6 kg
VdS-Approval:	G 214076

*: Lower or higher temperature ranges are also possible subject to consultation with the manufacturer

Line Type Heat detector ATEX

ADW 535-1HDx

ADW 535-2HDx

ADW 535-1HDx one sensing tube **11-1000001-01-01**

ADW 535-2HDx two sensing tubes **11-1000001-02-01**

The SecuriSens ADW 535 line-type heat detector combines a proven functional principle with the latest developments in sensor and processor technology.
A sensing tube filled with normal air is installed in the area to be monitored. A fully electronic pressure sensor permanently records the pressure in the sensing tube and compares it with the alarm criteria.
Commissioning and configuration is done either directly on the device or via the comfortable ADW Config software tool for a perfect adaptation to existing environmental conditions.
For planning the ADW HeatCalc software allows an optimized design of any installation.

The HDx versions are For ATEX applications and very harsh ambient conditions.

Technical data

Operating voltage:		9 to 30 V DC
Length of sensing tube:		115 m
Relay contact:		50 VDC/1A (UL 30 VDC)
Ambient temperature evaluation unit:		-30°C to +70 °C
Ambient temperature sensor tube*:		-40 °C to +180 °C
Dimensions (H x W x D):		260 x 203 x 134 mm
Protection category of case:		IP 66
Case Colour:	Graphite black	RAL 9011
	Platinum grey	RAL 7036
Weight:	ADW 535-1HDx	3,05 Kg
	ADW 535-2HDx	3,42 kg

*: Lower or higher temperature ranges are also possible subject to consultation with the manufacturer

External Temperature Sensor

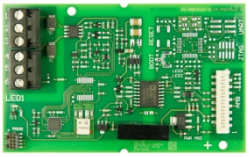
ART 535-10 **11-1000002-10-01**

For the temperature compensation the external temperature sensor ART 535 is to be used and placed in the monitored area. For temperature ranges and for EX applications a special version (ART 535 -30Ex 400°C) is to be used.

Technical data

Temperature range:	- 50 to 200°C
Length cable:	10 m

Loop I/F module for Special Fire Detectors



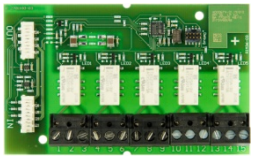
XLM 35 **11-2200003-01-01**

With the installation of an XLM 35, special fire detectors like ADWs can be ideally connected via the addressable loop to the SecuriFire fire alarm systems. The normative alarm transmission to the superordinate FACP is then accomplished via the XLM 35. The module comes with mounting brackets, screws and ribbon cable.
The XLM 35 module allows also central configuration of special fire detectors with the Config Over Line function

Technical data

Operating Voltage from AMB 35:	5 V DC
Maximum power consumption :	20 mA
Dimensions (H x W x D):	155 x 108 x 64 mm
Weight:	62 g

Relay I/F module for Special Fire Detectors



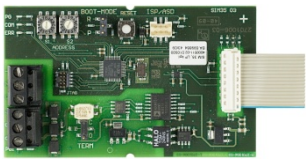
RIM 36 **11-2200005-01-02**

The RIM 36 brings five (5) additional relay outputs to your Special Fire Detector. Expansion limit is two (2) RIM 35 / 10 relays. Each relay can be assigned to any ADW event by programming with the ADW Config software. The module comes with mounting brackets, screws and ribbon cable.

Technical data

Max. relay output load:	50 / 1 / 30 V DC/A/W
Dimensions (H x W x D):	95x58x17mm
Weight:	85 g

Serial I/F Module networking of Special Fire Detectors



SIM 35 **11-2200000-01-02**

For the RS 485 networking of up to 250 Special Fire Detectors like ADW 535.
Using the “ADW Config” configuration software, all ADWs in the network can be visualised and configured from a PC.
The module comes with mounting brackets, screws and ribbon cables.

Technical data

Dimensions (H x W x D) :	95x58x17 mm
Weight:	56 g

Serial Master Module for networking of Special Fire Detectors

SMM 535 **11-2200001-01-01**

This interface connects the RS485 (over SIM 35) networked ADWs to a USB port of a PC. It is powered by the USB port.

Technical data

Power Supply:	USB powered / 5 VDC
Operating temperature:	-30°C to +60°C
Dimensions (H x W x D):	82x89x55 mm
Weight:	165 g

1.1. Demo and Test Equipment

Democase for ADW 535

ADW 535 DCU **249998**

Democase ADW 535 for training and sales presentations.

Technical data

Weight:	9,95 kg
Dimensions(HxWxD):	500 x 200 x 360 mm

2. Software

ADW calculation& planning tool

ADW-HeatCalc **11-1300005-01-01**

Configuration and test software.
Download from the Storebox

ADW configuration tool license w/o Dongle

PL_ADW-Conf_N **VE100410**

Partner License Extension ADW Config Networking (for an existing dongle)

ADW configuration tool license with Dongle

D&PL_ADW-Conf_N **VE100411**

Dongle & Partner License ADW Config Networking

ADW configuration tool license w/o Dongle

PL_ADW-Conf **VE100412**

Partner License Extension ADW Config (for an existing dongle)

ADW configuration tool license with Dongle

D&PL_ADW-Conf **VE100413**

Dongle & Partner License for ADW Config

ADW configuration tool license w/o Dongle

UL_ADW-Conf_N **VE100414**

User License Extension ADW Config Networking (for an existing dongle)

ADW configuration tool license with Dongle

D&UL_ADW-Conf_N **VE100415**

Dongle & User License ADW Config Networking

ADW configuration tool license w/o Dongle

UL_ADW-Conf **VE100416**

User License Extension ADW Config (for an existing dongle)

ADW configuration tool license with Dongle

D&UL_ADW-Conf **VE100417**

Dongle & User License ADW Config

3. Accessories

	Copper tube	Stainless steel tube	Teflon tube	Flexible polyamide hose
Application areas	Standard environments	High temperature environments	Aggressive environments	For the flexible connection between ADW and copper/stainless steel tube
Properties	Temperature resistance + + Chemical resistance – – Corrosion resistance +	Temperature resistance + + + Chemical resistance – Corrosion resistance + +	Temperature resistance + + Chemical resistance + + + Corrosion resistance + + +	Temperature resistance + Chemical resistance + + Corrosion resistance + +
Application areas	standard industrial applications Car park halls Loading platforms Road tunnels railway tunnels underground railway tunnels	Fertiliser industry Rubber industry Plastics processing industry Food processing industry Textile industry cellulose industry	Bioengineering Chemical industry Semiconductor industry Laboratory Engineering Medical engineering Pharmaceutical industry	As supply line to the detction area or for the thermal decoupling
Diameter outside (mm)	5	5	6	5
Diameter inside (mm)	4	4	4	3
Tube length (depending on application)	10 to 115 m (200 m not acc. EN)	10 to 115 m (200 m not acc. EN)	10 to 105 m (150 m not acc. EN)	0 to 20 m
Max. distance between pipe clamps	0,8 m to 1,2 m	0,8 m to 1,2 m	0,5 m	0,5 m
Distance between pipe clamps and Screw-junction piece	≥ 10 cm each side	≥ 10 cm each side	≥ 20 cm each side	≥ 20 cm each side
Ambient temperature	-260 °C to +150 °C	-110 °C to +300 °C (higher temperatures on demand)	-70 °C to + 260 °C (PVDF -40 to +150 °C)	-40 °C to +100 °C
Applicable in heat classes	A1-G	A1-G	A1, A2 and C	A1-G
Material	Cu-DHP R250	Stainless steel (1.4571)	Polytetrafluorethylen (PTFE)	Polyamide PA 12
Screw junction piece	Brass	Stainless steel (1.4571)	PVDF or Brass	-
End plug	Brass	Stainless steel (1.4571)	PVDF or Brass	-
Stiffener sleeve	-	-	Brass when used with Brass-junctions	Brass or Stainless steel (1.4571)
Test coil	Cu-DHP R250	Stainless steel (1.4571)	-	-
Pipe clamp	Polyamide (max. 85 °C) Polypropylen (max. 100 °C) or Brass	Polyamide (max. 85 °C) Polypropylen (max. 100 °C) or Stainless steel (1.4571)	Polyamide (max. 85 °C) Polypropylen (max. 100 °C) Brass or Stainless steel (1.4571)	Polyamide (max. 85 °C) Polypropylen (max. 100 °C)
Sensing tube connection ADW (standard delivery brass)	Brass	Brass (First part of tube Polyamide)	Brass; special adapter available AD ADW TU 6/4	Brass
Necessary accessories				
Connection set	-	-	1	-
Screw-junction piece	– Same number as pipes – Per test coil +2 (If test coil connected at ADW +1)	– Same number as pipes – Per test coil +2 (If test coil connected at ADW +1)	- Same number as hoses -1	-1 per hose (If test coil connected at ADW +1)
End plug	1 per sensing tube	1 per sensing tube	1 per sensing tube	-
Stiffener sleeve	-	-	2 per tube part (only for brass junctions)	2 per hose part
Pipe clamps	Ca. 1 clamp per m depending on clamp distance (0.8-1.2m)	1,25 clamps per m depending on clamp distance (0.8-1.2m)	2 clamps per m	Ca. 1 clamp per m depending on clamp distance (0.8-1.2m)

3.1. Copper parts

Standard sensing tube for applications with normal ambient temperatures.
–40 – +180°C ➔ (When used at 100°C and above, use metal pipe clamps).

Sensing tube copper 5/4mm

TU 5/4 Cu **30-6800052-01-01**

Tube to create the sensor part
(straight piece 5.5m*)*

Technical data

Diameter outside:	5 mm
Diameter inside:	4 mm
Length:	5,5 m
Material:	copper

Sensing tube copper 5/4mm

TU 5/4 Cu 50 **30-6800034-01-01**

Tube to create the sensor part, 1 pcs.
(coil 50m*)*

Technical data

Diameter outside:	5 mm
Diameter inside:	4 mm
Length:	50 m
Material:	copper

Screw Junction straight for TU 5/4 Cu

SJ 5/4 CuZN **30-6800053-01-01**

Screw junction straight for TU 5/4 Cu

Technical data

For pipe diameter:	5 mm
Material:	brass

End plug for Junction straight for SJ 5/4 CuZn

EP 5/4 CuZN **30-6800054-01-01**

End plug for SJ 5/4 CuZn

Technical data

Material:	brass

T-Junction for TU 5/4 Cu

TJ 5/4 CuZn **30-6800042-01-01**

T-Junction for TU 5/4 Cu

Technical data

Material:	brass

Sensing-Coil of TU 5/4 Cu 5 m

SC 5/4 Cu 5 **30-6800055-01-01**

Sensing coil of TU 5/4 Cu

Technical data

Length:	5 m
Material:	copper

Test-Coil of TU 5/4 Cu 10 m

TC 5/4 Cu 10 **30-6800035-01-01**

Test coil of TU 5/4 Cu
Including 4m of hardplastic tube FH 5/3 PA and junctions to connect the test coil with the ADW and the sensing tube.

Technical data

Length:	10 m
Material:	copper

3.2. Stainless steel parts

Sensor tube for applications in corrosive environments, especially in the food industry for hygienic reasons. –40 – +300°C (when used at 100°C and above, use metal pipe clamps).

Sensing tube stainless steel 5/4mm

TU 5/4 St **50-0500217-01-01**

Tube to create the sensor part (straight piece 6m)

Technical data

Diameter outside:	5 mm
Diameter inside:	4 mm
Length:	6 m
Material:	stainless steel

Screw Junction straight for TU 5/4 St

SJ 5/4 St **50-0500220-01-01**

Screw junction straight for TU 5/4 St

Technical data

For pipe diameter:	5 mm
Material:	stainless steel

End plug for SJ 5/4 St

EP 5/4 St **50-0500221-01-01**

End plug for SJ 5/4 St

Technical data

Material:	stainless steel

T-Junction for TU 5/4 St

TJ 5/4 St **50-0500223-01-01**

T-Junction for TU 5/4 St

Technical data

Material:	stainless steel

Protection screw

PS TU 5/4 St **50-0500254-01-01**

Protection screw for the connection of sensing tube TU 5/4 St to the ADW 535 evaluation unit.

Sensing-Coil of TU 5/4 St

SC 5/4 St 5 **50-0500218-01-01**

Sensing coil of TU 5/4 St

Technical data

Length:	5 m
Material:	stainless steel

Test-Coil of TU 5/4 St

TC 5/4 St 10 **50-0500219-01-01**

Test coil of TU 5/4 St
Including 4m of hardplastic tube FH 5/3 PA and junctions to connect the test coil with the ADW and the sensing tube.

Technical data

Length:	10 m
Material:	stainless steel

3.3. Teflon parts

Sensor tube for applications in very corrosive and aggressive environments.
–40 – +200°C (when used at more than 100°C, metal pipe clamps and brass screw-junction pieces must be used; if more than 180 C the screw-junction pieces must be outside of the monitored area).
When using **Teflon sensing tubes**, only classes **A1l** to **Bl** are possible according to EN 54-22.

Sensing tube teflon 6/4mm

TU 6/4 PTFE 25 **30-6900053-01-01**

Tube to create the sensor part.
(reel 25m). When used together with metal junctions, an according stiffener sleeve is necessary.

Technical data

Diameter outside:	6 mm
Diameter inside:	4 mm
Length:	25 m
Material:	teflon

Sensing tube teflon 6/4mm

TU 6/4 PTFE 100 **30-6900053-02-01**

Tube to create the sensor part. When used together with metal junctions, an according stiffener sleeve is necessary. (reel 100m)

Technical data

Diameter outside:	6 mm
Diameter inside:	4 mm
Length:	100 m
Material:	teflon

Adapter ADW-TU 6/4 PTFE

AD ADW TU 6/4 **30-6800028-01-01**

For the connection of a Teflon sensor tube with the ADW detection unit. Including 1 stiffener sleeve SS 4 CuZn.

Technical data

Material:	brass

Stiffener sleeve for TU 6/4 PTFE

SS 4 CuZn **50-0500234-01-01**

Stiffener sleeve for TU 6/4 PTFE

Technical data

Material:	brass

Screw junction straight PVDF for TU 6/4 PTFE

SJ 6/4 PVDF **30-6800029-01-01**

Screw junction straight PVDF for TU 6/4 PTFE

Technical data

For pipe diameter:	6 mm
Material:	polyvinylidene fluoride

End plug PVDF for SJ 6/4 PVDF

EP 6/4 PVDF **30-6800030-01-01**

End plug for SJ 6/4 PVDF

Technical data

Material:	polyvinylidene fluoride

T-Junction PVDF for TU 6/4 PTFE

TJ 6/4 PVDF **30-6800044-01-01**

T-Junction for TU 6/4 PTFE

Technical data

Material:	polyvinylidene fluoride

Screw Junction straight brass for TU 6/4 PTFE

SJ 6/4 CuZn **50-0500232-01-01**

Screw junction straight CuZn for TU 6/4 PTFE. When used as end piece, 1 EP 6/4 CuZn and 1 SS 4 CuZn is necessary.

Technical data

For pipe diameter:	6 mm
Material:	brass

End plug brass for SJ 6/4 CuZn

EP 6/4 CuZn **50-0500233-01-01**

End plug for SJ 6/4 CuZn

Technical data

Material:	brass

Reduction compression ferrule for SJ 6/4 CuZn-FH 5/3 PA

RE 6-5 CuZn **30-6800036-01-01**

Reduction compression ferrule for FH 5/3 PA. To be used togheter with SJ 6/4 CuZn or TJ 6/4 CuZn

Technical data

Material:	brass

T-Junction brass for TU 6/4 PTFE

TJ 6/4 CuZn **50-0500235-01-01**

T-Junction for TU 6/4 PTFE

Technical data

Material:	brass

3.4. Polyamide parts

Flexible Hose Polyamide 5/3mm

FH 5/3 PA **100056**

Flexible Hose to connect the ADW detection unit with the sensor part (Cu, St, PTFE) of the sensing tube.
(Price per m). To be used together with stiffener sleeve SS 3 CuZn or SS 3 St.

Technical data

Diameter outside:	5 mm
Diameter inside:	3 mm
Length:	1 m
Material:	polyamide

Stiffener sleeve brass for FH 5/3 PA

SS 3 CuZn **30-6800056-01-01**

Stiffener sleeve for FH 5/3 PA

Technical data

Material:	brass

Stiffener sleeve stainless steel for FH 5/3 PA

SS 3 St **50-0500222-01-01**

Stiffener sleeve for FH 5/3 PA

Technical data

Material:	stainless steel

4. Installation material

Pipe Clamp

PC 5/6 PP **30-6800057-01-01**

To mount the sensing tube.
(delivery unit 1 pc)

Technical data

For pipe diameter:	5 mm
Material:	polypropylen

Pipe clamp

PC 5/6 PA **30-6800048-01-01**

To mount the sensing tube.
(delivery unit 100 pcs)

Technical data

For pipe diameter:	5 mm
Material:	polyamide

Pipe clamp

PC 5/6 St **30-6800027-01-01**

To mount the sensing tube.
(delivery unit 10 pcs)

Technical data

For pipe diameter:	5 mm
Material:	stainless steel

Pipe clamp

PC 5/6 CuZn **50-0500212-02-01**

To mount the sensing tube.
(delivery unit 10 pcs)

Technical data

For pipe diameter:	5 mm
Material:	brass

Double Pipe clamp

PC 5/6 StG **50-0500213-03-01**

To mount the sensing tube.
(delivery unit 10 pcs)

Technical data

For pipe diameter:	5 mm
Material:	brass

ADW Sensing tube cleaning and maintenance set

ACMS 535 **50-0500239-01-01**

ADW Sensing tube cleaning and maintenance set

5. Accessories for Ex-Zones

SensTube Teflon 6/4mm Ex

TU 6/4 PTFE / Ex **50-0500140-02-01**

Tube to create the sensor part for Ex applications.
(price per 100 m)

Technical data

Diameter outside:	6 mm
Diameter inside:	4 mm
Length:	100 m
Explosion group:	IIA
Material:	Teflon

Grounding Clamp

GC 5/6 Ex **50-0500215-01-01**

Grounding Clamp
To ground the sensing tube in Ex-zone applications.

Technical data

Material:	brass

External Temperature Sensor for EX-zones 1/2/21/22, max. 400°C

ART 535-30Ex 400°C **50-0500176-02-01**

The ART 535 external temperature sensor is to be used in the following cases:

- Applications compliant with EN 54-22, Class CI to GI
- Always (for all response grades), as soon as the application temperature in the monitored area deviates more than 20°C from the temperature of the evaluation unit.

Technical data

Diameter of sensor:	6 mm
Ambient temperature:	-50°C bis +400°C
Length:	30 m
Protection type:	IP 65
Type of protection "e":	Zone 1, 2 (II 2G Ex em T6) Zone 21, 22 (II 2D Ex mbD A21 IP65 T80°C
Material:	stainless steel

6. Spare Parts

Main Board for ADW 535

LMB 35 **11-1200001-01-01**

Repair exchange for the ADW 535-1 and -2

Technical data

Operating Voltage:	3.3 to 6 VDC
Dimensions (H x W x D):	148x120x15mm
Weight:	85 g

Extension Board for ADW 535

LEB 35 **11-1200002-01-01**

Repair exchange for the second Sensor tube of ADW 535-2

Technical data

Dimensions (H x W x D):	75x54x35mm
Weight:	39g

Supervising Unit for ADW 535

LSU 35 **11-1200003-01-01**

The LSU 35 consists of a fully electronic differential pressure sensor, a pressure pump and a step motor.

SD-Card Industrial 2GB

SD-Industrial **11-4000007-01-01**

SD memory card (industrial) 2GB for on-board (LMB 35) use in ADW 535.

Lithium battery

BR2032 **11-4000008-01-01**

Replacement battery for LMB 35

M20 Cable Screw Union

M20 **11-4000003-01-01**

Cable screw union for ADW535

M25 Cable Screw Union

M25 **11-4000004-01-01**

Cable screw union for ADW535

7. Product Type Index

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