



# LINEAR HEAT DETECTION – SECURITON

## SecuriHeat ADW-535



ST-ADW-5352  
2-SENSOR LINEAR HEAT DETECTOR

### DESCRIPTION

Where conventional fire detectors reach their physical limits, the SecuriHeat ADW-535 Linear Heat Detector comes into play. The intelligent Linear Heat Detector works perfectly, even under the most difficult conditions. Whether it be the fully automatic monitoring of large areas, resisting corrosive gases, extreme humidity and high temperatures, or differentiating between false alarms and real danger – the list of requirements for a state-of-the-art Linear Heat Detector is both long and detailed.

### DESIGN AND FUNCTION

The integrated SecuriHeat ADW-535 Linear 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. This is monitored constantly in the processing electronics and compared with the alarm criteria. Diverse setting options are offered directly on the device via EasyConfig or the ASD Config tool for perfect adaptation to existing environmental conditions. The Dynamic Heat Watch (DHW) technology ensures that a brief temperature increase caused by the ambient conditions does not result in a false alarm.

### APPLICATIONS

Thanks to the extremely tough sensing tube, the SecuriHeat ADW-535 can be deployed in many applications where conventional fire detectors do not work. With its long service life and maintenance-free design, the ADW-535 is also ideal in applications where detection properties must remain constant over the entire product service life.

### SENSING TUBES

Different VdS approved sensing tubes are available for various applications:

- **Copper** – standard applications, property surveillance
- **Stainless Steel** – food industry and high-temperature applications
- **PTFE (Teflon)** – aggressive ambient conditions (e.g. chemical industry)

### ADW HEATCALC

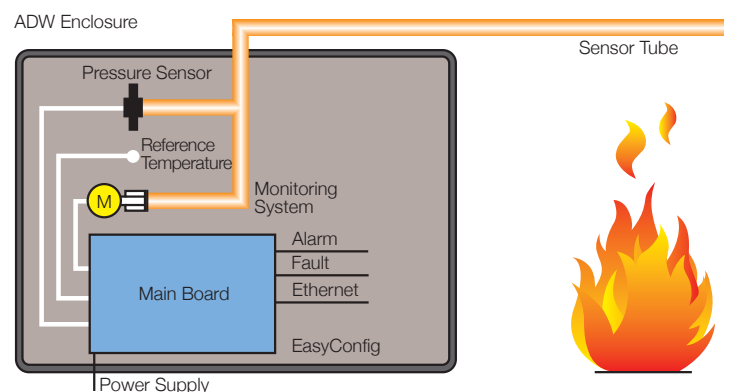
ADW HeatCalc is used for sketching the sensing tube system and calculating the necessary system settings. The PC tool is rounded off by the parts list and report for the plant documentation.

### FEATURES

- Integrated Linear Heat Detector for 1 or 2 sensing tubes (Double Tube Technology)
- Based on proven technology
- Fastest heat detector with fully programmable response behaviour plus differential and maximal evaluation
- Intelligent alarm verification with DHW technology (Dynamic Heat Watch)
- Available as Standard and Heavy Duty version (with Atex approval)
- Sensing tubes of copper, stainless steel, or Teflon withstand extremely severe ambient conditions and high temperatures – suitable for Ex areas
- High level of functional safety thanks to fully automatic sensing tube monitoring
- High-performance software:
  - ASD HeatCalc for planning
  - ASD Config for configuration and maintenance
- EN 54-22 and UL/FM approved

### APPLICATIONS

- Tunnels – road, metro and railway tunnels; utility and cable tunnels
- Underground garages, vehicle silos
- Food industry, industrial kitchens, large commercial bakeries
- Alcohol processing, distilleries
- Chemical industry, refineries, oil tanks
- Waste incineration plants
- Outdoor applications: loading platforms (flying roofs), historical bridges, fuel warehouses, towers
- High-temperature applications eg:
  - paint shops, steel plants, kilns, climate chambers, gas turbines, engine test benches
- And many other applications, eg. under-floor monitoring in rolling stock, marine applications





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### SPECIFICATIONS

		ST-ADW-5351	ST-ADW-5352
Supply Voltage Range		EN 54 9.0–30VDC FM/UL 10.5–29VDC	EN 54 9.0–30VDC FM/UL 10.5–29VDC
Power Consumption (24VDC)	Normal operation	35mA	43mA
	Self-test	210mA (for ± 180 sec)	230mA (for ± 180 sec)
Sensing Tubes	Number	1	2
Sensing Tube Length		Maximum 115 m for EN 54-22 Compliance 200 m non- EN 54-22	Maximum 2x 115 m for EN 54-22 Compliance 2x 200 m non- EN 54-22
Sensing Tube Monitoring		Automatic self-test monitors sensing tube for leaks, pipe breakage and crushing	
Interfaces	Relay / OC	2 (Alarm, Fault)	4 (Alarm I & II / Fault I & II)
	Network / PC tool	Ethernet	Ethernet
	Inputs	Reset, day/night, reference	Reset, day/night, reference
Relay Contacts		50VDC / 1A (UL 30VDC)	50VDC / 1A (UL 30VDC)
Optional Modules	Maximum 4	1 or 2 RIM 36, 1 SIM 35	1 or 2 RIM 36, 1 SIM 35
Standards EN54-22/ FM3210/ UL521		Classes A1I, A2I, BI, CI, DI, EI, FI, GI	Classes A1I, A2I, BI, CI, DI, EI, FI, GI
NFPA 72		Ordinary, intermediate, high	Ordinary, intermediate, high
Approvals	All versions	VdS (G214076), CE, UL, FM	VdS (G214076), CE, UL, FM
	HDX only	Atex	Atex
Operating Temperature / Humidity	Sensor Control Unit	-30 to +70°C / 95% RH, -40°C auxiliary heating	-30 to +70°C / 95% RH, -40°C auxiliary heating
	Sensing tubes	-40 to +300°C / 100% RH (material-dependent)	-40 to +300°C / 100% RH (material-dependent)
Housing ADW-5351 & ADW-5352	Dimensions	250.5 x 160.5 x 134 mm (W x H x D)	250.5 x 160.5 x 134 mm (W x H x D)
	Colour	Light grey RAL2807005, Charcoal RAL3002005	Light grey RAL2807005, Charcoal RAL3002005
	Material / weight	ABS-Blend, UL 94-V0 / ± 1,600g	ABS-Blend, UL 94-V0 / ± 2,000g
	Packaging	265 x 261 x 168 mm (W x H x D)	265 x 261 x 168 mm (W x H x D)
Protection Class	EN 60529	IP65	IP65
Housing ADW-5351-HDX & ADW-5352-HDX	Dimensions	260 x 160 x 134 mm (W x H x D)	260 x 160 x 134 mm (W x H x D)
	Colour	Graphite black RAL 9011	Graphite black RAL 9011
	Material / weight	Duroplast / ± 2,100g	Duroplast / ± 2,500g
	Packaging	272 x 238 x 170 mm (W x H x D)	272 x 238 x 170 mm (W x H x D)
Protection Class	EN 60529	IP66	IP66
Display and Operation	LED	1 green Operation, 1 red Alarm, 1 yellow Fault	1 green Operation, 2 red Alarm, 2 yellow Fault
Event Memory	Standard – No SD Card	1,000 events	1,000 events
	Extended – With SD Card	640,000 events	640,000 events
Recording	With SD Card	Up to 66 days	Up to 66 days

### ORDERING INFORMATION

#### Product Code Product Description

ST-ADW-5351 Linear Heat Detector / 1 Sensor  
ST-ADW-5352 Linear Heat Detector / 2 Sensor

#### Product Code Product Description

ST-ADW-5351-HDX Linear Heat Detector, Heavy Duty Explosion Proof / 1 Sensor  
ST-ADW-5352-HDX Linear Heat Detector, Heavy Duty Explosion Proof / 2 Sensor

Please refer to the current Technoswitch Price List for the complete range, peripherals and accessories.



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