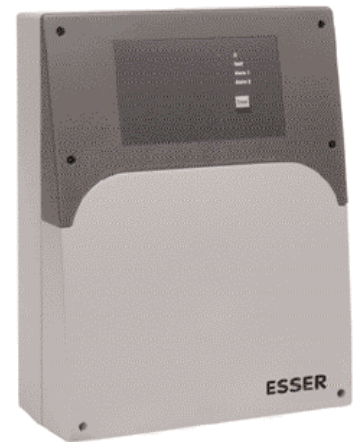


ARS 70 Aspirating Smoke System

- **Active analogue aspirating smoke system, optionally provided with dust filter**
- **Version with one or two smoke detector bases**
- **Optional two-detector dependency**
- **Cost-saving application of modern point fire detectors in the aspirating smoke system**
- **Permanent suction pipe monitoring with learn function**
- **Flexible pipe network design**
- **Hidden appliance, for instance, above ceiling ducts**
- **Fully integrable into the esserbus system**
- **Maximum monitoring area of 60m per suction port and up to 20 suction ports in one system**
- **Direct object monitoring for objects such as EDP cabinets**
- **Status display on the device via four LEDs**
- **Simple and cost-saving maintenance**



The cost-effective solution for early and reliable fire detection

For defensive fire detection under difficult application conditions, the innovative ARS 70 aspirating smoke system offers a whole range of vital advantages. Through modern detector technology, fire can be detected at its earliest stage before dangerous flames arise. Early fire detection enables reliable intervention, which can prevent greater danger to lives as well as damage to valuable assets.

With its use of modern point detectors, the system becomes a very cost-effective solution. Air samples are continuously passed into the detection chamber, allowing early and reliable fire detection even for detection areas that are difficult to access.

As a fully-fledged esserbus device, the ARS 70 can be easily integrated into a new or an already existing fire alarm system.

Maximum safety even under difficult application conditions

The ARS 70 aspirating smoke system satisfies the highest safety requirements and therefore reliably protects people as well as valuable assets. It can be ideally applied in difficult detection areas in which widely varying aspects must be considered.

- Targeted monitoring of EDP rooms and switch cabinets
- Difficult installation and maintenance for point fire detectors, e.g. installation in raised floors, inserted ceilings, machine shops and factory sheds as well as transformer rooms
- In rooms with point smoke generation such as warehouses with diesel forklift traffic
- In rooms with high ceilings, e.g. in cinemas, theatres, etc.
- Application in high rack storage rooms: in accordance with VdS directives, high rack storage rooms must be provided with detectors on several levels
- In buildings, where the architectural appearance might be comprised by point detectors (e.g. in historical buildings)
- In areas, where detectors are exposed to acts of vandalism

ARS 70 Aspirating Smoke System

Simple but effective

A ventilator creates negative pressure in the branched pipe network with suction ports so that air is automatically sucked from the room into the detection chamber. The detectors installed in the detection chamber continuously monitor the air stream for fire aerosols.

If the smoke concentration is exceeded, an alarm is triggered and forwarded to the master fire alarm panel. Thus, a very simple but at the same time highly effective mechanism is implemented into the aspirating smoke system. An optional filter raises the detection safety level in dusty areas and avoids false alarms. Dust and dirt are filtered out from the air sample while fire aerosols still enter the detection chamber. Furthermore, an optional water separator is available.

Pre-programmed safety

In case of power failure, system-specific configurations are secured in an EEPROM during commissioning. Each change to reference value settings, e.g. by ventilator failure, suction port blockage or pipe burst, is checked by a built-in microprocessor, and reported immediately to the fire alarm panel as a fault.



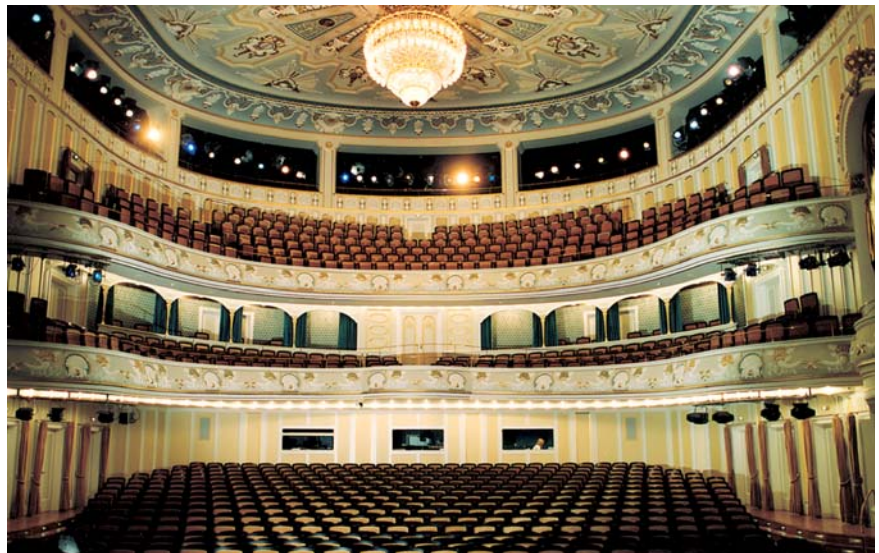
Internal view of housing

Simple installation and maintenance

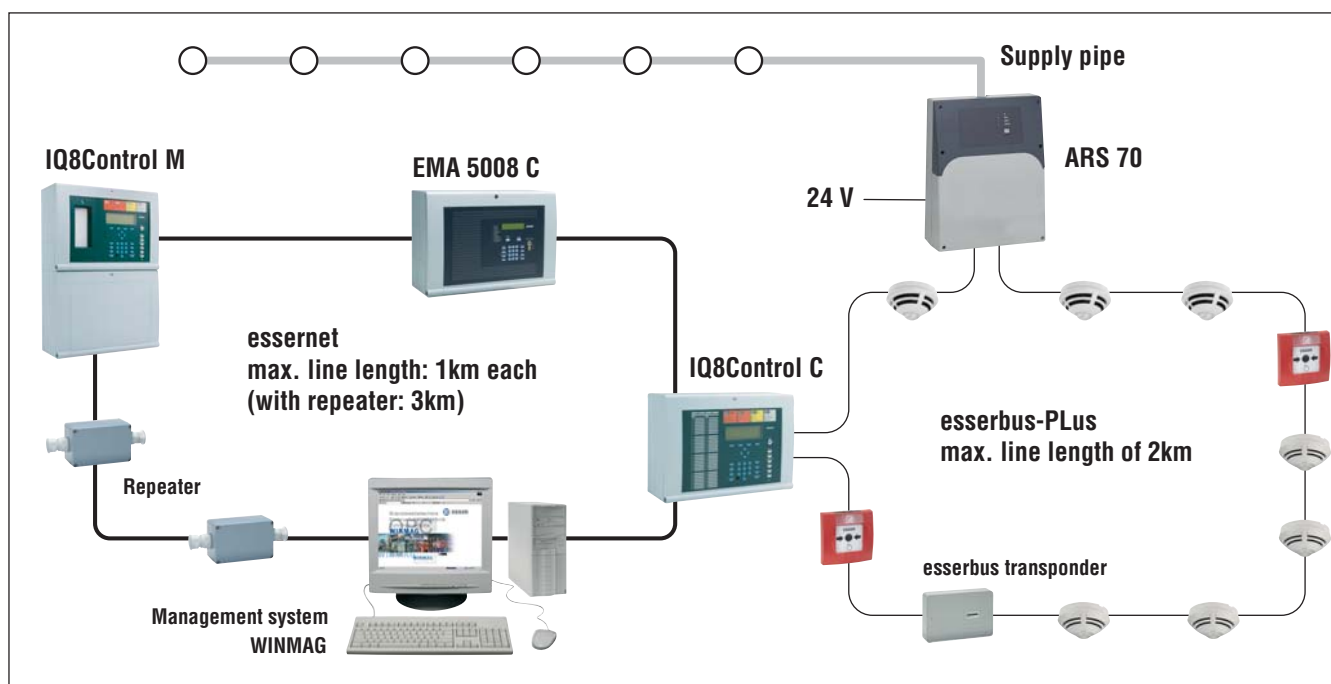
Installation and operation are typical of Esser devices. Alarms are reset via the fire alarm panel. Through flexible pipe network extensions, the ARS 70 can be installed in areas that are easily accessible. Thus, simple and cost-saving maintenance is possible.

Flexible and exact extension

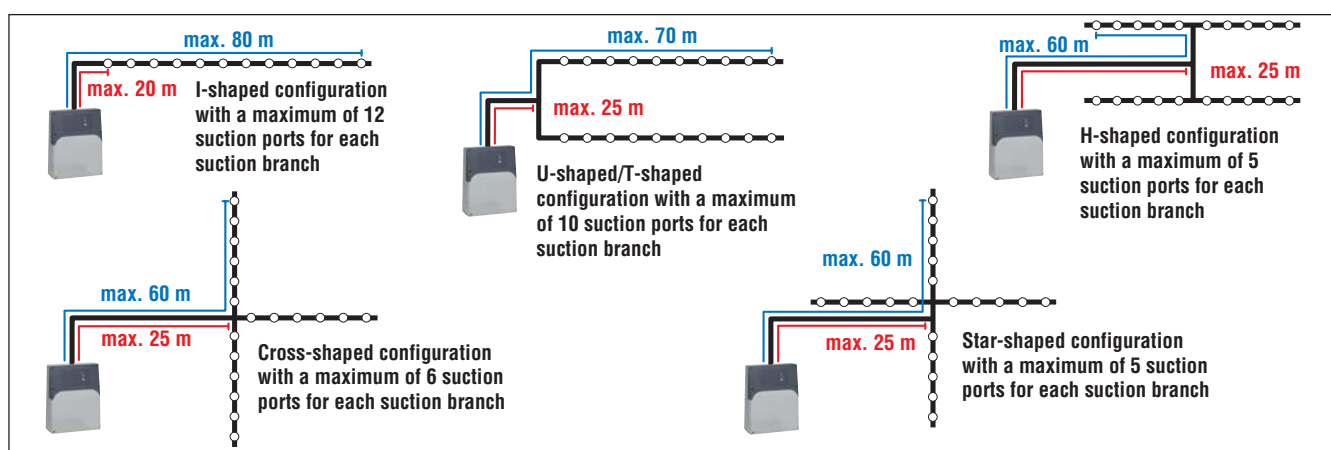
Each pipe network can be geared to the specific location requirements. Even for difficult room architecture such as in protected historical buildings with wooden ceilings, special cross-shaped or star-shaped pipe networks can be installed. The flexible pipe networking offers reliable room monitoring as well as targeted monitoring of fixtures and fittings.



The ideal location for aspirating smoke systems: historical buildings

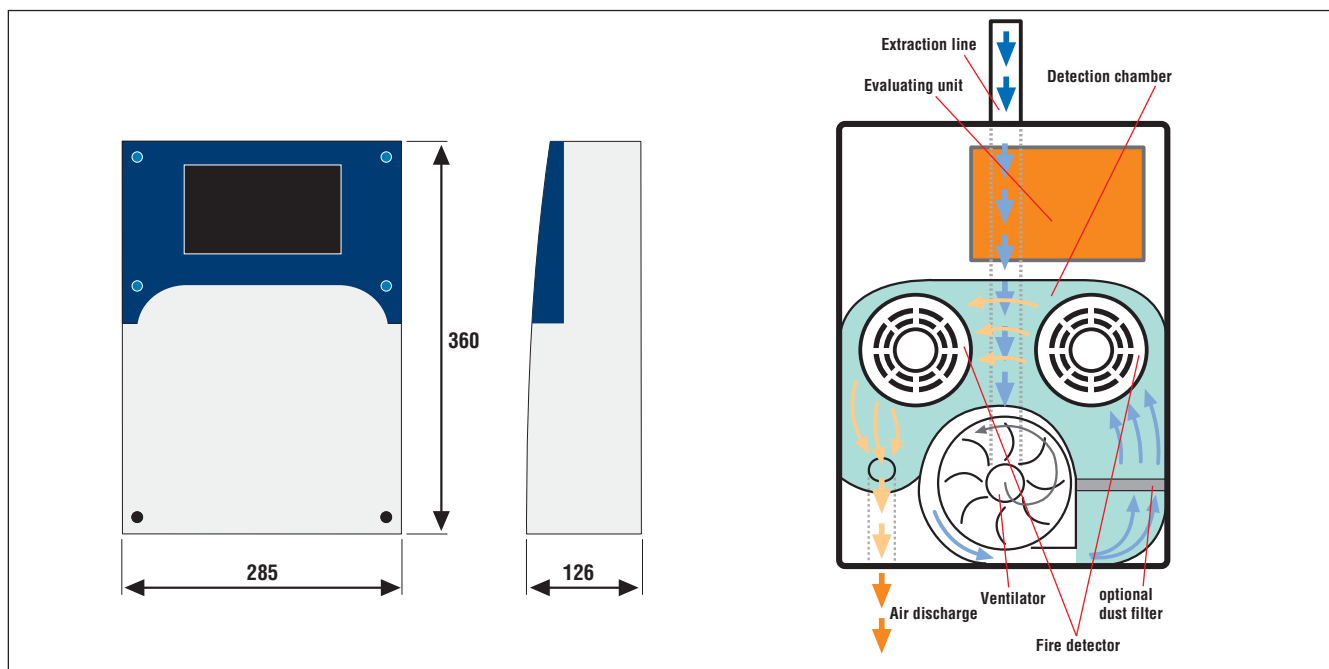


Integration of ARS 70 in the esserbus or in the powered loop



Examples of various pipeline configuration

Bore hole table for probe pipes												
Number of suction ports per suction branch	Number of bore holes / bore hole diameter (mm)											
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
2 for I-shaped	4.5	5	-	-	-	-	-	-	-	-	-	-
2 for U/T/H/X-shaped	4	4.5	-	-	-	-	-	-	-	-	-	-
3 for I-shaped	4	4.5	5	-	-	-	-	-	-	-	-	-
3 for U/T/H/X-shaped	3.5	4	4.5	-	-	-	-	-	-	-	-	-
4 for all configurations	3.5	3.5	4	4.5	-	-	-	-	-	-	-	-
5 for all configurations	3.5	3.5	4	4	4.5	-	-	-	-	-	-	-
6 for all configurations	3.5	3.5	4	4	4.5	4.5	-	-	-	-	-	-
7 for all configurations	3.5	3.5	3.5	4	4	4.5	4.5	-	-	-	-	-
8 for all configurations	3.5	3.5	3.5	4	4	4	4.5	4.5	-	-	-	-
9 for all configurations	3.5	3.5	3.5	4	4	4	4.5	4.5	4.5	-	-	-
10 for all configurations	3.5	3.5	3.5	4	4	4	4.5	4.5	4.5	4.5	-	-
11 for all configurations	3.5	3.5	3.5	3.5	4	4	4	4	4.5	4.5	4.5	-
12 for all configurations	3.5	3.5	3.5	3.5	4	4	4	4	4.5	4.5	4.5	4.5



Housing Dimension and functionality ARS 70

Technical data

Operating voltage	20 V DC to 28 V DC
Current consumption @ 24 V DC	approx. 250 mA
Starting current	approx. 5 A (1 ms)
Area to be monitored per suction port	up to 80 m ²
Pipe length from detector to last suction port	max. 80 m (for 25 mm pipe)
Suction ports per each system	max. 20
Ambient temperature	0 °C to +50 °C
Relative air humidity	95 % (short-term w/o condensing); 70 % (permanent)
Type of protection	IP 53
Material	ABS-plastic
Colour	grey (RAL 2807005), anthracite-violet (RAL 3002005)
Weight	approx. 2.7 kg
Dimensions (W x H x D)	285 x 360 x 126 mm
VdS approval	G 200099

Order information

	Part No.
ARS 70-1 analog line type aspirating smoke detection system	761345
ARS 70-2 aspirating smoke detection system for two detectors	761346
Optical smoke detector for ARS 70	801372
External power supply unit 24 V / 1 A DC	785655
esserbus transponder 1 IN	808614.10
Loop isolator for transponders	788612

For further order data please refer to our "Fire Alarm Technology" product line catalogue, especially for information on installation material for pipe networks.