ADICOS®

The low spurious alarm detection system for early fire detection using innovative gas sensor techniques and evaluation methods

Fire Gas Detector GSME-Ex

The fire detectors GSME of the ADICOS-series are fire gas detectors with the advanced multiple-criteria technology for gas sensors. All types of smoldering and open fires are already detected in the beginning phase. The “GSME-Ex” models can be used in areas, where combustible dust leads to fire or explosion hazard (Zone 20).

The explosion-protected devices of the ADICOS-series are authorized according to directive RL 94/9/EG (ATEX).

Aside the selective registration of characteristic gas emissions in case of smoldering fires the GSME-Ex system detects hydrocarbons and nitrogen oxides. This provides for an effective suppression of fire simulating phenomena, which occur at times. The signal processing is carried out with the aid of advanced algorithms, which integrate the experience of a variety of fire tests as well as true fire patterns as experienced in practice.

Aerosols or particles do not affect the detectors adversely. This so far unequalled immunity to humidity and dust contamination is of great advantage for areas, in which dusts or condensation are to be expected.

Aside from the use in a variety of large power plants and different types of heating plants the detectors of the ADICOS series are used in areas of fire monitoring, in which an early detection was impossible before, because of the background stress.

For more many years the ADICOS systems have been reliably used in the scope of fire protection concepts.

Based on the specific adaptation of the sensor system and the special algorithms, the concept of the ADICOS system also provides for the registration of other gas emissions.

Ex II 1D T100°C

GSME-Ex

Explosion relevant type-test

Pre-assembled special cable in standard sizes

Easy installation

Standard LED indication

Central Data Recording

Application Areas:

Early warning systems for the overall area of storage, preparation and distribution in coal dependent power plants.

Monitoring of warehouses and production facilities for paper, timber, flour, grain, waste, etc.

Control of transport space in ships, air planes, vehicles.

Suitable for environments contaminated by dust and humidity.

Special Features:

- ADICOS detectors for dust-explosive atmospheres (Zone 20)
- Wide range of sensor configurations **(all standard types are available as an explosion proofed model)**
- Selective and early registration of a large spectrum of gases of the entire fire spectrum especially for smoldering fires.
- Insensitive to present background gases and various exhaust gases
- Insensitive against air humidity severe dust contamination and airflow
- Low spurious alarm rate due to multiple-criteria evaluation and integration of the knowledge basis and the experience of a variety of fire patterns in each detector
- Standard display by three-color LED: Alarm (red), fault (yellow), operation (green)
- Integrated Interfaces:
  a) Industrial bus system (MBus) as data and service interface an for the connection to the ADICOS BMZ30
  b) switch contacts alarm / fault
  c) Optional Interface to central fire detection systems with individual identification (SIGMALOOP)
- Central registration, display, protocol and storage of all data and conditions of all detectors
- Parametering and adaption by remote maintenance
- Update of the detector programming via service bus system
- Simple installation and wiring
- All components are integrated in an aluminium housing

Technical Data	
Supply Voltage	24 Vdc (20...40 Vdc)
Power Consumption	2 VA (average power consumption)
Temperature Range	- 10 ... + 60 °C
Relative Humidity	20 - 99 % (not condensing)

Housing	
Material	Ex-type coated aluminium die-cast (corrosion resistant)
Dimensions (h x w x l)	60 x 100 x 100 mm
Weight	0,6 kg
Protection Type	IP 6x
Explosion-protection type	Ex II 1D T100°C according to RL 94/9/EG (ATEX) “protection by housing”
Installation	On the surface
Electric Connection	Special purpose cable pre-assembled • Power Supply • Limit value contact • M-Bus (data and service interface)
Accessories	Installation plate Water-spray protection
Options	Connection possibility to central fire detection systems: • Pulse indication technique (SIEMENS) • Loop technique (SIGMALOOP) • SCURIPRO (Hekatron)

If the units are equipped with the MBus network system, all measuring values and operating conditions like alarm and fault as well as certain internal conditions for the fault diagnosis for all units can be displayed and recorded on one computer.

Aside from a remote diagnosis and service support by the manufacturer for all connected units it is also possible to carry out an update of the evaluation algorithms and the stored knowledge basis via modem.

The supply lines are connected via a central pre-assembled special purpose cable, which carries the bus, limit value switch and the power supply lines.

Your local Adicos consultant:

d.s.f. GmbH
Spessartstr. 11
63263 Neu - Isenburg
Telefon: +49 (0)6102 / 7890 - 0
Telefax: +49 (0)6102 / 7890 - 40
E-Mail: info@dsf-gmbh.de

Printed in the Fed. Rep. of Germany
E0013_01 ADICOS GSME