

# Feu TECHNIK

Automatic detection and fire extinguishing systems

In accordance with

**UNECE R107 V6**

- **Reliable!**
- **Very easy to install! (both in new and used buses)**
- **Does not require power supply.**
- **Does not cause corrosion of engine parts!**

## FEUTECHNIK **DUAL**MAX CONSISTS OF:

### FeuTechnik **MAX**

Powder suppression system for heating unit and other components with reliable pneumatic detection, certified in accordance to UNECE R107.06

### FeuTechnik **CLEAN AGENT**

Manually activated system with NOVEC gas. Blows out flames from protected component and as condensed gas - significantly reduces possibility of reignition.

## FEUTECHNIK **DUAL**MAX

POWDER GAS SUPPRESSION SYSTEM

### DRIVER INFORMATION

SELF DIAGNOSTIC TEST  
OLED WARNING SCREEN

### FEUTECHNIK POWDER COVERED AREA:

Webasto unit  
Webasto fuel tank  
Other components

### FEUTECHNIK NOVEC COVERED AREA:

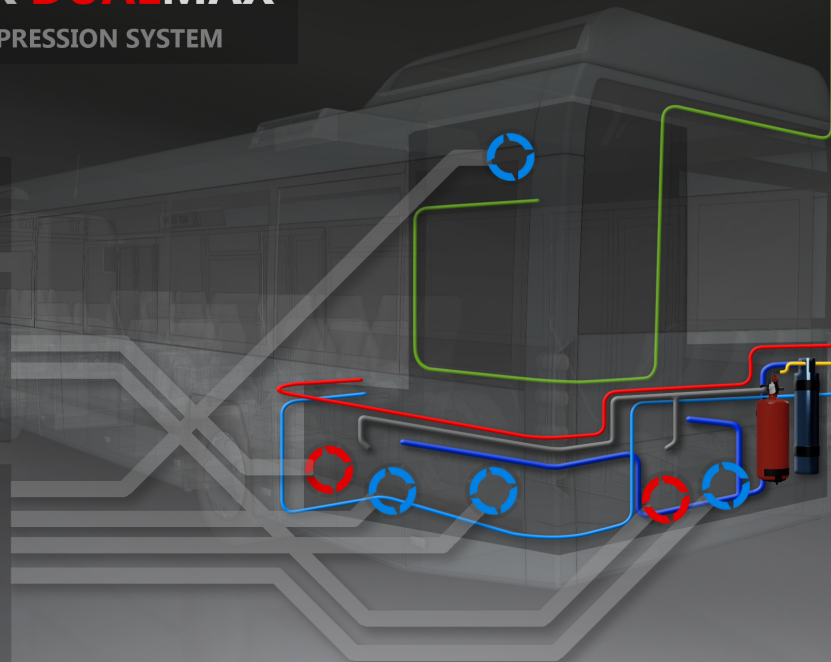
Traction motor  
Air compressor  
Water pump  
Water boiler  
Electric components

### DETECTING UNIT

BATTERY DETECTION

FEUTECHNIK DETECTION

FEUTECHNIK NOVEC DETECTION



## How it works:

In case of fire **FeuTechnik** detection tube is ruptured and the cylinder's valve is activated. This releases distribution of extinguishing agent by means of the extinguishing nozzles system.

The extinguishing agent quickly fills the area of whole engine compartment, absorbs flammable liquids and prevents re-ignition. Dry chemical powder is non-toxic, suitable for use in case of fire caused by an electric current short circuit and any flammable liquids and gases. The whole system is provided with a pressure sensor connected to the visual and audio information to the driver.

**FeuTechnik** detection tube ideally suits for fire detection in buses, because it tolerates all kinds of vibration, contamination and extreme temperatures in which buses work. Due to pneumatic control system operation does not require any electricity from the bus and does not have additional burden on the electrical system of the vehicle.



### The extinguishing agent

Chemical ABC powder used in automatic fire suppression system **FeuTechnik** is fine-grained powder - monoammonium phosphate ( $\text{NH}_4\text{H}_2\text{PO}_4$ ), also known as ABC or multi-purpose powder. Stored in a high-pressure steel cylinder filled with compressed nitrogen to about 18 Bar. Each cylinder is equipped with nickel-plated brass valve, pressure gauge to monitor pressure in a cylinder and a valve connected to the detection system **FeuTechnik**.



### The detection tube

Multi-layer plastic tube resistant to most common chemicals, oils and substances. This tube has two functions: fire detection and the activation of the system. The tube is installed in the entire area of potential danger and it is connected to the apex of cylinder valve. The detection tube is filled with nitrogen at a pressure that keeps the system in the "active" mode. Detection tube **FeuTechnik** is sensitive to temperature and energy emission, at the time of fire - it burns out, and pressure drop activates the fire extinguishing system.



### Electric pressure sensor

Electric pressure sensor allows to monitor the pressure in the system, to control the system. This element can be connected to the end of the detection tube line or fastened to the cylinder's valve for additional electrical functions that may be needed. **FeuTechnik** recommends that all system include a pressure sensor connected to the visual and audible information for the driver.



### Pipes and nozzles

The extinguishing agent is distributed in the engine compartment and the heating unit by extinguishing pipes finished with extinguishing nozzles. The nozzles are made in the technology of allowing the distribution of extinguishing agent in many levels.



### The visual and audible information for the driver

It is a set of devices installed in the driver's compartment. The set includes: siren generating a modulated beep and flashing light alarm. This kit is designed to inform the driver that system has been activated.