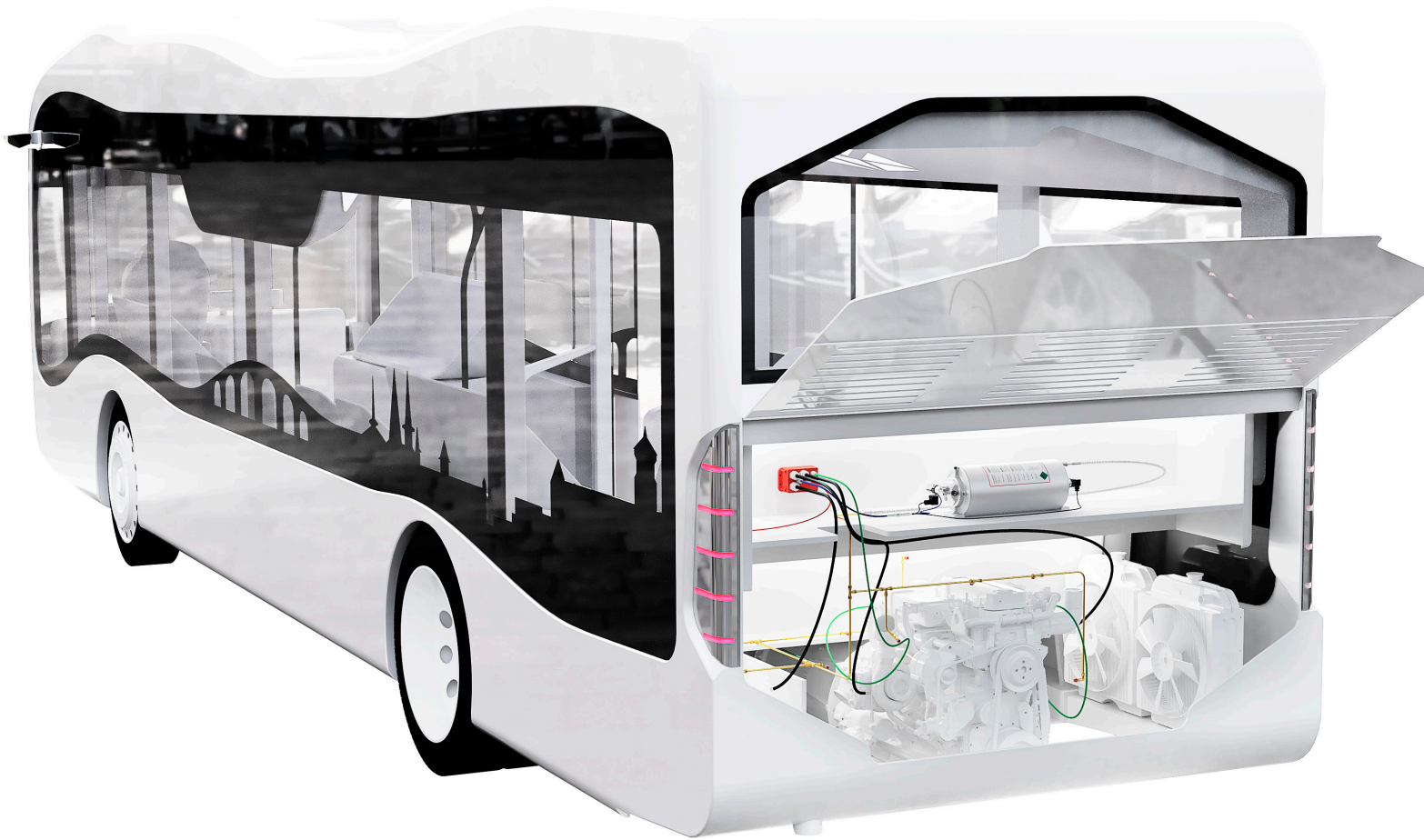




**ROTAREX**  
FIRETEC



CERTIFIED  
RI  
SE  
CERTIFIED ACCORDING TO  
SPCR 183 / SP METHOD 4912



euofins  
FA 127

**COMPACT LINE**  
PRE ENGINEERED SYSTEMS FOR VEHICLE ENGINES

## A COMPLETE DETECTION & SUPPRESSION SYSTEM PRE-ENGINEERED FOR VEHICLE ENGINES

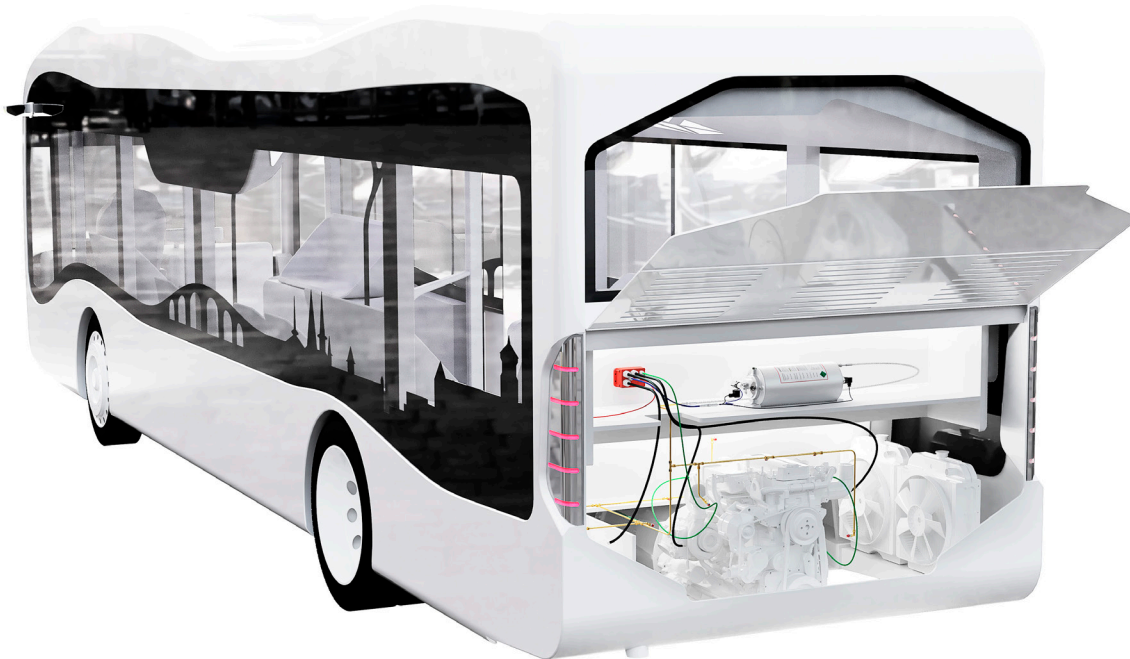
- ★ Most compact system in the world<sup>1</sup>
- ★ Able to protect up to 4m<sup>3</sup> engine compartment with only 4 liters of agent<sup>1</sup>
- ★ Protects passengers and valuable equipment
- ★ Easy / Flexible installation
- ★ Quick & Effective suppression
- ★ Improves productivity due to less maintenance, material change and downtime



FireDETEC Compact Line Vehicle Fire System was the first system to be SPCR 183- certified<sup>2</sup>

<sup>2</sup> P-MARK only applies to 7L size

<sup>1</sup> According to UNECE R107 certification

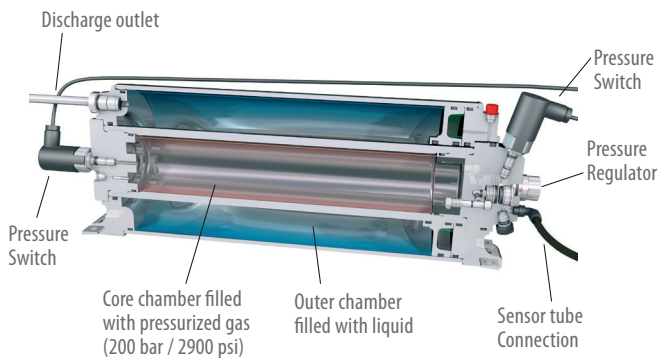


## A PROVEN-EFFECTIVE AGENT

- Liquid-based agent (water mist) with glycol-free antifreeze
- Low freezing point
- Ideal for engine fires – rapidly removes heat and prevents reignition



## PATENTED DUAL-CHAMBER CYLINDER TECHNOLOGY



- Dual chamber = Safety  
Extinguishing liquid and pressurized gas are in separate chambers
- When activated, the pressurized gas is released into the outer chamber forcing against a piston
- The piston pushes the liquid out through the discharge tube
- A built-in pressure regulator ensures a constant and sustained discharge

A cylinder for every need :



## A CHOICE OF DETECTION SYSTEMS

### ELECTRONIC DETECTION



**1. Quick & Easy connection to electronic linear detection systems:**  
Plug-&-Play connection to a solenoid actuator on the cylinder.

**2. Instant suppression:**

The electronic detection system detects a fire and sends a signal to the solenoid valve which actuates the special pressure differential valve and instantly floods the entire engine compartment extinguishing agent. The fire is quickly suppressed just moments after it began... minimizing damage and downtime.

**3. Monitoring:**

Information is displayed on the wireless message display installed in the driver's cabin.

### PNEUMATIC SENSOR TUBING



**1. Quick & Easy installation directly inside engine compartments:**  
The flexible sensor tubing is easily installed directly above and around the engine - closer to where a fire could start.

When in service, the tubing is pressurized with dry nitrogen to 16 bar. The dynamics of pressurization make the tubing more reactive to heat.

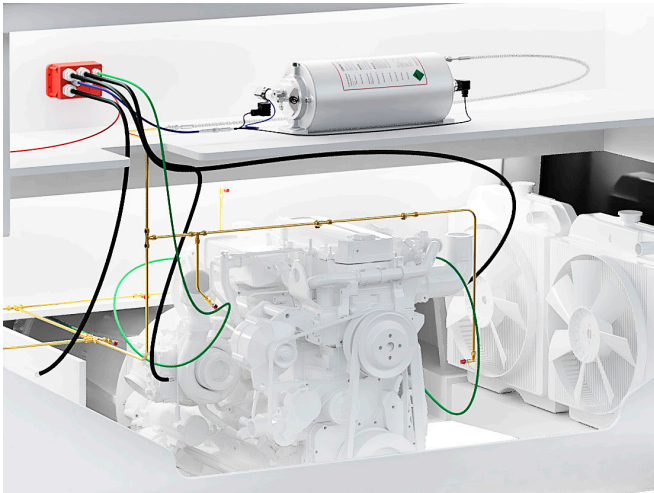
**2. Early fire detection:**

If a fire occurs, the heat of the fire causes the pressurized sensor tube to burst at the hottest spot (approx. 110°C)

**3. Instant suppression:**

The sudden tube depressurization actuates the special pressure differential valve and instantly floods the entire engine compartment extinguishing agent. The fire is quickly suppressed just moments after it began... minimizing damage and downtime.

## ELECTRONIC DETECTION SYSTEM

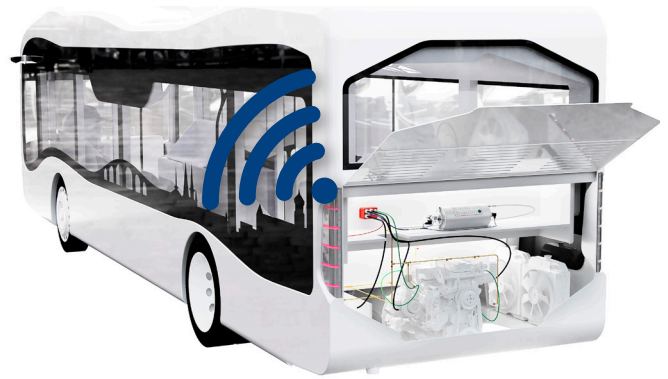


- Less installation time due to wireless communication between the display located in the driver's cabin and the electronic control unit installed in the engine compartment of the vehicle.
- Easy installation, no pressurization or fittings needed.
- Extendable with GSM communication for real time alerts.
- Less maintenance required, reduced pressure drop due to mitigation of leakage rates through connections and permeability.
- Real-time monitoring and surveillance due to the sensor technology.
- Unlimited linear heat detection length possible.
- Extended service time of system: no components change required before 10 years.

### WIRELESS COMMUNICATION



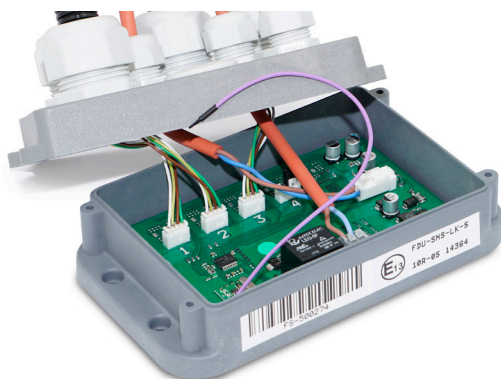
Wireless communication between display installed in the driver's cabin and electronic control unit mounted in the engine compartment.



- ★ Easier installation process (no holes to drill, no cable to route through the vehicle)
- ★ Less maintenance due to less electrical issues

### ELECTRONIC CONTROL UNIT (ECU)

Detects the fire through the sensors and actuates the COMPACT LINE Fire Suppression System. The information in case of the event of fire is transmitted wirelessly to the display.



- ★ Independent functioning
- ★ 7 Monitored inputs:
  - Up to 5 temperature sensors
  - 1 linear heat detector
  - 1 pressure switch connection
- ★ 1 output:
  - COMPACT LINE solenoid connection
- ★ Possibility to connect a wired manual actuator
- ★ Temperature range: -25°C to +130°C

## ELECTRONIC DETECTION SYSTEM

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### LINEAR HEAT DETECTOR | INTEGRATED SENSORS

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- ★ Continuous linear detection for complete engine area protection
- ★ Fixed alarm temperature: 176°C
- ★ Detection time for flames: max. 20 sec.
- ★ UV, chemical and motor oil resistant
- ★ FM-Approved
- ★ Temperature range: -40°C to 105°C



Two conductors will short together when the temperature reaches predetermined alarm level, thus providing the switched signal.

### TEMPERATURE SENSORS | INTEGRATED SENSORS

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- ★ Spot detection for identified high risk areas
- ★ Highly sensitive / high precision
- ★ Alarm and pre-alarm settings possible
- ★ Ready for assembly
- ★ Shock and vibration proof
- ★ Action temperature: 135°C
- ★ Temperature range: -25°C to 180°C



A resistor will react depending on the temperature, and will send a signal if the temperature is too far beyond the defined alarm level.

## ELECTRONIC DETECTION SYSTEM

### MESSAGE DISPLAY

Indicates the status of the Compact Line Fire suppression system to the driver



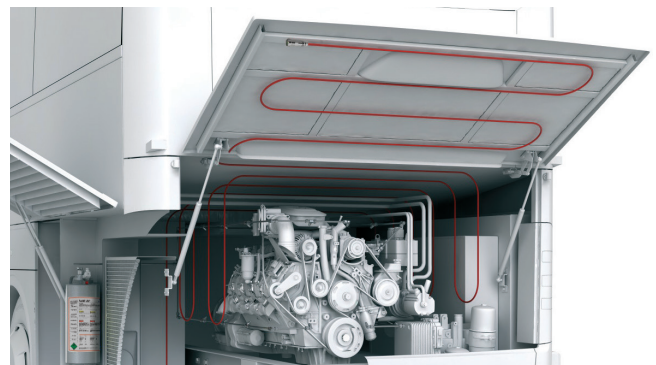
- **ACTIVE : OK SIGNAL**  
System is armed and under pressure
  - **CAUTION-WARNING**  
Leakage or electrical issues detected; Maintenance is needed
  - **FIRE : ALARM-DISCHARGE SIGNAL**  
Fire has been detected - System is discharging
- 1 OUTPUT CONNECTION**  
To connect external buzzer

- ★ 3 inch display with color changes in case of fires
- ★ Wireless communication with the ECU installed in the vehicle's engine compartment
- ★ Can manage up to 6 ECUs simultaneously
- ★ 1 output to connect an external alarm

- ★ SIM card port for an extension with external communication (for remote fleet management)
- ★ Power supply : 12-48 VDC
- ★ Temperature range: -10°C to +80°C

## PNEUMATIC DETECTION SYSTEM

- Developed by Rotarex Firetec
- Advanced technology polymer construction withstands even severe environments, UV and extreme temperatures
- Linear pneumatic detection requires no external power source
- Compact, flexible and reliable
- Can be installed anywhere – even in hard-to-reach places
- The tube is pressurized to 16 bar
- Tube bursts at the heat of a young fire (110°C)



\*Red tubing for visualization only. System is installed with black tubing.



## WORLDWIDE HEADQUARTERS

**ROTAREX S.A.**  
24, rue de Diekirch,  
L-7440 Lintgen  
Luxembourg  
Tel.: +352 32 78 32-1  
Fax: +352 32 78 32-854  
E-mail: firetec@rotarex.com



## REGIONAL / COUNTRY HEADQUARTERS

### NORTH AMERICA

**USA**  
Rotarex North America  
Hackettstown  
E-mail: northamerica@rotarex.com

### SOUTH AMERICA

**BRASIL**  
Rotarex Brazil Ltda  
São Paulo  
E-mail: brasil@rotarex.com

### CENTRAL AMERICA

**MEXICO**  
Rotarex Mexico  
Mexico City  
E-mail: mexico@rotarex.com

### EUROPE

#### EUROPEAN HEADQUARTERS

Rotarex S.A. Luxembourg  
24, rue de Diekirch,  
L-7440 Lintgen, Luxembourg  
Tel.: +352 32 78 32-1  
E-mail: firetec@rotarex.com

#### ITALY

Rotarex Italia S.r.l.  
Ciliverghe di Mazzano  
E-mail: italia@rotarex.com

#### SPAIN

Rotarex Spain  
Madrid  
E-mail: spain@rotarex.com

#### FRANCE

Rotarex France  
Paris  
E-mail: rotarexparis@rotarex.com

#### RUSSIA

Rotarex Rus  
Moscow  
E-mail: russia@rotarex.com

#### POLAND

Rotarex Polska  
Brzeg  
E-mail: polska@rotarex.com

### ASIA - PACIFIC

#### SINGAPORE

Rotarex Fareast Pte Ltd  
Singapore  
E-mail: fareast@rotarex.com

#### CHINA

Rotarex Star  
Shanghai  
E-mail: china@rotarex.com

#### JAPAN

Rotarex Japan Ltd  
Tokyo  
E-mail: japan@rotarex.com

#### INDIA

Rotarex ENGG. PVT. LTD.  
Mumbai  
E-mail: india@rotarex.com

#### THAILAND

Rotarex (Thailand) Co Ltd.  
Pakkret  
E-mail: thailand@rotarex.com

#### TAIWAN

Rotarex Taiwan  
Taipei  
E-mail: taiwan@rotarex.com

### MIDDLE EAST / AFRICA

#### MIDDLE EAST

Rotarex Middle East  
Dubai  
E-mail: middle-east@rotarex.com



For more contact details go to  
[www.rotarexfiretec.com/locations](http://www.rotarexfiretec.com/locations)