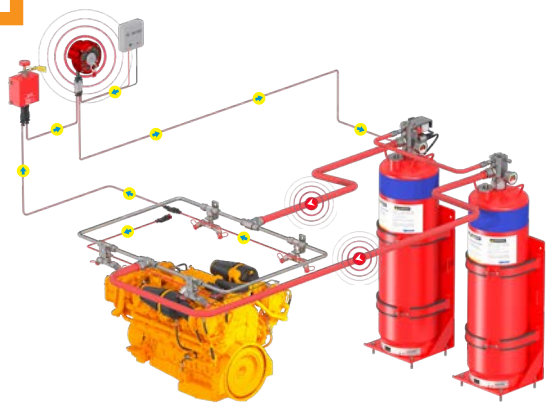
MUSTER® YOUR FIRE SUPPRESSION PARTNER

MUSTER FIRE DETECTION SYSTEMS

Muster LOP & LHD Detection Systems

Muster offers two different fire detection methods: Linear Heat Detection (LHD) and Loss of Pressure (LOP). LHD is an electrically controlled system, while LOP operates mechanically. Both systems are designed to provide early fire detection followed by activation of the fire suppression system, making them suitable for a wide range of applications.



MFI

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MusterWire Linear Heat Detection (LHD)

The MusterWire LHD system features a cable composed of two conductors insulated by a heat-sensitive thermal polymer. This cable can be installed in high-risk areas such as the engine bay, gearbox, and cable harnesses. Upon exposure to fire, the polymers breakdown, allowing the conductors to contact each other and create an electrical short. This electrical short is detected by the fire alarm panel, which then activates the fire suppression system.

DETECTION

01 STEP

MusterWire

The end-of-line (EOL) resistor at the MusterWire's end provides resistance when receiving the pulse.

02 STEP

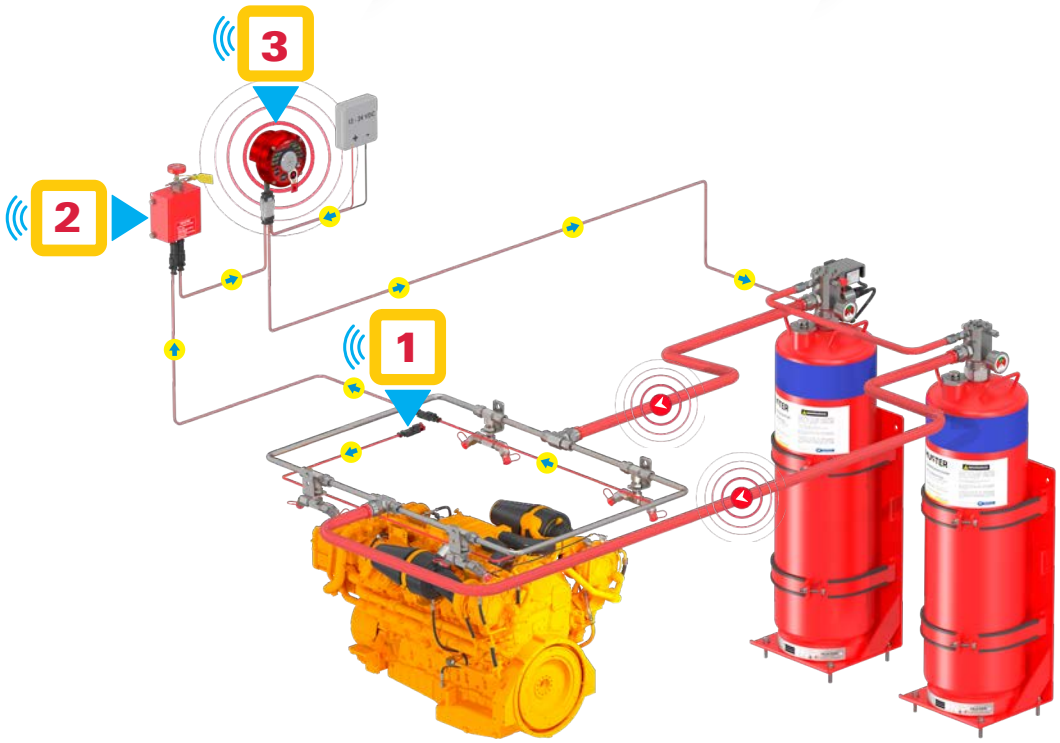
Remote Actuator

When resistance is received the control panel continues to operate normally.

03 STEP

Control Panel

Continuously monitors the system which sends a pulse along the MusterWire.



FIRE MODE:

- If fire is detected, the control panel receives a signal, automatically entering FIRE mode.
- Once activated, the control panel sounds an audible alarm, initiates the shutdown sequence and triggers the cylinder valve to discharge the foam to the fire.
- Fire mode can also be activated by using the remote actuator.

ADVANTAGE:

- Can detect heat over a large area providing early warning of fire by sensing changes in temperature along a line, rather than individual points.
- Can be isolated prior to system maintenance to ensure system is not activated during maintenance.
- Suitable detection method for single and dual agent systems when using a Muster foam system.

Loss of Pressure (LOP) Detection

The LOP detection system continuously monitors the pressure within its components. When the pressurised heat-sensitive tube reaches 140°C, it melts and bursts. This event triggers a drop in the detection circuit, causing the system to discharge fire-suppressing foam. Simultaneously, a transducer activates, detecting this rapid drop of pressure. The system then enters fire mode, alerting the operator of the fire and, if selected, shutting down the engine.

DETECTION

01 STEP

Detection Tube

LOP detection tube is pressurised and, when exposed to heat, it melts, causing the system to activate.

02 STEP

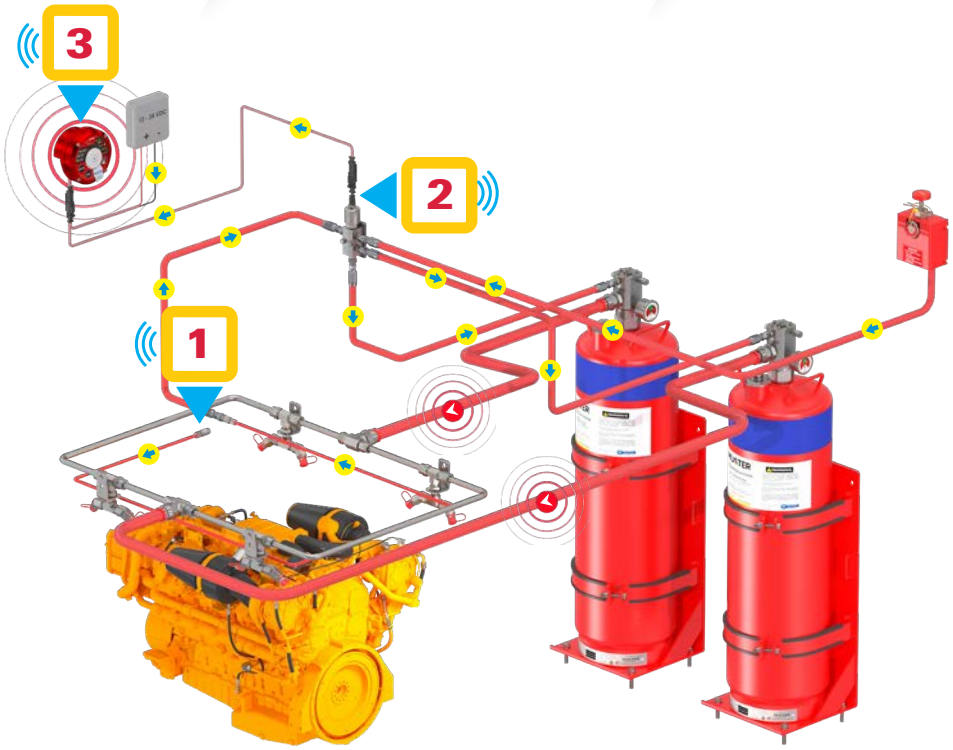
Pressure Transducer

Pressure switches are connected to the indicator panel and help monitor fire events and low pressure in the system.

03 STEP

Control Panel

The indicator panel monitors the system's pressure, alerts the operator of a fire event, and can also control engine shutdown.



FIRE MODE:

- If fire is detected the pressurised sensor tube will rupture, releasing inert gas.
- The release of gas triggers the cylinder valve to discharge foam to the fire.
- The cylinder valve can also be manually triggered with the remote actuator.

ADVANTAGE:

- Respond immediately to a drop in pressure which can indicate a fire, allowing for rapid activation of the suppression system.
- Economical for smaller spaces.
- Tubing can be run anywhere there is potential for a fire.

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