



Automation solutions
for fire-fighting equipment and vehicles

We automate your success.



In integrating automation solutions into emergency vehicles, aspects such as maximum reliability, usability, and scalability are the main focus. Jetter offers a wide range of highly specialized and customizable products for virtually all functional areas across all vehicle categories.



In our pursuit to provide simple and reliable operation for complex processes, we implement the safety requirements and ease the burden on machine operators in tough conditions. Jetter products can be used for automating vehicles as a whole or for only individual functional areas of a vehicle.

As diverse as the vehicles are -
as diverse are the requirements



Engine data display

Acquisition and visualization of relevant engine data ensure operational availability of vehicles and open up diagnostic capabilities.

Pump | Tank level indicator

Intuitive operation makes for highest efficiency at work. Automated processes combined with a tank level indicator prevent operating errors.

Proportioning system

The system stands out due to its high reliability and ensures proper composition of the extinguishing agent in every situation.

Surround view systems

Overview of all areas around the vehicle contributes significantly to active safety on the way to the scene of emergency and during missions.

Monitors

Fighting fires from a greater distance with large volumes of water requires the monitors to be always exactly aimed at the object, as well as a continuous flow of water.

Light mast | Scene lighting

Setting up the optimum illumination scenario is one of the fundamental measures at the scene of emergency.

Body components controller

The increasing number of tasks and areas of application of fire-fighting vehicles requires a holistic and scalable design of all bodies and systems applied.

FireCAN

Thanks to consistent support of FireCAN standards, the full range of features of the applied components can be implemented and be brought in line with the individual demands of the vehicle manufacturers.

Air rescue and fire-fighting vehicles

The outstanding performance of these vehicles calls for a powerful control concept perfectly matched to the individual components. This facilitates efficient and ergonomic operation.

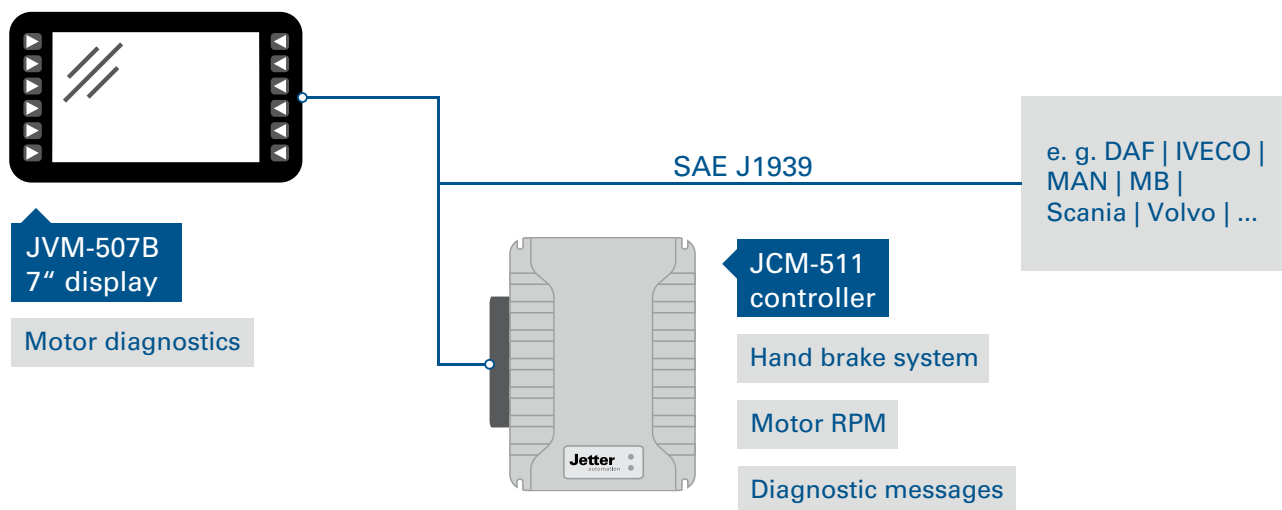
Engine data display

Everything in view



Permanent acquisition of relevant engine data and their visualization are vital for ensuring the operational availability of vehicles. The systems configured by Jetter are able to read out and display a host of parameters, such as engine RPM, engine oil level, fuel level, handbrake activation, etc. The display with its clearly structured menu navigation can be customized to needs. The visualization facilitates troubleshooting when necessary.

The Jetter solution



Flexible acquisition and visualization

- Automatic engine data acquisition to SAE J1939
- Automated operational sequences support the machinery operator at work
- For international use, additional languages can easily be integrated
- Customizable menus allow for individualization of vehicles
- The service menu "Engine diagnostics" is displayed as plaintext without the need for an OEM tool
- Screens depending on the user level allow for clear presentation of information

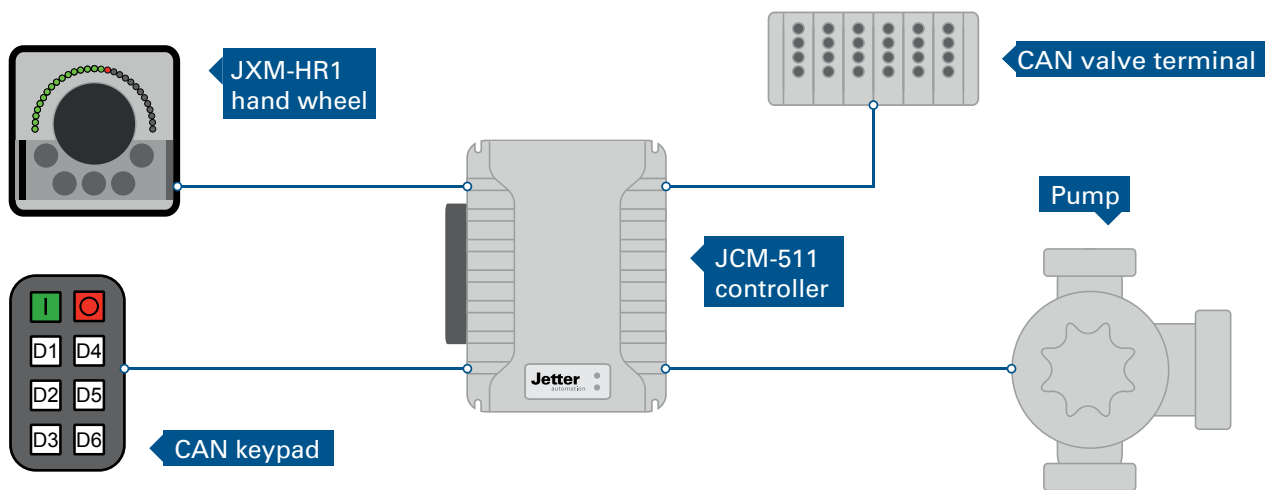
Pump | Fuel level indicator

Everything under control



The pump is the key component in fire fighting. An intuitive operator interface ensures highest deployment efficiency and minimum maintenance effort. If combined with a tank display, automated processes without the danger of operating errors can be implemented. This ensures that the fire-fighting crew is always supplied with extinguishing agent. For controlling the pump and visualizing the filling level of the tank, Jetter provides an integrated control unit that can be configured by the user.

The Jetter solution



Safe operation and configuration

- Pre-defined operational sequences ensure a high application quality and support the operator
- Automatic blocking out of irrelevant functions prevents incorrect operation
- Supports direct connection of CAN valve terminals
- For international use, additional languages and symbols can easily be integrated
- Vehicles can be customized thanks to configurable features
- Tactile feedback to the operator ensures reliable actuation

Proportioning systems

It's the mix that matters

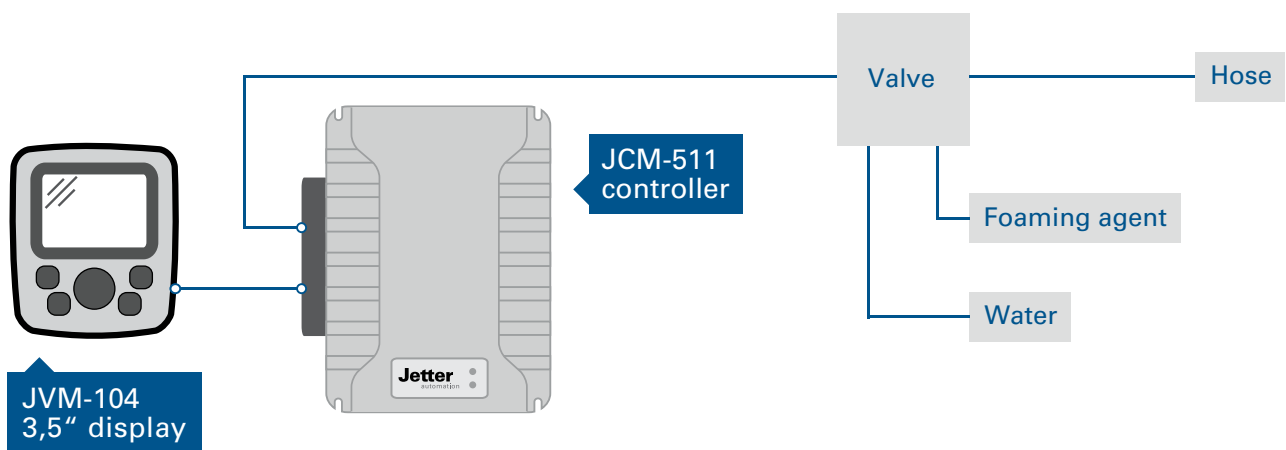


The exact proportion between water and additives forms the basis for extinguishing agents that are perfectly adapted to the needs. As a result, a great number of extinguishing agents are available, such as foaming, wetting, gelling agents, as well as liquids which can be used for decontamination purposes.

There is a great variety of proportioning systems on the market: from pump premixers and turbo proportioning systems up to electric or hydro-mechanic pressurized proportioning systems.

To ensure reliable operation of these proportioning systems and their seamless integration into the vehicle's logistical processes, Jetter developed special controllers providing optimum performance if combined with smart display systems.

The Jetter solution



Proper mixture | Effective extinguishing process

- Predefined parameters support the fire-fighting crew in extinguishing and monitoring fires
- The reliable discharge of the extinguishing agent is achieved through a combination of clearly structured menu navigation, and defined recipes with control technology
- For international use, additional languages and symbols can easily be integrated
- Automatic blocking out of irrelevant functions prevents incorrect operation

Surround view systems

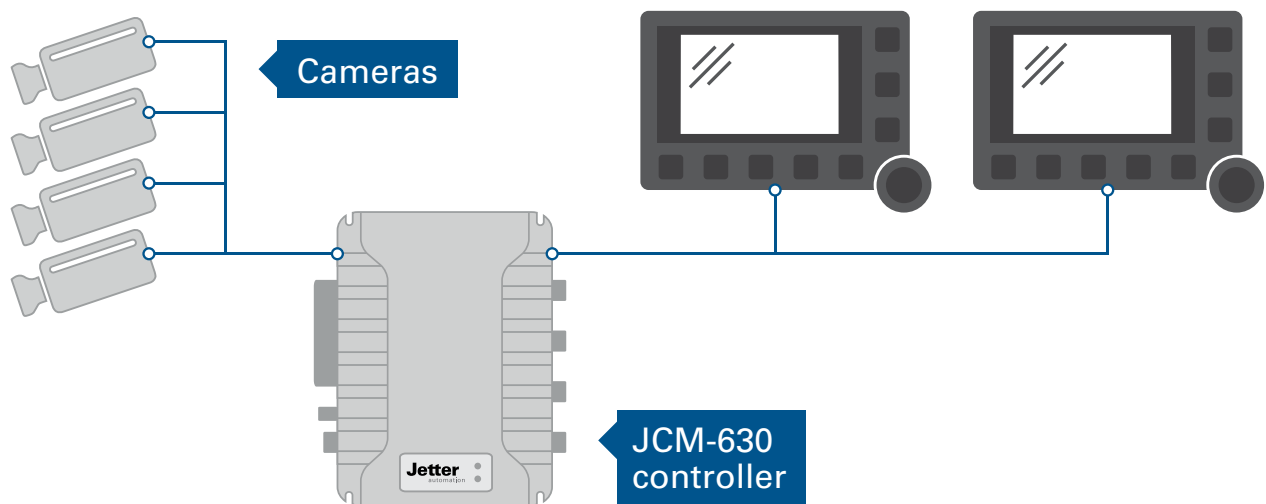
Everything at a glance



Overview of all areas around a vehicle is becoming an increasingly important feature. During missions in the field, surround view systems play an important role in the active safety of the crew, the vehicle itself, and also of persons not involved in the emergency.

Vehicles are equipped with several digital cameras with wide-angle lens and high resolution. These cameras transmit images from the front, rear and the sides of the vehicle simultaneously and in realtime. The controller merges these images on a display in the driver's cab in a way that the vehicle can be seen from a bird's eye view. As the driver can choose from several views, blind spots are a thing of the past. Surround view also allows for faster maneuvering processes and ease of operation in heavy urban traffic or in critical traffic situations. Thus, the drivers are in full control of what is happening around the vehicle. The controller JCM-630 by Jetter AG handles the complex integration of camera images enabling surround view, object detection and smart operating concepts.

The Jetter solution



Improved vision for greater safety

- Front cameras help the driver see around corners
- All-round vision in tight/critical traffic situations
- Safe parking/backing into parking space
- Protection of the emergency vehicle thanks to improved vision
- For documentation purposes, videos of missions in the field can automatically be recorded
- Centralized controller with plug-and-play display allows for fast data exchange with immediate availability

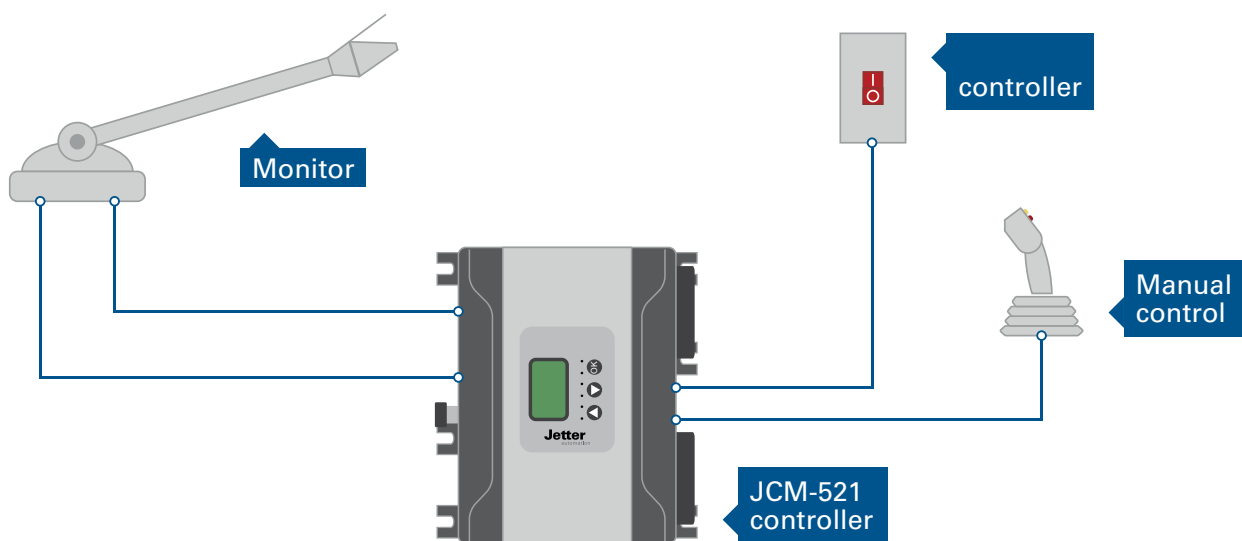
Monitors

Maximum throwing range and high flow rate



With flow rates of 1,000 l/m up to 4,000 l/m and throwing ranges up to 90 m, monitors are particularly apt for fighting fires with large amounts of water from great distances. Besides a continuous flow of water, exact direction of monitors to the object is crucial. For coordinating the involved functions, Jetter uses an especially designed controller which can be customized if need be.

The Jetter solution



Controlling and dosing in an optimum way

- Motors can directly be controlled in X/Y direction
- Individual kinematic envelope avoids contact with body components
- Diagnostics capable and short-circuit proof:
 - no external fuse required
 - less cabling work involved
- To prevent injuries to persons, a relay for de-energizing the outputs enables emergency stops
- To prevent damages to hoses or pipes, deactivation of water supply can be programmed

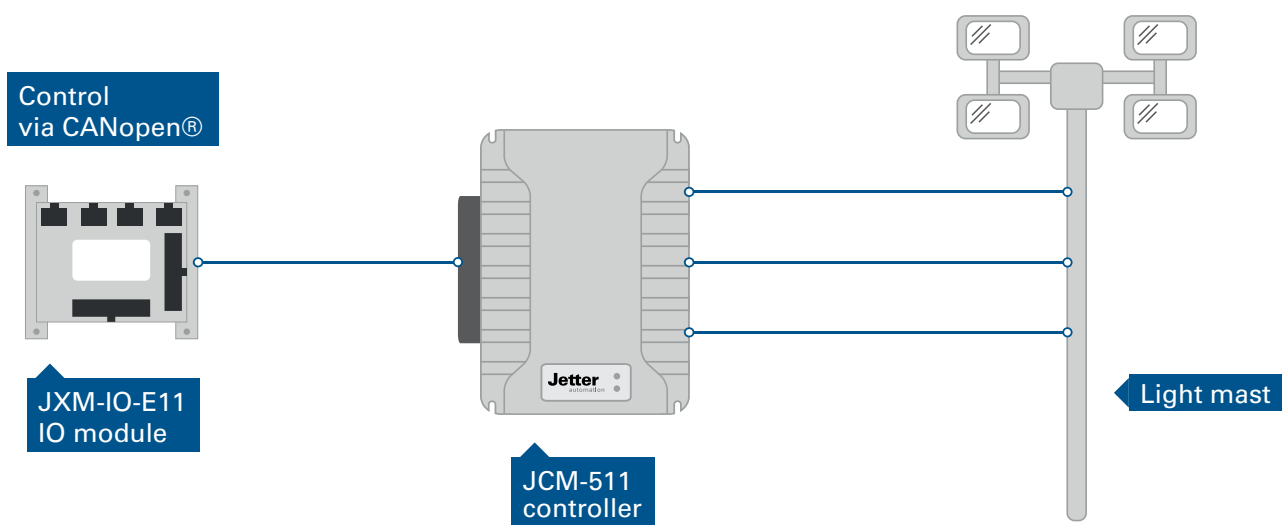
Light mast | Scene lighting

Clear view



Proper illumination in the vehicle or around it, as well as of the scene of emergency is based on a sophisticated control concept taking into account the different requirements placed on the lighting systems used. Exact direction of light masts and lighting heads through coordination of motors and mechanics is among the primary tasks of the applied controller. The integrated controllers by Jetter AG are able to cover the respective functional requirements.

The Jetter solution



Perfect light at the scene of emergency

- Extending the light mast in a controlled way avoids vibrations and protects the mechanical components and lamps
- Presets for controlling brightness, light mast and lamps ensure optimum use of the system and prevent incorrect operation
- The motors driving the positioning mechanism can directly be controlled which speeds up the process of directing the lighting heads and illumination at the scene of emergency

Body components controller

Planning with the future in mind

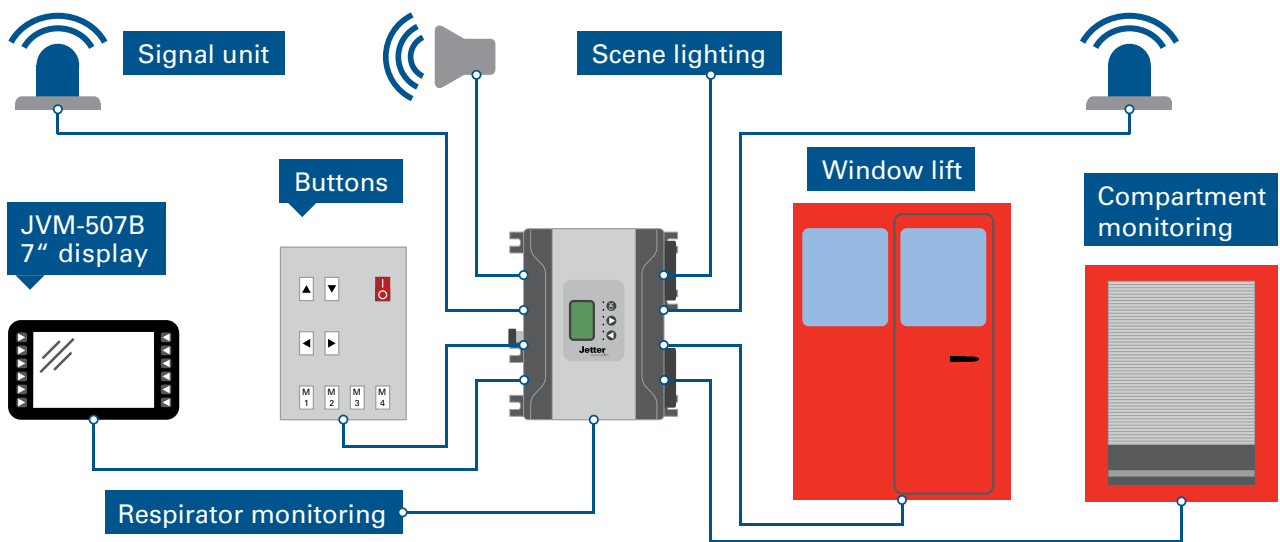


The increasing number of tasks and areas of application of fire-fighting vehicles results in growing complexity of the applied body components and systems and requires a higher level of networking. Operation and monitoring of these components require efficient and scalable data interfaces ensuring communication between chassis and body controller at any time.

The design of such a control system can be compared to that of an industrial plant where the integration of a great number of motors, sensors, and actuators, as well as electronic and electrical systems is called for.

The advantages of a centralized controller solution primarily lie in its flexibility as regards connectivity and configuration of all components applied, as well as in the excellent performance of the bus systems. Jetter AG can look back on many years of experience in the comprehensive design of controller solutions for fire-fighting vehicles.

The Jetter solution

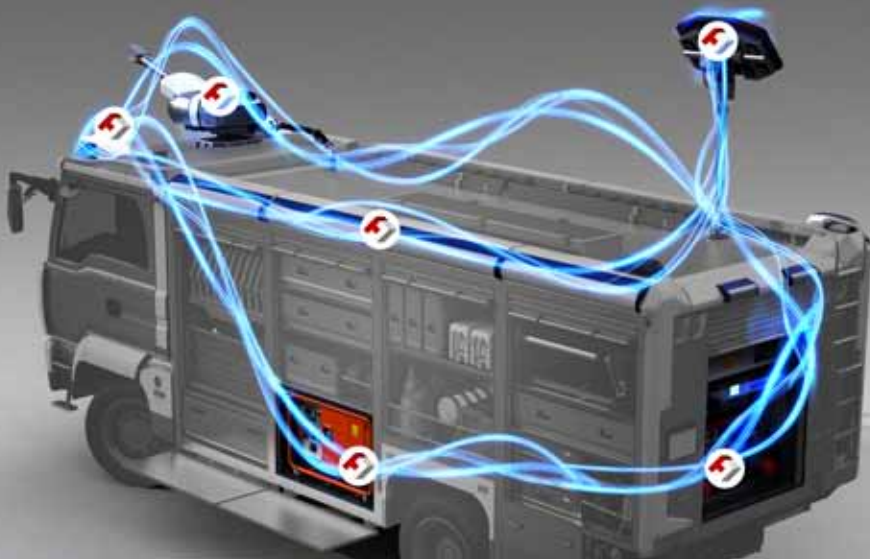


Individually designed and configured

- Vehicles can be customized thanks to configurable features
- Prefabricated software modules reduce the engineering time by up to 60 %
- Fuseless, short-circuit proof design allows for optimum concepts
- Access to display screens/diagnostics features can be restricted to the user level
- Status feedback to switching unit/display providing clear overview of the vehicle and the functions

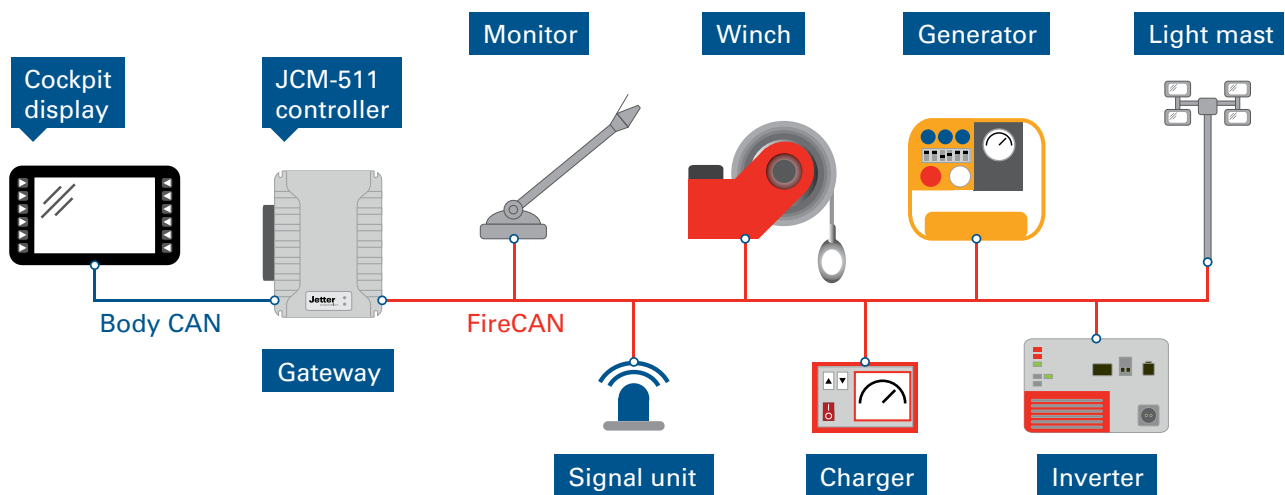
FireCAN

Everything to standard



Jetter AG offer a wide range of automation solutions especially designed to the FireCAN standard for fire-fighting technology. Thanks to this approach, the full range of features of the applied components can be made use of and be brought in line with the individual requirements on the part of the vehicle manufacturer. The option of implementing a centralized diagnostics system for all components involved is particularly helpful. Standardized connectors and Plug-and-Play support allow for full interchangeability of components from different manufacturers.

The Jetter solution



Full functionality thanks to Plug-and-Play

- FireCAN status indications and diagnostic messages in plain text provide the machinery operator with unambiguous information.
- Individual configurations of the connected devices form the basis for their optimum integration into the vehicles
- A library allows for easy commissioning resulting in enormous time savings and safe application of features

Air rescue and fire-fighting vehicles

Safety at any airport



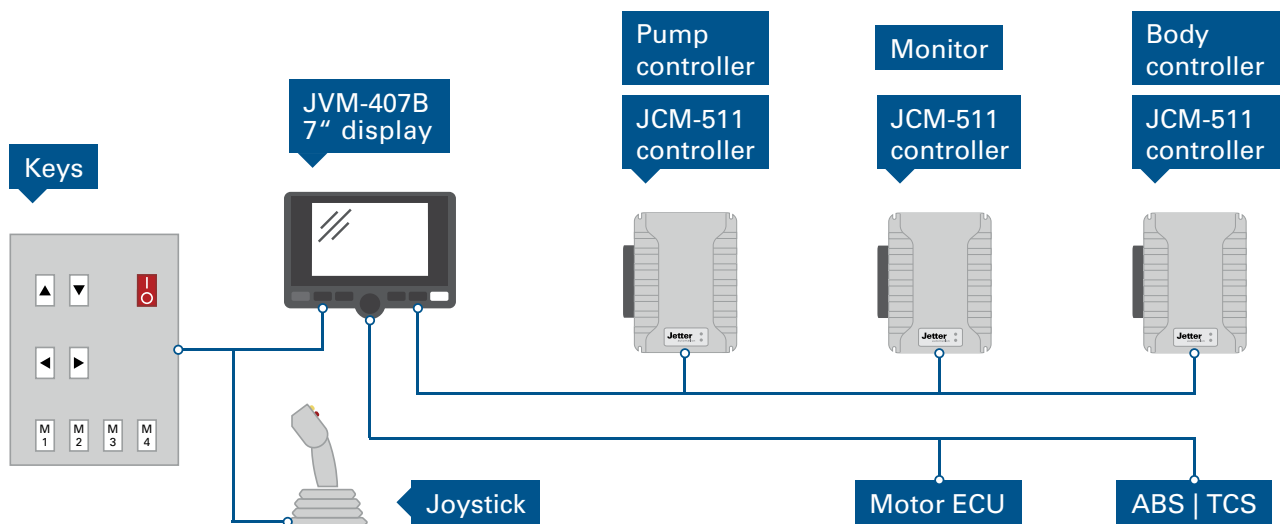
Air rescue and fire-fighting (ARFF) vehicles must meet the most demanding requirements as to operational capability and performance.

ARFF vehicles stand out by their high acceleration combined with enormous extinguishing performance. They are equipped with a wide variety of customized components meeting all global standards and requirements.

This particular complexity calls for a powerful control concept perfectly matched to the individual components which facilitates efficient and ergonomic operation. This is the only way to achieve automated processes relieving the burden on the fire-fighting crew in emergency situations and ensuring reliable functioning of all components.

Jetter with its long-standing experience as systems supplier to one of the world's leading manufacturer of fire-fighting vehicles knows the particular requirements placed on technology and equipment.

The Jetter solution



High-tech performance for the most demanding applications

- The E1-compliant cockpit terminal enables the design of individual vehicle bodies
- With the high-performance multi-monitor system a control system can be achieved that combines cockpit, surround view and vehicle body
- Prefabricated software modules reduce the engineering time by up to 60 %



References

Rosenbauer International AG

Rosenbauer is the world's leading manufacturer of systems for fire-fighting and disaster protection. The company develops and produces a host of vehicles, fire-fighting systems, fire & safety equipment and telematic solutions for professional, industrial and volunteer fire services, as well as installations for preventive fire protection.

AWG Fittings GmbH

AWG Fittings GmbH is one of the world's leading manufacturers of mobile and stationary fire protection systems. As a complete provider of fire-fighting fittings and fire protection systems, AWG supplies fire services, industry and other users with advanced and innovative products.

Walser GmbH

Walser GmbH was founded in 1903 and ranks among the leading specialists for fire-fighting technology and vehicle construction. The company is known for the implementation of individual customer requirements. Walser is a full-service provider not only for the manufacture of standard vehicles, but also for special solutions.

The Jetter automation solutions for fire-fighting technology – Take advantage of your possibilities

Vehicle type	Acronym (in German)	Engine data display	Pump Tank level indicator	Proportioning system	Surround view systems	Monitors	Light mast Scene lighting	Body components controller	FireCAN
Group pumping appliance 10	LF 10	x	x	x	x	x	x	x	x
Group pumping appliance 20	LF 20	x	x	x	x	x	x	x	x
Medium-sized pumping appliance	MLF	x	x	x	x	x	x	x	x
Group pumping appliance for rescue operations 10	HLF 10	x	x	x	x	x	x	x	x
Group pumping appliance for rescue operations 20	HLF 20	x	x	x	x	x	x	x	x
Pump water tanker 2000	TLF 2000	x	x	x	x	x	x	x	x
Pump water tanker 3000	TLF 3000	x	x	x	x	x	x	x	x
Pump water tanker 4000	TLF 4000	x	x	x	x	x	x	x	x
Aerial ladder 12	DLK 12	x			x				x
Aerial ladder 18	DLK 18	x			x				x
Aerial ladder 23	DLK 23	x			x				x
Aerial platform	HAB	x			x				x
Swap body vehicle	WLF				x			x	
Rigging vehicle	RW				x		x	x	x
Equipment vehicle hazardous material	GW-G				x			x	x
Equipment vehicle logistics 1	GW-L1				x			x	
Equipment vehicle logistics 2	GW-L2				x			x	
Air rescue and fire-fighting vehicle	FLF	x	x	x	x	x		x	x

The Jetter industry competence

Our solutions for your systems

Jetter AG offers integrated and scalable automation solutions for a great number of industries. Our specialist teams have extensive expertise in the specific production requirements and actively take a share in technical further development. They pay special attention to continuously optimizing the processing operations.

Packaging



Filling



Assembly | Handling systems



Window manufacturing



Glass container industry



Agricultural technology



Municipal vehicles



Jetter AG at a glance

For over 35 years, Jetter AG has developed, produced, and engineered both integrated and open automation solutions for various lines of business. These solutions comprise perfectly coordinated software and hardware components, which, whether being part of a system or cooperating with other components, contribute to a remarkable increase in efficiency. Consistently supporting both open and classic standards of Jetter AG products guarantees maximum flexibility at any time.

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