



CONTAMINATION AND CLEARANCE

FastTrack-Vehicle™

Vehicle Monitor

FEATURES

- 2 x 3 GammaFibre™ detectors
- Web server for remote monitoring
- Very low false alarm rate
- No vehicle stop required for measurement
- Detection at high speed
- Source localization in the vehicle

DESCRIPTION

The Mirion FastTrack-Vehicle is a unique monitor used to check trucks and cars for radioactivity without time loss.

It is the first vehicle monitor in the world that uses the FastTrack algorithms developed and patented by Mirion Technologies. This enables an accurate differentiation between possible variations in background radiation and radiation sources in the vehicles driven through the monitor. This in turn significantly reduces the false alarm rate and the drive-through speed is increased accordingly.

OVERVIEW OF FEATURES

GammaFibre™ detectors

- 2 x 3 large volume
- gamma sensitive detectors
- lead shielding 15 mm

Patented FastTrack algorithms

- unique filters for distinction between events related to the vehicle passing through the monitors and those unrelated
- increased sensitivity and low detection limits
- detection at high speed

Robust design and good visibility

- The FastTrack-Vehicle is by default delivered in an orange painted stainless steel frame. Other colors are available on request
- The housing is IP54 rated



CUSTOMER BENEFITS

Fast and reliable detection of vehicles with radioactive sources

- low false alarm rates
- low detection limits
- detection at high speed

Modern user software

- touchscreen operated
- networkable
- Many options available, including cameras and traffic lights

REFERENCES

Mirion FastTrack-Vehicle™ builds on the very successful development of the FastTrack-Fibre™ Gamma portal monitor for personnel. These monitors have been proven in many applications throughout nuclear industry, homeland and event security, ports and steel works worldwide.





CONTAMINATION AND CLEARANCE

FastTrack-Vehicle™ XL

Large Vehicle Monitor

FEATURES

- Detectors 6 x 8 litres active volume per monitor side
- False alarm prevention
- Excellent detector homogeneity due to fibre technology
- High sensitivity: 40 kBq (Co-60)
- Easy assembling: plug & play
- Web server for remote monitoring
- Source localization in the vehicle
- Automatic background subtraction for heavy loaded trucks also in high background

DESCRIPTION

The FastTrack-Vehicle™ XL is setting new standards in radiometric screening of trucks and vehicles.

It delivers a robust performance under circumstances a conventional gamma monitor would produce a false alarm.

The monitor combines the FastTrack technology with highly sensitive GammaFibre™ detectors, making the FastTrack-Vehicle™ XL a reliable partner for monitoring many vehicles in very short time.

MIRION FASTTRACK TECHNOLOGY

The Mirion FastTrack technology is based on an algorithm for real-time detection of radioactive contamination. 3 detector modules (see fig. 1 in red/green/blue) are consecutively arranged on both sides of the gate, parallel to the moving object to measure. The signals of each detector compare to the others chronology and by pulse rate, which allows the conclusion about the source passing through the monitor inside or out, and the source's location.

Plus it leads to better detection limits.

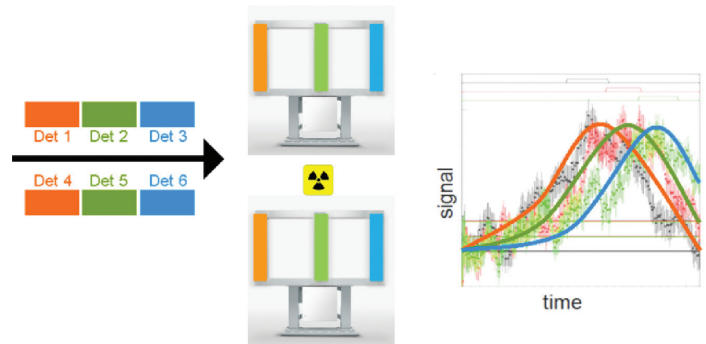


Figure 1: FastTrack concept

FILTER SETTINGS

The corresponding sensors detect an object moving through the monitor. The result links to various filters reducing the false alarm rate significantly. The “external contamination filter” for example is taking care that only a source passing through the monitor will trigger alarm, while the “non-dynamic filter” recognizes sources outside the monitor and still allows (non-contaminated) objects to pass the monitor through.

MIRION FIBRE TECHNOLOGY

For the highest performance requirements, the state-of-the-art Mirion fibre detector technology utilizes scintillating fibre detectors that feature the industry's lowest area of dead zones. This results in an exceptionally high uniformity of measurement and an outstanding sensitivity. The reliable detector elements are designed for an economic and robust operation with minimal downtime.

TECHNICAL SPECIFICATION

- Dimensions – 2453 x 2535 x 262 mm³
- Weight – 2 x 520 kg
- Detectors active monitor vol. in total – 2 x 6 GammaFibre™ detectors 96 litres
- Lead shielding – 15 mm
- Detection limit – 40 kBq (Co-60; distance of cabinets 4 m; speed up to 20 km/h)
- Energy range – 30 keV - 3 MeV
- Compliance – ANSI 42.35, IEC62244, IAEA NSSI, etc.

OPTIONS

- Neutron detection
- Cameras
- Traffic lights
- Barrier interaction
- Barcode ticket print after event
- CeMoSys™ client

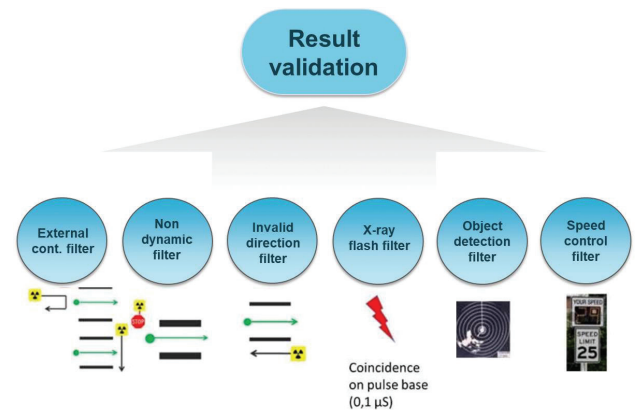


Figure 2: Filter settings for quick measurements with reliable results



The FastTrack algorithm is winner of the Counter Terror Expo Excellence Award.