

Monitored Pulse Fence

One of the most effective forms
of perimeter protection available

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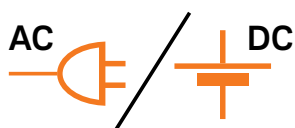
Gallagher monitored pulse fences deliver safe and controlled, energized pulses that last only a millisecond - enough to give a potential intruder a fright and deter them from making a second attempt on the fence.

Here we explain the pulse fencing system and outline the advantages that make it such an effective solution for site protection.

The Pulse Effect – How it Works

A pulse fence consists of metal wires spaced and tensioned between insulated fence posts.

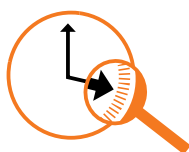
Power supply circuitry



Conversion from AC to DC power

A power supply is used to: convert AC (alternating current) to DC (direct current) or to convert DC power from solar or UPS etc, to safe energized pulses. Power is converted using precisely controlled circuitry, ensuring there is never continuous current on the energized fence wires.

Internal fence controller circuit



Precision timing circuits

Gallagher's pulse fence hardware has upper-level limits that prevent the voltage output being increased to an unsafe level. This includes the safety tolerance of a minimum one second interval between pulses.

Monitored pulse



Energized wire

When a person makes contact simultaneously with a live wire and the earth, a short but safe energized pulse is delivered. If the contact is sustained, the fence controller immediately sends an alarm to monitoring devices.

Gallagher's pulse fencing solution

The pulse fence system offers a wide range of features and benefits which can be tailored to meet specific site requirements:

Capability	Feature	Benefit
Deterrence	Warning signs	Spaced at set distances along the fence, warning signs act as an initial deterrent.
	Psychological deterrent	Fear of the unknown (or known); how the pulse might feel or, following a pulse, being discouraged from making a second attempt.
Detection	System activation and deactivate	Removes the risk of deterrent pulse to customers and staff while protecting the site outside of working hours. The ability to activate based on zone provides the flexibility to turn areas on or off as needed.
	Scheduling	Pre-set system activation and deactivation in time with other security actions.
	Unique 'low feel' mode	Reduces the pulse level in situations where continuous security is required during working hours. Can be increased to a safe, higher voltage setting after hours.
Notifications	Stand-alone or networked system status updates	Alarm notifications can be distributed in a variety of ways with networked integration providing greater detail and functionality e.g pinpointing the exact location of a breach attempt, activating digital video recorders, and providing mobile updates.
Monitoring and reporting	Self-monitoring	System will report on its status and advise any zones that need checking, eliminating the need for manual inspection.
	Reporting	Reports are produced based on event logs. Having meaningful data helps sites to identify trends including unusual voltage or temperature disturbances.
Safety and compliance	Pulse synchronization	Exclusive to Gallagher, our pulse sync feature ensures that if a person touches two fences at the same time, they only receive one pulse, giving the body a chance to naturally disengage from the fence.
	Compliant	Gallagher products are tested to ensure that when correctly installed, there is no effect on electronic devices such as mobile phones, hearing aids, or radios.

Choosing a perimeter security system that meets your needs

The requirements of a perimeter security system can be wide-ranging and monitored pulse fencing is one of a number of options available. A review of some of the options highlights that energized perimeter security systems are considerably safer and more effective than the alternatives:

		Fence Type			
		Gallagher pulse fencing	Wire sensors	Motion detectors	Barbed wire or razor tape
Capability	Self-monitoring	✓	✓	✓	✓
	Deterrence	✓			✓
	Detection	✓	✓	✓	
	Reporting	✓	✓	✓	
	On / off mode	✓	✓	✓	

Sensor systems

Stand-alone sensor systems monitor activity on the fence and generate an alarm in response to changes at the fence line. Sensor systems can include motion detectors, taut-wire sensors, disturbance/vibration sensors, and digital

video recorders – all of which will identify an attempt to climb, cut, or disturb the fence structure, and activate an appropriate security response.

Risk: While a very safe option, sensor systems alone provide little deterrent so are not highly effective in stopping an attack. Often the notification of an active security threat comes too late, resulting in damaged property or an intruder successfully breaching the perimeter.

Barbed wire and razor tape

These are designed specifically to inflict injury on anyone who makes contact with the fence. Unlike an energized pulse, which physically repels someone upon touching the fence, barbed wire and razor tape ensnare clothing and flesh, making disengagement difficult. Significant injuries are caused as a result of people attempting to breach barbed wire or razor tape fences.

Risk: While the threat of physical injury can be an effective deterrent, this style of fence is incapable of detecting and reporting a breach. The inability to 'switch off' barbed wire or razor tape during operating hours, means that businesses risk the safety of staff and customers when selecting this style of perimeter protection.

Gallagher is recognized as an award-winning industry leader in the design and development of perimeter systems that deliver first-rate safety and security.

International safety standards

Gallagher perimeter products are designed to comply with international safety and electromagnetic compatibility standards. These standards set out the safety requirements for the design, installation, and operation of pulse fencing and associated equipment.

Every energizer product developed by Gallagher is tested in New Zealand laboratories accredited by IANZ (International Accreditation New Zealand). Internally, Gallagher has staff dedicated to reviewing changing standards and ensuring products are compliant with all legal specifications.

As recognized industry experts in energized fencing technology, Gallagher is an invited member of the Global Standards Committee which develop and update energized fencing safety standards.

Gallagher Code of Practice

Gallagher's code of practice exceeds the requirements of national and international standards regarding safety and the application of energized fencing systems. It states that the installation of Gallagher systems is only permitted by approved Gallagher Certified Channel Partners that meet minimum training and certification requirements. The code also specifies system configuration and commissioning requirements to further ensure safe operation.



All Gallagher certified channel partners sign an agreement in which they commit to following Gallagher's code of practice. This is particularly important in countries that do not currently enforce national installation standards, such as the United States and Europe (excluding the United Kingdom).

Gallagher – leading the way in perimeter security

As an industry leader, Gallagher is at the forefront of the design and development of perimeter security systems. With a strong focus on safety and innovation, Gallagher aims to redefine what's possible for our customers and the security industry as a whole.

To learn more about Gallagher perimeter security systems, visit security.gallagher.com.

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