



$$F_3 = k \frac{|q_1||q_2|}{r^2};$$

$$k = 9 \cdot 10^9 \text{ H} \cdot \text{m}^2 / \text{C}^2;$$

$$k = \frac{1}{4\pi\epsilon_0}; \quad \epsilon_0 = \frac{1}{4\pi k};$$

$$\epsilon_0 = \frac{1}{4 \cdot 3,14 \cdot 9 \cdot 10^9 \frac{\text{C}^2}{\text{H} \cdot \text{m}^2}} \approx 8,85 \cdot 10^{-12} \frac{\text{C}^2}{\text{H} \cdot \text{m}^2}; \quad \vec{E} = \vec{E}_1 + \vec{E}_2 + \dots$$

$$F_3 = \frac{1}{4\pi\epsilon_0} \frac{|q_1||q_2|}{r^2};$$

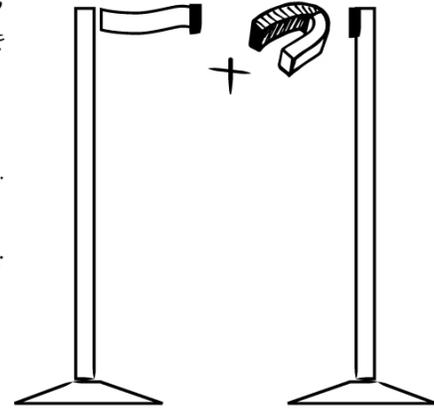
$$\vec{E} = \frac{\vec{F}_3}{q_1}; \quad \phi = \frac{q}{S};$$

$$E = k \frac{2|q|}{\pi} = \frac{|q|}{2\epsilon_0};$$

$$\Delta t = \frac{L}{c}; \quad \vec{F}_3 = k \frac{|q_1||q_2|}{r^2};$$

$$I = \frac{\Delta q}{\Delta t};$$

$$\frac{U}{I} = R = \text{const.}$$



Queues are safer now, thanks to trusty magnets.

Designing efficient crowd control queues for many applications can be a challenge. You need to consider space requirements, people flow, wait times, budget and so many other factors. The end goal is to provide your valued patrons an understanding of where to go and what to expect, providing an optimal brand experience. But beyond efficiency and guidance, you also need to ensure that everyone is safe.

Planning for safe, quick evacuation in the event of an emergency is critical.

Every building has plans for emergency evacuations that take multiple codes into account, including both the actual exits and a clear path to reach them from any occupied space. International Fire Code states, "Each secured physical barrier shall automatically retract or swing to an unobstructed open position in the direction of egress..."¹ Panic can ensue when those paths are blocked, resulting in a loss of control, putting everyone's safety in jeopardy.

To put it simply, queue stanchions with belts or ropes can inhibit your patrons from safely reaching exits in the event of emergencies. They can also block first responders from quickly reaching someone in need of help.

Because of this, international and state level fire codes have adopted quick egress policies from queues in the event of any emergency. So, you need a solution that not only guides crowds around your facility, but also allows them to bypass those defined queues when required.

(continued >)

For assistance finding the right solution for your business, speak with a People Guidance Pro at **631-582-8600** or SalesTeam@Visiontron.com.

ARTICLE SUMMARY:

- Now beyond fire exit safety, International Fire Code requires quick and safe egress from indoor public structures in the event of an any emergency.
- Queues across the country are getting more critically evaluated for compliance.
- We have engineered solutions that can be implemented with existing product in the field as well as added to all new orders.

Visiontron creates a magnetically appealing solution.

The answer turns out to be very simple: magnets. The solution needed to meet two basic requirements:

1. Securely attach the retractable belt or rope to the stanchion when in use.
2. Easily break away in emergencies.

Along with the consultation of a Fire Marshal, our engineers went to work designing and testing multiple samples until they came up with a reliable solution. Ensuring that the solution provided uninhibited egress from a queue, Magnetic Breakaway products were born.



Retractable belt stanchion solution:

RETRACTA-BELT® Magnetic Belt Ends create strong connections between the belt and a mounted post, preventing accidental removal from fidgety patrons. However, they easily disengage as a person walks through with any force from the side. The belt then immediately and safely retracts into the post to avoid becoming a tripping hazard. You can upgrade your existing solution without the need to purchase new stanchions. Contact a People Guidance Pro for details.



Classic Post+Rope stanchion solution:

Our Classic Post+Rope stanchions, and any competitor's products, can be fitted with Magnetic Breakaways. In the event of an emergency, that connection will break under similar force to prevent panic and allow clear access to egress points. The Magnetic Breakaways for ropes are available in three finishes to match existing rope ends and wall connectors. Upgrades to your Post+Rope stanchions are simple. The Magnetic Breakaway is an additional part that joins two ropes at the center, attaching easily to existing snap ends, to provide a panic break solution for doorways and other egress points.

With Hoover Dam, this attraction is undeniable.

The architect assigned to redesign the Hoover Dam Visitors Center requested a quote for an elegant, sturdy line management solution. While the team was impressed with our patented, secure **MINI-SOCKET®** base mounts that have the smallest possible footprint for a 'floating posts' look, there were still concerns about the safety of visitors. They worried that standard belts would not easily provide safe exiting from the queue in event of an emergency.

Our **RETRACTA-BELT®** Magnetic Belt Ends proved to be the ideal solution that made the architect, management and inspecting Fire Marshal happy. Now the Hoover Dam Visitors Center has an efficient queuing solution that not only looks elegant and functions well but will keep their patrons safe in event of an emergency.



Visiontron – The People Guidance Pros

We at Visiontron believe it's our job to enhance each and every person's experience. From small retail stores to the world's busiest airports, our products and solutions are there to help people get the most from their time with you.

Need help selecting the best products for your location? Get in touch with a People Guidance Pro today at **631-582-8600**. We've been in the industry for 50+ years and we love to help! Tell us about your current situation. Let's see if we can solve your challenges together.

1. 2018 International Fire Code; Chapter 10 Means of Egress; Section 1010.3.2 Security Access Turnstiles; Paragraph 5.