APPLICATION NOTE

ACCESS CONTROL

Background

Parking barriers are a common sight at parking garage entrances and are powered by a fairly simple mechanism. Usually the barrier arm only needs to swing up 90 degrees and stop. Later, when the car passes then it has to return to its original position. Often, simple limit switches are used to set the start and stop points.

The issues with limit switches are many. Firstly, as they rely on mechanical contact to operate, it is possible for them to wear, or move out of adjustment, or even fail to trigger over time. They are also subject to debris contamination. Even though they are situated in the barrier stanchion, they are not completely sealed from dust and dirt. In addition, connecting up two limit switches requires that each have its own set of wires. These

factors tend to make this simple piece of equipment a regular m a i n t e n a n c e item.

Dust, dirt, rain, temperature swings are just business as usual for this compact sensor assembly.

Solution

This is a perfect application for a noncontacting rotary position sensor and the ACW4 is the perfect solution. By installing the magnet right on the pivot point of the swing arm and installing the sensor with a small gap between the sensor face and the magnet, the installation is complete with only one set of wires. The ACW4 is completely sealed against the environment, is solid state (no moving parts) and can be easily configured to recognize the "Up" and "Down" locations just by reading the output directly. Dust, dirt, rain, temperature swings are just business as usual for this compact sensor assembly. Nothing could be simpler.





RECOMMENDED PRODUCTS

Reference on Diagram	Product	Туре	Features	Function	Brand
1	ACW Seri	/4 Hall effect rotary position sensor	CompactWell sealedSimple to install	Position monitoring and control	BEI Sensors



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