TURCK

Industrial Automation

How to Reduce Your Sensor Stock

HOW TO

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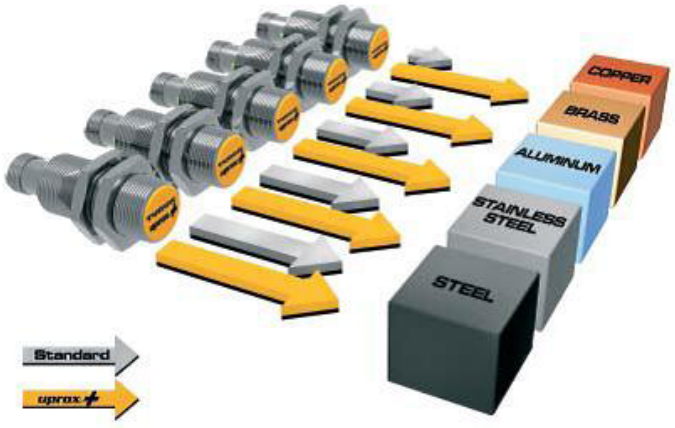
In a perfect automation world, sensors never need to be replaced. They never die, never get hit, and never suffer the effects of their environment. But in the real world this sort of thing happens all too often, and increases the amount of sensors needed on hand at any given point in time. Stocking replacement sensors for your applications can be a headache. There's the time it takes to find the right replacement, the confusion that goes along with finding the correct shape with the correct sensing range, the space it takes to stock all this inventory and, of course, the cash invested.

How can the spare stock be reduced? There are several ways to reduce sensor stock levels, but one of the easiest and most efficient is standardization. Standardizing on styles, sizes and brands is a great first step to lessening your sensor stock.

Using smaller sensors with extended range is another great way to reduce your sensor stock. Sensors that are specified for extended range can replace several (often bulkier) other sensors, thereby reducing the number and type of sensors required to do the job. A smaller sensor also offers increased mounting flexibility, as it can fit in places larger sensors cannot.



TURCK uprox+ Factor 1 sensors sense all metals at the same sensing range.

If your targets are non-ferrous, be sure to use Factor 1 sensors. Factor 1 sensors achieve longer sensing ranges than traditional sensors, because these sensors can detect non-ferrous metals at the same rated distance as steel. Many Factor 1 sensors also lack a ferrite core, allowing them to be incorporated into unique and nontraditional housings that may easily replace other sensors, therefore reducing the amount of sensors needed to keep on hand.

Sensors recessed in metal avoid being damaged by the target.

It may seem like common sense, but it is good practice to mount a sensor so there is little likelihood it will be hit by the target. A target hitting a sensor is the No. 1 cause of sensor failure. If the application or location requires a sensor to be very close to the target, try to use a sensor that can be recessed in its mounting apparatus to promote a higher degree of protection from the target. It is vital to choose a sensor that has been designed for recessed mounting, as a conventional proximity sensor will lock on if recessed in metal.

EMI/RFI can interact with sensing elements, causing the sensor to lock on or "chatter". Noise emitting devices can range from two-way radios to motors and drives, so the likelihood that a sensor will be exposed to EMI/RFI is relatively high. This will only increase as the use of wireless communi-

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cation increases. Several sensors have been designed for noise immunity, including Factor 1 sensors. If you use Factor 1 sensors you shouldn't have to stock both these and noise-immune sensors.

Another way to reduce your overall stock levels is to standardize the sensor's connector sizes, along with corresponding cables/cordsets. Choosing a quick disconnect sensor/cable combination will also lessen installation time.

This might sound basic, but make sure your sensor supplier has local support or is willing to visit your location – wherever it is. Sometimes sensors need to be applied in tricky situations and remote support from your supplier just won't cut it. Even the best sensors sometimes need onsite troubleshooting. When issues arise, you want to make sure you can get reliable support where you need it – and fast.