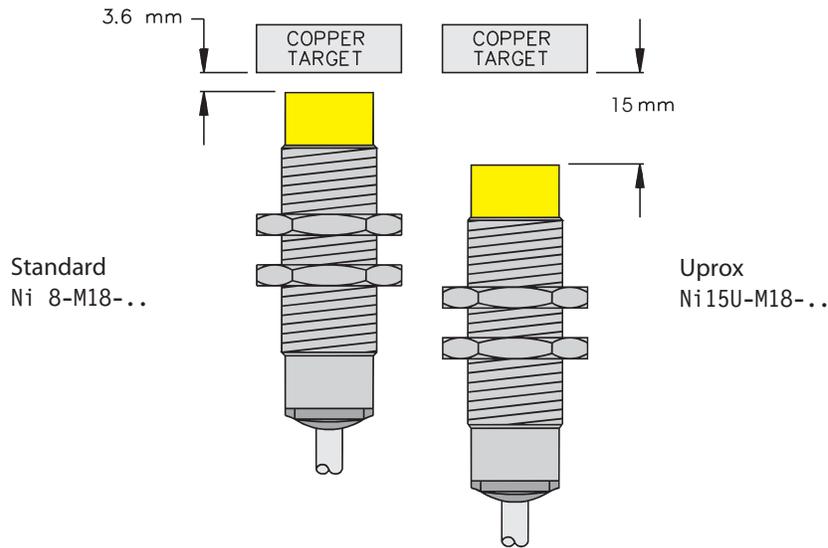


**Uprox<sup>®</sup> and Uprox+<sup>®</sup> Characteristics**

- **No Correction Factor** - Same rated operating distance for all metals.
- **Extended Operating Distance** - Up to 400% greater than standard inductive sensors when using non-ferrous targets (Figure 4).
- **Weld Field Immunity** - Uprox is unaffected by strong electromagnetic AC or DC fields because of its unique patented design.
- **High Switching Frequencies** - Up to 10 times faster than standard inductive sensors.
- **Extended Temperature Range** - Uprox can withstand temperatures up to 85°C (+185°F) with a ±15% temperature drift.

**Figure 4**

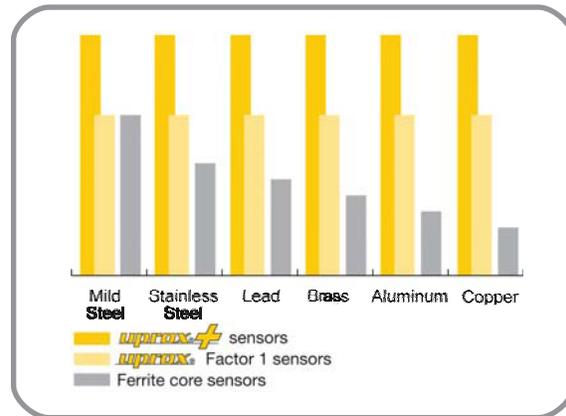


**Operating Principle Uprox<sup>®</sup> and Uprox+<sup>®</sup>**

TURCK *Uprox* is a patented next generation development of inductive sensors that uses a multi-coil system. Active coil(s) induces eddy currents on the metal target and passive coil(s) are affected by these eddy currents. Ferrous and nonferrous metals have the same effect on the two coils. Therefore, all metals, including galvanized metals, have the same rated operating distance.

TURCK standard inductive sensors use a single coil randomly wound around a ferrite core. The single coil both induces eddy currents on the metal target and is affected by these eddy currents. Ferrous and nonferrous metals affect the sensor differently, making it impossible to detect both types of metals at the same rated operating distance.

**Figure 5**



Operating distances comparison of Uprox sensors and standard inductive sensors.