

8950/20 Contact Voltage Detection System



- **New *StraySafe*[™] Sensors**
- **Industry Leading Sensitivity**
- **Intuitive Operator Interface**
- **Distinguishes between Primary or Neutral faults**
- **Logs Incident information**

Introducing the new 8950/20 Contact Voltage detection system with *StraySafe*[™] sensors. The 8950/20 was developed by Narda to help detect and mitigate hazardous AC voltages that can present themselves on conductive objects in the urban landscape and it features uncompromising speed and sensitivity with unmatched capabilities. Our system does more than just generate data, it helps users find more potential contact voltage quicker and more efficiently—and that's better for everyone.

Narda *StraySafe*[™] sensors have specifically been designed to improve system detection, operator recognition and the critical Mean-Time-To-Detect (MTTD). Paring the new sensors with an improved ergonomic interface means that operators are quickly and effectively notified when a potential object has been detected. Older designs just detect the presence of fields and have to rely heavily on manual measurements to find the

actual source, and then use complicated test equipment to analyze the voltage to measure its harmonic content.

With the Narda 8950/20, analysis can be performed on the field before anyone even leaves the vehicle to analyze the distortion of the emission. This helps make detection both faster and safer than previous systems.

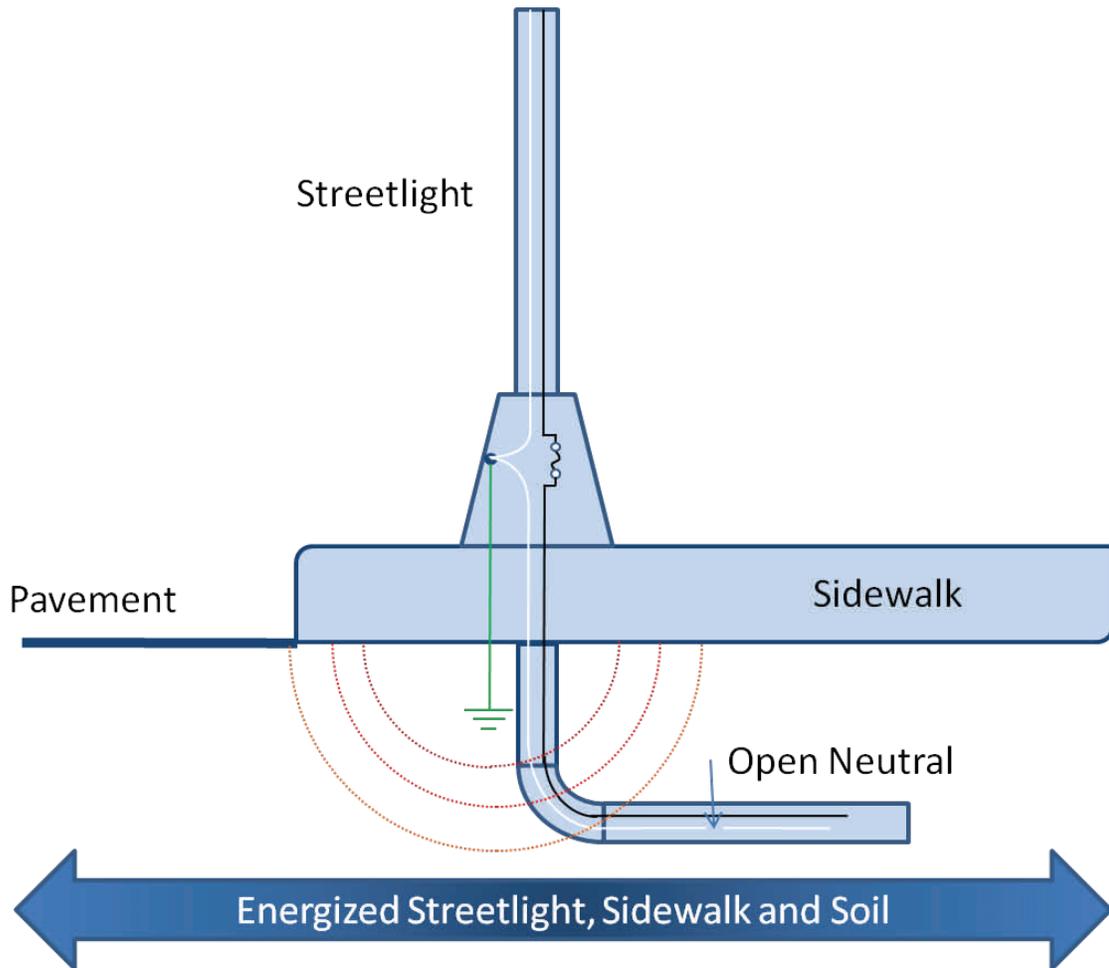
The Narda 8950/20 sensors can be mounted on virtually any small to medium truck platform and are easily integrated into the vehicle. A universal bracket assembly is supplied that is positioned in the rear of the truck bed. This holds the antenna and sensors securely when scanning and it allows the sensors to be lowered into the truck bed when travelling to or from the scan area. Cables are supplied to connect the sensors and antenna to the computer.

The system computer mounts under the

front seat while the touch screen display is mounted accessible to the operator. The entire system is powered by the vehicle 12VDC supply and there are no batteries to charge in the sensors.

connection. The streetlight will still function but voltage will be present on all conductive items within a short distance.

“Secondary” power line voltages (< 500VAC) are not always monitored and



Contact Voltage—Easy to Imagine, Tough to Detect

Contact voltages can be caused by a variety of situations—degradation of insulation and infrastructure, inadequate design, damage by construction or animals, vandalism, or improper workmanship—just to name a few. The figure above shows how an object and the soil around it can be illuminated by an open neutral

even if they were, it's not always a danger to people or animals until a multiple of situations combine together to form a potentially hazardous situation.

Detection of energized objects has not always been easy. In the past energized objects were only discovered during scheduled repair /maintenance or from a customer complaint. Direct detection

methods (manual testing and mobile scanning) have just been too costly for Utilities to afford . The only regions performing the testing has been limited to those that are forced to do so by their Public Service Commissions. Typically the extensive costs of such a program have had to be passed on to the ratepayers as a consequence of the prior technologies.

Narda's technology is not only superior to prior designs but is also affordable to any utility.

Results Provided

The 8950/20 system provides all the important data investigators need to include on their reports. Typical data supplied includes location (coordinates and address), object description, distortion and date and time. There are also fields provided for user to input into reports like open and shunted voltage measured with comment fields for additional information. Data can be transferred to the Utility by multiple methods for real-time monitoring of scanning and results.

Why Use Narda?

Narda has been serving the electronics industry since 1953. We have been manufacturing field detection equipment since 1967 and ELF sensors since 1995. Narda has invested a great amount of time

to insure our Model 8950/20 is as good or better than any other technology available today. We even developed our own test track to refine our design as well as spending considerable time actually performing stray voltage testing with major utilities. Narda employees maintain membership on key IEEE (Institute of Electrical and Electronic Engineers) committees and we have the advantage of being part of L-3 Communications—a multi-billion dollar electronics corporation. Our considerable design experience and worldwide reputation for EMF sensors is unequalled by any other company. Our existing sensor designs were used as the basis of this system and optimized to give them the correct amount of sensitivity to the 60 Hz fields they detect.

In order to prove our system's performance we have been scanning areas before the older, accepted sensors. This has allowed Narda to definitively prove our design with real-world data. Our trucks have been varied in order to develop minimum system performance parameters and to form critical design fea-



tures that allow it to be mounted on a variety of vehicles.

Training

Narda offers training to all of our clients to help insure your employees who are operating our equipment are properly trained.

We train clients in the operation of the system as well as the steps recommended by the IEEE necessary to evaluate the illuminated object(s) by manual voltage measurements.

PARAMETER	SPECIFICATION
Ordering Number	8950/20
Sensor Type	Plate Electrode and Loops
Frequency Range	5 Hz to 300 Hz
Measurement Range	0.1 to 400 Volts on object
Operating Temperature Range	-10 to +50° C
Calibration Interval	Two Years
Warranty	Two Years
Accessories Supplied	Stray Safe Sensor, Vehicle Mounting system, Computer, Software and Cables

