

NeSSI - Sensor Component Requirements

Safety

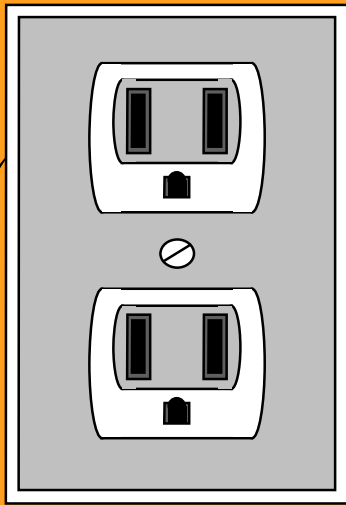
Universality

Interconnectability

Compatibility

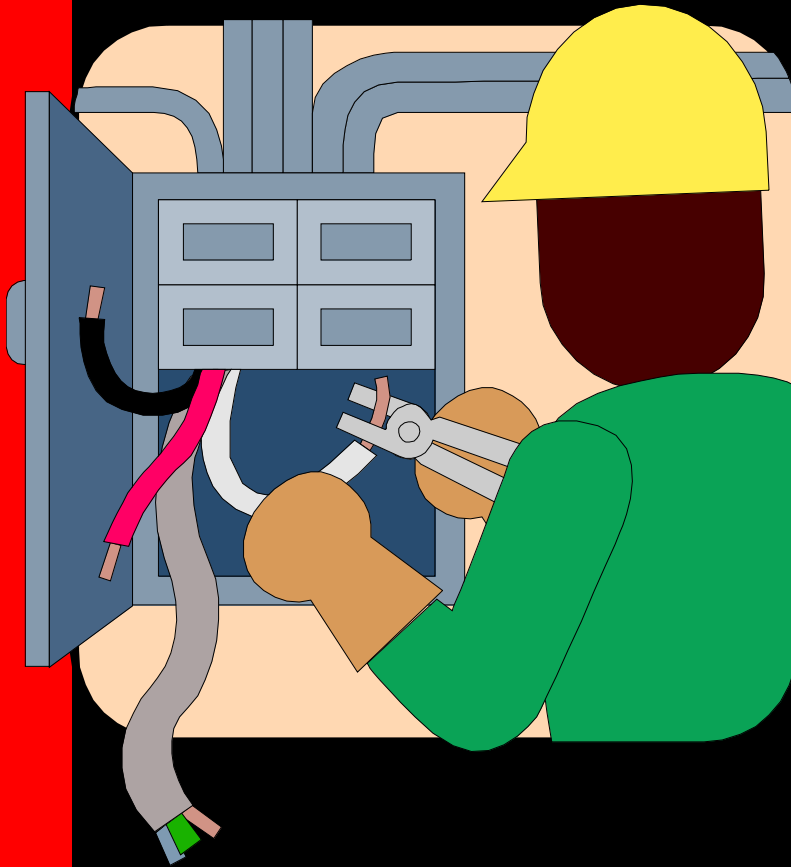
ABB

ELECTRIFYING!



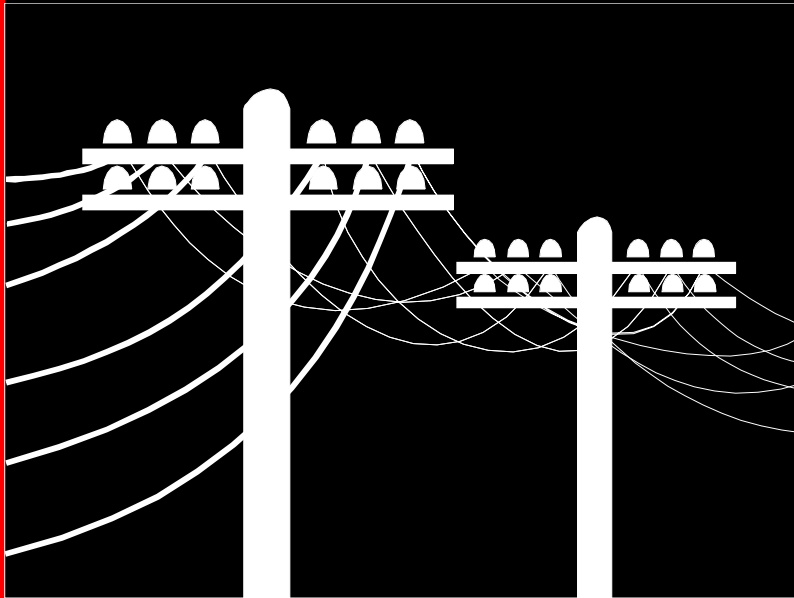
- POWER LEVEL
- 24 VDC
- VAC ?
- PICK ONE NOW
- PLUG AND PLAY

SAFETY FIRST



- UL / FM / NRTL
- CSA
- CENELEC
- ISO
- ATEX
- CE MARK
- UNIFIED CODE
- DIELECTRIC TESTING

SENSOR CONNECTIVITY



- HARD WIRED SOLUTIONS
- INTRINSIC SAFETY
- NON-INCENDIVE
- PROTECTION FOR THE WIRE?
- ACCEPTED PRACTICES

SENSOR CONNECTIVITY



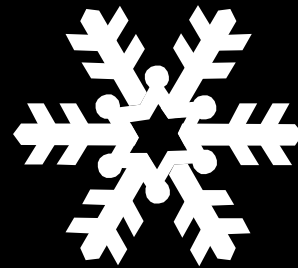
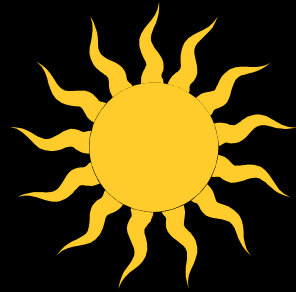
- WIRELESS
- FCC?
- CE MARK EMI/RFI
- LINE OF SIGHT?
- SAFE AREA RECEIVER?
- RECEIVER IN ANALYZER PURGED ZONE?
- MULTIPLEXING?

OTHER CONSIDERATIONS



- AMBIENT TEMPERATURE
- CORROSIVES
- CHEMICAL COMPATIBILITY
- POTTING COMPOUNDS
- COPPER / ALUMINUM / GOLD PLATED

OTHER CONSIDERATIONS



- AMBIENT TEMPERATURE
- AIR BATH HEATING AND THE EFFECT ON ELECTRONICS
- SUBSTRATE HEATING EFFECTIVE?

OTHER CONSIDERATIONS

- LIQUID SERVICE
- CONVOLUTED FLOW PATHS
- VELOCITY VERSUS INTERNAL ORIFICES
- PRESSURE DROP
- DEAD VOLUME
- INERTING FOR MAINTENANCE

CONCLUSIONS

- ENGINEERED SOLUTIONS
- ELECTRIFICATION ADDS COST
- WIRELESS REQUIRES HARDWARE AT SOME POINT
- VOLUMES ARE NECESSARY TO PROVIDE USER SENSOR OPTIONS
- EC AND FAR EAST COMPLIANCES ARE CRITICAL FOR OEM USE OF HARDWARE

QUESTIONS?

SAFETY

UNIVERSALITY

INTERCONNECTABILITY

COMPATIBILITY

ABB