EnOcean

EnOcean is a wireless communication protocol optimized for ultra-low-power and energy-harvesting devices.

Purpose in AOFS

- Batteryless environmental sensors
- Manual switches
- Low-frequency monitoring devices
- Remote trigger buttons

Layer Mapping

- Sensor → Field Controller
- Local short-range communication

Strengths

- Energy harvesting operation (no battery required)
- Extremely low maintenance
- Suitable for harsh or remote environments

AOFS Compliance Notes

- Low transmission frequency requires robust timeout handling
- Missing sensor data must not lead to unsafe irrigation decisions
- Manual EnOcean triggers must be logged and validated
- Safety-critical decisions remain within Field Controller logic