Lufft History

- Lufft was founded in July of 1881
- Just celebrated our 130th Year
- European headquarters: Stuttgart, Germany
- USA headquarters: Youngsville, NC
Ability To Install an RWIS Using Lufft Technology with minimal investment

No RPU/Datalogger Needed

www.lufftusa.com
UMB-technology

Universal-Measurement-Bus

Benefits:

• **Open Architecture**
• **Flexible**
• **Reduce Cost**
• **Improved Data Quality**

www.lufftusa.com
Wind Sensor only RWIS

Digital Interface with UMB-Protocol

Modem

Radio or Cellular Connection

WS200
Pavement Sensor only RWIS

NIRS31

Digital Interface with UMB-Protocol

Modem

Radio or Cellular Connection
Small Compact RWIS

Digital Interface with UMB-Protocol

Modem

Radio or Cellular Connection

WS600

NIRS31
RWIS Site with No RPU

Digital Interface with UMB-Protocol

Modem

Radio or Cellular Connection

IRS31

ARS31

WS200

R2S
NIRS31 Non-Invasive Pavement Condition Sensor

Measurement of surface conditions such as wetness, ice, snow or frost.

- **FREEZE TEMPERATURE – NON-INVASIVELY**
  - Measurement of water film height
  - Measurement of ice percentage in water and determination of freeze temperature
  - Measurement of friction
  - Fully integrated surface temperature measurement (pyrometer)
  - Electric Isolation of RS485 interface for network with other UMB sensors
  - Easy to mount
  - Low Maintenance costs by firmware-Updates via UMB-technology
    - Automatic calibration according to type of road (concrete or asphalt)
    - Automatic recalibration during dry periods (surface conditions)
    - No need to adjust the unit according to the distance between installation point and road spot
    - Long-term stable measurement technology
    - Infrared temperature measurement optionally integrated into the same sensor
R2S-UMB Radar precipitation sensor

Innovative principle: R2S microwaves–doppler radar
Precipitation type (rain, snow, mixed rain, ice rain and hail) / Precipitation intensity (mm/h)

Maintenance-free sensor
Accumulation calculation (resolution 0.01mm / 0.1mm / 1mm)

Digital data communication with standard protocol (Lufft-UMB-Protocol) and 2 digitale outputs
IRS31-UMB Intelligent Road Sensor

Passive salt concentrations- and freeze point temperature measurement by measuring the conductivity dependent on water film height

Road condition detection → dry, damp/humid, wet, ice, snow (critical), critical wetness

Maintenance-friendly, exchangeable electronics
ARS31-UMB Active Road sensor

Measurement of salt concentration and freeze point temperature by active cooling and heating of the sensor surface.

Maintenance-friendly, exchangeable electronics
Thank You