



NON-CONTACT INFRARED REMOTE SENSING WEATHER STATION

Introduction

Model non-contact infrared remote sensing weather station is an intelligent meteorological monitoring device. It realizes contactless data collection based on infrared remote sensing technology. It requires no physical contact with monitored media and adapts to complex outdoor environments.

Widely applied in airports, highways and other scenarios, it provides accurate real-time meteorological data support for weather early warning and traffic scheduling.

Functions

Infrared Remote Sensing Sensor
Multi-specification Electric Control Cabinet
Data Visualization Cloud Platform

Advantages

Precise monitoring
Integrated all-in-one assembly
Data visualization cloud platform
Reliable data transmission guarantee



Description



Infrared Remote Sensing Non-contact Road Surface Condition Sensor

Monitored items:
Road surface temperature, humidity,
water film depth, ice thickness,
snow density and friction coefficient .

Electric Control Box

Steel Support Pole

Wind-resistant Base



Road Surface Condition Sensor

The ZCYL-ROAD series non-contact road surface condition sensor adopts remote sensing technology, which avoids road surface damage and eliminates traffic interference caused by road weather station installation. Multi-spectrum measurement technology enables accurate detection of road surface ice, snow and water film status & thickness.

Specifications



Item	Description
Measuring Principle	Remote sensing + multi-spectrum measurement
Installation Angle	30–80° relative to horizontal line
Detection Distance	2.8 meters
Diameter of Detection Area	23 cm
Power Supply	DC 12–24V
Power Consumption	2W

Parameter Accuracy

Monitoring Parameter	Description
Road Surface Temperature	Basic measurement; expandable range: -40°C ~ +60°C
Road Surface Humidity	Reflect surface dampness level
Water Film Depth	Measuring range: 0–10 mm
Ice Thickness	Measuring range: 0–2 mm
Snow Thickness	Measuring range: 0–2 mm
Friction Coefficient (BPN)	Range: 0.01 (slippery) ~ 0.82 (high friction)
Road Surface Status	Recognize 6 states: dry, damp, wet, snow, ice, ice-water mixture