



D-AW21

AUTOMATIC WEATHER OBSERVING SYSTEM

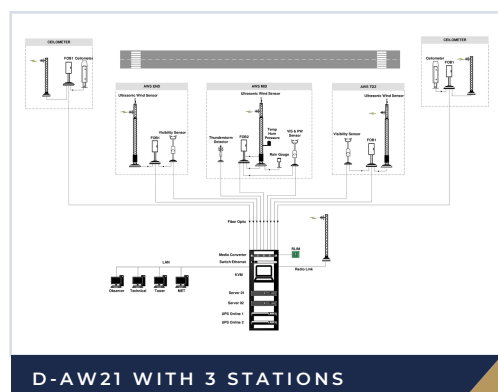
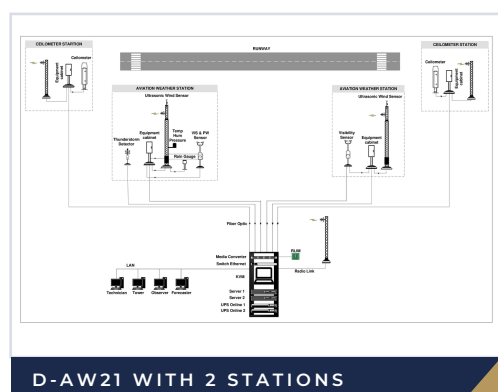
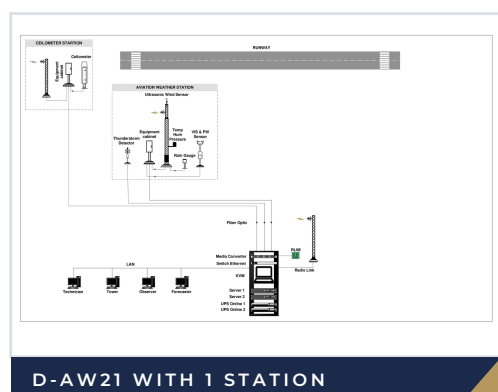
ACCURATE.
RELIABLE.
COMPLIANT.

Aviation weather observation system compliant with ICAO and WMO standards, enabling safe, efficient flight operations — from regional airfields to international CAT III airports.

DELIVERED BY KRAUSS AVIATION SYSTEMS · POWERED BY DICOM TECHNOLOGY

Description

The D-AW21 is a state-of-the-art Automatic Weather Observing System (AWOS), developed by DICOM HME and delivered end to end by KRAUSS Aviation Systems. Fully compliant with ICAO and WMO standards, its modular, flexible architecture fits a wide range of airports — from heliports and regional airfields to international CAT I, II and III airports. It delivers highly accurate meteorological data essential for safe flight operations and supports cost-effective deployment and future system expansion.



System Overview

- ▶ Automatically collects meteorological data through dedicated sensors along runways — wind, temperature, humidity, pressure, visibility and weather phenomena — to support aircraft during take-off and landing.
- ▶ Generates and distributes METAR/SPECI, local routine and special reports in full compliance with ICAO and WMO practices.
- ▶ Supports fully automatic and semi-automatic operation modes, with tailored user interfaces for air traffic controllers, pilots and meteorologists.
- ▶ Provides multi-language support, including English and additional national or local languages as required.
- ▶ Continuously updates real-time weather conditions and issues automatic alerts for significant events such as strong crosswinds, low visibility, heavy rain or thunderstorms.
- ▶ Built for long-term, reliable operation under harsh environmental conditions, with built-in flexibility for future upgrades and integration.



ICAO / WMO COMPLIANT



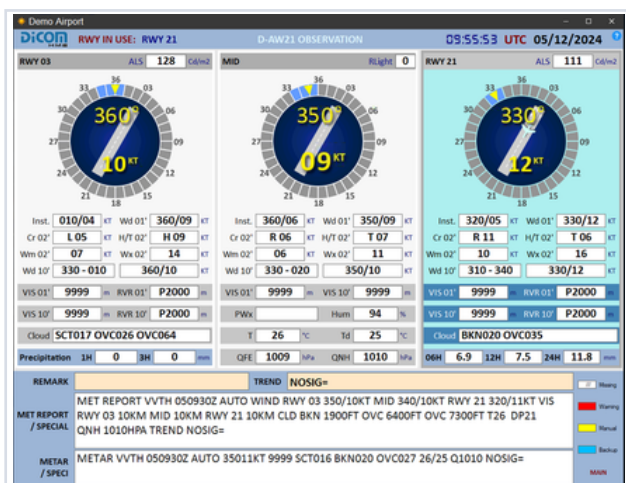
MODULAR & SCALABLE



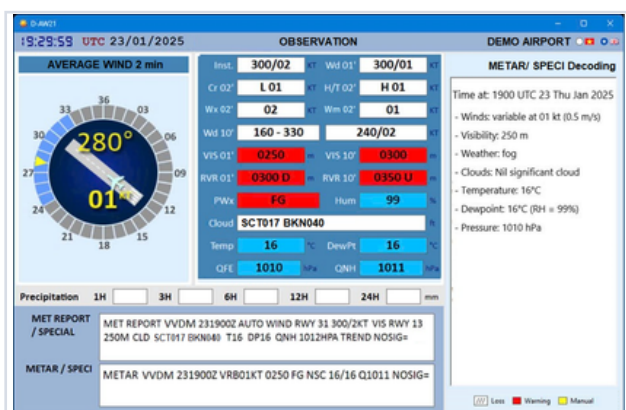
HIGH ACCURACY & RELIABILITY



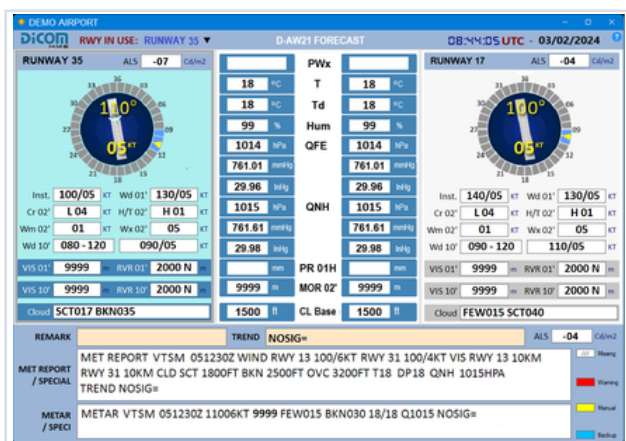
FUTURE-READY DESIGN



USER INTERFACE · 3 STATIONS



USER INTERFACE · 2 STATIONS



USER INTERFACE · 1 STATION

Key Features

System & Data Monitoring

Monitors servers, workstations, sensors and data flows; alerts users to faults or abnormalities in real time.

Data Collection, Processing & Storage

Continuously ingests, processes, displays and stores observations and reports to ICAO/WMO standards or specific user requirements.

Observation Display & Review

Instant access to real-time data, 2-min / 10-min averages and historical data for trend analysis.

Automated Message Generation & Distribution

Generates and distributes METAR/SPECI via AFTN/AMHS or other networks under ICAO/WMO regulations.

User Access & Configuration

Role-based access control and flexible configuration options for varied operational needs.

Manual Input & Supplementary Information

Manual entry of missing data, corrections, wind-shear alerts, REMARKs and TREND forecasts.

Weather Alerts & Warnings

Alerts for hazardous conditions affecting flight safety, based on pre-set operational thresholds.

Auto Data Deletion

Automatic removal of outdated data based on storage policy or system settings.

Key Benefits

- ▶ Robust, stable operation under extreme weather conditions
- ▶ Accurate ICAO/WMO-compliant reporting supports safe air operations
- ▶ Automatic weather alerts enhance situational awareness
- ▶ User-friendly, multi-language interface with custom configuration
- ▶ Comprehensive remote system monitoring and control
- ▶ Flexible design for diverse airports — efficiency and budget optimised

D-SL21 DATA LOGGER

SMART. RELIABLE. CONNECTED.

The D-SL21 Data Logger is a high-performance data acquisition and monitoring device engineered for aviation, meteorological, and industrial applications. It provides flexible connectivity, real-time data logging, and remote communication in a compact and robust design.



**MULTIPLE
SENSOR SUPPORT**



**FLEXIBLE
CONNECTIVITY**



**REMOTE DATA
TRANSMISSION**



**REAL-TIME
MONITORING**



**RUGGED &
RELIABLE DESIGN**



SPECIFICATIONS

ANALOG SENSORS

12 analog sensor channels supporting the following types:

- Voltage: 0-1 VDC, 0-5 VDC.
- Current: 0-20 mA, 4-20 mA.

ADC resolution: 24 bits.
Sampling rate: 1 second to 24 hours.
Measurement error: 0.1% of the measured value.
Sensor excitation channels: support different excitation channels (power) with varying accuracy.

- 1 channel 12V, error $\pm 0.3V$.
- 1 channel 2.5V, error $\pm 0.1V$.
- 1 channel 5V, error $\pm 0.1V$.

DIGITAL SENSORS

4 digital sensor channels (Digital Input).
Supported modes: counting, frequency measurement.
Maximum supported speed: up to 100kHz.
Input voltage: 0-12 VDC.
2 Output

SMART SENSORS

***SDI-12**
1 SDI-12 connection port supporting multiple sensors.

***Serial Sensors**
4 RS232 connection ports, 1 RS485 connection port supporting multiple sensors.
Baudrate: 300 to 115200 bps.

CALCULATION CHANNELS

Supports synthesis and calculation of values obtained from sensors using mathematical and meteorological formulas according to user requirements. Supported formulas include QFE, QNH, Dewpoint, Average, Min/Max, etc.

DATA STORAGE

Internal memory: 4GB.
Memory card slot: supports up to 32GB memory cards.

INCLUDED ACCESSORIES

D-SL21 Data Logger.
User manual.
USB signal cable for computer connection.

COMMUNICATION INTERFACES

*USB-Type C Port

1 USB-Type C port for device configuration and connection to a computer.

*RS232 Serial Port

1 RS232 port for serial data transmission to peripheral devices.
Data transfer rate: 115200 bps.
Supported protocol: ASCII.

*LAN Port

1 Ethernet port with 100Mbps speed.
Supported data transmission protocols: TCP/IP, FTP.

*Wireless Network

Module Built-in 3G/4G/LTE mobile network module for remote data transmission.
Number of SIM slots: 1.
Antennas: 2 SMA ports.
Supported frequency: 700 MHz - 2100 MHz.

SYSTEM

*Display and Keypad (optional)

Type: 144x64 LCD Graphic display.
Function: Monitor system parameters, sensor data, basic configuration.
Keypad: 4 scroll and function keys.
Indicator lights: 2 indicator lights for power status and system errors.

*Real-Time

Clock Accuracy: ± 1 minute per year.
Power supply: Lithium battery with up to 5 years of operation.

*Power Supply

Operating voltage range: 10 to 30 VDC.

*Size and Operating Environment

Enclosure material: Powder-coated or anodized aluminum.
Dimensions: 233 x 109 x 70 mm.
Net weight: 1.3 kg.
Operating temperature: -20°C to 60°C.
Humidity: 0% - 100%, non-condensing.



ACCURATE. RELIABLE. COMPLIANT.

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D-AW21 Automatic Weather Observing System - developed by DICOM HME
Delivered, integrated and supported in Europe, Africa and Southeast Asia by KRAUSS Aviation Systems