PRECIPITATION IN 3D

3D Stereo Disdrometer, accurate precipitation analysis with real-time particle image processing.

The 3D Stereo Disdrometer enables highly precise precipitation analysis using state-of-the-art stereoscopic measurement technology. It detects and classifies precipitation particles with high accuracy and provides real-time information on particle type, particle size distribution, intensity, quantity, and fall velocity.
The 3D Stereo Disdrometer is ideal for meteorology, research, traffic safety, and hydrology.
Classification is performed in accordance with the WMO's SYNOP codes.

Full Range of Precipitation

Measures precipitation type, intensity and amount.

0.08 to 40 mm Particle Detection

Measures a wide range of precipitation particle sizes.

Low Maintenance

Robust design with minimal maintenance requirements.

Heated Stereo Camera

Integrated heated camera modules for reliable operation.

True 3D Stereo Measurement

Stereoscopic particle detection for enhanced spatial resolution.

>99% Precipitation Type Identification

High classification accuracy based on stereoscopic particle analysis.*

Real-Time Particle Documentation

Particle images transmitted directly within the measurement telegram for image-verified precipitation measurement.**

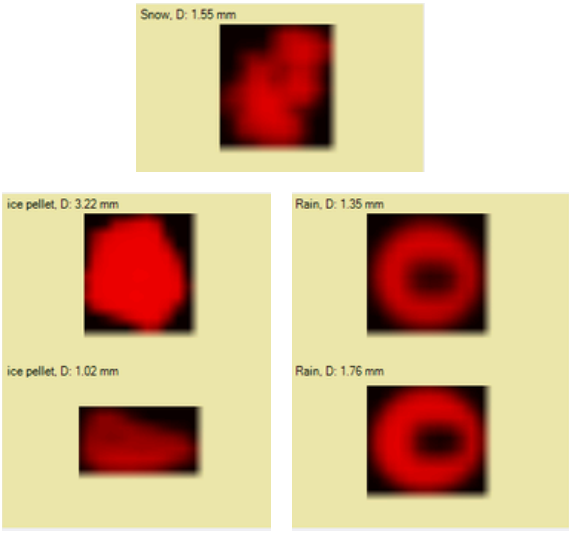
Order No. 5.4120.xx.xxx

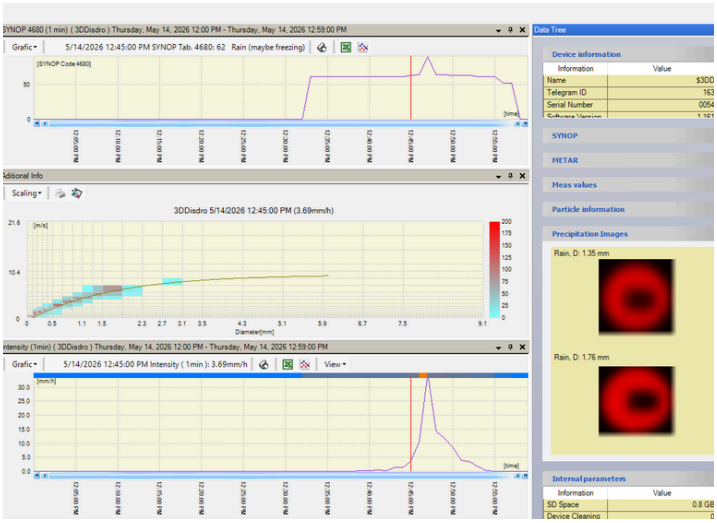
2026 UPDATE

THE WORLD OF WEATHER DATA

3D Stereo Disdrometer

Particle images are transmitted directly within the measurement telegram, providing image-verified precipitation measurement and visual confirmation of every detected precipitation event.





Thies CLIMA Viewer Software

All Precipitation Types – Quantified: Measures precipitation type, intensity and amount, including water equivalent of solid precipitation.

True 3D Stereo Measurement: Measurement of particle size and fall velocity distributions for detailed precipitation analysis.

Extented Particle Detection Range: Detects particles from 0.08 mm to 40 mm, including fine drizzle events.

High Classification Accuracy: Identifying precipitation classes (WMO SYNOP codes) compared to human observers (>99%), based on stereoscopic particle analysis.*

Non-Hydrometeor Detection: Improved discrimination of insects, debris and other non-precipitation objects by image based verification.

Wind-Resistant Analysis: Reliable precipitation analysis even in windy conditions.

Advanced System Architecture: Embedded Linux system with remote access via SSH, SFTP and SCP.

Viewer Software: Visualization and evaluation of precipitation measurement data.

*Depending on precipitation conditions, particle characteristics.
** Particle images are only available for particles that fall within the focus area, upto 4 images per telegram.

Optional: Heating for arm and housing

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3D Stereo Disdrometer

Viewer Software

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