VIDEO DISTANCE MEASUREMENT

Overview

Our Video Distance Measurement System (VDMS) provides an easy to use digital solution for measuring the distance of a ski jump.

The key component of the system is an array of four high-definition video cameras, assembled in a line beside the jumping hill and covering the entire landing zone. These cameras provide a visually clean video recording of the actual landing phase, regardless of any differences in the jumping distance.

A dedicated software component allows the immediate frame-wise revision of the captured landing phase. The software operator initially just needs to pick up the appropriate frame showing the actual moment of landing.

As the camera is specifically calibrated, the jumping distance can then easily be determined using a software-aided measuring function. When properly calibrated, a measuring accuracy of 0.5 m can be achieved, which is in accordance with the FIS regulations. An experienced operator can easily determine the jumping distance within 4 - 6 seconds.

The system additionally features an interface to the Manual Distance Terminal by SWISS TIMING. It can also export distance data, landing pictures and even the landing sequence to different programs. All landing sequences and the corresponding athlete data are stored. One technician and one operator are necessary to run the system. FIS Ski Jumping competitions require the system operator to have a valid FIS license to measure the distance.
SYSTEM SCHEME

TOP FEATURES
- Digital solution for video-based distance measurement
- Integrated HD video capturing system
- Fiber optic video transmission
- Synchronous capture of four video streams
- Uncompressed video processing for highest quality
- Remote controllable camera
- Easy to handle software component
- Additional backup- and archiving features
- In accordance with FIS regulations

CAMERA SPECIFICATIONS
- HD video output allowing:
  - 1920x1080i or
  - 1280x720p
- 15 – 25m field of view per camera
- Optical 10x zoom (F1.8 – F2.1)
- Max. 1/10,000s shutter speed
- Automatic or remote controls:
  - Manual iris: F1.8 – F26
  - Manual gain control: -3dB – +18dB
- Infrared mode

SCOPE OF SUPPLY
- Operator PC
- 24”-HD-LCD-Display
- Fiber-To-Video Converter Box
- Fiber-To-Network Converter Box
- HD-Video Camera, incl. Housing & Mounting
- Fiber-cable drums

OPTIONAL COMPONENTS
- Spare HD camera
- Transport case for PC and Converter Boxes
- Transport case for cameras
- Backup System (additional PC)
- Battery Packs for camera
- UPS system

SOFTWARE SCREENSHOT

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