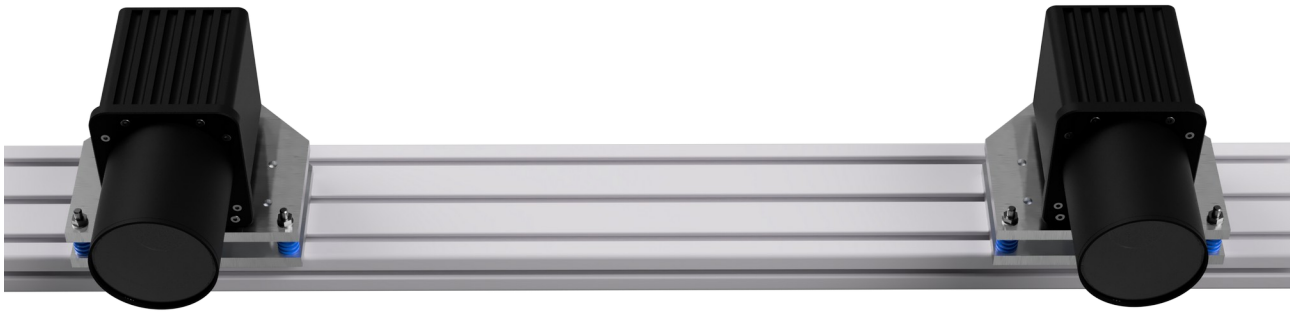
# FIS 1000

## INLINE SURFACE INSPECTION FOR FILMS AND WEB MATERIALS

R.A.M. Realtime Application Measurement GmbH



### PRECISION IN WEB INSPECTION

The FIS 1000 detects gels, black specks, holes, insects, oil stains and many other contaminants in running films and web materials in real time – for film, biaxially oriented film, nonwovens and textiles. The series comprises the Surface Camera, Tandem, Biaxial and Economy versions.

## Key Features

- **Four versions:** Surface Camera (one camera per inspection point), Tandem (two webs, one camera each, displayed side by side in CAMEN), Biaxial (for MDO/TDO, e.g. BOPP, BOPET) and Economy (fan system instead of air conditioning or water cooling, outputs not decoupled).
- **Comprehensive defect detection:** Gels, black specks, holes, insects, oil stains, contamination, burn marks, fish-eyes and, in nonwovens, drips, thin spots and wrinkles.
- **Adaptive LED lighting:** Programmable LED longfield lights for transmitted light, reflected light, bright field or dark field – matched to the material and defect type.
- **Process synchronization:** Digital inputs and outputs for automatic recipe selection, roll change and encoder signals, inspection standby, alarm lamp and line stop.
- **Defect map and classifier teach-in:** Continuous wallpaper view of all defects; the operator classifies defects by type using real defect images, with any number of size and type classes.
- **Open data format:** Log data as CSV file, via TCP/IP or in customer-specific formats; evaluation via either vSTAT or PAT.

## TECHNICAL SPECIFICATIONS

| Category | Property | Specifications |
|---|---|---|
| **General** | Versions | Surface Camera · Tandem · Biaxial · Economy |
| | Machine dimensions | order-specific |
| | Weight | order-specific |
| | Installation | By an R.A.M. service technician on request |
| **Process** | Max. web width | 10.50 m |
| | Max. web speed | depends on the line rate of the camera |
| **Software** | CAMEN | Version 12 |
| | vSTAT / PAT | Version 1 – either vSTAT (internal SQL database) or PAT (file-based) |
| **Camera** | Interface | CoaXPress 2.0; Economy: CoaXPress 2.0 or GigE Vision depending on version |
| | Resolution | 4K, 8K or 16K |
| **LED** | LED length | Customer-specific, matched to the web width |
| | Illuminance | up to 500 000 lx |
| **IPC** | Main memory (RAM) | 16 GB |
| | SSD | 1 TB |
| **Control cabinet** | Cooling | Air conditioning or water cooling; Economy: fan system |
| | Outputs | Decoupled; Economy: not decoupled |
| **Environment & installation site** | Operating temperature | 0–45 °C |
| | Humidity | 5–95 % (non-condensing) |
| | Site requirements | Flat, load-bearing, clean and dry; indoor installation only. |
| **Electrical supply** | Voltage & frequency | 230 V · 50 Hz · 1~ |
| | Power consumption | order-specific |
| | Connection type | IDC |
| **Communication** | Network | RJ45 Ethernet connection (industrial network, segregated segment recommended) |
| | Data storage | Either stored locally in an internal SQL database with reports via vSTAT or file-based with reports via PAT |
| | Operation | Touchscreen with on-screen keyboard; mouse and keyboard included |

### Conformity and documentation

The system is Class A equipment in accordance with EN 55011 and EN IEC 61000-6-4. It is intended for industrial electromagnetic environments and is not intended for use in residential environments.

The system bears the CE marking and conforms to Directive 2014/30/EU (electromagnetic compatibility), Directive 2014/35/EU (low voltage), Directive 2011/65/EU (RoHS) and Directive 2012/19/EU (WEEE).

Supplied documentation: operating instructions MAN-FIS1000-EN-001, CAMEN user manual MAN-CAMEN-EN-001 and, depending on the selected module, the vSTAT user manual MAN-VSTAT-EN-001 or the PAT user manual MAN-PAT-EN-001.

All data refer to the standard configuration. Values are nominal unless a tolerance is stated. Subject to technical change without notice; this datasheet is not a guarantee of properties.

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