



SENTINEL GOLD

SENTINEL GOLD IS AN ADVANCED QUALITY CONTROL SYSTEM DESIGNED FOR CONTINUOUS INSPECTION OF PRINTED WEB MATERIAL

Sentinel Gold is equipped with one high-speed line-scan camera that continuously acquires high resolution images across the entire web.

Thanks to this technology, the system allows the visualization and inspection of multiple parallel labels of the same reel within a single image.

Sentinel Gold is designed to detect a wide range of printing defects, including missing color, spots, substrate damage, remaining matrix, splices, color deviation, text defects, hickies, poor-quality codes, and color misregistration.

SPECIAL DIFFUSE LED ILLUMINATOR

Sentinel Gold is suitable for a wide range of substrates and materials, including highly reflective foils. The advanced LED dome illuminator is designed to support image quality optimization on special finishing such as hot and cold foil, embossing, metallized substrates, and transparent films.

FAST JOB SETUP

Sentinel features fast and simple job setup. New jobs can be started through a highly automated process, with most steps completed by pressing a single button.

Typical setup time is less than 10 seconds.

The interface is intuitive, supports touchscreen operation and can be operated without requiring specialized computer knowledge.

Inspection system for LABELS and NARROW-WEB material



INSTALLATION ON PRINTING PRESSES

When installed on the printing press, Sentinel enables real-time quality inspection of the printing process. When defects are detected, operators are promptly alerted, helping to reduce waste.

INSTALLATION ON REWINDING MACHINES

When installed on the rewinder, Sentinel can monitor the quality of the print batch. When defects are detected, the system can automatically slow down and perform a position-controlled stop, facilitating inspection and handling by operators.

When installed on the rewinder, Sentinel helps identify non-conforming products during production, thereby reducing the risk of such products being delivered to customers.

SENTINEL GOLD

STANDARD FEATURES

- Easy integration onto all common printing presses and finishing machines
- Easy to learn and easy to use GUI interface
- All operations can be carried out using the touchscreen
- Simple and quick setup
- Multiple areas with independent sensitivity settings
- Masking areas
- Stable and reliable defect detection performance
- Live web viewing with digital zoom and full repeat navigation
- Defects are clearly displayed to the operator with toggle feature
- Hold and Zoom of the defective image
- Different display modes: defect detection and defect history
- Full defects report and automatic storing of all production process data
- Different login levels
- Alarm on repetitive defects
- Supports automatic web offset compensation, which in certain applications can reduce the need for a web guiding system
- Scalable resolution (depending on speed)
- Possibility to inspect booklet labels
- Connection to a flagger device
- Automatic shutdown

OPTIONS

- In-line Delta E spectral measurement and color control
- Printing Format length measurement
- 1D and 2D Barcodes reading
- Grading of 1D and 2D variable codes can be performed in accordance with ISO or IEC standards.
- OCR (Optical Character Recognition) and OCV (Optical Character Verification)
- Variable Data comparison against a database list
- Signal tower with LED indicator
- Second screen for large web view
- Workflow link
- Data and defects information saved on a dedicated server
- Custom illuminator for special ink
- One year of remote support and software upgrades
- Pro support: on-site computer warranty



TECHNICAL DATA

DESCRIPTION	Banda	STEP OF ENCODER = 1							STEP OF ENCODER = 2						
		RisX	RisY	Vmax	DM-ZU	DM-ZU	DM-ZS	DM-ZS	RisX	RisY	Vmax	DM-ZU	DM-ZU	DM-ZS	DM-ZS
Sentinel GOLD	max	mm/px	mm/px	m/min	mm ²	mm	mm ²	mm	mm/px	mm/px	m/min	mm ²	mm	mm ²	mm
Sentinel G-4K 350	350	0,09	0,06	120	0,04	0,24	0,16	0,46	0,09	0,12	240	0,09	0,33	0,33	0,64
Sentinel G-4K 450	450	0,11	0,06	120	0,06	0,26	0,21	0,51	0,11	0,12	240	0,11	0,37	0,41	0,73
Sentinel G-4K 550	550	0,14	0,08	160	0,09	0,34	0,33	0,65	0,14	0,16	320	0,18	0,48	0,67	0,92
Sentinel G-4K 670	670	0,17	0,08	160	0,11	0,37	0,40	0,72	0,17	0,16	320	0,22	0,52	0,81	1,01
Sentinel G-8K 350	350	0,05	0,06	120	0,02	0,17	0,08	0,32	0,05	0,12	240	0,04	0,24	0,16	0,46
Sentinel G-8K 450	450	0,06	0,06	120	0,03	0,19	0,10	0,36	0,06	0,12	240	0,06	0,26	0,21	0,51
Sentinel G-8K 550	550	0,07	0,08	160	0,04	0,24	0,17	0,46	0,07	0,16	320	0,09	0,34	0,33	0,65
Sentinel G-8K 670	670	0,08	0,08	160	0,05	0,26	0,20	0,51	0,08	0,16	320	0,11	0,37	0,40	0,72

OPTIONS

Double monitor	PRO-Support	Auto shutdown	PDF Report	Format measurement	Multiple areas	Barcode DataMatrix OCR	Control from database	PDF Comparison
Option	Option	Yes	Yes	Option	Yes	Option	Option	Option

- Number of cameras: 1
- Camera type: trilinear line-scan camera 4096/8192 px
- Color variation (DeltaE measurement): 5

Banda: web width
RisX: resolution along X direction
RisY: resolution along Y direction

Vmax: maximum speed

DM-ZU (mm²): Minimum defect in uniform area in square millimeter

DM-ZU (mm): Minimum defect in uniform area in millimeter (we assume to have a defect like a dot)

DM-ZS (mm²): Minimum defect in structured area in square millimeter

DM-ZS (mm): Minimum defect in structured area in millimeter (we assume to have a defect like a dot)

Technical data and system specifications refer to the state at the time of printing. We reserve the right to modify them in the interest of a continuous program of further development.