



## Pin Hole Detection // Type EOK-CR



## Pin Hole Detector

Backlight inspection system **EOK-CR** designed for detecting microtears in deep-drawn aluminum or laminated foil materials and in aluminum foil before filling process.

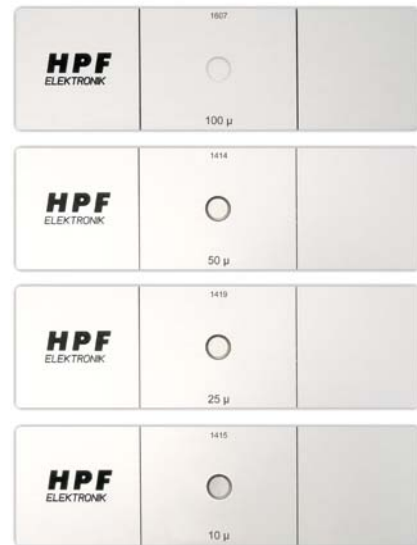
The formed aluminum laminate is illuminated by a specially designed row of LEDs. Highly sensitive sensor elements in the receiver register light passing through a tear. If the Tear Detection Unit recognizes the presence of a tear when evaluating the signal, it indicates this visually on the device front panel and sets the appropriate outputs. Constant illumination over the full width of the scanning field is assured through the use of special high-constancy transmitter modules. The new, completely revised version is micro-controller-controlled and provides easy operation and additional functions. The measurement range is set by using

a keypad. All parameters can be displayed on a two-line display. You can also transfer statistical data via a serial port using a PC. The device is self-monitoring, i.e. if a transmitter fails, the „ready-to-operate“ status display disappears and the internal relay drops out. The transceiver elements together with the evaluation electronics are housed in a compact, highly rugged aluminum case. The Tear Detection Unit is suitable for retrofitting in most machines due to its compact dimensions. The transmitter is directly secured to the foil guideway by two fastening bolts as standard, with the receiver secured beneath it. For light transmission, a slot must be milled across the full width of the scanning field transverse to the foil transport direction. A stabilized 24 VDC power supply is required to avoid malfunctioning or damaging the electronics.



A suitable 230 VAC/24 VDC power supply unit is included in the scope of supply. The precision lithographic made calibration gauges are used to check the configuration of the Tear Detection Unit for specific tear sizes. A 100 µm calibration gauge is included in the scope of supply. This size is set by default in most cases. Additional matrices for special applications can be supplied in sizes ranging from 10 to 140 µm. With a highly sensitive setting, the unit will reliably detect tears down to 10 µm.

Picture: Example of certificated calibration gauges.



## Technical Data

### Description

- Tear detection down to 10 µ
- Very easy to operate
- Unit is self-monitoring
- Several standard sizes available
- Available calibration gauge sizes: 10, 25, 35, 70, 100 und 149 µm
- Statistics can be evaluated by PC
- Foil width: 160 to 380 mm, special design on request
- Also suitable for retrofitting

### Standard widths

Type	Scanning field width	Case width
EOK-CR-200	max. approx. 140 mm	200 mm
EOK-CR-280	max. approx. 200 mm	280 mm
EOK-CR-320	max. approx. 220 mm	320 mm
EOK-CR-380	max. approx. 260 mm	380 mm
EOK-CR-420	max. approx. 320 mm	420 mm
EOK-CR-430	max. approx. 360 mm	430 mm

### Accessories

Calibration gauges for sensitivity adjustment: Lithographic made stainless steel foil, mounted in aluminum holder, available hole sizes 10, 25, 35, 50, 70, 100, and 140 µm.

Shift register, standard Eurocard (5 U) for signal propagation, up to 100 machine operating cycles for 8 blister packing lines, with special functions.



## Innovative Company with worldwide connections

Innovative technology and the excellent quality of **HPF Elektronik's** Inspection Systems are successfully positioned within pharma, food and cosmetics companies all over the world.

Groundbreaking developments like the Pinhole Detection Unit for formed aluminum foil, the very first Illumination for Camera Systems with white LEDs, development of high precision camera systems and software solutions for a complete traceability (Track & Trace) make HPF's know-how indispensable for many companies in order to be able to manufacture optimal products securely and economically.

Reliable inspection and observation of fillings and their packaging, make the quality of contents and packaging visible and help significantly with meeting quality standards. High requirements of the pharmaceutical industry like e.g. GMP, EMV guidelines are just as easily fulfilled by HPF's Systems as the requirements of the FDA (cfr 21 Part11) and the demand for seamless validation. All Systems are customized to all individual requirements without problem and can also be integrated into your packaging line retroactively.



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