

PULP AND PAPER

KPM Sheet Break Detector - KB2

Testing and industry-specific instruments



With hundreds of installations worldwide, the KPM Sheet Break Detector - KB2 is recognized as the best sheet break detector on the market. The non-contact sensor is placed above or under the web to be monitored. KPM KB2 is suitable for dirt, steam and high-temperature installations or where space is limited. The air-purged sensor head stays clean while monitoring for sheet breaks in the harshest environments.

RGB and infrared light measurement

The KPM KB2 has RGB or infrared light sources to perform superiorly on all paper and board grades and applications, regardless of colors. The RGB color measurement can handle all sheet, wire and felt colors providing reliable break detection. In addition to open-draw applications, the breaks can be detected against felt, wire, or even against a cylinder.

Fast break detection

KPM KB2's digital signal processing technology measures all signals at a thousand times per second. KPM KB2 is immune to ambient light changes by measuring the backlight intensity. The break detection delay is a minimum of 15ms. With digital filtration, users can select how many measurement cycles are used for break alarm.

Easy to set up

KPM KB2's large display and logical user interface allows easy setup of the break detection by selecting the measurements that give the highest signal difference. Break and maintenance alarms are wired to the PLC or DCS.

KPM KB2 has optional color measurement PC software for monitoring and includes a data collection feature.

Designed for harsh environments

KPM KB2 is very reliable even in a high humidity environment. While the sensor head is exposed to high temperatures, the electronics unit is mounted outside the machine hood using fiber optics cables.

Specifications	
Ambient temperature	Sensor head and fiber optic cable: -10–180° C (15–356° F) Electronics unit: -10–60° C (15–140° F)
Fiber optic cable	KPM KB2/6: 6 m (20 ft), KPM KB2/9: 9 m (30 ft) or KPM KB2/12: 12 m (40 ft)
Fiber optic cable conduit	Requires flexible airtight conduit 19 mm (3/4") ID min, available as an option
Conduit connection	19 mm (3/4") BSP
Installation	Sensor distance from the web 5–30 cm (2–12")
Led pulse frequency	1 kHz
Power supply	90–264 VAC, 50/60 Hz or 24 VDC
Power consumption	15 W
Enclosure class	IP 66 (Nema 4x)
Purge air connection	Dry instrument air, 6–4 mm (1/4") connector, normal consumption 80 l/min (21 gpm)
Digital outputs	2 × closing or opening contact max. 250 VAC, 2A; 220VDC, 2 A for break signal and maintenance alarm
Alarm output delay	Min. 15 ms from the actual break
Analog outputs	Optional 3 pcs 4–20 mA max 600 Ω (ohm), Isolated
Dimensions (L × H × W) and weight	Electronics unit: 323 × 237 × 70 mm (12.7 × 9.3 × 2.8"), 3 kg (6.6 lbs) Sensor head: Ø33 mm (1 1/4") SS316, pipe 1500 mm (59") long, 4 kg (9 lbs)