

KB² Fibre-Optic Sheet Break Detector

KPM Products | Paper Machine Measurements



The KB² system is proven with hundreds of installations around the world, and set as a mill standard for many customers.

KB² Fibre-Optic Sheet Break Detector is the new generation sheet break detector that with the latest RGB technology enables more light with effective power LED. This allows longer detection distance and operation in high ambient light condition. KB² is the perfect choice for installations in unclean, steamy and high temperature environments, or where the space is limited.

KB² Fibre-Optic Sheet Break Detection system is designed to monitor sheet breaks in harsh environments. The non-contact sensor is placed above or under the web to be monitored. The system is proven with hundreds of installations around the world, and set as a mill standard for many customers.

Thanks to the air purged system in the sensor head, keeping the optics free from dirt, steam or high temperatures, KB² is suitable for installations in harsh environments or where the space is limited. In addition to open-draw applications the breaks can be detected against felt, wire, or even against a cylinder.

RGB Colour and IR measurement

KB² has both, RGB or Infrared light sources to perform superiorly with all paper and board grades and applications regardless of colour. The RGB colour measurement can handle all sheet, wire and felt colours providing reliable break detection.

Fast break detection

KB²'s digital signal processing technology measures all signals a thousand times per second. KB² is immune to ambient light changes by measuring the backlight intensity. The break detection delay is very short, a minimum of 15 ms – with digital filtration the user can select how many measurement cycles should be used for break detection.

Easy to set up

KB² unit's large display and logical user interface allows easy setup of the break detection by selecting the measurements which give the highest signal difference. Break signal and maintenance alarm are wired to the PLC or DCS. The 4–20 mA current outputs for the signal levels are also available as an option.

Electronics located outside harsh environment

KB² is very reliable even in a 100% humidity environment. While the sensor head is exposed to high temperatures, the electronics unit is mounted outside the machine hood using a fibre optic cable. Fibre optics is available in lengths of 6, 9 and 12 meters.

The fibre optic cable is located inside the straight stainless steel sensor head, which is 1.5 m long. Between the sensor head and the display unit the fibre optic cable is located inside the stainless steel flexible conduit. Purge air is lead trough the conduit to keep the sensor head window open.



KB² Fibre-Optic Sheet Break Detector is designed to handle all kind of break detection. With RGB-colour based detection it can detect different colours and then separate wire/felt reflection easily from the paper.

Benefits

- Non-contact optical sensor
- Reliable in harsh environments
- Air purge system
- Not affected by dirt, steam or high temperatures
- Fast break detection
- Handles all paper and board grades and applications regardless of colours
- Detects breaks even against a cylinder
- Easy to setup
- Large graphical display and logical user interface
- Proven with hundreds of installations worldwide

For more information, please contact:

ABB OY, KPM

FIN-87100 Kajaani

FINLAND

Tel: +358 10 22 11

E-mail: fi-kpm@fi.abb.com

www.abb.com/pulpandpaper

The information provided in this data sheet contains descriptions or characterizations of performance which may change as a result of further development of the products. Availability and technical specifications are subject to change without notice.

© 2016 by ABB Inc.