

BST Camera for Digital Detection of Web Edges and Web Center-Lines

CCDPro

Start Up
Quick and easy alignment
by integrated graphic display

Operation
Easy operation
using automatic functions



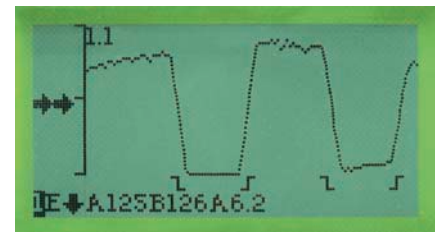
Camera CCDPro for digital detection of:

- Web edges and web center-lines
 - by back lighting of translucent materials
 - by reflected light
- Printed edges or printed lines

The microprocessor-controlled camera CCDPro ensures highest accuracy and ultimate ease of operation thanks to digital signal processing.

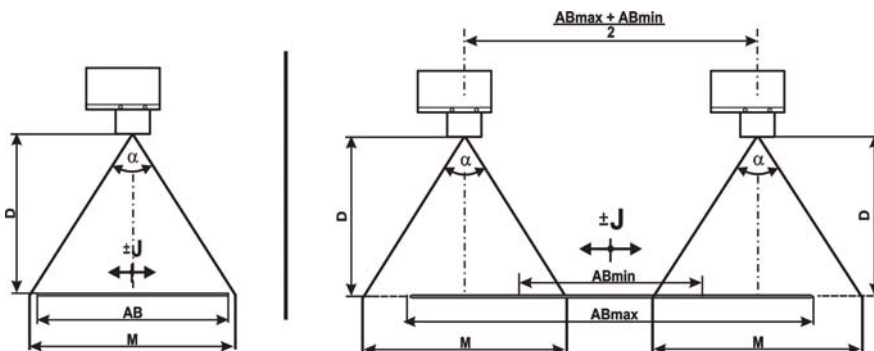
Technical features:

- Highest resolution by microprocessor-controlled CCD chip with 3x 5000 pixels
- Adaptation of the viewing range to the specific application by means of different lenses
- The change of camera parameters as a result of the change of material parameters occurs with the machine running (if necessary). That is how change-over times become unnecessary.
- Plug connection
- Bus systems: CANopen



- Graphic display of the operating mode selected (1 - 4 webs / 1 - 8 edges) as well as the position of the web(s) or edge(s) within the viewing range of the camera

Viewing ranges/viewing distances of the camera CCDPro



AB = maximum working range with guiding to web center-line

D = distance lens to web

M = viewing range

CCDPro / 28

AB	M	D
190 mm	220 mm	200 mm
⋮	⋮	⋮
1750 mm	1800 mm	1500 mm

CCDPro / 50

AB	M	D
300 mm	330 mm	515 mm
⋮	⋮	⋮
1920 mm	1960 mm	2915 mm

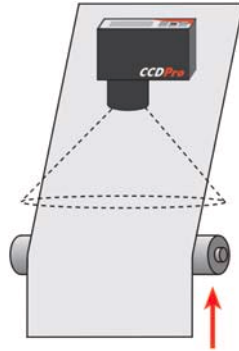
CCDPro

Examples of Application

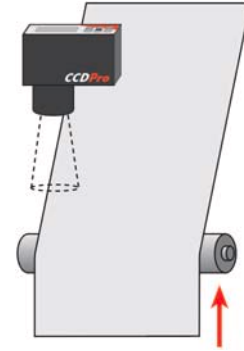
Digital detection of web edges, printed lines or folding grooves with camera CCDPro

Automatic functions:

- Key-operated set-up at the camera itself. The system thereby recognizes automatically whether the guiding function is carried out to edges, edge, web center-line or line
- Fade-out of interfering contrasts
- Compensation of contamination
- White balance set-up to existing illumination
- Centering of the viewing range to the predetermined center-line for camera positioning



Guiding to web center-line with one CCD camera (preferably used for narrow webs).



Guiding to a web edge with one CCD camera.

Technical data

Operating voltage:

24 V DC

Power consumption:

approx. 5 watt

Protection class:

IP 54

Graphic display:

128 x 64 pixels (55 x 27.5 mm)

Viewing range:

minimum 330 mm – maximum 1960 mm, depending on the distance and type of lens (the viewing range may be adapted by suitable lenses)

Resolution:

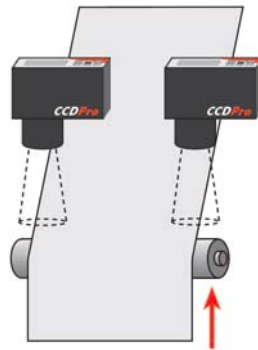
5000 pixels and/or 30000 pixels

Output:

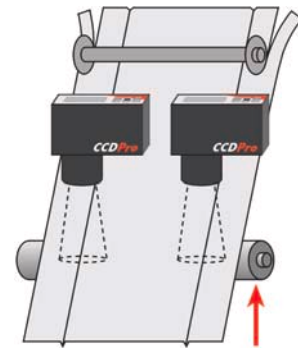
CANopen

Storage of the set-up values:

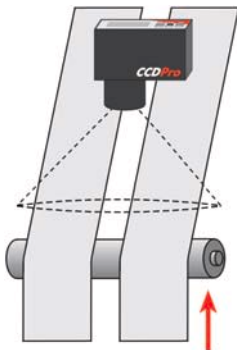
independently of mains supply



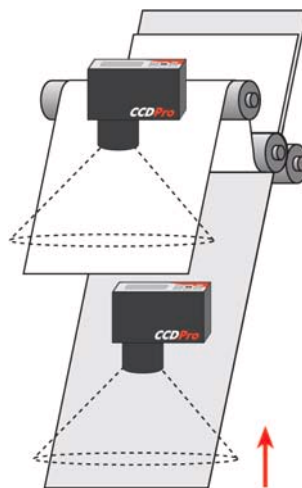
Guiding to web center-line with two CCD cameras (preferably used for wide webs)



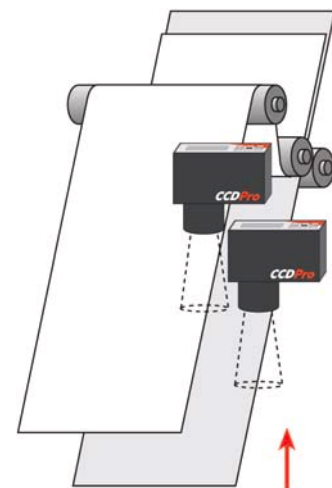
Guiding to web center-line with two CCD cameras. Detection of 2 folding grooves or similar for subsequent edge trimming.



Width measurement and guiding of 1 or 2 stripes of material, using the BST ProLogic module including compensation of material thickness.



Accurately centered assembly (laminating/doubling) of 2 different webs, using two CCD cameras.



Accurately assembly edge to edge (laminating/doubling) of 2 different webs, using two CCD cameras.

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