

CLOSED-LOOP REGISTER

CTC4 & PTC4 SCANNERS

The 4th generation of intelligent scanners developed by DCOS operates in newspaper and commercial printing. As the market competition grows, DCOS is at the forefront, offering market-leading designed products with excellent performance. Our focus is to increase customer efficiency and lower costs with an intelligent closed-loop register system.



The DRCS color-to-color scanner (CTC4) searches, finds and analyzes a specific printed register mark on a running web. The deviation between each individual color compared to a reference mark provides all the information needed to make the required movement of the register motors. To achieve the most effective control loop, these scanners should be mounted as close as possible to the last printing unit.

The DRCS print-to-cut scanner (PTC4) searches, finds and analyzes a specific printed register mark on a running web. The PTC4 scanner calculates the deviations between the register mark and a mechanical reference in the press. The calculation provides all the information needed to make the required movements of the web in both directions. Circumferential web regulations can be accomplished using the main drive motor or an external compensator motor. Side lay movements can be regulated using the following units: reelstand, webguide, or turnbar.

Both scanners use register patterns with minimal dots, and together they cover register applications, such as circumferential and lateral color register control, cut-off control, ribbon control, webguide control and fan-out control.



SPECIFICATION

Camera:	CCD camera	
	High power LED's	250lm
	Frame rate	32fps
Performance:	Maximum operation speed	20m/s
	Accuracy measurement resolution	±0,01mm
	Accuracy Color register handling (CTC4)	±0,01mm
	Accuracy Cut-Off register handling (PTC4)	±0,1mm
	Web oscillations tolerance	±9mm
Register mark:	Standard Mark CTC4 / PTC4	 / 
	Mark size CTC4 / PTC4	Ø0,22 / 0,13mm
	Numbers of individual colors CTC4 (CTC4x2)	8(15) colors
	Min. Clearance (whitespace area)	6x6mm
	Max. Clearance (whitespace area)	10x10mm
	Min. Register range CTC4 / PTC4	±1,5mm / -
	Max. Register range CTC4 / PTC4	±3mm / -
Operation:	Standard Industrial Embedded PC	
	Microsoft Windows® Operating system	
	Standard LCD 22" Wide Touch screen	
	Numbers of operation stations customer choice	
	Real-time monitoring with direction guidance	
Interface:	Ethernet	Cat-6
Certifications:	CE Standard, UL Approved, IP54 Classified	
Environment:	Temperature	0°C – 60°C
Dimensions:	Scanner (l-w-h)	180x80x50mm
	Profile bar (l-w-h)	Adj.x80x60mm
Options:	Motorized profile bar	
	Fan-Out control	
	Front-to-back control	
	Anti-embossing	
	Removable glass cleaning	
	Air-flush protecting surface	
	General collecting beacon	
	Wastegate control	

Specification may change without further notice.

BENEFITS & FEATURES

- **Small, compact and robust design.**
With a maximum height of 60mm the new compact design makes it possible to mount between idle rollers.
- **Auto calibration for different paper qualities and colors.**
Paper colors such as pink and yellow receive automatic filter calibration.
- **Multiple frames per revolution.**
Multiple frames during the startup process result in less wastage of paper.
- **High intensity LED's results in better contrast.**
Optical angle calculations and adjusted intensity results in a higher density tolerance.
- **The scanner reads on an unsupported web.**
The selection of optical lens improves insensitive tolerance.