

# SIMOTION

## Integrated register control

### Registration newly defined

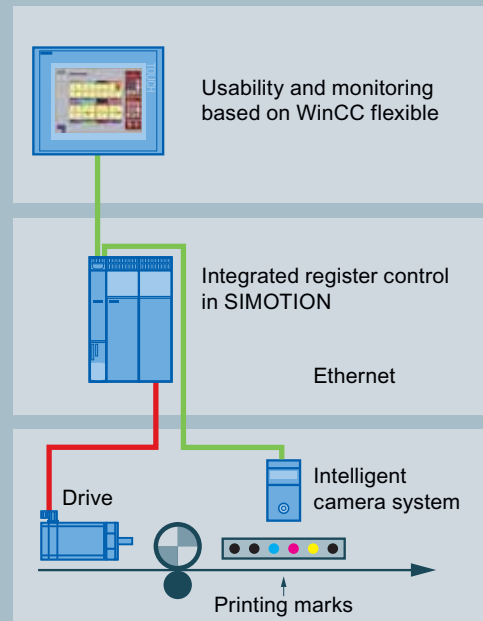
A high-performance register control system is the main requirement for high-quality printing, reduced make ready times and reduced cost of material.

Siemens sets new standards in this field.

We combine innovative camera technology with the SIMOTION control unit and set the stage for fast data communication and less hardware. The process data for the register control algorithm is used directly from the drive control and the control signals are handed over to the drive via internal interface without any delay.

The register control is suitable for all types of printing methods and printing presses. It can be perfectly adapted to any special requirement, thanks to the flexible programming of SIMOTION. An example for this is the dynamic register decoupling (DRD), which was developed for rotogravure printing presses and increases the stability of the register, especially in presses with a high number of print units.

Operation and visualization of the register control is handled by the HMI system with WinCC flexible. The register control can be monitored and operated by every machine control panel. Live pictures from the camera enable the user to adjust and monitor the print marks at difficult lighting conditions, materials and marks.





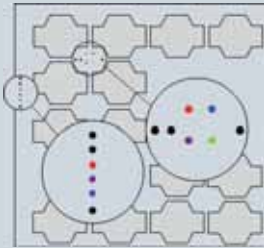

#### Highlights

- Register control is integrated into Motion Control drive system, so no additional control cabinet is required.
- High control dynamic
- For use in rotogravure-, offset-, screen- and flexo printing presses
- Operation of the register control can be integrated into existing machine operating panel
- Adjustable print mark dimensions and print mark shapes
- Parameters for special productions can be stored and recalled.

# Printing

**SIEMENS**

# Technical Data

SIMOTION – Integrated register control		
<b>HMI</b> 	Engineering of masks	WinCC flexible based and standardized mask for operation, the operator interface can be adjusted individually
	Functions integrated in operating interface	<ul style="list-style-type: none"> <li>Administration of production parameters</li> <li>Camera diagnostics</li> <li>Register status display</li> <li>Camera live picture</li> <li>Register fine adjustment</li> <li>Input of print mark geometry</li> <li>Trend display</li> <li>Measured value archive</li> </ul>
	Display	MP 277, MP 377, PC
<b>Camera</b> 	Technology	CCD-camera (charge-coupled device camera) with DSP-processor for analysis of the picture
	Illuminating	Maintenance-free LED-flash-unit integrated into camera housing
	Circuit points	<ul style="list-style-type: none"> <li>Supply voltage 24 V</li> <li>Standard Ethernet for data communication</li> <li>Control signals</li> </ul>
	Dimensions L x H x W	145 x 104 x 73 mm
	Form and size of print marks	<ul style="list-style-type: none"> <li>Dot mark <math>\geq 1</math> mm (Flexo- and rotogravure printing)</li> <li>Dot mark <math>\geq 0,2</math> mm (Offset printing)</li> </ul>
	Maximum web speed	1000 m/min
	Accuracy of measurement	$\pm 10 \mu\text{m}$
	Printed material	Paper, cardboard, plastic film, metal, compound
	Size of measuring window	<ul style="list-style-type: none"> <li>Flexo/rotogravure printing: 40 x 60 mm</li> <li>Offset printing: 8 x 12 mm</li> <li>Other: on enquiry</li> </ul>
	Size of expectation window	$6 \times 6 \text{ mm} \leq \text{expectation window} \leq 30 \times 50 \text{ mm}$
	Distance between print mark and print image	2,5 mm
	Measuring cycle per second	$\leq 22$
	Position of print mark: Print mark geometry is fully parameterizable and the position can be selected at any place within print image	
	Searching for print mark	Automatically
<b>Control: SIMOTION D</b> 	Software package	Control library for SIMOTION standard device, flexible expandable by user
	Control accuracy	$\geq \pm 20 \mu\text{m}$
	Operation mode	<ul style="list-style-type: none"> <li>Web to web</li> <li>Web to cylinder</li> <li>Optimized register control algorithm for printing process</li> </ul>
	Number of printing units	$\leq 30$
	Functions	<ul style="list-style-type: none"> <li>Longitudinal- and side register</li> <li>Cut register</li> <li>Insetter</li> <li>Face to backside printing</li> </ul>

Siemens AG  
 Industry Sector  
 Motion Control Systems  
 Postfach 3180  
 91050 Erlangen  
 GERMANY

Subject to change without prior notice  
 Order No.: 6ZB5611-0AN02-0BA0  
 BR 0608 PDF VOG En / 822 314  
 © Siemens AG 2008

[www.siemens.com/printing](http://www.siemens.com/printing)

The information provided in this brochure contains descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products.

An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

Availability and technical specifications are subject to change without notice.

All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.