

Highest precision and quality.
The world's leading register control system.

eltromat regi_star 20

*Everything under control
Quickly in register*



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Innovative register control

Competition in the printing industry is tough and the requirements are constantly increasing. Precise control of the print image is the key to excellent print products.

Precision from experience

As a leading manufacturer of quality assurance systems for the web processing industries, BST has completed

more than 200.000 installations in over 100 countries worldwide and can look back on more than 60 years experience in the field of register control.

The **regi_star 20** register control system guarantees maximum of automation. Set-up times and waste are significantly reduced, which increases the productivity of the press.

The open system architecture enables simple and flexible machine integration. Targeted system extensions allow the **regi_star 20** to meet your growing requirements at any time. The register control system is suitable for inline printing presses of all common printing processes, processing units and insetter applications.



eltromat regi_star 20 – Your benefits:

- » Minimum waste
- » Fast set-up times
- » Easy handling
- » Maximum quality at highest machine speed
- » Increased productivity
- » High customer satisfaction
- » Reduced production costs

Excellent detection of all print marks.

Thanks to the integrated and powerful **eltromat RSH register mark sensor** even low-contrast print marks are detected securely.

Everything under control thanks to intuitive user interface

The modern touchscreen user interface offers efficient handling of the register control. The clearly structured system provides maximum comfort to the operator.

Do you have special requirements?

Just get in touch with us.
We will be happy to help you.



Find your direct contact
on our website:
bst.elexis.group/en/contact

New

- » **RSH UV sensor** enables reliable detection of ultraviolet varnishes
- » **SMARTData Integration** enables the transfer and analysis of cross-process and cross-system data to optimize production processes

Outstanding technology.

First class performance.

The system features of **eltromat regi_star 20** are matching perfectly to printing applications with the highest demands on quality and performance.

Standard features in the basic system

Even the basic configuration offers you a wide range of intelligent functions for effective register control.

Intelligent eltromat RSH register mark sensor

The adaptive RSH fiber optic register mark sensor of the **regi_star 20** is able to detect even extremely low-contrast and metallized colors as well as transparent coatings. The register mark sensor automatically analyzes the

color spectrum of the reflected light. Because of the large depth of focus of the fiber optics, the user neither have to change the signal amplification nor change the scanning angle. Reliable mark detection is an absolutely non-intrusive process.

Waste reduction under all production conditions

With its fully automatic, optimal scanning technology, **regi_star 20** supports the **eltromat single-head measuring method**. This special technology enables both the sequential control for a fast start of production as well as the key color control for best possible production quality. Providing the different control methods web-web and web-cylinder in any combination and

the high-dynamic control modules optimized for the particular application, a maximum reduction of waste and cost can be achieved.

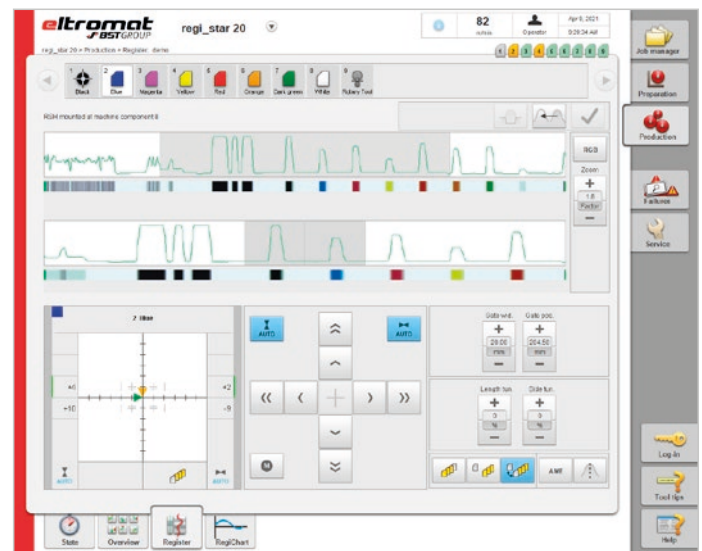
Simple, intuitive operation

The modern user interface, with integrated online help, makes an operating manual not necessary anymore. The operators are quickly familiar with the system. Operating errors are reliably avoided. Time and material are saved. In addition, the set-up time can be reduced, because the subsequent job can be prepared during the current production run.



RegiChart - Register trend display

RegiChart visualizes the register trends of all controls clearly over time or distance. RegiChart supports the operator during the running production to recognize tendency deviations. In this way waste is avoided in advance.



Live image of the register marks

The colored display of the live image of the register marks and the recorded mark signal (oscilloscope view) on the user interface allows the operator to assign even low contrast register marks securely.

eltromat regi_star 20

Options

Register mark sensors for dot marks

In addition to the reliable detection of wedge and block marks by the fiber optic RSH register mark sensors, the system also supports RSC matrix camera sensors for the detection of dot marks.

RegiTouch – semi-automatic register presetting

The RegiTouch function allows to bring back selected register marks quickly and easily into the measuring gate.

Insetter control

For register controlled inseting of pre-printed webs and for electronic transmission adjustment of tools, insetter modules are available.

Determining the printing cylinder positions

The printing cylinder positions of all printing units are required for the make-ready process of the press. The register mark sensors determine and provide this information.

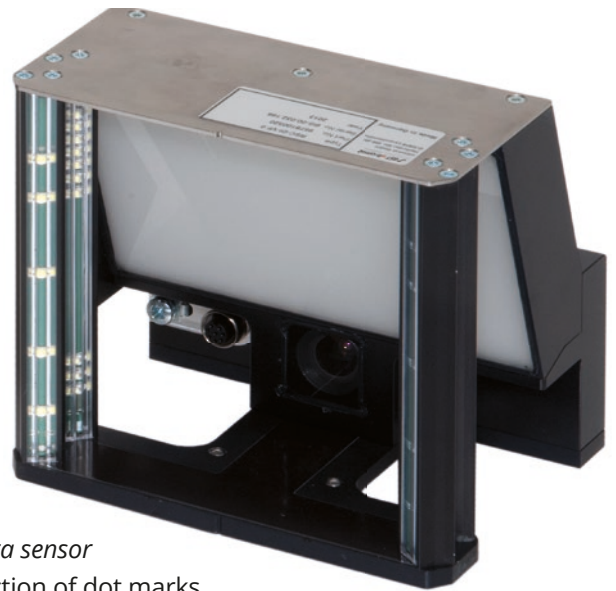
Remote service module

With the help of the remote service module the system can be maintained

easily and quickly by remote diagnosis via the Internet.

pilot_control register precontrol

Using pilot_control, regi_star 20 automatically adapts to changing process conditions in the press, for example, speed changes and reel changes.

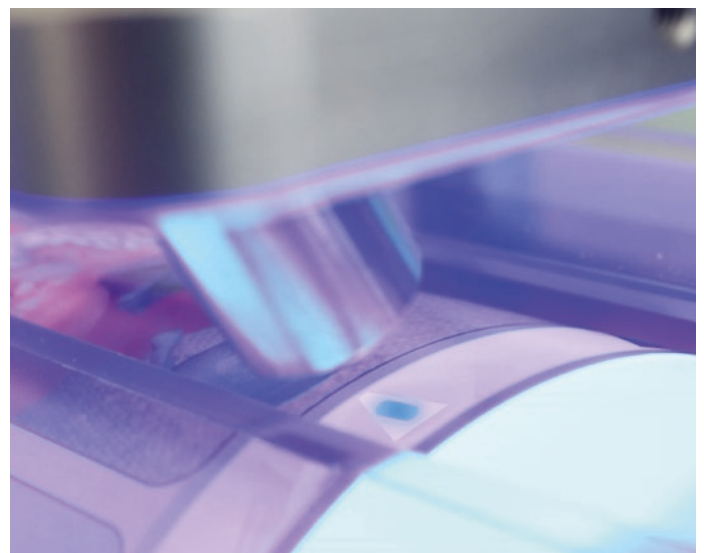


Matrix camera sensor for the detection of dot marks



regi_commander control panel

With the compact regi_commander control panel, register deviation can be detected and corrected directly at the printing or processing unit.



New: RSH UV sensor

The new RSH UV sensor enables detection of ultraviolet varnish and ensures reliable measurement of the UV register in the longitudinal and lateral directions.

Options

Additional operating unit

An additional remote display and control unit can be connected for comfortable operation of the entire system.

Motorized register mark sensor traverses

When the print web runs sideways, the sensor automatically follows the marks, which increases process stability.

Outputs to connect external logging systems

Corresponding outputs and connections for fieldbuses are available for the external acquisition of process data such as register deviation.

Integration interfaces for process data

For the exchange of relevant process data and status information with the machine control system, PROFIBUS and PROFINET integration interfaces are available.

Chart outputs for data logging

Special analog chart recording outputs can be used for external recording and analysis of register deviations.

New: SMARTData Integration

The regi_star 20 is an active component of BST SMARTData. In addition to integration into your ERP system for effective job transfer, the system uses SMARTData to communicate machine and system data that can be used for analysis and process optimization.

External operating keypads

With the help of optional membrane keypads setpoint corrections can be made for several printing units at the same time.



Technical data

System performance

| | |
|--------------------------|--|
| Number of printing units | Up to 20 |
| Maximum web speed | 1.200 m/min |
| Format length | 50 – 6.000 mm |
| Applications | Gravure printing, flexo printing, offset printing, screen printing, processing units |
| Measurement methods | Web-web 1, web-web 2, web-cylinder |
| Control algorithms | Gravure, Offset, Insetter |

Sensors

| | |
|--|---|
| Variants | RSH fiber optic, 1- and 2-channel RSH digital RSH UV RSC matrix camera |
| Measuring resolution | ± 5 µm |
| Measuring frequency | 30 Hz |
| Register marks | Wedge marks, block marks, dot marks, special printing features |
| Materials | Paper, foil, metallized substrates (opaque, transparent, reflective) |
| ATEX approval (only RSH fiber optic sensor) | <Ex> II 2 G [Ex op is T4 Gb] IIB |

System

| | |
|------------------------|---|
| Operating monitor | 19" TFT touch screen, 1280 x 1024 pixel |
| Interfaces | Ethernet, PROFIBUS, PROFINET |
| Digital input signals | 24 V according to EN 61131-2, Type 3 |
| Digital output signals | 24 V, 0.5 A, short-circuit resistant |
| Power supply | 100 – 240 V AC / 50–60 Hz, 4 A |
| Ambient temperature | System: 0 - 40 °C (32 - 104 °F), Sensor: 0 - 50 °C (32 - 122 °F) |



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