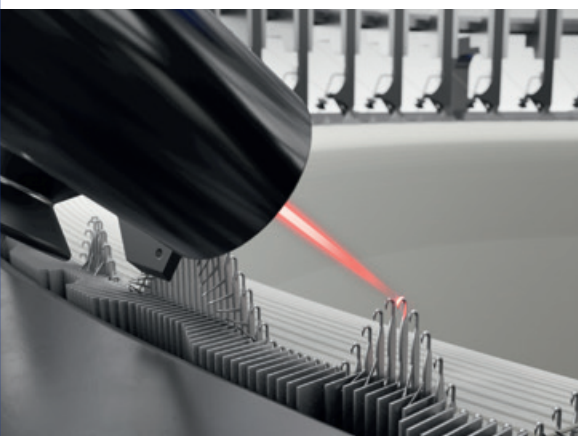




PROTECHNA

A VANDEWIELE COMPANY



NEEDLE SENSOR 4022

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Digital Monitoring of Needles for Circular Knitting Machines

- Machine is immediately stopped once a defective needle has been recognized
- Detects breakage and bending of cylinder and dial needles
- Hand-held terminal 8024 as setting aid

The NEEDLE SENSOR 4022 monitors contact-free the needles on single, double, jacquard and interlock Circular knitting machines. Once a defective needle has been recognized, the NEEDLE SENSOR 4022 stops the machine immediately and indicates the exact position of the broken or bent needle. Depending on the type of the machine, the NEEDLE SENSOR 4022 usually consists of 1 control unit and 1 or 2 optical heads.



FEATURES

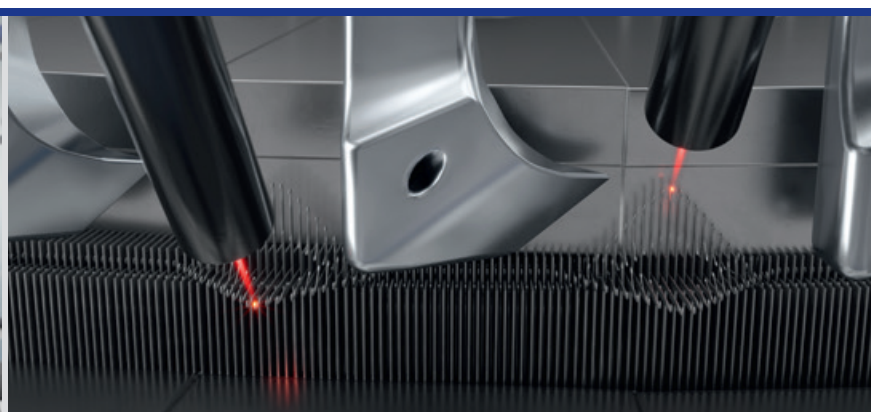
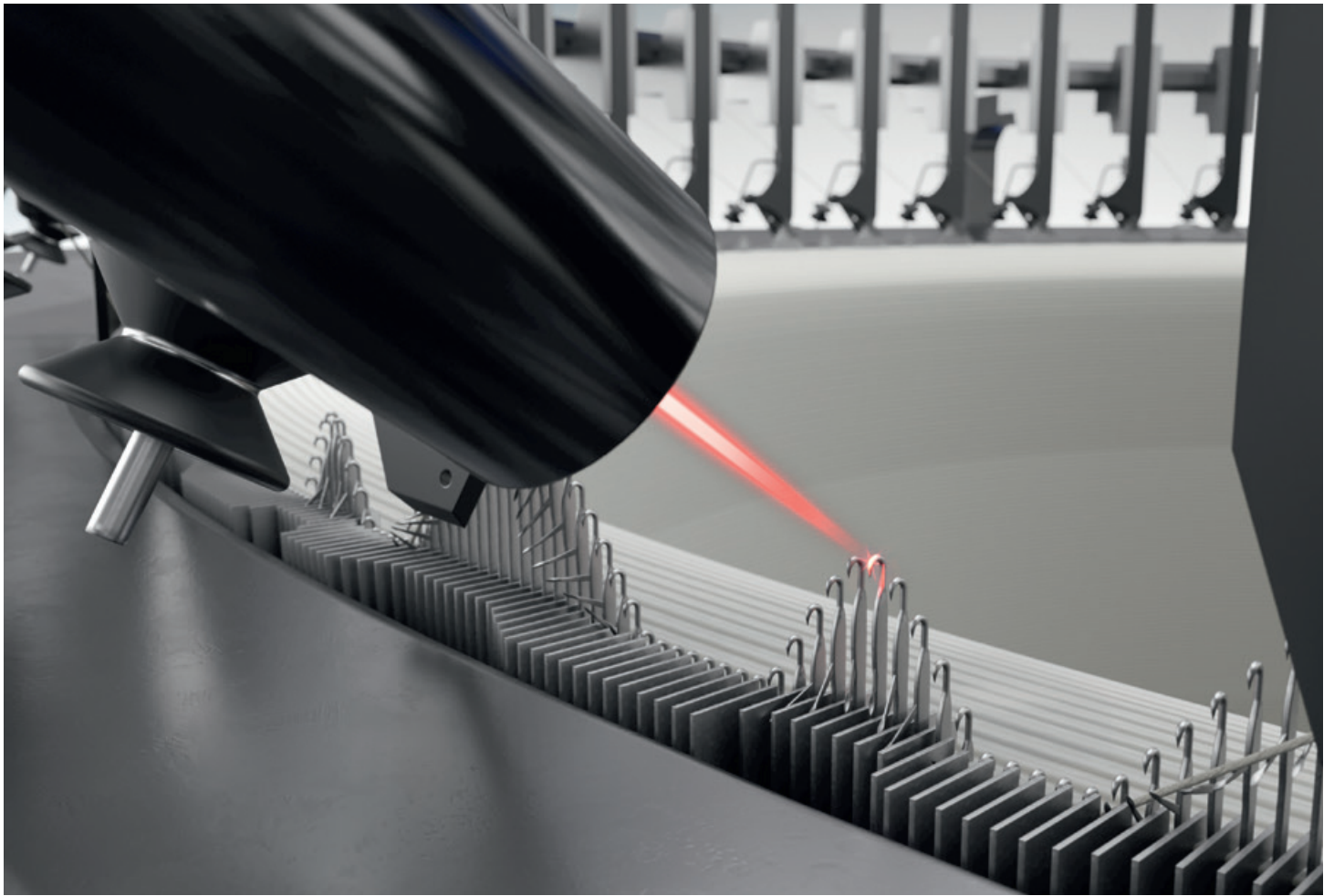
- Also suitable for high-speed Circular knitting machines
- 4-digit display for quick identification of the defective needle
- Colour-coded LED status display for each optical head
- Hand-held terminal 8024 as setting aid
- Easy and safe replacement of the optical lens

OPERATION

The optical head projects a narrow spot of light onto the passing needles, which reflect a part of the light. These light pulses are fed to the control unit via fibre-optic cable.

The control unit automatically adapts to the needle sequence corresponding to the machine speed and the gauge of the needles. If a pulse has not been received

at all or not at the correct position due to a needle defect, the machine control is triggered to stop. Simultaneously with the stop signal, a needle counter begins to work. It indicates the number of needles that have to run past until the optical head reaches the position of the defective needle. For the machine operators this is a valuable support when it comes to locating and to replacing a defective needle.



Missing needles can be masked out e.g. when working with cutting line or when producing patterns. To avoid false stops, the number of revolutions before stopping the machine is adjustable.

SPECIFICATIONS

- Sensor range: 15 mm +/- 1 mm
- Needle sequence: 15/s ... 5000/s
- Max. gauge (cylinder gauge): up to E50
- Supply voltage: 11 V ... 28 V AC/DC
- Average power consumption: 5 VA
- Output: Relay output, switchable (max. 60 V)



Formed in 1956, PROTECHNA has been part of the Belgian VANDEWIELE Group since 2011. As a leading supplier of high-quality thread and fabric control systems for use in many textile manufacturing processes, we have continuously expanded our product range for the textile processing and textile machinery construction industries over the years. Together with a global network of more than 60 sales partners, we offer our customers a comprehensive portfolio of services and made-to-measure support.

Our Technical Department is responsible for the continuous improvement and enhancement of our high-tech products. Designing and developing individual solutions for the textile industry and working closely with leading textile machine producers creates a strong foundation for our innovative approach to business and the superior performance of our products.

Our quality assurance department uses in-depth controls to ensure that only first-class goods are shipped out to our customers. The resulting reliability and outstanding longevity of our products enjoy a well-earned reputation throughout our markets.

The quality of our work and the success of our company is measured by one all-important metric: customer satisfaction.



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