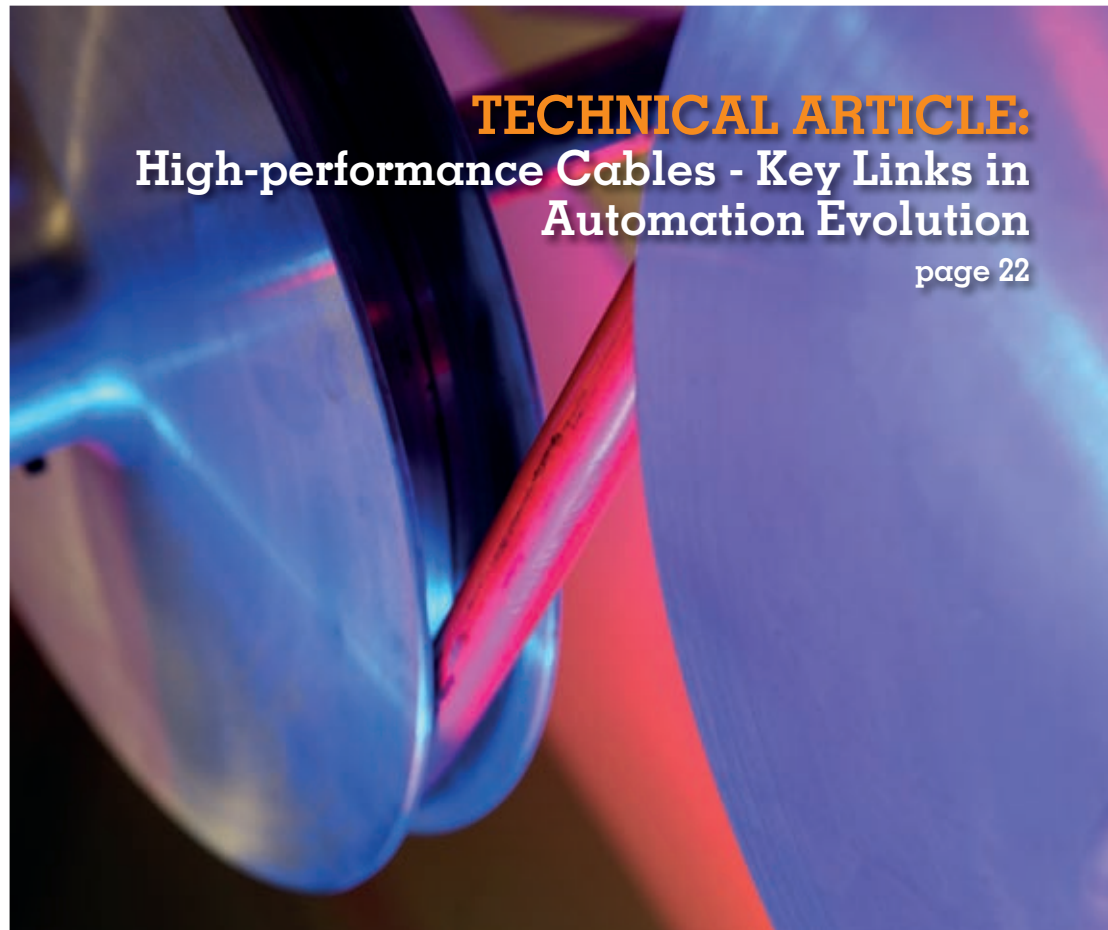


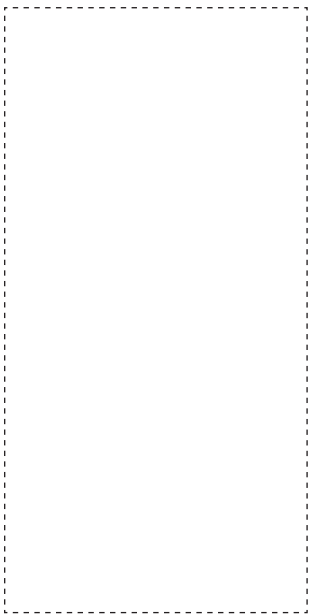
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# Control Knobs with Built-in Position Indicator



How do you combine a hand wheel with a position indicator? The engineers at Siko were already working on this question back in 2000. That is when the supplier came up with the DK01 control knob - a new type of product for the positioning of shafts and adjustment axes.

» Autor: Sven Wischnewski, Siko, Buchenbach, Germany

Since then, that idea has given rise to an entire family of control knobs with integrated position indicators in various sizes and characteristics. They all share the common advantage of the two functions - position adjustment and the readout of position values - combined within a single product.

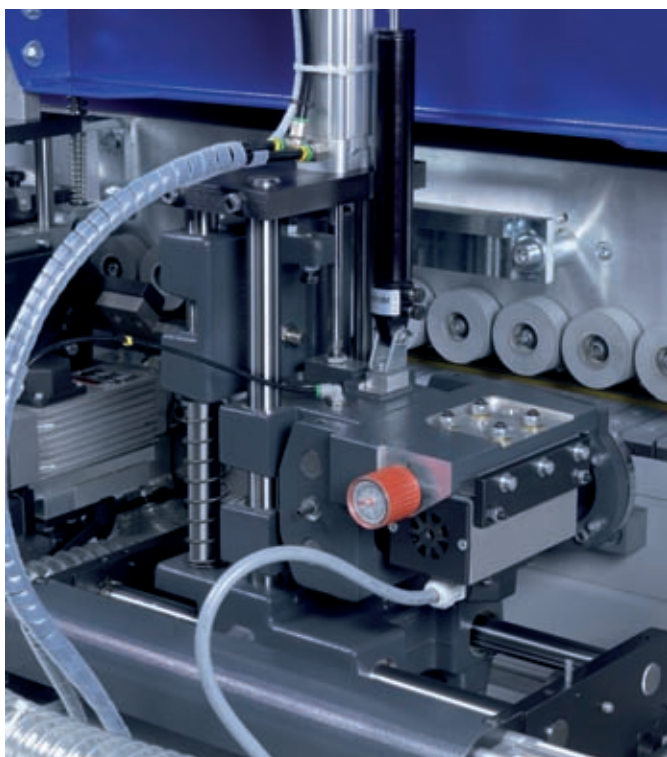
This symbiosis of adjustment element and display leads to many advantages throughout the entire process chain. From the very design of the machine, the compact control knobs make it possible to make the best use of the installation space available. No space is required for a crank or an adjustment tool. In terms of production logistics, there is no longer a need to obtain and maintain stocks of various different machine elements. And finally, the end user benefits in practice from the fact that the adjustment element is always on the axis. No more

endless searches for a square wrench or for the hand crank that has yet again been put down and forgotten somewhere.

Today the family of control knobs includes seven models with various displays. The classic DK01, with its mechanical digital counter, is based on the company's orange-coloured counters. With their unambiguous readout of position values, these reliable counters are still the most commonly found position indicators in mechanical engineering.

The analogue scales of the DK03 and DKA02 control knobs allow the display to be adapted to specific individual situations. The scale indicator is printed with values that have a direct relation to the application, enabling the end user to read the required information directly from them. Whether it be the degree of opening of a valve, the output speed of an adjustment drive or the angle setting of a tool, the individually printed scales of the DK03 and DKA02 offer an appropriate solution.

The electronic position indicator integrated into the DKE01 control knob is freely programmable. It is thus possible to match the control knob to specific applications. Adjustable display values and divisors allow any shaft pitches or gear ratios to be displayed to the highest pre-





cision. Values can be displayed in degrees, metric or imperial units and negative and positive values can be read without ambiguity. Calibration of the unit to a reference dimension is at the push of a button on the unit itself. For relative adjustments, an incremental measurement function key is provided, allowing the most complex positioning tasks to be carried out with just one main unit. The need to select and manage a number of mechanical devices is thus now a thing of the past.


The LCD display offers a particular boon in terms of precision. With the DKE01 the position value is shown clearly in digital form - so no more discrepancies in readings are possible. Display accuracy is  $0.1^\circ$  for angular measurements or hundredths or tenths of a millimetre for linear measurements.

A common feature of all the control knobs is the torque support on the rear. This plastic pin enables the DK unit to be fitted in any position and independently of the shaft position; the display values are always clear, precise and without risk of false reading. The ergonomic star grip provides good haptics and allows a high level of positioning torque. Depending on the size and type of shaft, output torque can be as high as 14 Nm. Consequently, it is possible to position even stiff shafts safely and with ease using the control knobs.


The wide range of Siko control knobs offers solutions for all types of positioning tasks. With the integration of adjustment element and display into a single device, compact and efficient designs can be implemented in which the view of the important elements is not detracted by a hand wheel. Individually printable scales or freely programmable electronic displays further provide the flexibility required to provide the end user with a high level of functionality.

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