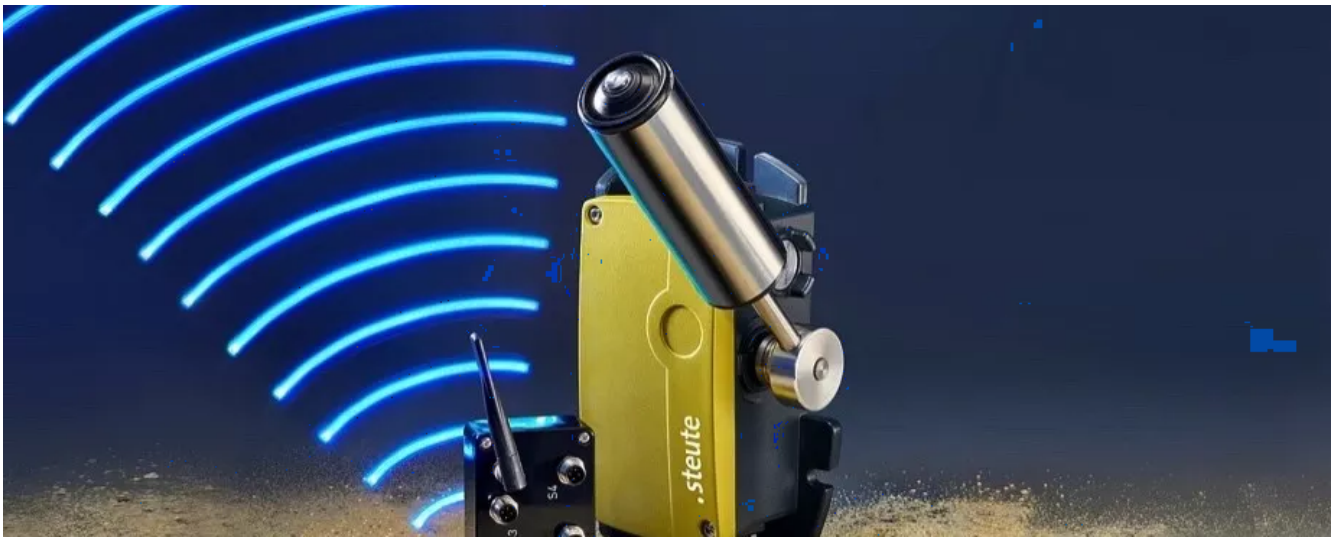

Product News

steute at Solids Dortmund: Heavy-duty Belt Alignment Switch with wireless Communication

Edited by on 27. Sep. 2024
Löhne, Germany –

Combining the ZS 92 SR belt alignment switch with the RF I/O radio module has enabled steute to develop a new and robust wireless switching system uniting two core areas of competence. This new wireless solution will be presented at the SOLIDS 2024 in Dortmund.

The ZS 92 SR belt alignment switch is an established member of the heavy-duty "Extreme" product range. This exceptionally robust switching device with a multiple-coated die-cast aluminium enclosure monitors the alignment of conveyor belts. Its actuator lever detects any belt misalignment arising from e.g. uneven loading. In such cases, the switch triggers a stop of the conveyor system or a correction of the belt – depending on its integration within the control system.

(Picture: steute Technologies GmbH & Co KG)

The signal is usually sent to the control system via a cable. But when large distances are involved, this requires a great deal of cabling, and rough environments with their adverse conditions are more prone to disturbances and downtimes than clean production areas.
Taken by steute in collaboration with an interested gravel works operator, it was a logical step to develop the ZS 92 SR further: the belt alignment switch has now been adapted to communicate with the control system via radio. Another contributory factor making this a logical step was that both the necessary hardware and the radio technology already existed: the steute business division Controltec offers a wide range of industrial wireless switching devices, e.g. position switches, foot switches and sensors, which use the sWave wireless protocol developed by steute and which are to be found in countless successful applications.

These two technologies have now been combined. The belt alignment switch is connected to a separate RF I/O module. Via sWave, this transmitter unit passes on any signals arriving from the switch to a wireless relay component acting as a receiver unit – reliably, without cables, and over outdoor distances of up to approx. 400 metres. Users can install additional repeaters for even longer distances.

Two belt alignment switches can be connected to each RF I/O module, and each switching device transmits a two-level wireless signal. At the first level this could be a warning signal, while the second level could trigger a shutdown of the conveyor system. Together, steute and the gravel works operator are currently testing a pilot installation – while other extraction and handling companies using conveyor belts have already expressed an interest in this solution.

Visit steute at Solids Dortmund, Hall 5, Stand Q32