

Red Dot Design Award for absolute encoder

The 36-mm sized AHS/AHM36 encoder from Sick (Germany) was awarded for “high design quality” with the Dot Award 2014 this year. It offers a variety of mechanical interfaces as well as the optional SSI or CANopen.

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With their size of 36 mm – and special rotating connector/cable outlet, these encoders are suited for applications where larger housing diameters would take too much space (Photo: Sick)

SICK CONVINCED THE 40-MEMBER EXPERT PANEL for the Red Dot Design Award: Product Design 2014 with the high design quality of its absolute encoder. In the current competition, the international experts discussed and evaluated 4,815 entries from 53 countries. But only designs which won over the jury with quality and innovative strength won an award. The CANopen capable absolute encoder AHS/AHN36 was successful and received the Red Dot quality seal as its deserved reward. On 7 July 2014, the presentation of the acclaimed Red Dot will be celebrated in Essen, Germany. On that evening, roughly 1,200 guests from around the world gather in order to experience the awards ceremony. In the course of the party in the Red Dot Design Museum Essen, the winners' exhibition will also be opened, presenting the award-winning product to an audience for four weeks before it enters the museum's permanent exhibition.

About the encoder

The encoders are available as both, an AHS36 single-turn (14 bits) version and an AHM36 multi-turn (12 bits) model. They are used for measuring absolute positions, e.g. in industrial and special-purpose vehicles, in packaging machines, in logistics, in machine building, as well as in medical technology.

The mechanical interfaces available in the encoders are a choice of blind hollow shafts as well as face mount flange and servo flange – all of them are featuring a range of shaft diameters. This makes a maximum degree of flexibility when designing mechanical integration possible. The connector plug and the cable outlet, respectively, can be rotated, which allows laying the cable in the best possible way even in cramped installation situations. At the same time, this means that machine builders have to deal with a reduced number of encoder variants for different installation situations.

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The programmability of the encoders reduces the diversity of variants even further – concurrently opening up the possibility of using numerous configuration and diagnostic options. Thus, with respect to the encoders with SSI interface, it is possible, e.g. to set binary and non-binary resolutions, specify various operating modes, or program a rotary axis function. Position, speed, temperature, operating hours – the CANopen encoders provide a range of diagnostic options for evaluations that serve, e.g. to optimize the maintenance intervals of the overall application. It is also possible to configure an electronic cam switch.

The extended working temperature of -40 °C to +100 °C / -40 °C to +85 °C, as well as the IP66 and IP67 protection ratings permit use of the encoders in harsh environments. According to the company, the user can also adapt the encoders to any wire-draw mechanisms of the Ecoline and Highline product families from Sick as well. The mechanical connection options and the electrical interfaces available make the encoders compatible with other encoders on the market.