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Presse-Information

Small and smart – speed sensor Rheintacho Compact-S type IP69K, precise detection of phase shift, extremely short length

The Compact-S is a dual-channel-differential hall sensor for detection of speed and direction of rotation. The impressive features are:

- extremely short (insertion depth 30mm / total length 49,5mm)
- protection class IP69K
- phase shift of (2) output signals, customized, adjustable
- sensor tip pressure resistant up to 15bar
- temperature resistant up to 140°C / depending on application up to 160°C

Typically, hall sensors are ideal for the precise detection of rotational speed of all ferromagnetic structures. E.g. gear wheels or other designs. With dual channel sensors, in addition to rotational speed the direction of rotation can be identified. The output signals are (2) square signal with a phase shift.

The sensor body of the Compact-S is of a high-performance brass, the basic design is a single-flange type. The exceptional high mechanic stability is achieved by a special design, where sensor body and sensor flange are of one piece. The asymmetric flange secures a simple and failure-avoiding installation.

The cable outlet is space saving in an angle of 90° to the sensor body. The result of this design feature, combined with an intelligent electronics design, enables Rheintacho to achieve a very short geometry: Insertion depth 30mm, overall length 49,5mm. The compact dimensions have been one of the priorities of Rheintacho development of this sensor. Due to this, the Freiburg based sensor specialist prefers a cable outlet, instead of a directly assembled connector. Commonly used connectors would have increased the height of the sensor head.

For the distinctive solid and extremely well sealed connection of sensor body and sensor head, Rheintacho choose a proven, mechanical assembly method. So the Compact-S achieves IP69K, enabling it for use in almost every heavy duty environment.

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Does your control and the software need a directional output signal in addition to rotation? With the Rheintacho Compact-S and the distinctive phase-shifting, you will get exceptionally tight-tolerance signals (+/-20%). Rheintacho achieves this impressive feature with special assembly. With a computer-controlled system, the adjustment of the phase-shifting signal happens parallel to the sealing between sensor head and sensor body. This procedure could be customized for customer's special gearwheels.

A 100%-control of all assembled sensors and accurate documentation and control of all parameters ensure top quality.

Rheintacho Messtechnik GmbH is a company steeped in tradition that has devoted itself to the concept of rotational speed as a decisive control factor in mechanical processes for over 100 years. Over 60 staff members are employed at the company headquarters in Freiburg. In-house development, production and assembly departments guarantee fast, innovative solutions for individual customer requirements. The production range encompasses a broad spectrum of high-quality technical solutions which focus on rotational speed: sensors, hand-held measuring devices, rotational speed indicators and switching devices. The British subsidiary, Foundrometers Instrumentation, (headquartered in Leeds) concentrates on the production of mechanical tachometers and analogue systems such as tachogenerators and indicators.

Page 2 / 2