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Safe measurement, indication and control of rotational speed



# Rotational speed sensors with integrated temperature sensor





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## Features

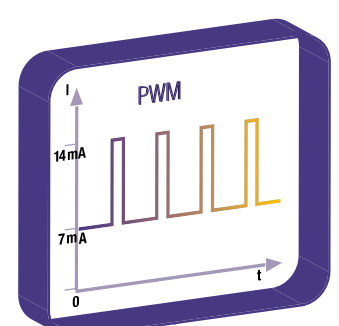
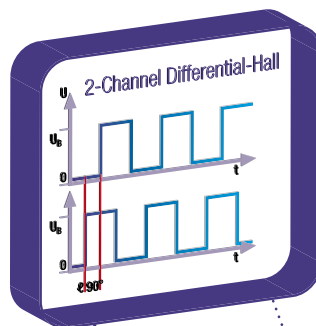
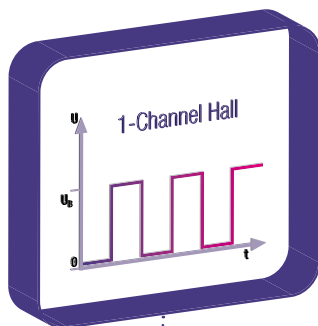
- ◆ Speed detection
- ◆ Direction detection (depending on type)
- ◆ Temperature detection
- ◆ Wide temperature range
- ◆ Wide frequency range

## General informations

The latest generation of RHEINTACHO speed sensors now also offers temperature detection as a further measuring value in addition to rotational speed and direction detection, united in one sensor.

The advantages are obvious:

- ◆ Material costs: one complete sensor with its own electronics, own housing and connection interface are saved.
- ◆ Installation effort: complete elimination of one installation process.
- ◆ Design simplification: Saving an additional sensor access including all possible side effects like improving design freedom and reducing leakage opportunity.





## Technical data

|                             | 1-Channel Hall M8 series   | 2-Channel Hall FEpwm series (on request)   |
|-----------------------------|--|--|
| Power supply                | 8 VDC ... 30 VDC   | 4.5 VDC ... 20 VDC   |
| Frequency range             | 0 Hz ... 15 kHz  | 1 Hz ... 5 kHz   |
| Output                      | Push-Pull  | PWM  |
| Operation temperature, max. | -25 °C ... +125 °C / -13 °F ... +257 °F  | -40 °C ... +150 °C / -40 °F ... +302 °F  |
| Degree of protection        | IP67 (at connected plug)   | IP67 / IP6K9K  |
| Housing                     | M8 x 50 mm   | Flange, brass  |
| Cable length / Plug         | - / 4-pin plug integrated in sensor housing, M8  | 1000 mm / Deutsch DT04-4P  |
| Temperature signal          | ± 1.5 °C / ± 34.7 °F over the entire operating range<br>NTC 4.7 kOhm, ±1 % @ $R_{25}$ ; $B_{25/85}$ -Value / $B_{25/85}$ -Value: 3830 K<br>Resistance value can be read out via Pin 2 and Pin 3. | NTC 4.7 kOhm, ±1 % @ $R_{25}$ ; $B_{25/85}$ -Value / $B_{25/85}$ -Value: 3434 K<br>Resistance value can be read out via Pin 3 and Pin 5. |

|                             | 2-Channel Differential-Hall M12 series   | 2-Channel Differential-Hall FK series (on request)                          |
|-----------------------------|--|---|
| Power supply                | 7 VDC ... 32 VDC   | 4.5 VDC ... 24 VDC  |
| Frequency range             | 0 Hz ... 20 kHz  | 0.1 Hz ... 20 kHz   |
| Output                      | Push-Pull  | NPN   |
| Operation temperature, max. | -40 °C ... +125 °C / -40 °F ... +257 °F  | -40 °C ... +140 °C / -40 °F ... +284 °F                                     |
| Degree of protection        | IP67 (at connected plug)   | IP65  |
| Housing                     | M12 x 69,35 mm   | Flange, plastic   |
| Cable length / Plug         | - / 5-pin plug integrated in sensor housing, M12   | 1000 mm / open leads  |
| Temperature signal          | NTC 4.7 kOhm, ±1 % @ $R_{25}$ ; $B_{25/85}$ -Value / $B_{25/85}$ -Value: 3434 K<br>Resistance value can be read out via Pin 3 and Pin 5. | PTC Ni1000 - $R_0$ : 1000 Ohm; $R_{25}$ : 1141 Ohm;<br>$R_{100}$ : 1618 Ohm |



## About us

RHEINTACHO Messtechnik GmbH has been engaged since 1901 in the field of rotational speed, a crucial control quantity for mechanical processes. The production range incorporates sensors, hand-held measuring devices, rotary encoders and switching devices.

Just over 100 employees are employed at the company's headquarters in Freiburg. In-house product development, production and assembly departments guarantee quick and innovative solutions to customers' individual requirements.

RHEINTACHO UK Ltd., a subsidiary of the German company RHEINTACHO Messtechnik GmbH, is specialized in the production of non-electronic measurement and indication instruments as well as tacho generators, and acts as a sales and service center for the UK and Ireland.

RHEINTACHO China acts as localized sales and support center for genuine RHEINTACHO products, and provides timely application and technical support for Chinese and Asian customer base.

RHEINTACHO Vision Systems S.A.S. has emerged from the acquisition of the French company ERGECA (RGK Video Systems) and is specialized in the development, production and sales of camera-based inspection systems.

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