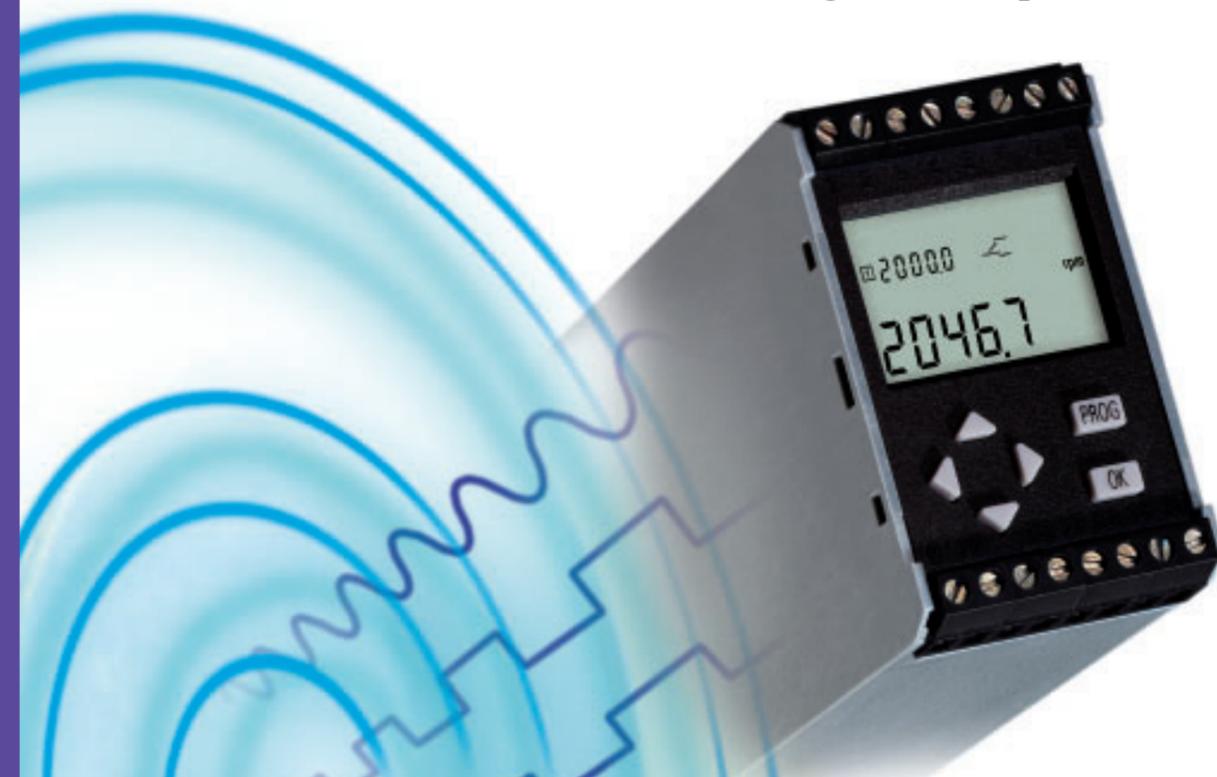




For reliable measurement, control and indication of rotational speeds

# rotas

Programmable speed monitor.  
Flexible monitoring, reliable protection.



#### Ordering information:

Order No.	Type	Description
<b>Supply Voltage 18–36 V DC:</b>		
5810.100	CR	Speed monitor with one relay, without analogue output
5810.200	CRR	Speed monitor with two relays, without analogue output
5820.100	CRA	Speed monitor with one relay, with analogue output
5820.200	CRRA	Speed monitor with two relays, with analogue output
<b>Supply Voltage 10–36V DC with approvals for ship board use:</b>		
5813.100	CR	Speed monitor with one relay, without analogue output
5813.200	CRR	Speed monitor with two relays, without analogue output
5823.100	CRA	Speed monitor with one relay, with analogue output
5823.200	CRRA	Speed monitor with two relays, with analogue output

If required, the instrument parameters can be programmed to a customer's specific requirements, and supplied with a customer reference number on the rating plate. Use the order form on the Internet under [www.rheintacho.de](http://www.rheintacho.de) or call us.



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## inside

We are well-known as specialists in the field of producing systems and devices for measuring and controlling rotational speeds, vibrations and systems with rapid machine cycles. What is less well known is the basis of our success.

RHEINTACHO is a family-owned business, a status we intend to retain. We adopt family values at work, too, in the form of an integrative approach in which every employee is included and treated as an equal.

In this atmosphere of inclusion and trust our employees feel secure and in good hands. Our employees are a handpicked team, in which every member has a high level of technical skills and a sense of responsibility.

Flat hierarchies, direct channels of communication and a style of communication where all parties are treated as equals. By adopting this approach we can give our undivided attention to achieving our principal aims: customer satisfaction, innovation, flexibility, quality, efficiency and growth.

It is our goal to provide the best product for measuring and controlling rotational speeds for all our customers' requirements at all times and at a competitive price. And this includes all the additional factors required to meet that goal: the full cooperation of all team members, reliability and continuity.

Because we continuously succeed in meeting this goal, we carry out our work with joy and passion, even at stressful times. We want to continue to grow in this way, harmoniously and sustainably, increasing, as we grow, the size of our workforce, our turnover, the range of innovations we create and the challenges we overcome.

Put us to the test.



### Technical data

Frequency range	0,01 Hz... 20 000 Hz
Accuracy	+/- 0,03% of full scale +/- 1 digit
Temperature coefficient	+/- 0,01% of full scale
Switching delay	< 20 ms + measuring period entered

### Supply

Voltage / Current	18... 36 V DC / <160 mA
... with DC/DC converter	10... 36 V DC / <120 mA

### Signal input

Trigger level	On/Off adjustable
Min. pulse duration	20 µs
Sensor supply	12 V DC, max. 60 mA

### „Active starting-bridge“ input

Trigger level On/Off	>2,5 / <1,0 V
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### Relay outputs (one, optional two relays)

Switching voltage	AC: ≤250 V / DC: ≤42 V
Nom. switching current max.	AC: 5 A / DC: 2 A

### Analogue output (optional)

Accuracy	+/- 1,0 % of full scale
Maximum burden	400 Ω

### Installation conditions

Operating temperature	-25... +70 °C (-13... +158 °F)
Protection (IEC 529)	IP 20 (installation in enclosure)
Vibration (IEC 68-2-6)	0,7 g @ 1... 100 Hz

### Mounting

Standard rail-mounting case for 35 mm (1.378 inch) DIN-rail

### Approvals

All instruments are CE compliant.

The models with DC/DC converter fulfil the requirements of the most important marine classification societies.

e.g.

On request, we will gladly provide details of those countries where there are corresponding approvals.

[www.rheintacho.com](http://www.rheintacho.com)

### As versatile as it is adaptable

The speed monitor has numerous applications in many areas of technology, whether it be for protection of people, machines or manufactured products, to ensure that a plant operates at optimum efficiency, or for speed-dependent switching of system functions in a process.

**Application examples are:** internal combustion engines in power station and marine applications; gas, water and wind turbines; pumps, mixing plants and conveyor systems: paper, foil and textile production plants; machine tools and processing centres. Please utilize our free application engineering to learn of the significant benefits that ROTAS can provide for your application.

### Extremely flexible and reliable

The programmable speed monitor can be configured in many different ways to meet a wide variety of application requirements. Its functional features allow the alarm situation to be clearly defined and safely detected.

#### Scaleable analogue output (optional)

An analogue output is available on all models.

#### Variable scaling

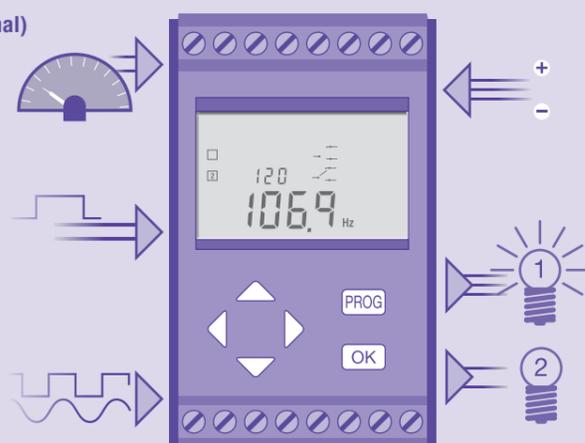
15 different measurement units variable range

#### Easy to use

simple 6-key operation

#### Variable signal input

- ▶ 2-wire and 3-wire sensors
- ▶ PNP, NPN or sine wave signals
- ▶ programmable trigger threshold



#### The main information at a glance

The LCD display shows the measured value, and, if a limit is set, this limit value will be shown along with the state and the unit of measurement.

#### Quick reaction measuring method

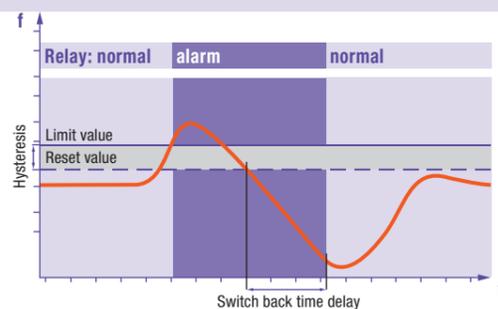
- ▶ cycle duration measurement adjustable frequency
- ▶ permits averaging of the measured value.

#### Programmable switching action one, optional second relay (changeover)

- ▶ contact direction in the alarm condition
- ▶ limit value
- ▶ reset switching value (hysteresis)
- ▶ overspeed or underspeed monitoring
- ▶ active starting-bridge (0 to 99.9 sec)
- ▶ switch back time delay (0 to 99.9 sec)

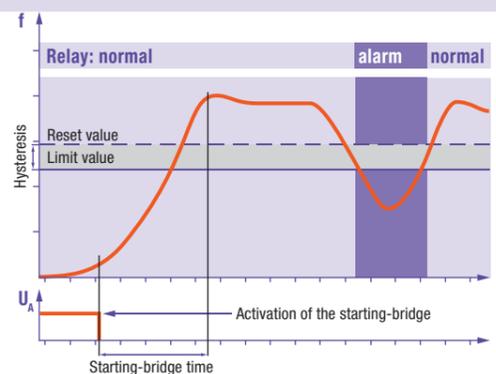
### Speed permanently in sight

The programmable speed monitor monitors the motion of machines and systems. It detects the signals of most speed and motion sensors. If the measured value exceeds or falls below a preset limit value, the relay is automatically switched and the alarm function connected to it is activated. The following types of monitoring are possible:



#### Overspeed monitoring with reset switching delay

Once the speed has fallen below the switch back value and the switch back time delay has expired, the relay switches to its normal status again.



#### Underspeed monitoring with run-up bridging

Monitoring does not start until after the start signal of the starting-bridge has de-energized and the starting bridge time has elapsed.