



Programmable
speed monitor

rotäs



Multi-functional
Flexible monitoring,
reliable protection



Programmable speed monitor **rotas**

Extremely flexible

The programmable speed monitor can be configured in many different ways to meet a wide variety of application requirements.

Scaleable analog output (optional)

An analogue output is available on ■ all models.

Variable scaling

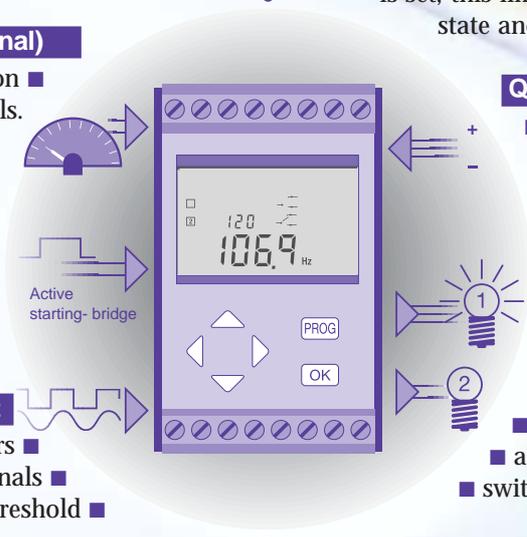
15 different measurement units ■
variable range ■

Easy to use

simple 6-key operation ■

Variable signal output

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)

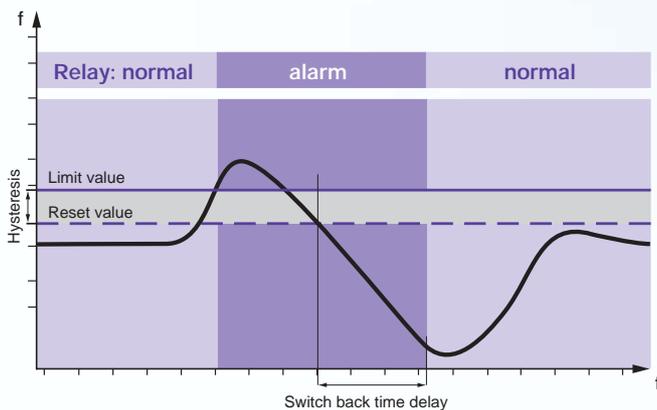
- contact direction in the alarm condition
- limit value
- reset switching value (hysteresis)
- overspeed or underspeed monitoring
- active starting-bridge (0 to 99.9 sec)
- switch back time delay (0 to 99.9 sec)

...and reliable

Its functional features allow the alarm situation to be clearly defined and safely detected.

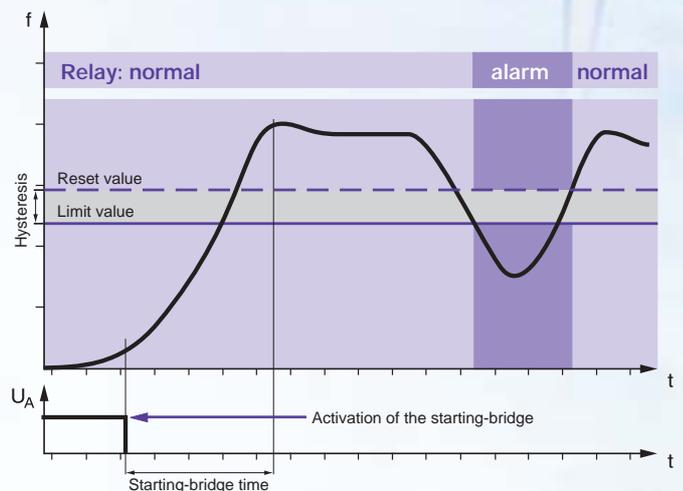
Speed permanently in sight

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 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

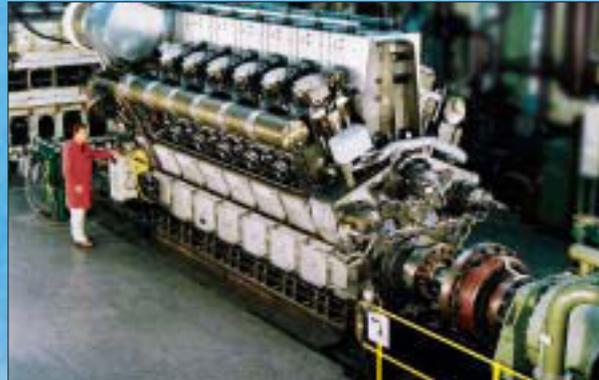
Monitoring does not start until after the start signal of the starting-bridge has de-energized and the starting bridge time has elapsed.

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.



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 periodes 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

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.

Ordering information:

Order No.	Type	Description
Supply Voltage 18–36 V DC:		
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
Supply Voltage 10-36V DC with approvals for ship board use:		
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

Rheintacho Messtechnik GmbH

is a flexible, highly-efficient partner – wherever speed must be measured, monitored or controlled. Innovation, the most modern production techniques and equipment, meticulous quality control along with a first-class workforce are the corner stones of our company.

For the past 100 years, Rheintacho has used our extensive knowledge and experience to develop sensors, systems and customized solutions to meet our customer's requirements in a professional, cost-effective manner. Shown on the right, are several other products in our complete product range.



Non-contact speed sensors

These enable speeds to be read with the highest accuracy in the most severe environment. Depending on the application, we can offer sensors with various measurement principles in a wide variety of styles and connection types.



Hand-held instruments

Rheintacho's tried and tested hand-held instruments record rotational speeds and running length. There is a choice of non-contact measurement by means of light and a reflective mark applied on the object to be measured, or contact measurement with special attachments for various applications.



The new hand-held stroboscope measures and tests rotational and vibrational movements even in places which are difficult to access. It does this without any encroachment whatsoever in the system to be tested. When the displayed strobe frequency equals the true speed, the moving part will appear stationary.



RHEINTACHO Messtechnik GmbH
Waltershofener Straße 1
79111 Freiburg • Germany
Telephone +49 (0)761 45 13 0
Telefax +49 (0)761 44 52 74
info@rheintacho.de
http://www.rheintacho.de

RHEINTACHO Sensors & Systems LLC
616 Oakland Av.
Cedarhurst, NY 11516 • USA
Telephone +1 516 295 6061
Telefax +1 516 295 7574
sensors@rheintacho.com
http://www.rheintacho.com

RHEINTACHO UK
Unit 17, Enterprise Court, Pit Lane,
Micklefield, Leeds, LS25 4BU • U.K.
Telephone +44 (0)113 287 4411
Telefax +44 (0)113 287 4422
sales@foundrometers.co.uk
http://www.foundrometers.co.uk

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 or call us.