



## Datasheet

### speedMATE

[www.wachendorff-automation.com/speedmate](http://www.wachendorff-automation.com/speedmate)

#### Wachendorff Automation

##### ... systems and encoders

- Complete systems
- Industrial rugged encoders to suit your application
- Standard range and customer versions
- Maximum permissible loads
- 48-hour express production
- Made in Germany
- Worldwide distributor network

## speedMATE - Non-Contact optical speed measurement



- Non-contact measurement of speeds and lengths
- Adjustable encoder output A/B up to 120 pulses/mm
- Trigger function
- Slip-free
- Working distance: 15 mm up to 60 mm

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### The innovation for your production - simple and universal!

speedMATE measures the speeds of moving tracks and piece goods in order to monitor, control and regulate production systems. The big advantage: The measurement is non-contact, purely optical, without mechanical components and therefore slip-free. In contrast to measuring wheels and other mechanical processes, speedMATE achieves greater measuring accuracy and does not damage the material due to mechanical stress.

In addition, the system is also able to take on a trigger function, i.e. to output a start pulse, e.g. for marking devices, as soon as a previously defined increment value has been reached. speedMATE is suitable for almost all materials and surfaces - even for reflective and smooth glass surfaces. Operation is intuitive.

#### Optical Data

Measuring distance	15 mm up to 60 mm
Wave length	850 nm

#### Electric Data

Supply voltage	5 V up to 32 V
Power consumption	100 mA
Sampling rate	0.9 ms
Response time	3.6 ms

Temperature range	-10 °C up to +60 °C
Analog Output encoder	HTL/TTL 10 nF/150 kHz
Wave length	850 nm
Accuracy	±0.3 %**
Speed	0.5 bis 135 m/min. 2,250 mm/sec ***
Acceleration	< 8g
Output trigger	PNP / NPN / push-pull
Output Error	PNP
Protection Class	III

#### Mechanical Data

Housing material	Aluminium
Full encapsulation	Ja
Protection class	IP67, on the housing side with installed connector
Connection type	Connector M8, 6 Pin
Programming port	Micro-USB

#### Sonstiges

Software	speedMATE Connect
Optional accessories	Mounting angle, Signal connection cable, Programming cable

#### More information

Software-Download  
[www.wachendorff-automation.com/sw](http://www.wachendorff-automation.com/sw)

**Optionale accessories**  
Mounting angle SPEEDMATEWIN  
[www.wachendorff-automation.com/speedmatewin](http://www.wachendorff-automation.com/speedmatewin)

Signal connection cable SAK-6-67-xx-MATE  
[www.wachendorff-automation.com/SAK-6-67-xx-MATE](http://www.wachendorff-automation.com/SAK-6-67-xx-MATE)

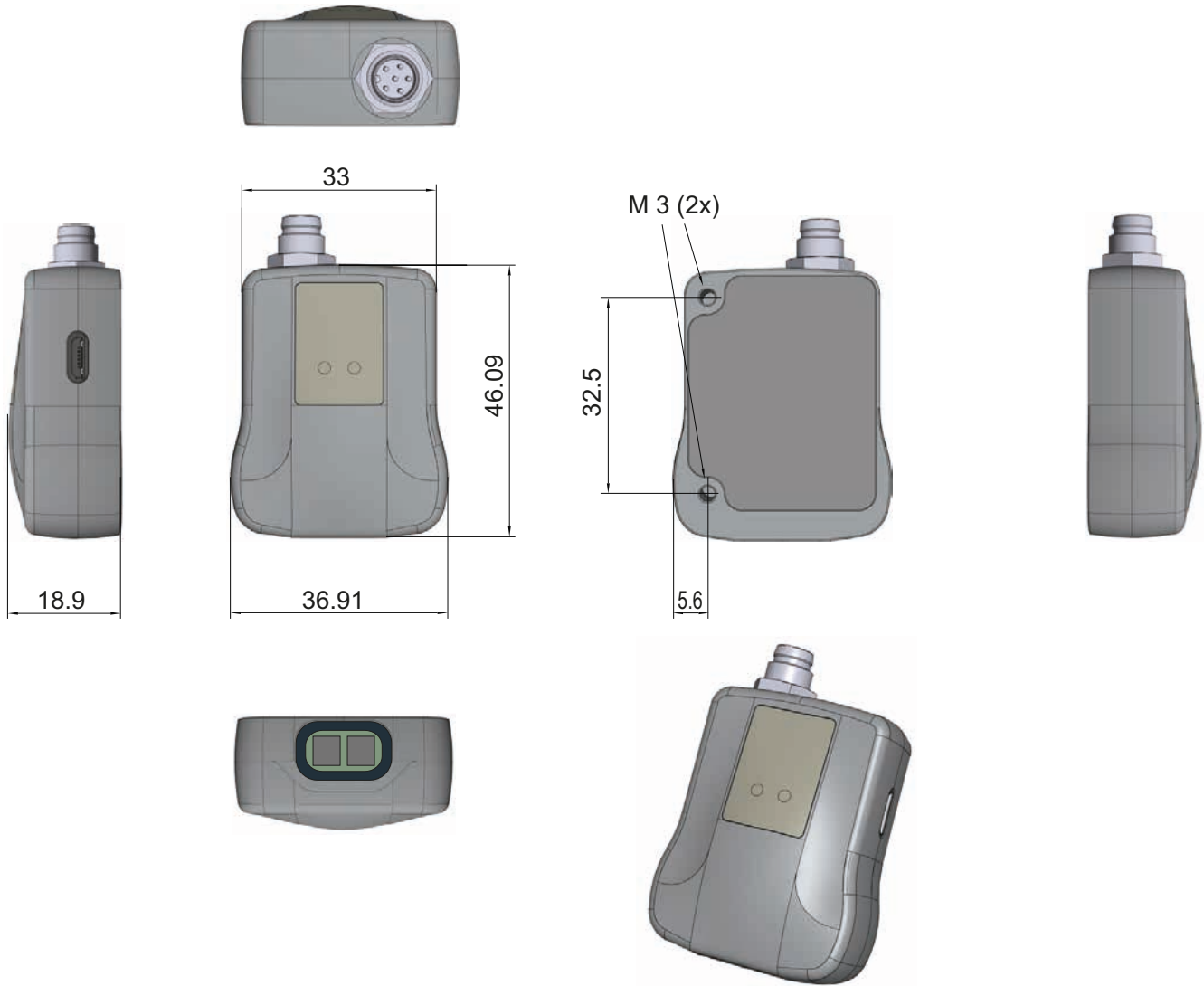
Programming cable SPEEDMATEUSB  
[www.wachendorff-automation.com/SPEEDMATEUSB](http://www.wachendorff-automation.com/SPEEDMATEUSB)

*For smooth commissioning, we recommend that you to order the SPEEDMATEWIN mounting bracket and the SAK-6-67-xx-MATE signal connection cable at the same time.*

Customs tariff number: 90314990  
Country of origin: Germany


\*) This product is a standard product and not a safety component in the sense of the Machinery Directive. Calculation based on the nominal load of the components. average ambient temperature 2s · c. Frequency of use 8760 h / a. All electronic failures are considered dangerous failures.  
\*\*) Error limit for the systematic measurement error according to DIN 1319-1: 1995. Valid between 1 m / min ... 120 m / min. Till 40 m/min the deviation will be lower. Regular adjustment required.  
\*\*\*) Depending on the material, this value is better or worse. Top speed is of shining metallic surfaces to be expected and the lowest maximum speed with white-matt paper.

Dimensions speedMATE




**Description**

Connector 6 pin

Assignment	
	6 pin
	
5...30 V DC	1
TR1	2
GND	3
TR2 / ERR / DIR	4
ENC A	5
ENC B	6

CE RoHS



LASERKLASSE 1	
	LASER 1
EN / IEC 60825-1:2014	

**MADE IN GERMANY**

Order No.:

speedMATE

**WACHENDORFF**  
The Encoder Experts

**Authorized Distributor**

For further information please contact our local distributor.  
Here you find a list of our distributors worldwide.

<https://www.wachendorff-automation.com/contact-sales-en/>

**WACHENDORFF**

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