



# Datasheet

## Length measurement system LMSMA32 conical

[www.wachendorff-automation.com/lmsma32-conical](http://www.wachendorff-automation.com/lmsma32-conical)

### 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

## Robust length measurement system LMSMA32 with measuring wheel KW (conical)



- Compact system with new spring-loaded arm, including special encoder and 200 mm measuring wheel
- Up to 0.008 mm/impulse for measurement results
- Suitable for many surfaces
- Absorbent mounting
- Contact pressure – easily adaptable by intelligent central adjustment
- Easy to dismantle through pre-assembled angle bracket

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### Resolution encoder with

200 ppr:	1 pulse/mm = 1.0 mm/pulse
2000 ppr:	10 pulses/mm = 0.1 mm/pulse
5000 ppr:	25 pulses/mm = 0.04 mm/pulse
25000 ppr:	125 pulses/mm = 0.008 mm/pulse

### Mechanical Data of the system modules

#### Housing encoder

Flange	clamping flange
Flange material	aluminium
Housing cap	die cast aluminum, powder coated

#### Shaft(s)

Shaft material	stainless steel
Starting torque	approx. 1 Ncm at ambient temperature

Shaft	conical
Shaft length	L: 20 mm
Max. permissible shaft loading radial	220 N
Max. permissible shaft loading axial	120 N

#### Bearings

Max. operating speed	8000 rpm
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### Spring loaded arm

Adjustable prestressing force	0 N up to 30 N in steps of 5 N
Length of spring lever axis	120 mm
Material	die cast aluminum
Interlock	Spring loaded arm can be interlocked at 100° to start position
Contact pressure	adjustable, 10°-step equates 5 N pressure increase

### Machinery Directive: basic data safety integrity level

MTTF <sub>d</sub>	200 a
Mission time (T <sub>M</sub> )	25 a
Nominale service life (L <sub>10h</sub> )	1 x 10 <sup>11</sup> revs. at 20 % rated shaft load and 8000 rpm
Diagnostic coverage (DC)	0 %

### Electrical Data

Power supply/	4.75 VDC up to 5.5 VDC: max. 100 mA
Current consumption	10 VDC up to 30 VDC: max. 100 mA
Output circuit	TTL, HTL
Channels	ABN and inverted signals
Load	max. 40 mA / channel
Circuit protection	10 VDC up to 30 VDC, HTL only

### Accuracy

Phase offset	90° ± max. 7.5 % of the pulse length
pulse-/pause-ratio	50 % ± max. 7 %

### General Data

Weight	approx. 1100 g
Connection	Connector radial
Protection rating (EN 60529)	IP67, shaft sealed to IP65

### Operating temperature

LMSxxxKW:	-30 °C up to +80 °C
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### Measuring wheel U = 200 mm



MRA200KW:  
(even)

**Range of application:** greased metals, steel profiles, laquered surfaces, synthetics, paper, paperboard, wood, textiles, wire, leather

### Other features / characteristics:

Optimum wear values under high mechanical loads.  
Load High resistance to oils, fuels, ozone and weathering.

### More information

General technical data and safety incremental encoders

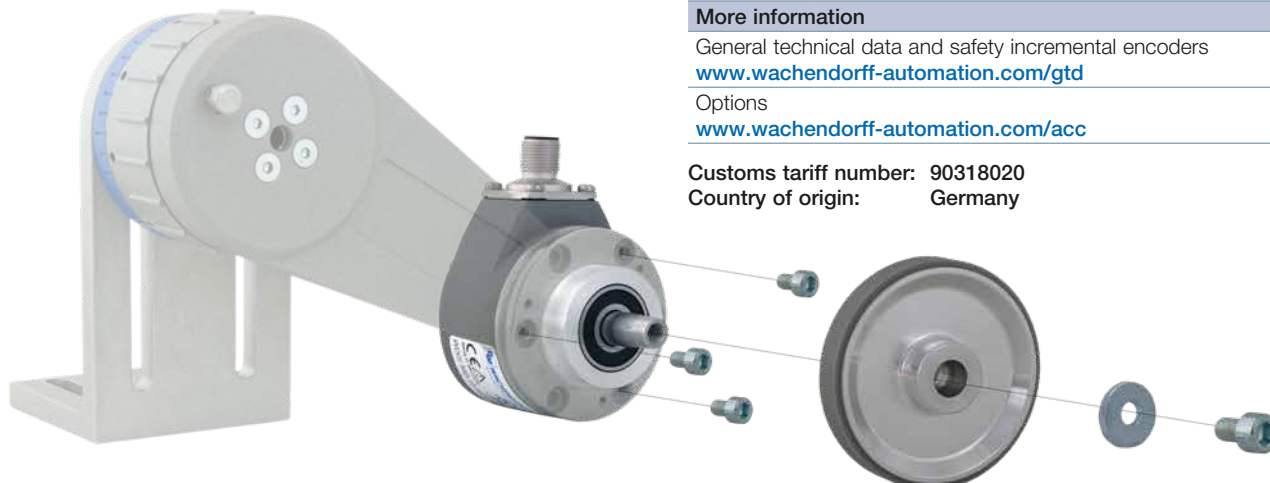
[www.wachendorff-automation.com/gtd](http://www.wachendorff-automation.com/gtd)

Options

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

Customs tariff number: 90318020


Country of origin: Germany





Order No.:



		LMSMA32100024KW10		LMSMA32100005KW10		LMSMA32010024KW10		LMSMA32010005KW10		LMSMA32004024KW10		LMSMA32004005KW10		LMSMA32000824KW10		LMSMA32000805KW10	
																	
mm/pulses	Pulses																
1,0	200	•	•														
0,1	2000			•	•												
0,04	5000					•	•										
0,008	25000									•	•						
VDC																	
10 up to 30 HTL		•		•		•		•		•							
4.75 up to 5.5 TTL			•		•		•		•		•						

Measuring wheel U = 200 mm **MRA200KW:**

**Range of application:** greased metals, steel profiles, laquered surfaces, synthetics, paper, paperboard, wood, textiles, wire, leather

**Other features / characteristics:** Optimum wear values under high mechanical loads. Load High resistance to oils, fuels, ozone and weathering.

The length measuring system is also available without a mounting bracket. Order number: LMSMA22xxxxxxKW10

For further assistance please feel free to contact us.

We would be happy to help you to find the suitable resolution, measurement wheel, cable length or other accessory to optimize your application.

**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/>

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