



# Datasheet

## Length measurement system LMSMA22

[www.wachendorff-automation.com/lmsma22](http://www.wachendorff-automation.com/lmsma22)

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- Complete systems
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- Maximum permissible loads
- 48-hour express production
- Made in Germany
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# Robust length measurement system LMSMA22



- Compact system with new spring-loaded arm, including WDGI 58Z 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
- Versatile mounting (e.g. mounting profile)

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## Resolution WDGI 58Z10 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	Ø 10 mm shaft with flat
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>a</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. 880 g
Connection	Connector radial
Protection rating (EN 60529)	IP67, shaft sealed to IP65


## Operating temperature

LMSxxxKH:	-10 °C up to +70 °C
LMSxxxKG:	-10 °C up to +70 °C
LMSxxxNG:	-10 °C up to +50 °C

## Range of application measuring wheel U = 200 mm

 LMSxxxKH: (even)	greased metal, steel profiles, painted surfaces, plastics, paper, pasteboard, wood, textiles, leather, wire.
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 LMSxxxKG: (fluted)	greased metal, painted surfaces, plastics, paper, pasteboard, wood, textiles, glass, flooring.
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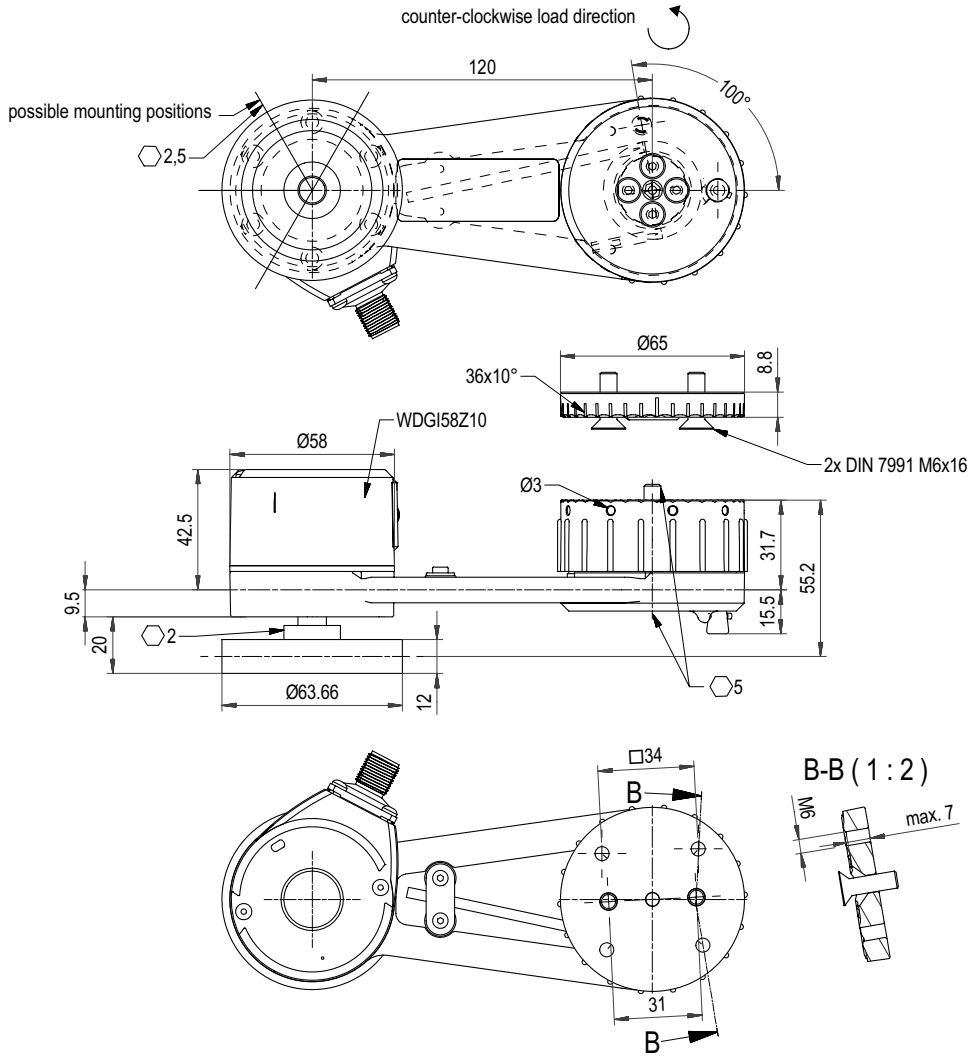
 LMSxxxNG: (pimpled)	plastics, paper, pasteboard, wood, textiles, fleece, carpet, cable measuring.
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## More information

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)

**Sensor-connector (M12x1) SC, 8-pin**



**Description**

**SC8** radial, 8-pin, connector connected to encoder housing

Assignment	
	<b>SC8</b>
	<b>8-pin</b>
<b>Circuit</b>	F05, R05, F24, R24
<b>GND</b>	1
<b>+UB</b>	2
<b>A</b>	3
<b>B</b>	4
<b>N</b>	5
<b>Light reserve warning</b>	-
<b>A inv.</b>	6
<b>B inv.</b>	7
<b>N inv.</b>	8
<b>n. c.</b>	-
<b>Shield</b>	-





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