



Datasheet

Length measurement system LMSCA32

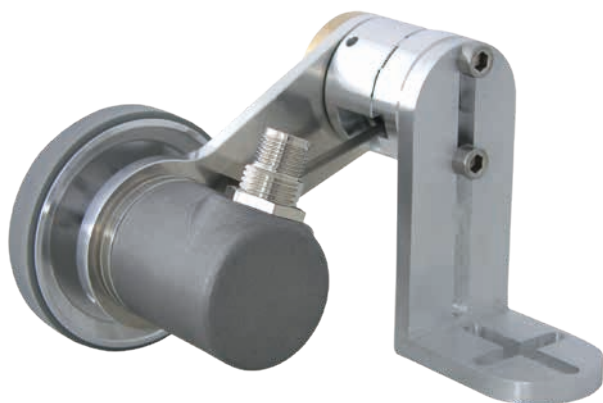
www.wachendorff-automation.com/lmsca32-wdgi

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 LMSCA32



- Ultra compact system with new spring-loaded arm, WDGI 36A encoder and 150 mm or 200 mm measuring wheel
- Up to 0.01 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

www.wachendorff-automation.com/lmsca32-wdgi

Resolution WDGI 36A with Measuring systems LMSxxxKH, LMSxxxKG, LMSxxxNG:

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
16000 ppr:	80 pulses/mm = 0.0125 mm/pulse
200 ppr:	1 pulse/mm = 25.4 pulses/inch
2000 ppr:	10 pulses/mm = 254 pulses/inch
5000 ppr:	25 pulses/mm = 635 pulses/inch
16000 ppr:	80 pulses/mm = 2032 pulses/inch

Measuring system LMSxxxGR:	
150 ppr:	1 pulse/mm = 1.0 mm/pulse
1500 ppr:	10 pulses/mm = 0.1 mm/pulse
3750 ppr:	25 pulses/mm = 0.04 mm/pulse
15000 ppr:	100 pulses/mm = 0.01 mm/pulse

150 ppr:	1 pulse/mm = 25.4 pulses/inch
1500 ppr:	10 pulses/mm = 254 pulses/inch
3750 ppr:	25 pulses/mm = 635 pulses/inch
15000 ppr:	100 pulses/mm = 2540 pulses/inch

Mechanical Data of the system modules

Housing encoder	
Flange	synchro flange
Flange material	aluminium
Housing cap	stainless steel

Shaft(s)	
Shaft material	stainless steel
Starting torque	approx. 0.3 Ncm at ambient temperature

Shaft	Ø 6 mm shaft with flat
Shaft length	L: 11.5 mm
Max. permissible shaft loading radial	80 N
Max. permissible shaft loading axial	50 N

Bearings	
Max. operating speed	12000 rpm

Spring loaded arm	
Adjustable prestressing force	0 N up to 20 N in steps of 5 N
Length of spring lever axis	74.5 mm
Material	aluminum
Contact pressure	adjustable, 3°-step equates 5 N pressure increase




Machinery Directive: basic data safety integrity level	
MTTF _a	2200 a
Mission time (T _M)	25 a
Nominal service life (L10h)	1.7 x 10 ¹⁰ revs. at 20 % rated shaft load and 12000 rpm
Diagnostic coverage (DC)	0 %

Electrical Data	
Power supply/ Current consumption	4.75 VDC up to 30 VDC: typ. 40 mA
Output circuit	HTL (TTL at 5 VDC)
Pulse frequency	HTL up to 16384 ppr: max. 600 kHz TTL up to 16384 ppr: max. 1 MHz
Channels	ABN and inverted signals
Load	max. 40 mA / channel
Circuit protection	no


Accuracy	
Phase offset	90° ± max. 8.5 % of a period duration
pulse-/pause-ratio	50 % ± max. 7 %

General Data	
Weight	approx. 270 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
LMSxxxGR:	-40 °C up to +85 °C

Range of application measuring wheel U = 200 mm

	LMSxxxKH: (even)	Plastic, painted surfaces, paper, paste-board, wood, metal, textiles.
	LMSxxxKG: (fluted)	Plastic, painted surfaces, paper, paste-board, wood, metal, textiles.
	LMSxxxNG: (pimpled)	Textiles.

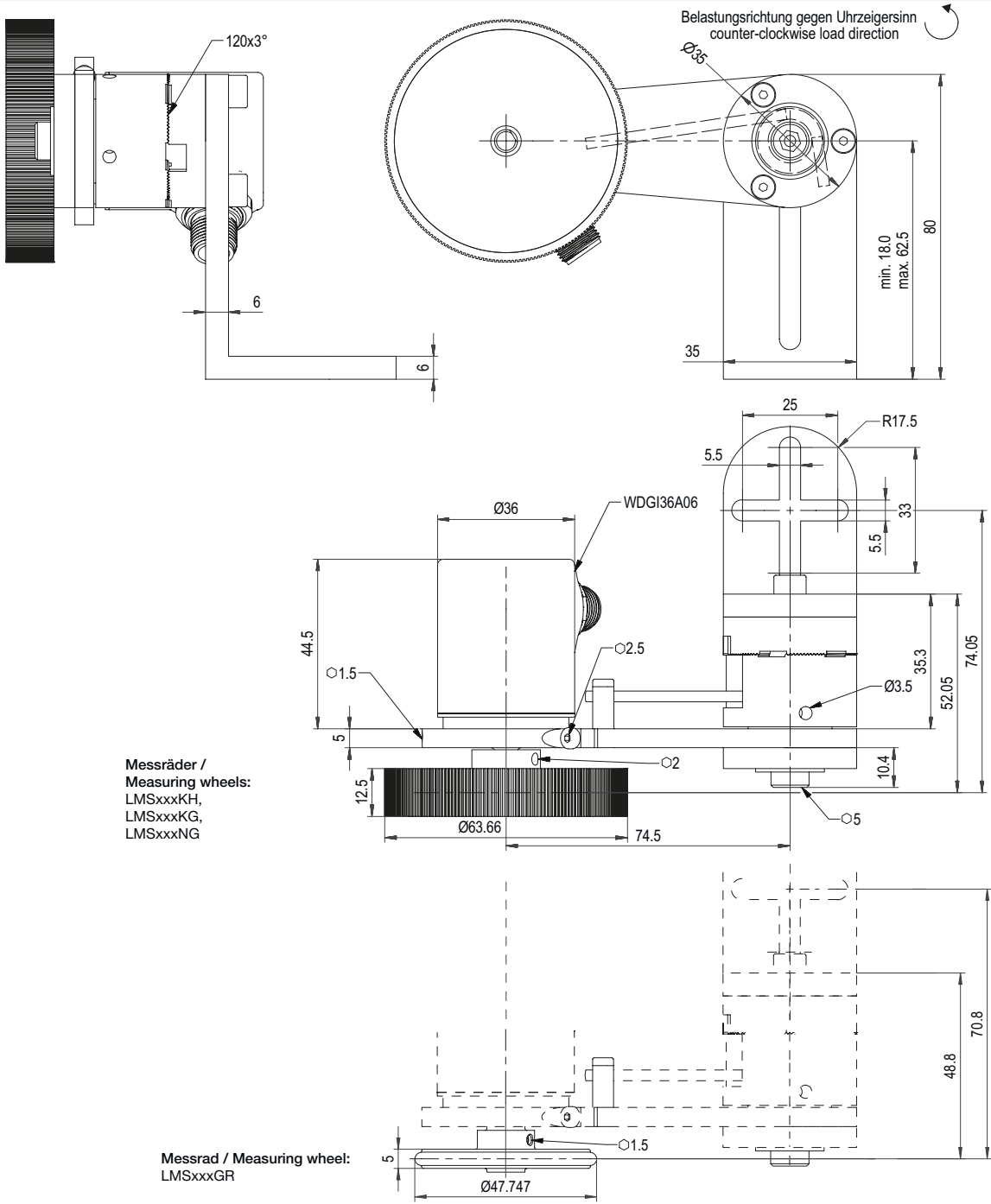
Range of application measuring wheel U = 150 mm

	LMSxxxGR: (even)	Wood, metal, conveyor belts, paper, textiles.
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More information	
General technical data and safety incremental encoders www.wachendorff-automation.com/gtd	
Options www.wachendorff-automation.com/acc	

Customs tariff number: 90318020
Country of origin: Germany

Sensor-connector (M12x1) SC, 8-pin




Description

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

Assignment	
	SC8 8-pin
Steckerbild	
GND	1
+UB	2
A	3
B	4
N	5
SET	-
A inv.	6
B inv.	7
N inv.	8
n. c.	-
Shield	-

Order No.:





mm/pulses	pulses/inch	Pulses	LMSCA321000035KH			LMSCA321000035KG			LMSCA320100035NG			LMSCA320100035KH			LMSCA320100035KG			LMSCA320040035NG			LMSCA320040035KH			LMSCA320040035KG			LMSCA320012535KH			LMSCA320012535KG					
			1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3			
1.0	25.4	200	•	•	•																														
0.1	254	2000				•	•	•																											
0.04	635	5000										•	•	•																					
0.0125	2032	16000																			•	•	•												
Range of appl.*			1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
4,75 VDC up to 30 VDC HTL (TTL at 5 VDC)																																			

- * Range of application measuring wheel U = 200 mm
- 1 LMSxxxKH Plastic, painted surfaces, paper, pasteboard, wood, metal, textiles.
 - 2 LMSxxxKG Plastic, painted surfaces, paper, pasteboard, wood, metal, textiles.
 - 3 LMSxxxNG Textiles.



mm/pulses	pulses/inch	Pulses	LMSCA321000035GR			LMSCA320100035GR			LMSCA320040035GR			LMSCA320010035GR		
			1	2	3	1	2	3	1	2	3	1	2	3
1.0	25.4	150	•											
0.1	254	1500		•										
0.04	635	3750			•									
0.01	2540	15000						•						
4,75 VDC up to 30 VDC HTL (TTL at 5 VDC)														

Range of LMSxxxGR application measuring wheel U = 150 mm

Wood, metal, conveyor belts, paper, textiles.

The length measuring system is also available without a mounting bracket. Order number: LMSCA22xxxxxxxx

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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