



Datasheet

Length measurement system **LMSCA22**

www.wachendorff-automation.com/lmsca22-wdgp

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 LMSCA22



- Ultra compact system with new spring-loaded arm, including WDGP 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

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Resolution WDGP 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

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

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. 0.2 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	1200 a
Mission time (T _m)	20 a
Nominal service life (L _{10h})	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 32 VDC: typ. 80 mA
Output circuit	TTL, HTL
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	inverse-polarity and short-circuit protection

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, pasteboard, wood, metal, textiles.
 LMSxxxKG: (fluted)	Plastic, painted surfaces, paper, pasteboard, 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

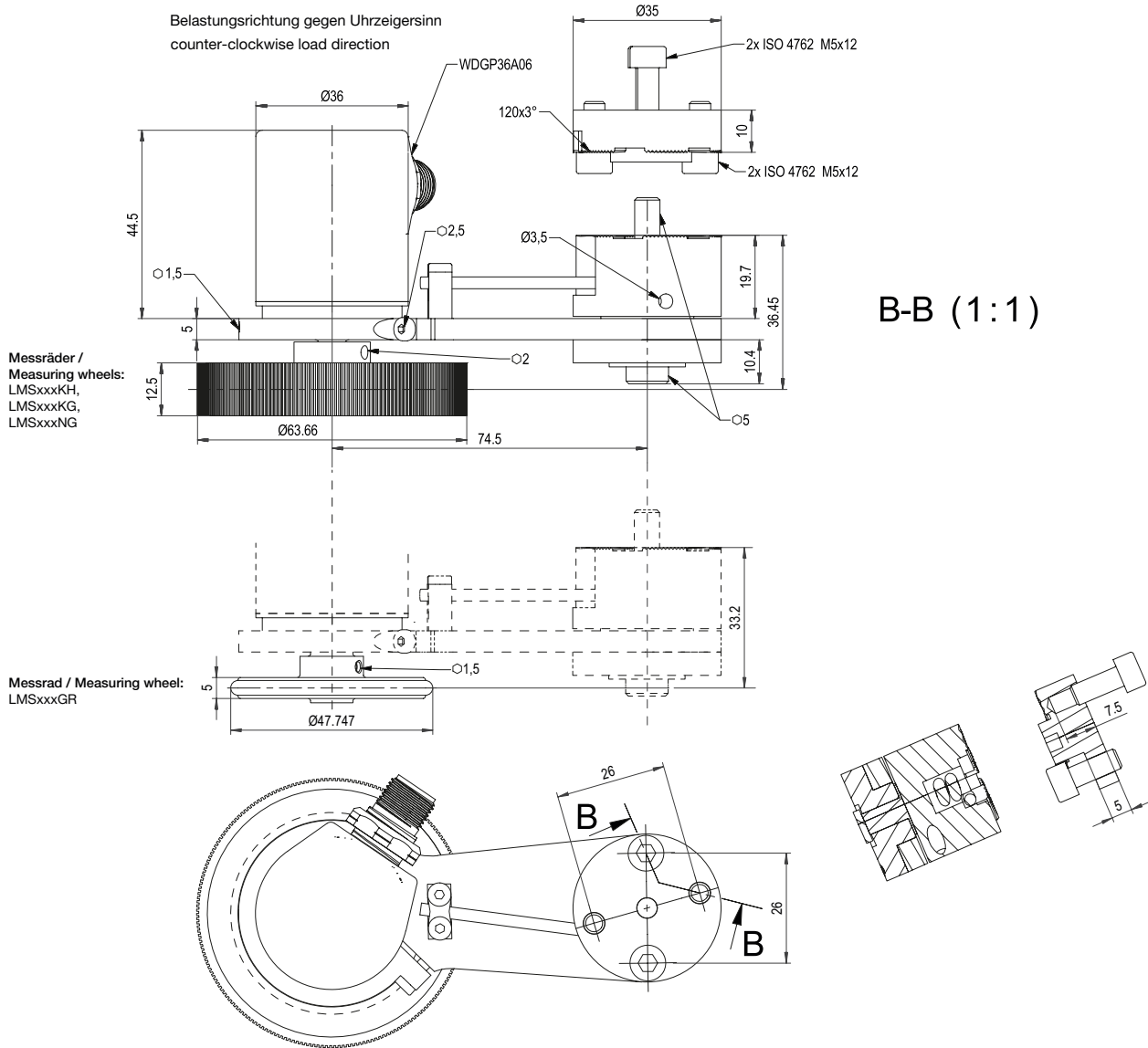
General technical data and safety incremental encoders

www.wachendorff-automation.com/gtd

Options

www.wachendorff-automation.com/acc

Sensor-connector (M12x1) SC, 8-pin




Description

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


Assignment	
	SC8
	8-pin
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	LMSCA221000024KH	LMSCA221000005KH	LMSCA221000024KG	LMSCA221000005KG	LMSCA220100024NG	LMSCA220100005NG	LMSCA220100024KH	LMSCA220100005KH	LMSCA220100024KG	LMSCA220100005KG	LMSCA220100024NG	LMSCA220100005NG	LMSCA220040024KH	LMSCA220040005KH	LMSCA220040024KG	LMSCA220040005KG	LMSCA220012524KH	LMSCA220012505KH	LMSCA220012524KG	LMSCA220012505KG				
1.0	200	•	•	•	•																				
0.1	2000					•	•	•	•	•															
0.04	5000										•	•	•	•	•	•									
0.0125	16000																•	•	•	•	•				
VDC																									
4.75 up to 32 HTL		•		•		•		•		•		•		•		•		•		•					
4.75 up to 32 TTL			•		•		•		•		•		•		•		•		•		•				
Range of appl.*		1	1	2	2	3	3	1	1	2	2	3	3	1	1	2	2	3	3	1	1	2	2	3	3

- * 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	LMSCA221000024GR	LMSCA221000005GR	LMSCA220100024GR	LMSCA221000005GR	LMSCA220040024GR	LMSCA220010005GR	
1.0	150	•	•					
0.1	1500			•	•			
0.04	3750					•	•	
0.01	15000						•	•
VDC								
4.75 up to 32 HTL		•		•		•		
4.75 up to 32 TTL			•		•		•	

Range of LMSxxxGR application measuring wheel U = 150 mm
 Wood, metal, conveyor belts, paper, textiles.

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.



For further information please contact our local distributor.
Here you find a list of our distributors worldwide.
http://www.wachendorff-automation.com/distributors_worldwide.html



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