

Length measurement system LMSCA32 with encoder WDGN

Configurable via NFC

www.wachendorff-automation.com/lmsca32-wdgn

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Robust length measurement system LMSCA32 with NFC encoder WDGN



Configurable via NFC

- Ultra compact system with spring-loaded arm, incl. via NFC configurable WDGN 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 and patented tooth grid
- Easy to dismantle through pre-assembled angle bracket

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Resolution encoder WDGN 36A	
Pulses per revolution ppr	1 ppr up to 16384 ppr free selectable

Calculation examples with
Measuring systems LMSxxxKH, LMSxxxKG, LMSxxxNG:
x = 200 mm circumference measuring wheel, **y** = ppr encoder, **z** = mm/pulse
x : **y** = **z** (**y** : **x** = pulse/mm)
Example: 200 mm : 2000 ppr = 0.1 mm/pulse (10 pulses/mm)
Measuring system LMSxxxGR:
x = 150 mm circumference measuring wheel, **y** = ppr encoder, **z** = mm/pulse
x : **y** = **z** (**y** : **x** = pulse/mm)
Example: 150 mm : 1500 ppr = 0.1 mm/pulse (10 pulses/mm)

Mechanical Data	
Housing encoder	
Flange	synchro flange
Flange material	aluminium
Housing cap	stainless steel, NFC cover: Thermoplastic polyamide
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
Permissible shaft loading	max. 80 N radial, max. 50 N axial
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	
$MTTF_d$	1200 a
Mission time (T_M)	20 a
Nominale service life ($L_{10}h$)	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
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 %
via NFC configurable	
Pulses per revolution ppr	1 ppr up to 16384 ppr free selectable
Output circuit	TTL, HTL free selectable

Environmental Data encoder WDGN with NFC	
Noise immunity:	
ESD (DIN EN 61000-4-2):	8 kV
EMC: (DIN EN 61000-4-3):	10 V/m
Burst (DIN EN 61000-4-4):	2 kV
High frequency fields (DIN EN 61000-4-6):	10 V
Surge (DIN EN 61000-4-5):	2 kV
Radio interference:	According DIN EN 55011
NFC:	
EMC:	According ETSI EN 301 489
RED:	According ETSI EN 300 330
Electrical safety:	According DIN EN 61010-1, UL 61010-1, CSA C22.0 No. 61010-1-12
Vibration: (DIN EN 60068-2-6)	300m/s² (10 Hz up to 2000 Hz)
Shock (DIN EN 60068-2-27):	1000m/s² (6 ms)
Design:	DIN VDE 0160

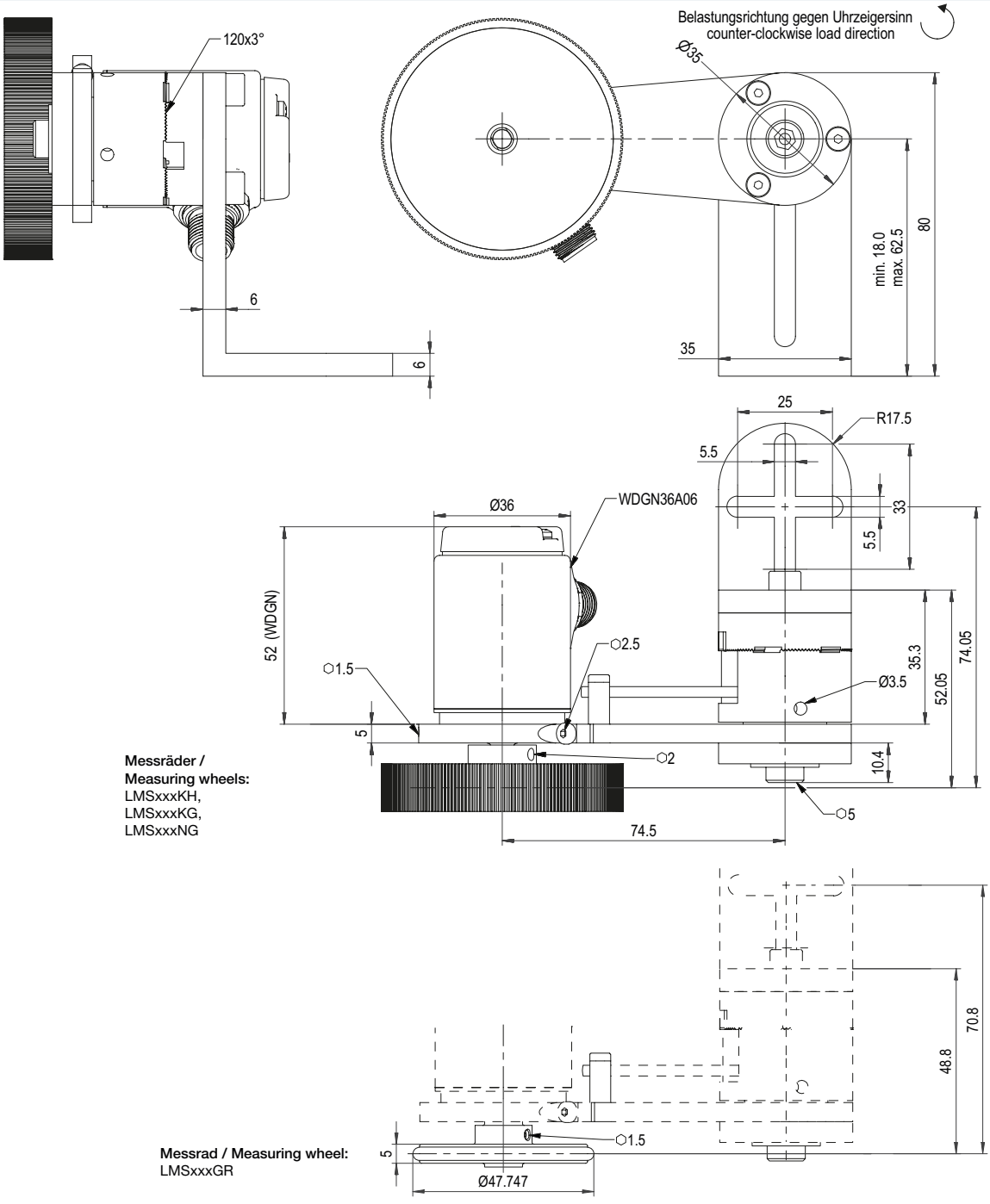
General Data	
Weight	approx. 270 g
Connection	Connector radial
Protection rating (EN 60529)	IP67, shaft sealed to IP65
Operating temperature	
LMSxxxKH:	-10 °C up to +70 °C
LMSxxxKG:	-10 °C up to +70 °C
LMSxxxNG:	-30 °C up to +80 °C
LMSxxxGR:	-40 °C up to +85 °C

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.

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

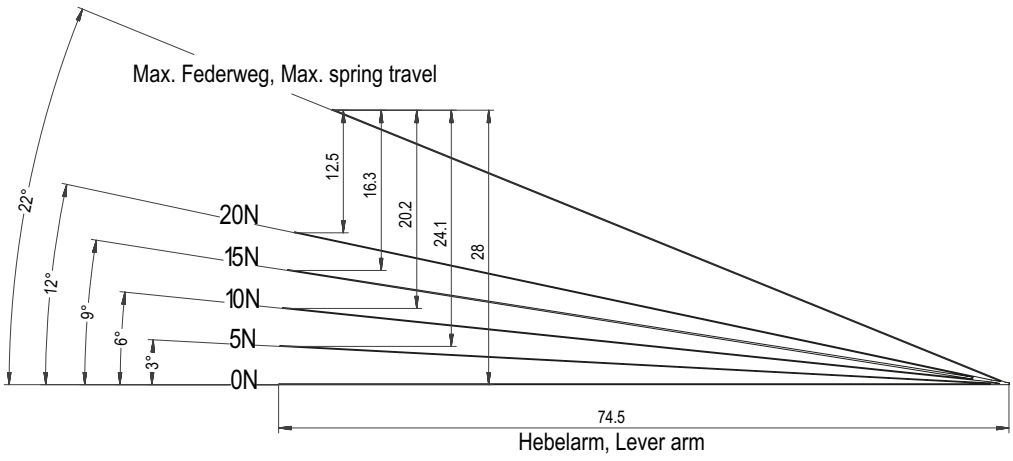


Description

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

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

Contact pressure in N and spring travel in ° and mm:



Order No.:



Measuring wheel U = 200 mm	Range of application:
LMSCA32WDGNBAS**KH**	Plastic, painted surfaces, paper, pasteboard, wood, metal, textiles.
LMSCA32WDGNBAS**KG**	Plastic, painted surfaces, paper, pasteboard, wood, metal, textiles.
LMSCA32WDGNBAS**NG**	Textiles.
Measuring wheel U = 150 mm	**Range of application:**
LMSCA32WDGNBAS**GR**	Wood, metal, conveyor belts, paper, textiles.

The length measuring system is also available without a mounting bracket. Order number: LMSCA22WDGNBASxx

For further assistance please feel free to contact us.
We would be happy to help you to find the measurement wheel, cable length or other accessory to optimize your application.

WACHENDORFF
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Authorized Distributor

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

https://www.wachendorff-automation.com/distributors-worldwide/

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