



Datasheet

Length measurement system LMSMA25

www.wachendorff-automation.com/lmsma25

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 LMSMA25



- Compact system with new spring-loaded arm, including WDGI 58B encoder and 500 mm measuring wheel
- Up to 0.02 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 58B10 with

500 ppr:	1 pulse/mm = 1.0 mm/pulse
5000 ppr:	10 pulses/mm = 0.1 mm/pulse
12500 ppr:	25 pulses/mm = 0.04 mm/pulse
25000 ppr:	50 pulses/mm = 0.02 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 _d	200 a
Mission time (T _M)	25 a
Nominal service life (L _{10h})	1 x 10 ¹¹ 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

LMSxxxKH:	-10 °C up to +70 °C
LMSxxxKG:	-10 °C up to +70 °C
LMSxxxKR:	-30 °C up to +85 °C
LMSxxxNG:	-10 °C up to +50 °C

Range of application measuring wheel U = 500 mm

	LMSxxxKH: (even)	Plastic, painted surfaces, paper, pasteboard, wood, metal, textiles.
	LMSxxxKG: (fluted)	Plastic, painted surfaces, paper, pasteboard, wood, metal, textiles.
	LMSxxxKR: (Metal, knurled)	Pasteboard, wood, textiles.
	LMSxxxNG: (pimpled)	Textiles.

More information

General technical data and safety incremental encoders

www.wachendorff-automation.com/gtd

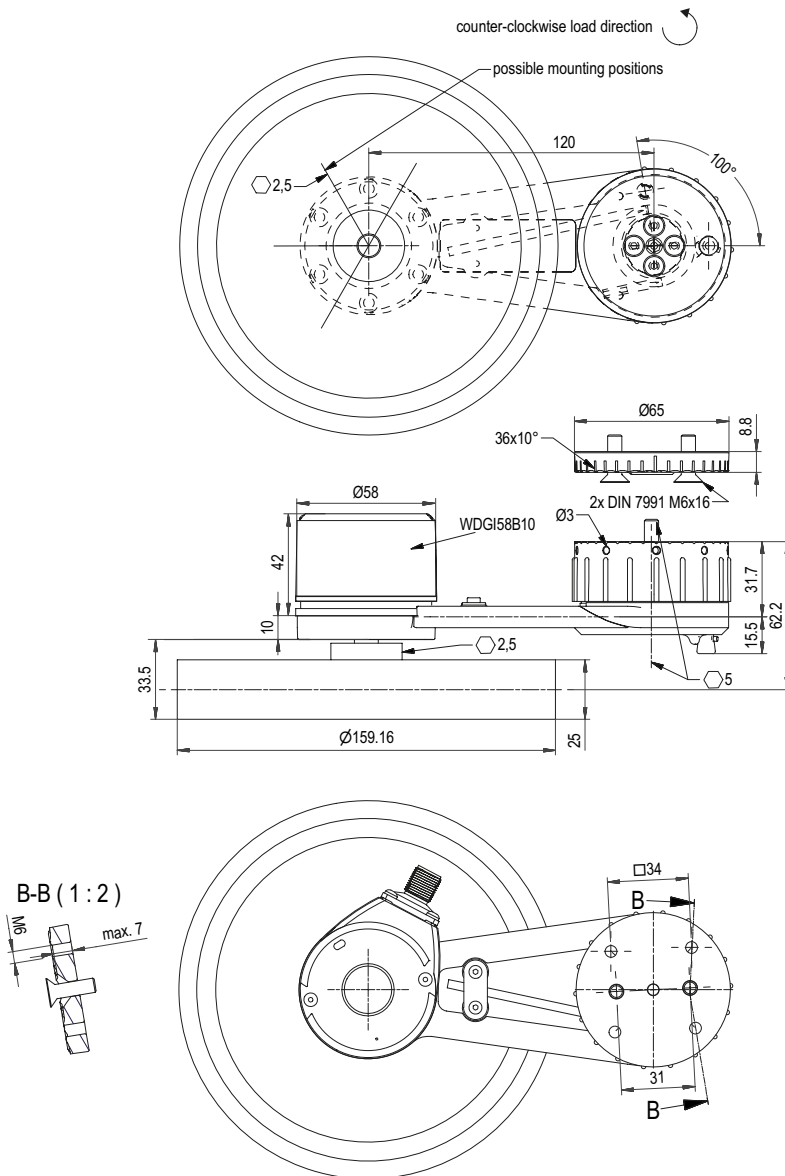
Options

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
Circuit	P05, R05, P24, R24
GND	1
+UB	2
A	3
B	4
N	5
Light reserve warning	-
A inv.	6
B inv.	7
N inv.	8
n. c.	-
Shield	-

Order No.:



LMSMA25100024xx10
 LMSMA25100005xx10
 LMSMA25010024xx10
 LMSMA25010005xx10
 LMSMA25004024xx10
 LMSMA25004005xx10
 LMSMA25002024xx10
 LMSMA25002005xx10

mm/pulses	Pulses							
1.0	500	•	•					
0.1	5000			•	•			
0.04	12500					•	•	
0.02	25000						•	•
VDC								
10 up to 30 HTL		•		•		•		•
4.75 up to 5.5 TTL			•		•		•	
Range of appl.*	xx: please refer measuring wheels							

* Range of application measuring wheel U = 500 mm

xx = KH: Plastic, painted surfaces, paper, pasteboard, wood, metal, textiles.

xx = KG: Plastic, painted surfaces, paper, pasteboard, wood, metal, textiles.

xx = KR: Pasteboard, wood, textiles.

xx = NG: 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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