



Datasheet

Length measurement system LMSMA22

www.wachendorff-automation.com/lmsma22

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 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

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

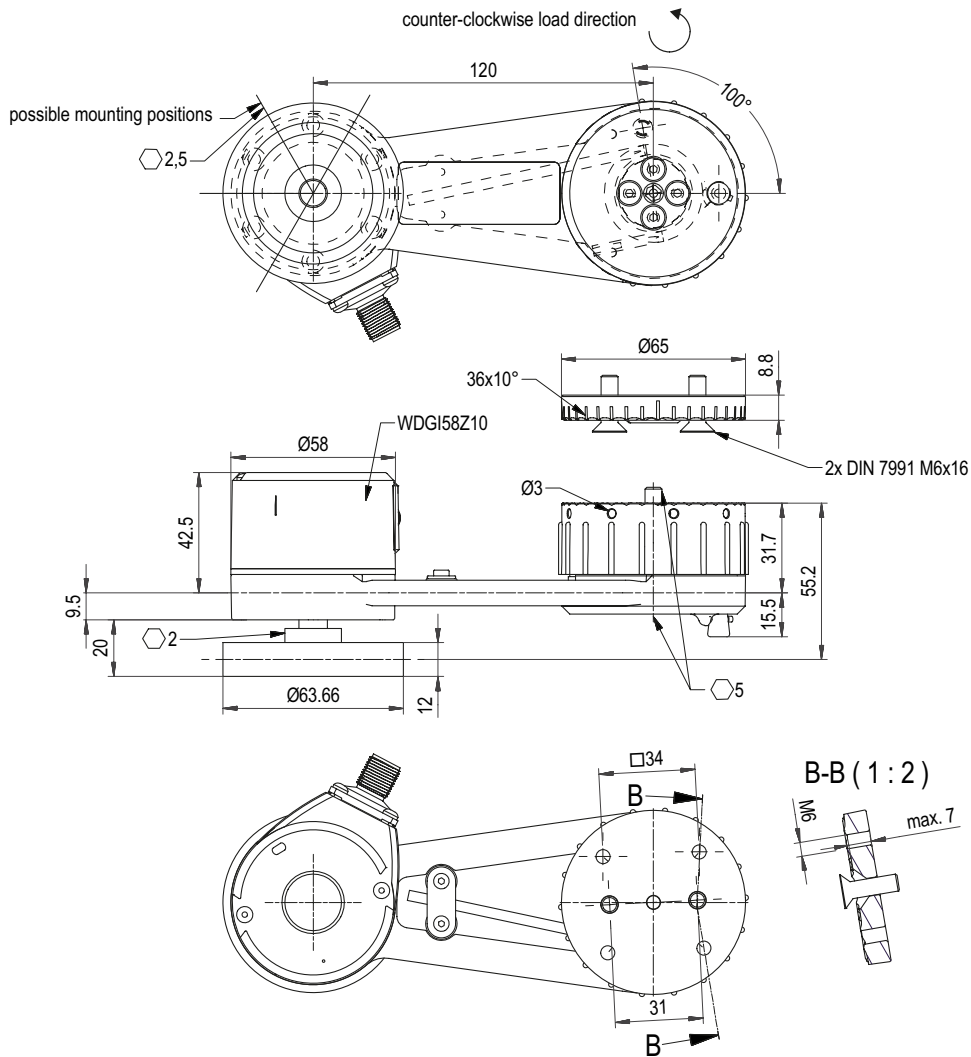
Accuracy	
Phase offset	90° ± max. 7,5 % of the pulse length
pulse-/pause-ratio	50 % ± max. 7 %

General Data	
Weight	approx. 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)	Plastic, painted surfaces, paper, paste-board, wood, metal, textiles.
	LMSxxxKG: (fluted)	Plastic, painted surfaces, paper, paste-board, wood, metal, textiles.
	LMSxxxNG: (pimpled)	Textiles.

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
	
Circuit	F05, R05, F24, 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	-



* 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.

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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