

## Length measurement system LMSMA32 conical

 www.wachendorff-automation.com/Imsma32-conical
## 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

Automation $\mathrm{GmbH} \& \mathrm{Co}, \mathrm{KG}$
Robust length measurement system LMSMA32 with measuring wheel KW (conical)


- Compact system with new spring-loaded arm, including special encoder and 200 mm measuring wheel
- Up to $0.008 \mathrm{~mm} / \mathrm{impulse}$ 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
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| Resolution encoder with |  |
| ---: | :---: |
| $200 \mathrm{ppr}:$ | 1 pulse $/ \mathrm{mm}=1.0 \mathrm{~mm} /$ pulse |
| $2000 \mathrm{ppr}:$ | 10 pulses $/ \mathrm{mm}=0.1 \mathrm{~mm} /$ pulse |
| $5000 \mathrm{ppr}:$ | 25 pulses $/ \mathrm{mm}=0.04 \mathrm{~mm} /$ pulse |
| $25000 \mathrm{ppr}:$ | 125 pulses $/ \mathrm{mm}=0.008 \mathrm{~mm} /$ pulse |


| Machinery Directive: basic data safety integrity level |  |
| :---: | :---: |
| MTTF ${ }_{\text {d }}$ | 200 a |
| Mission time ( $\mathrm{T}_{\mathrm{m}}$ ) | 25 a |
| Nominale service life (L10h) | $1 \times 10^{11}$ revs. at $20 \%$ rated shaft load and 8000 rpm |
| Diagnostic coverage (DC) | 0 \% |


| Mechanical Data of the system modules |  |
| :--- | :--- |
| Housing encoder |  |
| Flange | clamping flange |
| Flange material | aluminium |
| Housing cap | die cast aluminum, powder coated |
|  | approx. 1 Ncm at ambient temperature |
| Shaft(s) | conical |
| Shaft material | L: 20 mm |
| Starting torque | 220 N |
|  | 120 N |
| Shaft |  |
| Shaft length | Max. permissible shaft <br> loading radial |
| Max. permissible shaft <br> loading axial |  |

## 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 <br> at $100^{\circ}$ to start position |
| Contact pressure | adjustable, $10^{\circ}$-step equates <br> 5 N pressure increase |


| Electrical Data |  |
| :--- | :--- |
| Power supply/ | 4.75 VDC up to $5.5 \mathrm{VDC}:$ 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. $40 \mathrm{~mA} /$ channel |
| Circuit protection | 10 VDC up to $30 \mathrm{VDC}, \mathrm{HTL}$ only |
|  |  |
| Accuracy | $90^{\circ} \pm$ max. $7.5 \%$ of the pulse length |
| Phase offset | $50 \% \pm$ max. $7 \%$ |
| pulse-/pause-ratio |  |


| General Data |  |
| :--- | :--- |
| Weight | approx. 1100 g |
| Connection | Connector radial |
| Protection rating (EN 60529) | IP67, shaft sealed to IP65 |
| Operating temperature |  |
| LMSxxxKW: | $-30^{\circ} \mathrm{C}$ up to $+80^{\circ} \mathrm{C}$ |

Measuring wheel $\mathrm{U}=200 \mathrm{~mm}$
MRA200KW:

(even) | Range of application: greased metals, |
| :--- |
| steel profiles, laquered surfaces, |
| synthetics, paper, paperboard, wood, |
| textiles, wire, leather |

Other features / characteristics:
Optimum wear values under high mechanical loads.
Load High resistance to oils, fuels, ozone and weathering.

## 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 | $\begin{aligned} & \text { P05, R05, } \\ & \text { P24, R24 } \end{aligned}$ |
| 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 | - |

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Order No.:


Measuring wheel U = 200 mm MRA200KW:
Range of application: greased metals, steel profiles, laquered surfaces, synthetics, paper, paperboard, wood, textiles, wire, leather
Other features / characteristics: Optimum wear values under high mechanical loads. Load High resistance to oils, fuels, ozone and weathering.we

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.

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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/contact-sales-en/

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