

- Magnetic ring encoder
- Sealed housing, IP68
- Contactless sensing
- Up to 50 mm hollow shaft
- Outdoor & mobile equipment applications

SGSM →  single sensor

SGSD →  redundant sensor



SGSM • SGSD

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range:	-40°C ÷ +85°C (-40°F +185°F)
Storage temperature range:	-40°C ÷ +100°C (-40°F +212°F)
Protection:	IP68

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Hollow shaft diameter:	Ø 30, 50 mm
Shaft rotational speed:	10000 rpm max. (mechanical)
Gap sensor-ring:	0,1 ÷ 1,5 mm
Electrical connections:	M12 8 pin inline plug or Lika Hi-flex cable 1,0 m (3.3 ft)
Weight:	~ 200 g (7 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS

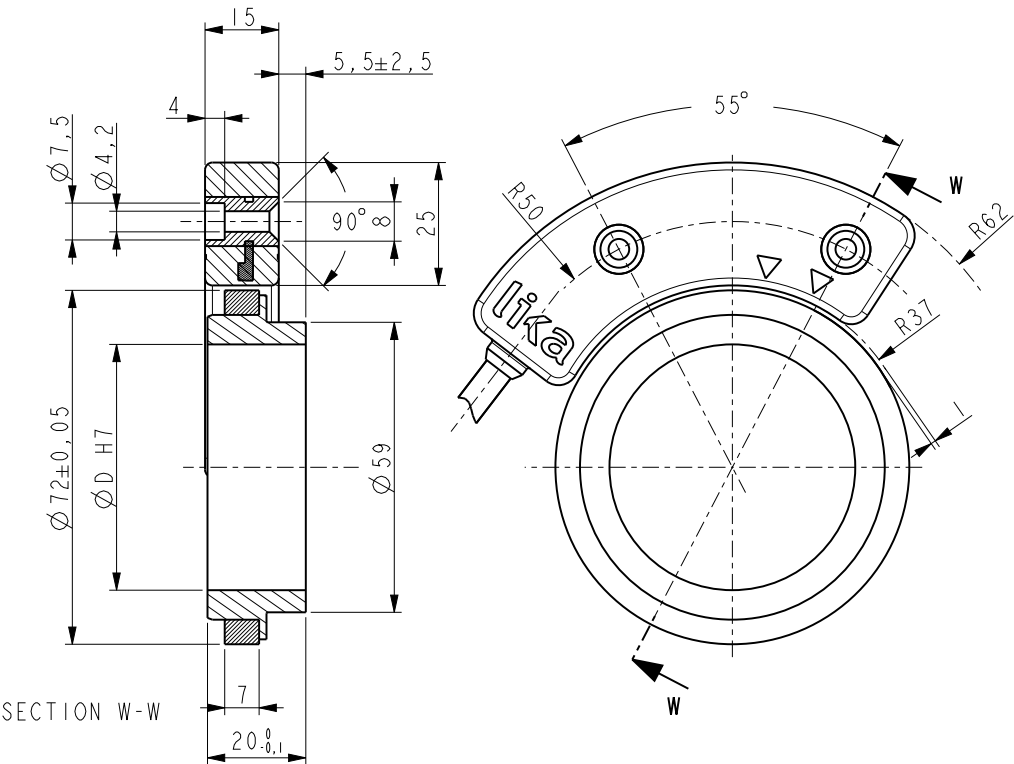
Resolution (PPR):	see table
Accuracy:	± 0,05°
Counting frequency:	100 kHz max.
Output circuits:	SGSM: 1 x Line Driver, Push-Pull SGSD: 2 x Line Driver, Push-Pull
Power supply:	+5Vdc ±5%, +10Vdc ÷ +30Vdc
Consumption:	70 mA max. (each sensor)
Output signals:	AB, /AB
Output current (per channel):	40 mA max.
Protection:	against inversion of polarity and short-circuit (except L circuit)
EMC:	electro-magnetic immunity, EN 61000-4-2 EN 61000-4-4

MATERIALS

Housing:	Macromelt OM 646-EN
Hub:	Anticorodal, UNI EN AW-6082
Ring:	Plastoferite

ACCESSORIES

EM12F8:	M12 8 pin mating connector
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SGSM • SGSD

Order code Resolution	MRI/72-50-4-xx	MRI/72-54-4-xx	MRI/72-60-3-xx	MRI/72-64-3-xx
	PPR			
4	50	54	60	64
8	100	108	120	128
12	150	162	180	192
16	200	216	240	256
20	250	270	300	320
32	400	432	480	512
40	500	540	600	640
48	600	648	720	768
64	800	864	960	1024

Order code - Sensor

SGSM SGSD	-	X Ⓐ	-	X Ⓑ	-	XX Ⓒ	-	X Ⓓ	-	XX Ⓔ	/Sxxx Ⓕ
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Ⓐ OUTPUT CIRCUITS

Y = Push Pull (AB, /AB)
L = Line Driver (AB, /AB)

Ⓑ SUPPLY VOLTAGE VS OUTPUT CIRCUIT

1 = +5V±5% (L output circuit)
2 = +10V÷ +30V (Y output circuit)

Ⓒ RESOLUTION

see table

Ⓓ INDEX

N = without Index

Ⓔ CONNECTIONS

L1 = cable output 1 m
Lx = cable output x m (max. 10 m)
M2 = 2 m cable + M12 8 pin inline plug
(only SGSM)

Ⓕ CUSTOM VERSION

Order code - Magnetic ring

MRI	/	XX Ⓐ	-	XX-X Ⓑ	-	XX Ⓒ	/Sxxx Ⓓ
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Ⓐ RING TYPE

72 = size 72 with grub screw fixing

Ⓑ MAGNETIC CODING

50-4 = 50 poles
54-4 = 54 poles
60-3 = 60 poles
64-3 = 64 poles

Ⓒ SHAFT DIAMETER

30 = 30 mm
50 = 50 mm

Ⓓ CUSTOM VERSION

Document release	Date	Description
1.3	12.11.2021	Updating order code resolution
1.2	05.08.2021	Updating of magnetic coding and resolution
1.1	22.09.2020	L1, Lx order code updated