LINEPULS
High-speed gear sensor

Series **SMG**

- High speed gear and tooth sensor
- Position & speed feedback
- Compact design with IP68 protection
- Easy & precise alignment thanks to keyway
- Available for modules 0,3 and 0,5 & 1, 2, 3 mm tooth structures

SMG

ENVIRONMENTAL SPECIFICATIONS	
Shock:	250 g, 6 ms acc. to CEI EN 60068-2-27
Vibrations:	10 g, 5-2000 Hz acc. to CEI EN 60068-2-6
Protection:	IP68
Operating temperature range:	-25°C ÷ +85°C (-13°F +185°F)
Storage temperature range:	-40°C ÷ +100°C (-40°F +212°F)

MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
Housing material:	die cast aluminium, UNI EN AC-46100
Electrical connections:	Lika Hi-flex cable M8 0,3 m or M12 8 pin inline plug
Gap between sensor/target:	SMG03: 0,19 mm max. SMG05: 0,31 mm max.
Travel speed (mechanical):	max 16 m/s
Measurement length:	Target length -1 mm each side

ELECTRICAL SPECIFICATIONS	
Interpolation factor:	up to 100 (only digital output)
Repeat accuracy:	±1 increment
Output circuits:	1Vpp sine/cosine, Line Driver, Push-Pull
Output signals:	A0 /A0
Counting frequency:	2000 kHz max.
Power supply:	+5Vdc ±5%
Power consumption:	25 mA typ., 50 mA max.
Protection:	against short-circuit
EMC:	acc. to EN 61000-6-2 level 3

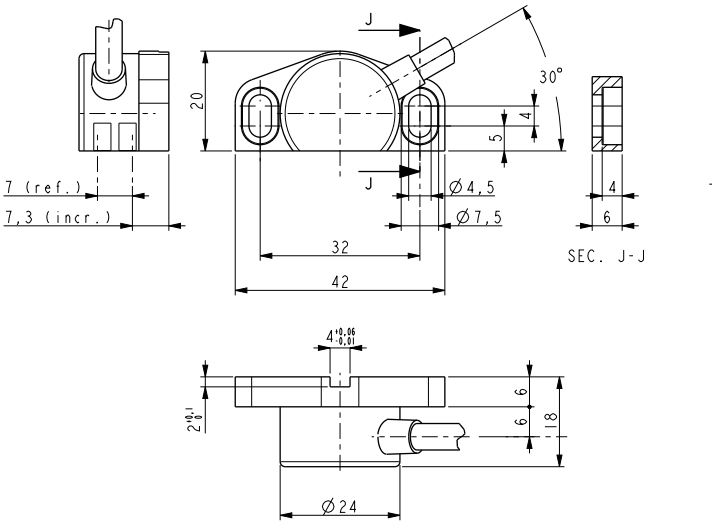
ACCESSORIES	
E-M12F8:	M12 8 pin mating connector
EC-M12F8-LK-M8-5:	cordset 5 meters with M12 conn.
EC-M12F8-LK-M8-10:	cordset 10 meters with M12 conn.

Edge distance SMG05

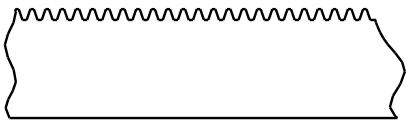
		Resolution (µm) vs. max. possible speed (m/s)				
Edge distance (µsec)	Max. counting frequency (kHz)	100	32	16	8	1
0,5	2.000	5,00	16,00	32,00	64,00	500,00

Edge distance SMG03

		Resolution (µm) vs. max. possible speed (m/s)				
Edge distance (µsec)	Max. counting frequency (kHz)	100	32	16	8	1
0,5	2.000	3,00	9,00	18,00	36,00	300,00



SMG



Toothed-structure with module/pitch M0.3, M0.5, 1, 2, 3
(contact Lika for further information)

Order code

SMG03 SMG05	-	X ⓐ	-	X ⓑ	-	XXX ⓒ	-	XX ⓓ	-	XXX ⓔ	/Sxxx ⓕ

ⓐ **OUTPUT CIRCUIT**
Y = Push-Pull (AB)
L = Line Driver (AB /AB)
V = 1 Vpp sine/cosine (*)

ⓑ **POWER SUPPLY**
1 = +5Vdc ±5%

ⓒ **INTERPOLATION**
1 = 1 pulse/tooth
8 = 8 pulse/tooth
16 = 16 pulse/tooth
32 = 32 pulse/tooth
100 = 100 pulse/tooth

(*) *with output V only interpolation "1"*

ⓓ **INDEX**
N = without
R = with reference type R (1Vpp level)
Z = with reference type Z (1Vpp level)

ⓔ **CONNECTIONS**
0,3 = cable output 0,3 m
Lx = cable output x m
M0,5 = 0,5 m cable + M12 8 pin inline connector

ⓕ **CUSTOM VERSION**