



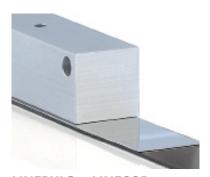
**ROTAPULS**Incremental rotary encoders



ROTACOD
Absolute rotary & Fieldbus encoders



ROTAMAG
Rotary Magnetic encoder & Encoder modules



LINEPULS – LINECOD
Linear Absolute & Incremental encoders



**DRAW-WIRE**Draw-wire encoders & potentiometers



**COUPLINGS**Flexible & Transmission couplings



**POSICONTROL**Displays & Signal converters
Encoder Interfaces



**DRIVECOD**Rotary Actuators & Positioning units



1982 Lika Electronic founded in Schio (VI). 1986 Manufacturing of absolute encoders with integrated display and incremental encoders for the Italian market. 1991 Foundation of Lika Trading commercial corporate. 1993 Lika Electronic is the first company in Italy to offer a complete portfolio of encoders in the 58 mm diam. range. 1997 Lika is first certified to ISO 9001:1994.

1982 1986 1990 1995

1983 Lika numbers 8 customers. 1985 Lika starts the production of absolute encoders for the German market. 1987
Lika produces a 50 mm diameter miniature encoder, the smallest absolute encoder in Europe.

1995 The 100,000th encoder rolled off the production line. 1996 ROTACAM ASR58 is the first absolute encoder fitted with integrated cam programmer.

# An international family company, corporate profile



Lika Electronic stands for encoders and position measuring systems. Since its inception in 1982, Lika Electronic develops and manufactures incremental and absolute, optical and magnetic, rotary and linear encoders, incremental & absolute sensors, linear and rotary incremental & absolute magnetic measurement systems, rotary actuators, displays, signal converters and encoder interfaces.

Starting as a family-owned business, thanks to its technical competence and comprehensive know-how in the automation industry along with the high quality standards and the skill in providing solutions that target specific customer needs, over the years **Lika Electronic has** 

grown becoming a forward thinking innovative and global company and has become one of the leading manufacturers of optical encoders and magnetic measurement systems in Europe and worldwide.

Many key features include the extensive technical engineering skills , in-depth knowledge and expertise in digital and analogical electronic design as well as the proven daily practice in co-operation with universities, research institutions and customers in order to develop and provide advanced electronic equipment and high-tech materials & devices tailored

to specific customer and market requirements. Moreover software development and mechanical & optical components design are entirely performed within the company. Often production machinery and tools are often engineered and built internally to satisfy specific needs and performances.

Every day Lika Electronic is committed to being a step ahead and always at the forefront of innovation, looking to the future with the enthusiasm that steers the company towards new opportunities without giving up the strength of being an international family company.

Lika Electronic is certified for compliance with ISO 9001:2000 quality management system and is now committed to adopt an environmental management system complying with ISO 14001:2004 requirements. All Lika's products are designed and manufactured to fully meet the requirements of CE, RoHS and REACH directives, most of them are UL and CSA compliant too. ATEX certified solutions suitable to be integrated into potential explosive environments and hazardous areas are also available.



# Global presence, make us closer to the customer

Every day, everywhere Lika Electronic works in close contact with its customers to build strong, long-lasting relationships and support them at all times in each day-to-day requirement.

Lika's actions focus on custom-

ers' needs with daily challenges to develop reliable and cutting edge solutions.

Continuous innovation, outstanding expertise, overall quality, prompt action and maximum flexibility are the fundamental values that Lika Electronic is truly proud of offering its customers when working together.

Lika Electronic operates all over the world providing a widespread and efficient global distribution network, offering unrivalled technical support and excellent customer service.

At the present time the export share is approximately 60% of the turnover in more than 50 countries.

#### 1998

First 16-bit resolution single-turn absolute encoder engineered for installation in aerostatic probes developed by Florence University.

#### 2000

ROSETTA space probe project gets under way in co-operation with CISAS.

#### 2002

Production in antistatic environment (ESD). DRIVECOD & POSICONTROL product ranges are launched in the market.

#### 2007

Lika Electronic celebrates its 25th anniversary with a series of special events.

# 2012

30th anniversary: "30 new products for our 30 years" event launched.



2000 2004 2008 2012

#### 1999

Lika Electronic moves its corporate headquarters to Carrè (VI) establishing in new larger production and office premises.

#### 2001

Foundation of Lika subsidiary in Germany.

#### 2004

Arianne 5 rocket successfully launched: Rosetta probe fits Lika encoders.

#### 2008

ALMA project: giant array of 12-m radio telescopes equipped with special custommade Lika encoders.

#### 2010

Lika introduces the innovative range of heavy-duty products dedicated to steel & iron industry and wind mills

**SFP** 



- Robust and space saving construction
- Integrated potentiometer
- Measuring length up to 2000 mm
- Current or voltage output



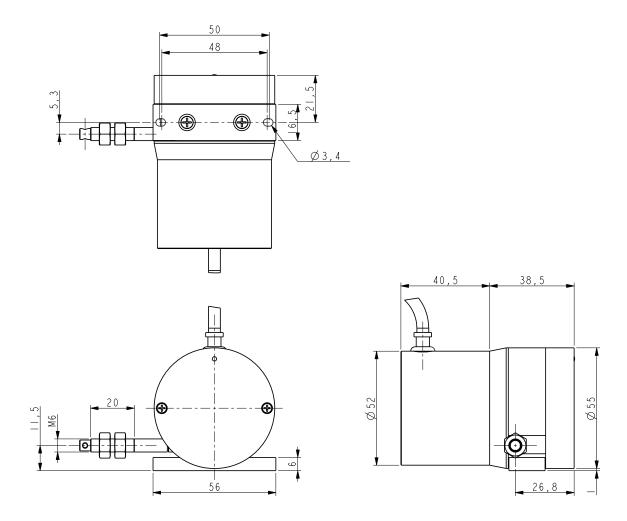
SFP

	ENVIRONMENTAL SPECIFICATIONS	
Operating temperature range:		-25°C +85°C (-13°F +185°F)
Protection:		IP64

MECHANICAL SPECIFICATIONS					
Dimensions:	see drawing				
Stroke per turn:	100 mm				
Wire retraction force:	3 ÷5 N				
Measuring length:	300, 500, 1000, 1500, 2000 mm				
Measuring speed:	1 m/sec max.				
Repeat accuracy:	± 0,15 mm				
Weight:	~ 0,2 kg				
Connections:	cable 2.0 m				

ELECTRIC	CAL SPECIFICATIONS
Current output (AI1):	4-20mA, Power supply +10 +30Vdc
Voltage output (AV2):	0-10V, Power supply +15 +30Vdc
Resistance output (1, 5, 10, 20):	1, 5, 10, 20 k $\Omega$ ±5%, 2W
	Linearity ±0,25%

MA	TERIALS
Housing:	Aluminium
Wire:	Stainless steel



SFP

# Order code

SFP	-	XXXX	-	XX	-	XX
		a		Ь		©

# ⓐ MEASURING LENGTH

**300** = 300 mm

**500** = 500 mm

**1000** = 1000 mm

**1500** = 1500 mm **2000** = 2000 mm

### **(b)** OUTPUT

Al1 = current output 4 -20mA

AV2 = voltage output 0-10V

1 = resistance output 1 kΩ

 $\mathbf{5}$  = resistance output 5 kΩ

10 = resistance output 10 kΩ

**20** = resistance output 20 kΩ

# © CABLE LENGTH

L2 = cable output 2 m

L4 = cable output 4 m

Lx = cable length on request

# **DRAW WIRE**

Miniature draw wire encoder

Series

**SFE** 







- Robust and space saving construction
- Integrated incremental encoder
- Measuring length up to 2000 mm



SFE

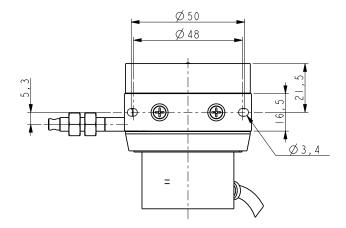
	ENVIRONMENTAL SPECIFICATIONS	
Operating temperature range:		-25°C + 85°C (-13°F + 185°F)
Protection:		IP64

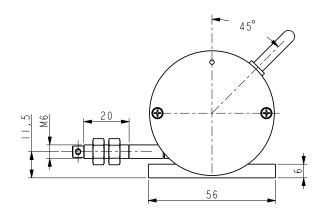
MECHANICAL SPEC	IFICATIONS
Dimensions:	see drawing
Stroke per turn:	100 mm
Wire retraction force:	5 ÷ 15 N
Measuring length:	1500, 2000 mm
Measuring speed:	1 m/sec max.
Weight:	~ 0,2 kg
Connections:	cable 2,0 m

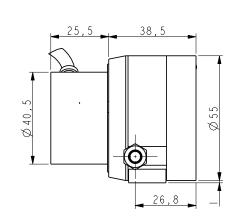
ELECTRICAL SPECIFICATIONS			
Power supply:	+5Vdc +30Vdc		
Output circuit:	Universal circuit PP/LD		
Resolution:	1 / 0,5 / 0,4 / 0,05 mm		
Output current:	40 mA max.		
Input current:	60 mA max.		
Output signals:	AB, /AB		

	MATERIALS
Housing:	Aluminium + plastic
Wire:	stainless steel, non magnetic - UNI EN 4305

1	Function
yellow	A
blue	/A
green	В
orange	/B
white	0
grey	/0
red	+Vdc
black	0Vdc GND







SFE

### Order code

SFE	-	XXXX	-	Х	-	XXX	-	Х	-	XX
		a		<b>6</b>		©		<b>d</b>		e

(a) MEASURING LENGTH 1500 = 1500 mm

**2000** = 2000 mm

**(b) OUTPUT CIRCUIT H** = PP/LD universal circuit

© RESOLUTION

**100 =** 1 mm (x4 = 0,25 mm) **200 =** 0,5 mm (x4 = 0,125 mm)

**250 =** 0,4 mm (x4 = 0,123 mm)

**500 =** 0,2 mm (x4 = 0,05 mm)

d POWER SUPPLY 4 = +5 Vdc + 30 Vdc

© CONNECTIONS

L2 = 2 meters

L2 = 2 meters L4 = 4 meters

Lx = cable length on request

**SFA** 



- Absolute draw-wire encoder
- Robust and compact design
- Resolution from 0.1 to 0.012 mm
- Measuring range 1000 and 2000 mm



SFA

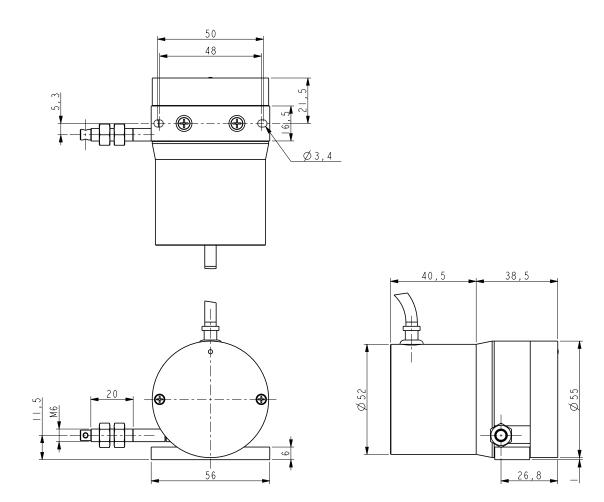
ENVIRONMENTAL SPEC	CIFICATIONS
Operating temperature range:	-25°C + 85°C (-13°F + 185°F)
Protection:	IP64

MECHANICAL SPECIFICATIONS		
Dimensions:	see drawing	
Stroke per turn:	100 mm	
Wire retraction force:	5 ÷15 N	
Measuring length:	1000, 2000 mm	
Measuring speed:	1 m/sec max.	
Weight:	~ 0,3 kg	
Connections:	M12 8 pin plug, cable 2,0 m	

	ELECTRICAL SPECIFICATIONS
Resolution:	0.012, 0.025, 0.05, 0.1 mm
Output code:	Binary, Gray
Power supply:	+10Vdc +30Vdc
Power consumption:	25 mA max.
Output circuits:	SSI (25 bit, LSB alligned, clock 300 kHz max, Tp > 64 µsec)
Protection:	against inversion of polarity
EMC:	acc. to EN-61000-4-2/A1
	EN-61000-4-4
Battery life:	10 years min.
Function:	Zero setting

	MATERIALS
Housing:	non corroding, UNI EN AW-6082
Wire:	stainless steel, non magnetic - UNI EN 4305

ELECTRICAL CONNECTIONS				
Function	M12 8-pin	M8 cable		
0Vdc GND	1	Black		
+10 +30Vdc	2	Red		
Clock in +	3	Yellow		
Clock in -	4	Blue		
Data out +	5	Green		
Data out -	6	Orange		
Zero setting	7	White		
n.c.	8	Grey		
Shield	Shielded	Shielded		



SFA

# Order code

SFA	-	XXXX	-	XX	-	XXXX	-	XXX
		a		Ь		©		<b>(d)</b>

ⓐ MEASURING LENGTH

**1000** = 1000 mm

**2000** = 2000 mm

**(b)** OUTPUT CIRCUIT

**BA** = SSI, binary code, LSB aligned **GA** = SSI, gray code, LSB aligned

© RESOLUTION

**8192** = 0.012 mm **4000** = 0.025 mm

**2000 =** 0.05 mm **1000** = 0.1 mm

**L2** = 2 meters

**(d)** CONNECTIONS

 $\mathbf{L}\mathbf{x}$  = cable length on request

M0.5 = 0.5 m cable + M12 8 pin inline connector

M2 = 2 m cable + M12 8 pin inline connector

SF-I • SF-A





- Simple and reliable construction
- Fits incremental, absolute, analogue & fieldbus encoder
- Measurement range from 5000 to 6800 mm
- Drum circumference:
  - 200,0 mm for incremental encoder
  - 204,8 mm for absolute encoders













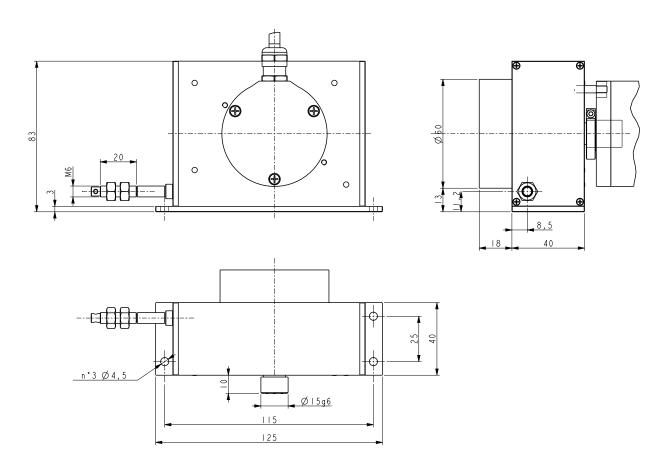
SF-I SF-A

COMBINATIONS WITH ENCODERS		
SF-I + CK58-H-500ZCU415R:	Incremental encoder, resolution 0,1 mm (after x 4)	
SF-I + CK58-H-2000ZCU415R:	Incremental encoder, resolution 0,1 mm	
SF-A + EMC5812/4096GS-15-RM2+EPFL121H:	SSI absolute encoder, resolution 0,05 mm	
SF-A + EMC5812/16384PA-15-RM2:	Programmable analogue encoder	
SF-A + AMC5812/4096PB-15 + CC-PB:	Profibus absolute encoder	

ENVIRONMENTAL SPECIFI	CATIONS
Operating temperature range:	-25°C +85°C (-13°F +158°F)
Protection:	see encoder

MECHANICAL SPECIFICATIONS		
Dimensions:	see drawing	
Stroke per turn:	200 - 204,8 mm	
Wire retraction force:	5 ÷15 N	
Measuring length:	5000, 6800 mm	
Measuring speed:	3 m/sec max.	
Repeat accuracy:	± 0.15 mm	
Weight:	~ 0,6 kg (without encoder)	

MATERIALS		
Housing:	anodized, UNI EN AW-6082	
Wire:	stainless steel, non magnetic - UNI EN 4305	



SF-I SF-A

### Order code

SF	-	Х	-	XXXX
		a		<b>(b)</b>

ⓐ STROKE PER TURN

I = 200 mm (for incremental encoders) A = 204,8 mm (for absolute encoders)

**(b)** MEASURING LENGTH

**5000** = 5000 mm **6800** = 6800 mm

11

SAK



- 10 or 15 m measurement length
- Robust aluminium housing with optional anticorrosive surface treatment
- Forced wire guidance and one layer winding
- ATEX encoder on request













SAK

SUITABLE ENCODERS		
I58-H-3000ZCU46RL2:	Incremental encoder, 0.1 mm resolution, cable output	
I58-H-3000ZCZ46R + EPFL121:	Incremental encoder, 0.1 mm resolution, connector output	
HM5818/16384-PS-6:	Programmable SSI encoder, res. up to 0,01 mm	
EM58 TA:	Programmable analogue output	
AM5812/4096PB-6 + CC-PB:	AM5812/4096PB-6 + CC-PB	

ENVIRONMENTAL SPECI	FICATIONS
Operating temperature range:	-25° +85°C (-13°F +185°F)
Protection:	see encoder

MECHANICAL SPECIFICATIONS		
Dimensions:	see drawing	
Stroke per turn:	300 mm	
Wire retraction force:	10 ÷15 N	
Measuring length:	10.000, 15.000 mm	
Measuring speed:	10 m/sec max.	
Acceleration:	4 m/s² max.	
Linearity:	± 0,05% FS max.	
Weight:	~ 6-8 kg (without encoder)	

	MATERIALS
Housing:	Aluminium
Wire:	Stainless steel, ø 0,9 mm

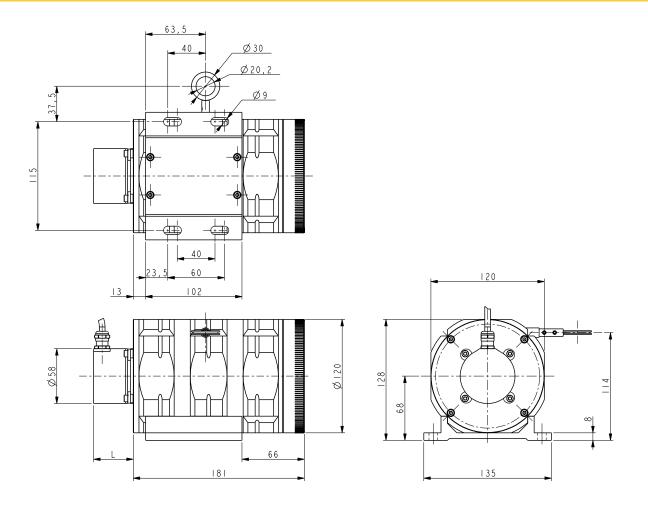
#### Order code

SAK	-	XXXXX
		a

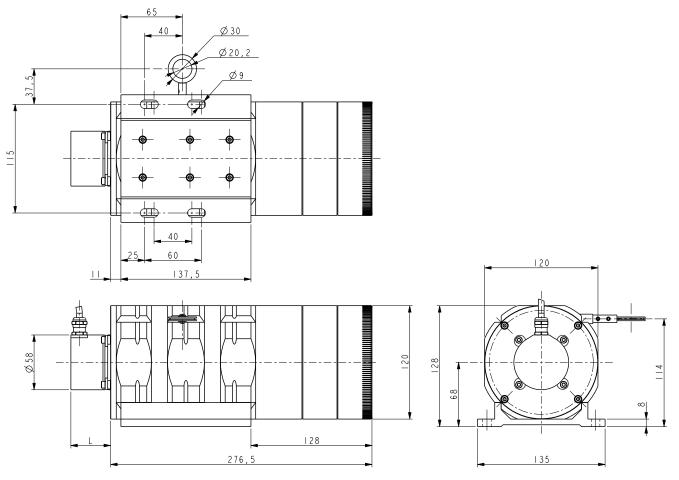
ⓐ MEASURING LENGTH

**10000** = 10000 mm

**15000** = 15000 mm



SAK-10000



SAK-15000

SBK



- From 20 to 50 m measurement length
- Robust aluminium housing
- Forced wire guidance and one-layer winding
- ATEX encoder on request
- Fits any encoders with servoflange













SBK

SUITABLE ENCODERS		
I58-H-5000ZCU46RL2:	Incremental encoder, 0.1 mm resolution, cable output	
I58-H-5000ZCZ46R + EPFL121:	Incremental encoder, 0.1 mm resolution, connector output	
HM5818/16384-PS-6:	Programmable SSI encoder, res. up to 0,01 mm	
EM58 TA:	Programmable analogue output	
AM5812/4096PB-6 + CC-PB:	AM5812/4096PB-6 + CC-PB	

ENVIRONMENTAL SPECIFICA	TIONS
Operating temperature range:	-25° +85°C (-13°F +185°F)
Protection:	see encoder

MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
Stroke per turn:	500 mm
Wire retraction force:	10 ÷ 30 N
Measuring length:	20.000, 30.000, 40.000, 50.000 mm
Measuring speed:	10 m/sec max.
Acceleration:	2 $m/s^2$ max. (20, 30 m versions) 1 $m/s^2$ max. (40, 50 m versions)
Linearity:	± 0,05% FS max.
Weight:	~ 12-13 kg (without encoder)

	MATERIALS
Housing:	Aluminium
Wire:	Stainless steel, ø 0,9 mm

#### Order code

SBK	-	XXXXX
		(a)

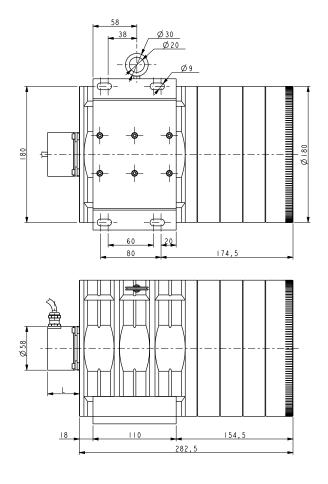
### (a) MEASURING LENGTH

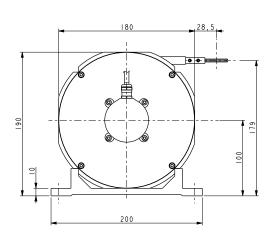
**20000** = 20000 mm

**30000** = 30000 mm

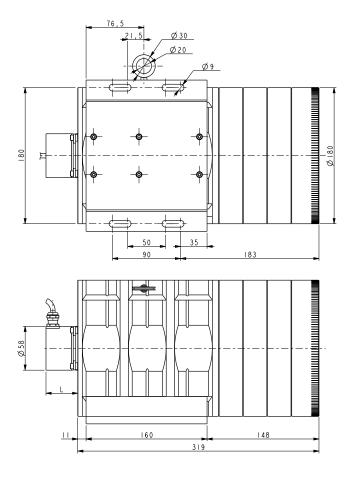
**40000** = 40000 mm

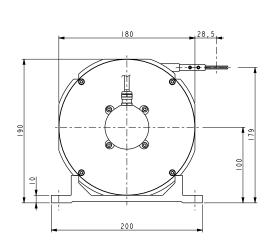
**50000** = 50000 mm

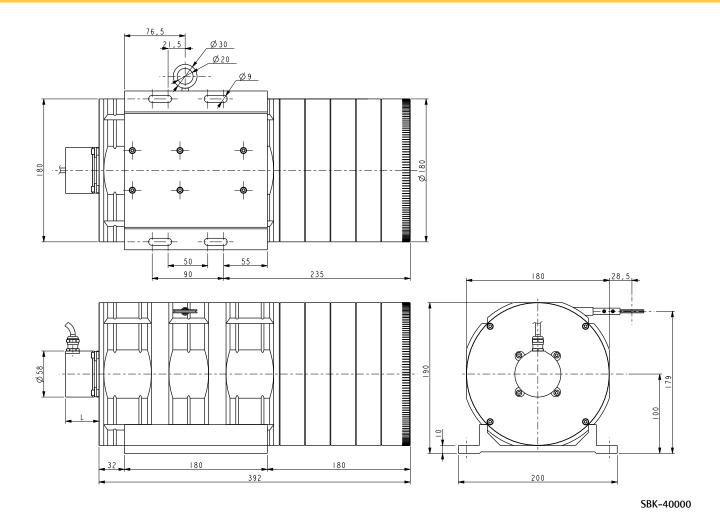




SBK-20000







76.5 21.3 Ø20 Ø20 Ø30 15 255 180 28.5 180 200

# NOTES

# NOTES

# NOTES

# Contact...





# Lika Electronic

Via S. Lorenzo, 25 36010 Carré (VI) ● Italy Tel. +39 0445 806600 Fax +39 0445 806699 eMail info@lika.it www.lika.it

# Follow us:











Local distributor