30 YEARS YOUNG
1982.2012

30th

lika®
Smart encoders & actuators

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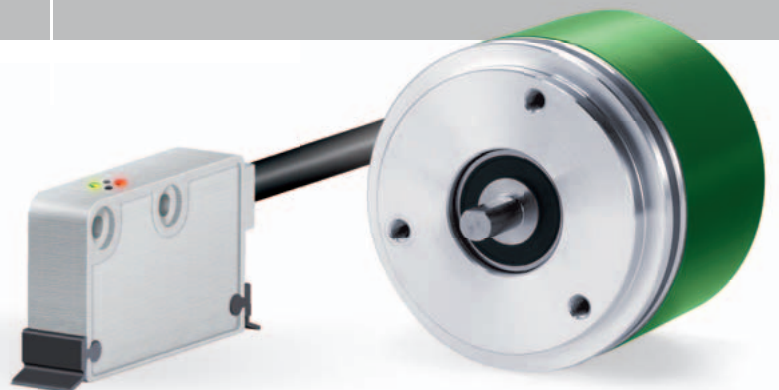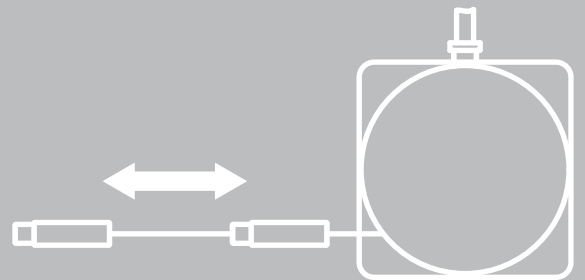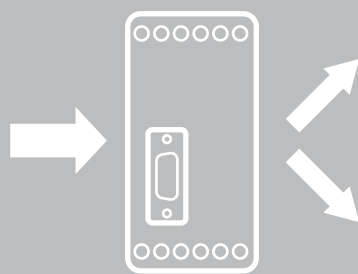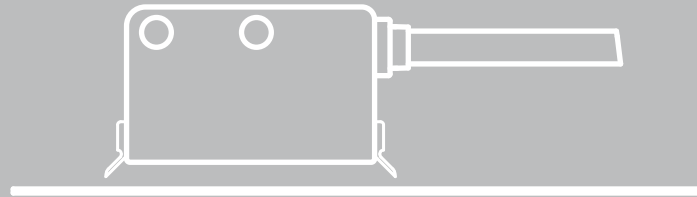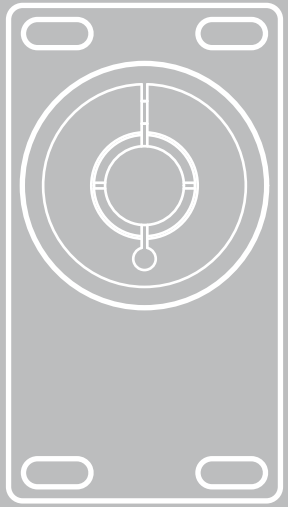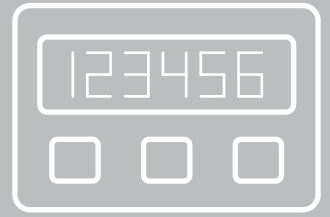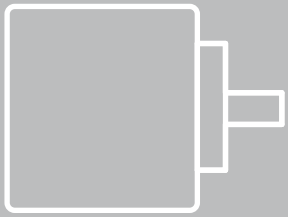
General catalogue 2012

ROTAPULS
Incremental rotary encoders

ROTACOD
Absolute rotary & Fieldbus encoders

ROTAMAG
Rotary Magnetic encoder &
Encoder modules

LINEPULS – LINECOD
Linear Absolute & Incremental encoders
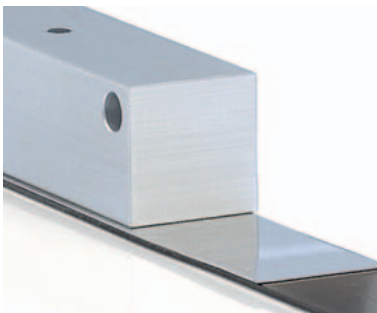

DRAW-WIRE
Draw-wire encoders & potentiometers

COUPLINGS
Flexible & Transmission couplings

POSICONTROL
Displays & Signal converters
Encoder Interfaces

DRIVECOD
Rotary Actuators & Positioning units

30 YEARS YOUNG
1982.2012

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.

4

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 customers' 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 custom-made Lika encoders.

2010
Lika introduces the innovative range of heavy-duty products dedicated to steel & iron industry and wind mills.

ROTAPULS incremental encoders

		Housing ø (mm)	Shaft max. ø (mm)	Shaft rotational speed max. (rpm)	connector	cable	Resolution max. (PPR)	Output frequency max. (kHz)	Power supply (Vdc)	NPN	PNP	1Vpp	Push-Pull	Line Driver	Universal circuit	Operating temp. °C (°F) min. – max.	Protection max.
					Connection												
	IM30 – IM31 – IM56 Encoder modules **Light-duty Feedback**	30÷56	O 8	3000	•		2048	100	+5	•				•		-40 +85 (-40 +185)	IP20
	I28 Optical miniature encoder **Light-duty**	28	● 5	3000		•	1024	100	+5 +10 +30 +5 +30	•			•	•	•	-20 +70 (-4 +158)	IP54
	MI36 – MC36 Magnetic encoders, compact **Light-duty**	36	● 6 O 6	12000		•	2048	300	+5 +10 +30	•			•	•		-25 +85 (-13 +185)	IP67
	MI36K Magnetic encoders Stainless steel version Food industry **Light-duty Food**	36	● 6	12000		•	2048	300	+5 +10 +30	•			•	•		-25 +85 (-13 +185)	IP67
	I40 – I41 Optical encoders, compact **Light-duty**	40	● 8	6000		•	5000	50	+5 +10 +30 +5 +30	•	•		•	•	•	-25 +85 (-13 +185)	IP66
	CK41 – CK46 Optical encoder, compact **Light-duty**	41 46	O 6	6000		•	5000	50	+5 +10 +30 +5 +30	•	•		•	•	•	-25 +85 (-13 +185)	IP65
	C50 – C51 Optical encoder High temperature **Industrial / Feedback**	50	O 10	6000 3000		•	1024 2500	100	+5 +10 +30 +5 +30	•			•	•	•	-40 +100 (-40 +212) -25 +85 (-13 +185)	IP65
	CB50 Optical encoder for servo motors UVW signals **Feedback**	50	O 10	6000	•		2500/ 8 poles	200	+5 +10 +30				•	•		-20 +100 (-4 +212)	IP20
	I58 – I58S Optical standard encoders **Industrial**	58	● 12	12000	•	•	10000	300	+5 +10 +30 +5 +30	•	•	•	•	•	•	-40 +100 (-40 +212)	IP65

ROTAPULS incremental encoders

		Housing ø (mm)	Shaft max. ø (mm)	Shaft rotational speed max. (rpm)	Connection		Resolution max. (PPR)	Output frequency max. (kHz)	Power supply (Vdc)	NPN	PNP	1 Vpp	Push-Pull	Line Driver	Universal circuit	Operating temp. °C (°F) min. – max.	Protection max.
					connector	cable											
	I58SK Optical encoder Stainless steel version Food industry **Industrial Food**	58	● 12	12000	•	•	10000	300	+5 +10 +30 +5 +30	•	•	•	•	•	•	-40 +100 (-40 +212)	IP65
	C58 – C59 – C60 Optical standard encoders Through hollow shaft **Industrial**	58	○ 15	6000	•	•	2500	100	+5 +10 +30 +5 +30				•	•	•	-40 +100 (-40 +212)	IP65
	C58A – C58R Optical standard encoders Through hollow shaft **Industrial / Feedback**	58	○ 15	6000	•	•	2500	100	+5 +10 +30 +5 +30				•	•	•	-40 +100 (-40 +212)	IP65
	CK58 – CK59 – CK60 Optical standard encoders Blind hollow shaft **Industrial**	58	○ 15	6000	•	•	10000	300	+5 +10 +30 +5 +30	•	•	•	•	•	•	-40 +100 (-40 +212)	IP65
	CB59 – CB60 Optical encoders for servo motors Sine/cosine **Feedback / Lift**	58	○ 15 ● 1:10	12000		•	2048/ 1 sin/cos	300	+5			•				-20 +100 (-4 +212)	IP40
	MI58 – MI58S Magnetic encoders Sealed circuits **Industrial**	58	● 12	12000	•	•	10000	500	+5 +10 +30 +5 +30				•	•	•	-25 +85 (-13 +185)	IP67
	MC58 – MC59 – MC60 Magnetic encoders Sealed circuits Through hollow shaft **Industrial**	58	○ 15	6000	•	•	10000	500	+5 +10 +30 +5 +30				•	•	•	-25 +85 (-13 +185)	IP67
	I65 – IT65 Optical encoders Square flange, US size **Industrial**	65	● 12	6000	•	•	10000	300	+5 +10 +30 +5 +30	•	•		•	•	•	-40 +100 (-40 +212)	IP66
	XC77 Optical encoder ATEX II 2GD Ex d IIC T6 Areas 1, 2, 21, 22 **Heavy-duty**	77	○ 14	6000		•	10000	300	+5 +10 +30 +5 +30	•			•	•	•	-25 +85 (-13 +185)	IP66

ROTAPULS incremental encoders

		Housing ø (mm)	Shaft max. ø (mm)	Shaft rotational speed max. (rpm)	Connection connector	Connection cable	Resolution max. (PPR)	Output frequency max. (kHz)	Power supply (Vdc)	NPN	PNP	1Vpp	Push–Pull	Line Driver	Universal circuit	Operating temp. °C (°F) min. – max.	Protection max.
	C80 Optical encoders for lift motors **Feedback / Lift**	80	○ 30	6000	•	•	4096	100	+5 +10 +30 +5 +30				•	•	•	-40 +100 (-40 +212)	IP65
	C81 Optical encoders Through hollow shaft **Heavy–duty Feedback**	80	○ 44	3000		•	4096	200	+5 +10 +30 +5 +30			•	•	•	•	-40 +100 (-40 +212)	IP65
	C82 Optical encoders for lift motors **Feedback / Lift**	80	○ 44	3000	•	•	4096	200	+5 +10 +30 +5 +30				•	•	•	-40 +100 (-40 +212)	IP65
	I115 – I116 Optical encoders Redundant version (I116) **Heavy–duty / Wind**	115	● 11	6000	•		2500	100	+5 +10 +30 +5 +30	•	•		•	•	•	-40 +100 (-40 +212)	IP66
	C100 – C101 Optical encoder for wind generator applications Redundant version (C101) **Heavy–duty / Wind**	100	○ 17 ○ 16	6000	•	•	2500 2048	100	+5 +10 +30 +5 +30				•	•	•	-40 +100 (-40 +212)	IP65
	I70 Belt pulley with integrated encoder **Heavy–duty**	54	-	3600		•	500	30	+10 +30				•			-20 +85 (-4 +185)	IP65
	ICS Optical encoder Spring loaded shaft **Heavy–duty**	172x80 x53	● 12	6000	•		1068	60	+5 +10 +30 +5 +30	•	•		•	•	•	-25 +85 (-13 +185)	IP65
	I105 Optical encoder High resolution **Industrial**	105	● 10	6000	•	•	18000	300	+5 +10 +30 +5 +30				•	•	•	-25 +85 (-13 +185)	IP65
	SGSM – SGSD Modular magnetic encoder Redundant (SGSD) **Heavy–duty Feedback**	-	○ 50	6000		•	1024	100	+5 +10 +30				•	•		-40 +85 (-40 +185)	IP68

ROTACOD absolute encoders

		Housing ø (mm)	Shaft max. ø (mm)	Shaft rotational speed max. (rpm)	connector	cable	Resolution max. (bits)	Power supply (Vdc)	NPN / Push-Pull	SSI	BiSS	Modbus	Add. incremental track	Analogue output	Operating temp. °C (°F) min. – max.	Protection max.
	MS36 – MSC36 Magnetic encoders Compact, singleturn **Light-duty**	36	○ 6 ● 6	12000		•	13	+10 +30		•					-20 +85 (-4 +185)	IP67
	MM36 – MMC36 Magnetic encoders Compact, multiturn **Light-duty**	36	○ 6 ● 6	12000		•	12 x 15	+10 +30		•					-20 +85 (-4 +185)	IP67
	AS36 – ASC36 Optical encoder Compact, singleturn High resolution **Industrial / Feedback**	36	○ 6 ● 6	6000		•	19	+10 +30		•	•				-40 +100 (-40 +212)	IP65
	AM36 – AMC36 Optical encoder Compact, multiturn High resolution **Industrial / Feedback**	36	○ 6 ● 6	6000		•	19 x 12	+10 +30		•	•				-40 +100 (-40 +212)	IP65
	ES58 – ES58S – ESC58 Optical encoders Standard, singleturn **Industrial**	58	○ 12 ● 15	12000	•	•	13	+7,5 +34	•	•		•	•		-40 +100 (-40 +212)	IP67
	EM58 – EM58S – EMC58 Optical encoders Standard, multiturn **Industrial**	58	○ 12 ● 15	12000	•	•	13 x 14	+7,5 +34	•	•		•	•		-40 +100 (-40 +212)	IP67
	HS58 – HS58S – HSC58 Optical singleturn encoders High resolution **Industrial / Feedback**	58	○ 12 ● 15	6000	•	•	19 + 2048 sin/cos	+10 +30		•	•		•		-40 +100 (-40 +212)	IP65
	HM58 – HM58S – HMC58 Optical multiturn encoders High resolution **Industrial / Feedback**	58	○ 12 ● 15	6000	•	•	16 x 14 + 2048 sin/cos	+10 +30		•	•		•		-40 +100 (-40 +212)	IP65
	HMCT Optical multiturn encoder Through hollow shaft **Industrial / Feedback**	58	○ 15	6000	•	•	16 x 12 + 2048 sin/cos	+10 +30		•	•		•		-25 +85 (-13 +185)	IP65
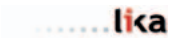
ROTACOD absolute encoders

	Housing ø (mm)	Shaft max. ø (mm)	Shaft rotational speed max. (rpm)	Connection – connector	Connection – cable	Resolution max. (bits)	Power supply (Vdc)	NPN / Push-Pull	SSI	BiSS	Modbus	Add. incremental track	Analogue output	Operating temp. °C (°F) (max.)	Protection max.
AS58 – AS58S – ASC58 Optical singleturn encoders **Industrial**	58	○ 12 ● 15	6000	•	•	13	+10 +30	•	•					-40 +100 (-40 +212)	IP65
AM58 – AM58S – AMC58 Optical multiturn encoders **Industrial**	58	○ 12 ● 15	6000	•	•	13 x 12	+10 +30	•	•					-40 +100 (-40 +212)	IP65
MH58S Magnetic multiturn For wind generators, steel mills & mobile equipment **Heavy–duty / Wind**	58	● 10	6000	•		12 x 12	+10 +30		•				•	-40 +85 (-40 +185)	IP67
MM58 – MM58S – MMC58 Magnetic multiturn encoders **Industrial**	58	○ 12 ● 15	12000		•	12 x 16	+10 +30		•					-20 +85 (-4 +185)	IP67
HM58 P – HM58S P HMC58 P Optical multiturn encoders Programmable **Industrial**	58	○ 12 ● 15	6000	•	•	18 x 14	+10 +30	•	•					-40 +100 (-40 +212)	IP65
AS58 A – AM58 A Optical absolute encoders Analogue output **Industrial**	58	○ 12 ● 15	6000	•		12 / 12 x 4 / 9 x 6 / 6 x 8	+15 +30						•	-25 +85 (-13 +185)	IP65
EM58 PA Optical multiturn encoder Programmable analogue output **Industrial**	58	○ 12 ● 15	6000	•		13 x 14	+15 +30						•	-25 +85 (-13 +185)	IP65
ASR58 – ASR58S Optical singleturn encoders Integrated cam switch programmer **Industrial**	58	● 12	6000	•		3600 / 0,1°	+10 +30	•					•	-25 +85 (-13 +185)	IP65
AST6 Optical singleturn encoder Square flange, US size **Industrial**	65	● 12	6000	•	•	13	+10 +30	•	•			•		-40 +100 (-40 +212)	IP66

ROTACOD absolute encoders

		Housing ø (mm)	Shaft max. ø (mm)	Shaft rotational speed max. (rpm)	Connection		Resolution max. (bits)	Power supply (Vdc)	NPN / Push-Pull	SSI	BiSS	Modbus	Add. incremental track	Analogue output	Operating temp. °C (°F) (max.)	Protection max.
					connector	cable										
	AMT6 Optical multiturn encoder Square flange, US size Industrial	65	● 12	6000	•	•	13 x 14	+10 +30	•	•	•		•		-40 +100 (-40 +212)	IP66
	XAC77 Optical multiturn encoder ATEX II 2GD Ex d IIC T6 Areas 1, 2, 21, 22 Heavy-duty	77	○ 14	6000		•	16 x 14	+10 +30	•	•	•		•	•	-25 +85 (-13 +185)	IP65
	AM9 – AMC9 Optical multiturn encoders Flat design Industrial	88	○ 10 ● 15	6000	•		13 x 12	+10 +30	•						-40 +100 (-40 +212)	IP65

ROTACOD absolute encoders – Fieldbus

		Housing ø (mm)	Shaft max. ø (mm)	Shaft rotational speed max. (rpm)	Connection		Connection cap with PG	Connection cap with connectors	Resolution max. (bits)	Power supply (Vdc)	CANopen	CANopen LIFT	Profibus-DP	DeviceNet	EtherCAT	Operating temp. °C (°F) (max.)	Protection max.
					connector	cable											
	AS58 PB – AS58S PB ASC58 PB Optical singleturn encoders Profibus-DP interface Industrial	58	○ 12 ● 15	6000			•	•	13	+10 +30			•			-25 +85 (-13 +185)	IP65
	AM58 PB – AM58S PB AMC58 PB Optical multiturn encoders Profibus-DP interface Industrial	58	○ 12 ● 15	6000			•	•	13 x 12	+10 +30			•			-25 +85 (-13 +185)	IP65
	AS58 CB – AS58S CB ASC58 CB Optical singleturn encoders CANbus interface Industrial	58	○ 12 ● 15	6000			•	•	13	+10 +30	•	•				-25 +85 (-13 +185)	IP65
	AM58 CB – AM58S CB AMC58 CB Optical multiturn encoders CANbus interface Industrial	58	○ 12 ● 15	6000			•	•	13 x 12	+10 +30	•	•				-25 +85 (-13 +185)	IP65

	Housing ø (mm)	Shaft max. ø (mm)	Shaft rotational speed max. (rpm)	Connection connector	Connection cable	Connection cap with PG	Connection cap with connectors	Resolution max. (bits)	Power supply (Vdc)	CANopen	CANopen LIFT	Profibus-DP	DeviceNET	EtherCAT	Operating temp. °C (°F) min. – max.	Protection max.
AM58 K Optical multiturn encoders Profibus, CANbus interface Stainless steel version **Industrial / Food**	58	○ 12 ● 15	6000			•	•	13 x 12	+10 +30	•		•			-25 +85 (-13 +185)	IP65
ASx58x – AMx58x CANopen Direct connection Single & multiturn **Industrial**	58	○ 12 ● 15	6000	•	•			18 16 x 14	+10 +30	•	•				-25 +85 (-13 +185)	IP65
HS58 FB – HS58S FB HSC58 FB Optical singleturn encoders Fieldbus, high resolution **Industrial**	58	○ 12 ● 15	6000			•	•	18	+10 +30	•	•	•	•		-25 +85 (-13 +185)	IP65
HM58 FB – HM58S FB HMC58 FB Optical multiturn encoders Fieldbus, high resolution **Industrial**	58	○ 12 ● 15	6000			•	•	16 x 14	+10 +30	•	•	•	•		-25 +85 (-13 +185)	IP65
HM58 EC – HM58S EC HMC58 EC Optical multiturn encoders EtherCAT interface **Industrial**	58	○ 12 ● 15	6000			-	•	16 x 14	+10 +30					•	-25 +85 (-13 +185)	IP65
XAC77 PB + CB ATEX multiturn encoder Profibus and CANbus interfaces (point to point) **Heavy-duty**	77	○ 14	6000		•			18 16 x 14	+10 +30	•		•			-25 +85 (-13 +185)	IP66
XAC77 FB Absolute encoder Profibus, CANbus and DeviceNet interfaces **Heavy-duty**	77	○ 14	6000			•	•	18 16 x 14	+10 +30	•		•	•		-25 +85 (-13 +185)	IP66

lika

DRAW WIRE UNITS & Accessories

lika	Dimensions (mm)	Measurement length max. (mm)	Stroke per turn (mm)	Measuring speed max. (m/sec)	Sensor		Potentiometer	Incremental encoder	Absolute encoder	Fieldbus encoder	Atex encoder	Weight (kg)
					integrated	external						
SFI – SFA Draw wire unit Standard version **Industrial**	125 x 83 x 58	6800	200 204,8	2,5		•		•	•	•		0,6
SFE Draw wire encoder Miniature **Light–duty**	56 x 55 x 64	2000	100	2	•			•				0,2
SFME Draw wire encoder Miniature **Light–duty**	55 x 42 x 60	1500	100	2	•			•				0,2
SFP Draw wire potentiometer Miniature **Light–duty**	56 x 55 x 79	2000	100	2	•		•					0,2
SFMP Draw wire potentiometer Miniature **Light–duty**	55 x 42 x 60	1000	100	2	•		•					0,2
SAK–10000 SAK–15000 Draw wire unit Reinforced winding mechanism **Industrial**	233,5 x 128 x 135	15000	300	10		•		•	•	•	•	9
SBK–20000, SBK–30000 SBK–40000, SBK–50000 Draw wire unit Reinforced winding mechanism **Industrial**	401 x 190 x 200	50000	500	10		•		•	•	•	•	17

Flexible couplings
Complete range of encoder and transmission couplings

Flexible or rigid
Zero-backlash
Electrically insulated
Vibration absorbing
High torque & stiffness versions
Grub screw or collar fixing
Versions with keyway
Stainless steel versions

Mounting and Connection accessories
Mounting accessories for encoders and electrical connections

Spring loaded brackets
Mounting bells and adapter flanges
Fixing clamps, Reducing sleeves
Connectors
Cordets

Metric wheels and Gears

Metric wheels with 200 and 500 mm circumference
Aluminum or Rubber surface
Metric wheel encoders
(IR65 series on request)
Rack and pinions
(for ICS series)

LINEPULS incremental magnetic sensors

lika

		Dimensions (mm)	Connection — connector	Connection — cable	Resolution max. (µm)	Travel speed max. (m/s)	Push–Pull	Line Driver	1Vpp	Reference	Limit switches	Power supply (Vdc)	Operating temp. °C (°F) min. – max.	Protection max.
	MT – MTS Magnetic tape Incremental coding	MT: 10 MTS: 5 x 100 m max.	-	-	-	-	-	-	-	-	-		-40 +120 (-40 +248)	IP67
	MRI/xxx Magnetic rings Incremental coding	ø up to 1000	-	-	-	-	-	-	-	-	-		-40 +120 (-40 +248)	IP67
	SMB2 – SMB5 Magnetic sensors External converter **Industrial**	25 x 15 x 8,5		•	1	16	•	•				+5 +10 +30	-25 +85 (-13 +185)	IP67
	SME51 Magnetic sensor Status LED, wipers **Industrial**	40 x 25 x 10		•	5	16	•	•		•		+5 +10 +30	-25 +85 (-13 +185)	IP67
	SME52 Magnetic sensor Status LED, wipers Limit switches **Industrial**	40 x 25 x 10		•	5	16	•	•		•	•	+5 +10 +30	-25 +85 (-13 +185)	IP67
	SME21 Magnetic sensor Status LED, wipers **Industrial / Feedback**	40 x 25 x 10		•	1	16	•	•		•		+5 +10 +30	-25 +85 (-13 +185)	IP67
	SME22 Magnetic sensor Status LED, wipers Limit switches **Industrial / Feedback**	40 x 25 x 10		•	1	16	•	•		•	•	+5 +10 +30	-25 +85 (-13 +185)	IP67
	SME11 High performance sensor for linear motors Status LED, wipers **Feedback**	40 x 25 x 10		•	0,5	16	•	•		•		+5 +10 +30	-25 +85 (-13 +185)	IP67
	SME12 High performance sensor for linear motors Status LED, wipers Limit switches **Feedback**	40 x 25 x 10		•	0,5	16	•	•		•	•	+5 +10 +30	-25 +85 (-13 +185)	IP67
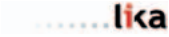
LINEPULS incremental magnetic sensors

	Dimensions (mm)	Connection		Resolution max. (µm)	Travel speed max. (m/s)	Push-Pull	Line Driver	1Vpp	Reference	Limit switches	Power supply (Vdc)	Operating temp. °C (°F) min. – max.	Protection max.
		connector	cable										
SMS11 Magnetic sensor for linear motors Sine/cosine output **Feedback**	40 x 25 x 10		•	1000	16			•	•		+5	-25 +85 (-13 +185)	IP67
SMS12 Magnetic sensor for linear motors Sine/cosine output Limit switches **Feedback**	40 x 25 x 10		•	1000	16			•	•	•	+5	-25 +85 (-13 +185)	IP67
SMK Robust magnetic sensor for standard applications **Heavy-duty**	40 x 25 x 10		•	10	2,5	•	•				+5 +10 +30	-25 +85 (-13 +185)	IP67
SML - SMH Robust magnetic sensors for standard applications **Heavy-duty**	40 x 25 x 10		•	100	10	•	•				+5 +10 +30	-25 +85 (-13 +185)	IP67
SMX2 - SMX5 Magnetic speed sensors **Heavy-duty**	M10 x 30		•	5 mm (1.25) 2 mm (0.5)	30 (7,5 kHz)	•	•				+5 +30	-10 +70 (+14 +158)	IP67
SMSR Miniature magnetic sensor for linear motors and pick & place applications **Feedback**	25 x 15 x 8,5		•	1000	10			•			+5	-25 +85 (-13 +185)	IP68
SMIG Magnetic system with self-guiding sensor head **Heavy-duty**	80 x 48 x 28	•	•	5	1	•	•				+5 +10 +30	-25 +85 (-13 +185)	IP67

LINECOD absolute magnetic sensors

		Dimensions (mm)	Connection		Resolution max. (µm)	Travel speed max. (m/s)	SSI	BiSS	RS485	Profibus	CANopen	CANlift	Power supply (Vdc)	Operating temp. °C (°F) min. – max.	Protection max.
			connector	cable											
	MTA1 – MTA5 Magnetic tape Absolute coding	20 x 5,1 m	-	-	-	-	-	-	-	-	-	-	-	-40 +120 (-40 +248)	IP67
	SMA5 Compact magnetic sensor SSI interface **Industrial**	65 x 20 x 20		•	5	5	•						+10 +30	-25 +85 (-13 +185)	IP67
	SMA1 Compact magnetic sensor BiSS + sin/cos interface **Feedback**	85 x 21 x 20		•	5	5	•	•					+10 +30	-25 +85 (-13 +185)	IP67
	SMAG Magnetic system with self-guiding sensor head **Heavy–duty**	80 x 48 x 28	•	•	5	1	•						+10 +30	-25 +85 (-13 +185)	IP65
	SMAL Magnetic sensor for long distances Elevators **Industrial**	190 x 52 x 45	•	•	1 mm	5	•		•	•	•	•	+10 +30	-25 +85 (-13 +185)	IP54
	SMAL2 Magnetic sensor for long distances Elevators **Industrial**	147 x 100 x 60		•	0,1 mm	5	•		•		•	•	+10 +30	-25 +85 (-13 +185)	IP54

DRIVECOD rotary actuators

lika		Dimensions (mm)	Hollow shaft ø (mm)	Shaft rotational speed max. (rpm)	Nominal torque (Nm)	Max. torque (Nm)	Motor brake	Power supply (Vdc)	RS232 service Modbus	CANopen	Profibus	Modbus RS485	Operating temp. °C (°F) min. – max.	Protection max.
	RD1A Positioning unit with absolute encoder Brushless motor Diagnostic LEDs **Industrial**	59 x 112 x 125	14	240 120 60	1,2 2,4 5	3 6 12		24	•	•	•	•	0 +60 (32 +140)	IP65
	RD12A Positioning unit with absolute encoder Brushless motor Diagnostic LEDs **Industrial**	59 x 142 x 125	14	240 120 60	1,2 2,4 5	3 6 12	•	24	•	•	•	•	0 +60 (32 +140)	IP65
	RD5 Compact positioning unit with absolute encoder Brushless motor **Industrial**	48,3 x 88 x 126,6	14	60	5	12		24		•	•	•	0 +60 (32 +140)	IP54
	RD52 Compact positioning unit with absolute encoder Brushless motor **Industrial**	48,3 x 88 x 126,6	14	60	5	12	•	24		•	•	•	0 +60 (32 +140)	IP54
	RD4 Positioning unit with absolute encoder Brushless motor **Heavy-duty**	65 x 153 x 160	20	94 62	10 15	20 30		24		•	•	•	0 +60 (32 +140)	IP65

		Display	Display mode			Dimensions (mm)	Input				Counting frequency max. (kHz)	Interface RS232 / RS485	Power supply	Output max.
			linear	angular	mm/inch		AB0	SSI	1Vpp	Magnetic sensor				
LD120 Compact LED display for magnetic sensors Industrial		LED 5 digit	•	•	•	72 x 36 x 62				•	–	•	+10 +30	-
LD112 Compact LCD battery display Industrial		LCD 6 digit	•	•	•	72 x 48 x 31				•	–		battery	-
LD111 – LD141 Ultracompact OEM battery display Industrial		LCD 6 digit	•	•	•	61 x 39 x 23 87 x 60,5 x 47				•	–		battery	-
LD140 – LD142 Standard battery display Industrial		LCD 6 digit	•	•	•	96 x 72 x 47				•	–	•	battery	-
LD200 Universal position display Industrial		LED 8 digit	•	•	•	96 x 48 x 49	•	•	•	•	500	•	24 Vdc	3 x 24V @ 23mA
LD250 Absolute multi-function display Industrial		LED 6 digit	•		•	96 x 48 x 141		•			–	•	24 Vdc 115/230 Vac	0/4 - 20mA 0...±10Vdc
LD300 Incremental multi-function display Industrial		LED 6 digit	•		•	96 x 48 x 141	•				100	•	24 Vdc 115/230 Vac	0/4 - 20mA 0...±10Vdc
MC111– MC150 Position display for encoders Economic version (MC111) Industrial		LED 6 digit	•			96 x 72 x 60 96 x 72 x 71	•				25 1000		24 Vdc/Vac 24 Vdc/Vac 115 Vac 230 Vac	2 x 24V @ 600mA
MC221 Compact 2 axes position display Industrial		2 x LED 6 digit	•			96 x 96 x 72	•				500		24 Vdc	2 x 24V @ 600mA

POSICONTROL displays & interfaces

		Description	Input	Output	Service interface	Functions
	IF10 **Industrial**	Universal incremental encoder signal splitter, converter & switcher DIN rail mounting	2 inputs HTL or TTL / RS422	2 outputs HTL or TTL / RS422		Adjustable inputs and outputs signal levels (can be mixed) Contactless switch-over Up to 1 MHz input frequency
	IF20 **Industrial**	Signal converter for incremental encoder DIN rail mounting	HTL or TTL / RS422	HTL or TTL / RS422		Output voltage according to remote voltage Input/Output galvanically separated AB quadrature to UP/DOWN conversion
	IF30 **Industrial**	Sine/Cosine signal interpolator DIN rail mounting	1Vpp	HTL (AB0) or RS422 (AB0 /AB0)		Adjustable interpolation rate up to x50 Adjustable pulse divider Filtering functions
	IF50 **Industrial**	Incremental signal to Analogue converter DIN rail mounting	HTL or TTL / RS422	± 10 V 0- 20 mA 4 - 20 mA	RS232 RS485	Signal linearization Scaling factor Teach-in function
	IF51 **Industrial**	Absolute SSI to Analogue converter DIN rail mounting	SSI (up to 25 bit)	± 10 V 0- 20 mA 4 - 20 mA	RS232 RS485	Bit blanking function Signal linearization Scaling factor
	IF52 **Industrial**	Absolute SSI to Bit parallel converter DIN rail mounting	SSI (up to 25 bit)	Push-Pull	RS232	Signal linearization Scaling factor
	IF60 – IF61 **Heavy-duty**	Fibre-optic signal converters for incremental encoders IF60 transmitter IF61 receiver	HTL or TTL / RS422	Optical signal		Safe signal transmission up to 1000 m Suitable for explosive areas and environments with extremly high electromagnetic fields
	IF62 – IF63 **Heavy-duty**	Fibre-optic signal converters for absolute encoders IF62 transmitter IF63 receiver	SSI	Optical signal		Safe signal transmission up to 1500 m Suitable for explosive areas and environments with extremly high electromagnetic fields

30th

**30 YEARS
YOUNG
1982.2012**

Lika Electronic celebrates its 30th anniversary
and plans a year long innovations marathon

30@30
**30 new products
for our 30 years**

January

RD1A
New generation RD1 integrated positioning unit with Profibus, CANopen and Modbus RTU interfaces

SFP
Miniature wire-potentiometer, robust construction, up to 2000 mm stroke

February

SFE
Miniature wire-encoder, universal output circuit, up to 2000 mm stroke

XAC
Heavy-duty fieldbus encoder with Profibus and CANopen interfaces for steel mills, mobile equipment, construction machinery

SMEx2
New magnetic sensors, with integrated limit switches & reference

March

M12 connections
M12 connections available on ES58, EM58, HS58, HM58 encoders

CK41
Blind hollow shaft Ø6 mm, flexible fixing plate

AS36
Absolute singleturn encoder, only 36 mm ø housing, up to 19 bit resolution

April

RD12A
New generation RD12 positioning unit with integrated motor brake. Profibus, CANopen and Modbus RTU interfaces

LD300
Incremental multi-function displays. Position, event counter, frequency counter, RPM, speed rate

Modbus RTU interface
New Modbus RTU interface for RD units, parameter setup via USB connection to PC

May

LD250
Absolute multi-function displays. Position, event counter, frequency counter, RPM, speed rate.

IF20
Signal converter for incremental encoders. AB0 /AB0 Line Driver to Push-Pull converter
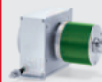
C100
Heavy-duty encoder with terminal block connections & power output circuit for long distance transmission (up to 300 m)

June

HM58 P
Absolute programmable encoder, fully programmable SSI and Bit parallel interface

SFA
Draw-wire unit for absolute encoders, 5000 and 6800 mm stroke. Suitable for all EMC58, HMC58, AMC58 encoder series

CB61
Feedback encoder for gearless elevator motors. Increased signal performance

July

EM58A
Fully programmable encoder, 12 + 14 bit resolution with analogue output

IF10
Incremental encoder signal splitter. AB0 > AB0 + AB0

August

IF51
Absolute conversion interface. SSI (6-25 bit) > ±10V, 0/4-20mA

IF52
Absolute conversion interface. SSI (BCD, Gray, Binary) > Bit parallel (Push-Pull)

AS58/AM58 A
New generation AS/AM58 A analogue encoders series, more multiturn versions available. Reduced dimensions

September

IF50
Incremental counter > Analogue or RS232 conversion interface

IP58
Programmable incremental encoder with resolution up to 65536 PPR. All I58 & CK58 mechanical interfaces available

October

IF30
External sin/cos encoder interpolator up to 400kHz input frequency. LD AB0 /AB0 + PP AB0 outputs

ES/EM
ES58/EM58 series with Modbus RTU (RS485) interface with resolution 13 bit singleturn and 25 bit multiturn

November

IF60
Fibre optic transmission modules. Incremental or absolute encoder version. Long transmission distance up to 1500m
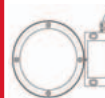
Stainless steel encoder
Industrial, fieldbus & miniature version available in stainless steel for food industry

AM36
Absolute multiturn encoder, 36 mm diameter, up to 19 x 12 bit resolution

December

SMRA + MRA
Absolute magnetic ring encoder with hollow shaft up to Ø120 mm. SSI >16 bit resolution

30 YEARS YOUNG
1982.2012

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lika®

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China	Portugal
Czech Republic	Russia
Denmark	Singapore
Dubai	Slovakia
Estonia	South Africa
Finland	South Korea
France	Spain
Germany	Sweden
Greece	Switzerland
Hong-Kong	Taiwan
India	Thailand
Indonesia	Turkey
Iran	United Kingdom
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