

POSICONTROL displays & interfaces

	Page	Display	Display mode			Dimensions (mm)	Input				Counting frequency max. (kHz)	Interface RS232 / RS485	Power supply	Output max.
			linear	angular	mm/inch		ABO	SSI	1Vpp	Magnetic sensor				
	36	LED 5 digit	•	•	•	72 x 36 x 62				•	-	•	+10 +30	-
Industrial														
	38	LCD 6 digit	•	•	•	72 x 48 x 31				•	-		battery	-
Industrial														
	40 42	LCD 6 digit	•	•	•	61 x 39 x 23 87 x 60,5 x 47				•	-		battery	-
Industrial														
	44	LCD 6 digit	•	•	•	96 x 72 x 47				•	-	•	battery	-
Industrial														
	46	LED 8 digit	•	•	•	96 x 48 x 49	•	•	•	•	500	•	24 Vdc	3 x 24V @ 23mA
Industrial														
	48	LED 6 digit	•	•	•	96 x 48 x 141		•			-	•	24 Vdc 115/230 Vac	0/4 - 20mA 0...±10Vdc
Industrial														
	50	LED 6 digit	•	•	•	96 x 48 x 141	•				100	•	24 Vdc 115/230 Vac	0/4 - 20mA 0...±10Vdc
Industrial														
	52 54	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
Industrial														
	56	2 x LED 6 digit	•			96 x 96 x 72	•				500		24 Vdc	2 x 24V @ 600mA
Industrial														

POSICONTROL displays & interfaces

		Page	Description	Input	Output	Service interface	Functions
	IF10 Industrial	58	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	59	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	60	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	61	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	62	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	63	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	64	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 extremely high electromagnetic fields
	IF62 - IF63 Heavy-duty	65	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 extremely high electromagnetic fields

- Compact 5 digit LED display
- Max. display accuracy 0,01 mm
- Actual value memory
- Panel mount housing
- Reading distance sensor/tape up to 2 mm
- RS485 interface
- 5V backup input
- Works with SM5 magnetic sensors



LD120

PARAMETERS

3 offset values, Preset value, mm/inch display, Relative/absolute measurement

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range:	0°C to +50°C (+32°F to +122°F)
Storage temperature range:	-20°C to +80°C (-4°F to +176°F)
Protection:	IP60 front, IP40 back

MECHANICAL SPECIFICATIONS

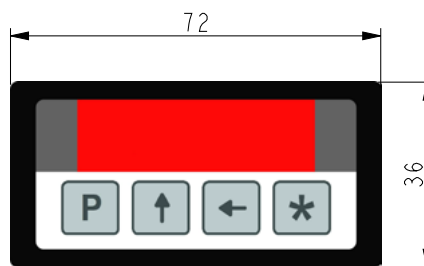
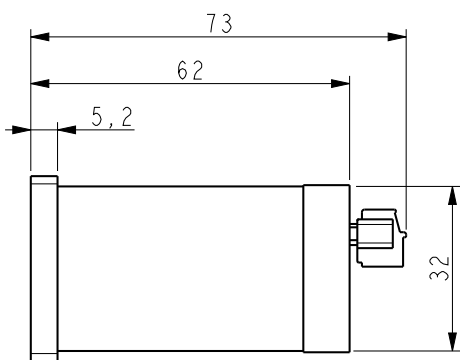
Display resolution:	max. 0,01 mm
System accuracy:	± 0,05 mm typ.
Repeat accuracy:	± 1 digit
Display range:	-99999 to 99999
Measurement speed:	max. 5 m/s
Magnetic sensor:	SM5 (connectable)
Reading distance sensor/tape:	0,1 - 2,0 mm
Dimensions:	see drawing
Cut out:	68 x 33 mm ²
Connections:	Terminal strip MiniDIN for sensor

ELECTRICAL SPECIFICATIONS

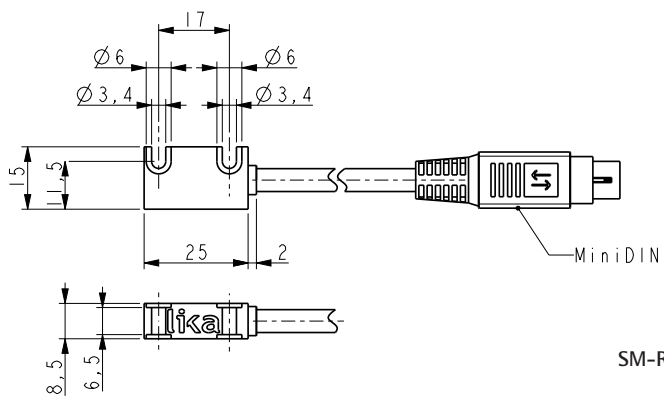
Power supply:	+10Vdc ÷ +30Vdc
Consumption:	800 mW, 100 mW backup mode
Interface:	RS485 (optional)

ACCESSORIES

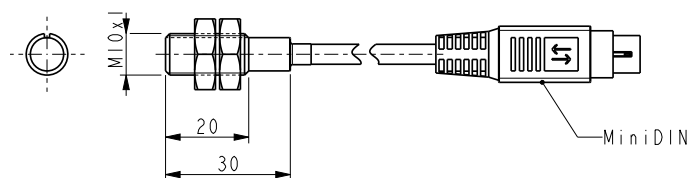
SM5:	Magnetic sensor
MT50:	Magnetic tape
PS1:	Protection profile



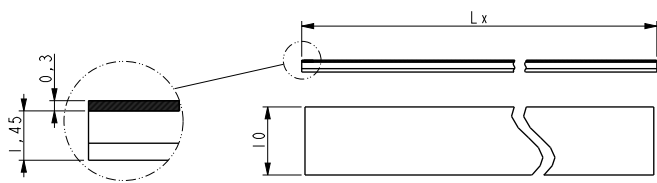
LD120



SM-R



SM-C



MT50

Order code - Display

LD120	-	XX Ⓐ	-	XX Ⓑ
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Ⓐ INPUT M7 = magnetic sensor	Ⓑ INTERFACE I4 = RS485
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Order code - Sensor

SM5	-	X Ⓐ	XX Ⓑ
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Ⓐ SENSOR R = rectangular C = circular	Ⓑ CABLE LENGTH 2 = cable 2 meters X = cable X meters (10 meters max.)
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Order code - Tape

MT50	-	XX Ⓐ	-	XXX Ⓑ	-	X Ⓒ
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Ⓐ LENGTH 1 = 1,0 m 2 = 2,0 m 4 = 4,0 m 10 = 10,0 m 20 = 20,0 m 30 = 30,0 m	Ⓑ ACCURACY CLASS 100 = ± 85 µm/m 50 = ± 35 µm/m (up to 30 m)	Ⓒ COVER STRIP 1 = included
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- Quasi-absolute LCD display
- Max. display accuracy 0,01 mm or 1/64 inch
- Actual value memory
- Linear and Angular display mode
- Panel mount housing
- Reading distance sensor/tape up to 1 mm



LD112

PARAMETERS

3 offset values, Preset value, Linear and angular display mode, mm/inch display, Relative/absolute measurement

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range:	0°C to +50°C (+32°F to +122°F)
Storage temperature range:	-20°C to +80°C (-4°F to +176°F)
Protection:	IP60 front, IP40 back

MECHANICAL SPECIFICATIONS

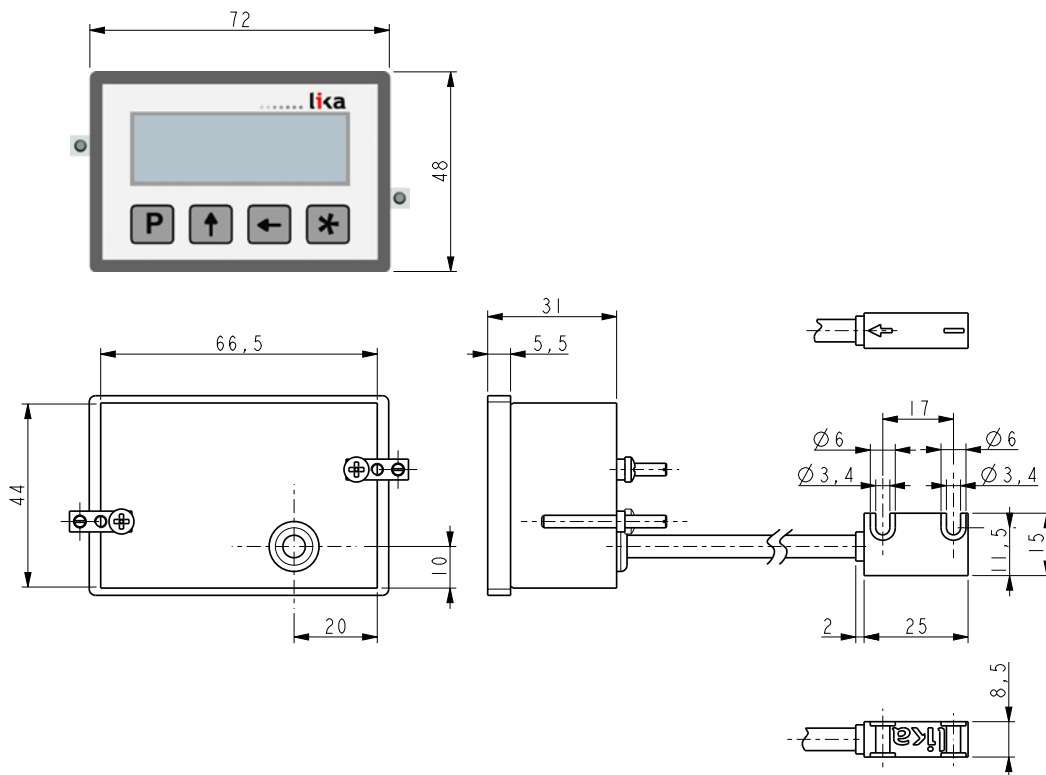
Display resolution:	max. 0,01 mm or 1/64 inch
System accuracy:	± 0,05 mm typ.
Repeat accuracy:	± 1 digit
Display range:	-999999 to 999999
Measurement speed:	max. 5 m/s
Magnetic sensor:	SM25
Reading distance sensor/tape:	0,1 - 1,0 mm
Dimensions:	see drawing
Cut out:	67,5 x 45 mm ²
Connections:	Battery holder (AAA type) Cable for sensor

ELECTRICAL SPECIFICATIONS

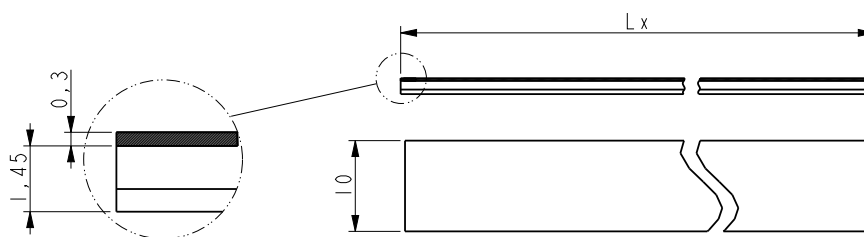
Power supply:	Integrated batteries (2 x 1,5V)
Consumption:	220 µA

ACCESSORIES

MT25:	Magnetic tape
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LD112



MT25

Order code - Display

LD112	-	XX	X	XX
		Ⓐ	Ⓑ	Ⓒ

Order code - Tape

MT25	-	XX	-	XXX	-	X
		Ⓐ		Ⓑ		Ⓒ

Ⓐ INPUT M7 = magnetic sensor	Ⓑ SENSOR R = rectangular	Ⓒ CABLE LENGTH 0,2 = cable 0,2 meters 1 = cable 1 meter X = cable X meters (5 meters max.)
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Ⓐ LENGTH 1 = 1,0 m 2 = 2,0 m 4 = 4,0 m 10 = 10,0 m 20 = 20,0 m 30 = 30,0 m	Ⓑ ACCURACY CLASS 100 = ± 85 µm/m 50 = ± 35 µm/m (up to 30 m)	Ⓒ COVER STRIP 1 = included
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- Quasi-absolute LCD display
- Max. display accuracy 0,01 mm or 1/64 inch
- Actual value memory
- Linear and Angular display mode
- Compact OEM version without housing
- Reading distance sensor/tape up to 1 mm



LD111

PARAMETERS

3 offset values, Preset value, Linear & angular display mode, mm/inch display, Relative/absolute measurement

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range:	0°C to +50°C (+32°F to +122°F)
Storage temperature range:	-20°C to +80°C (-4°F to +176°F)
Protection:	IP00 (or depending on customers assembly)

MECHANICAL SPECIFICATIONS

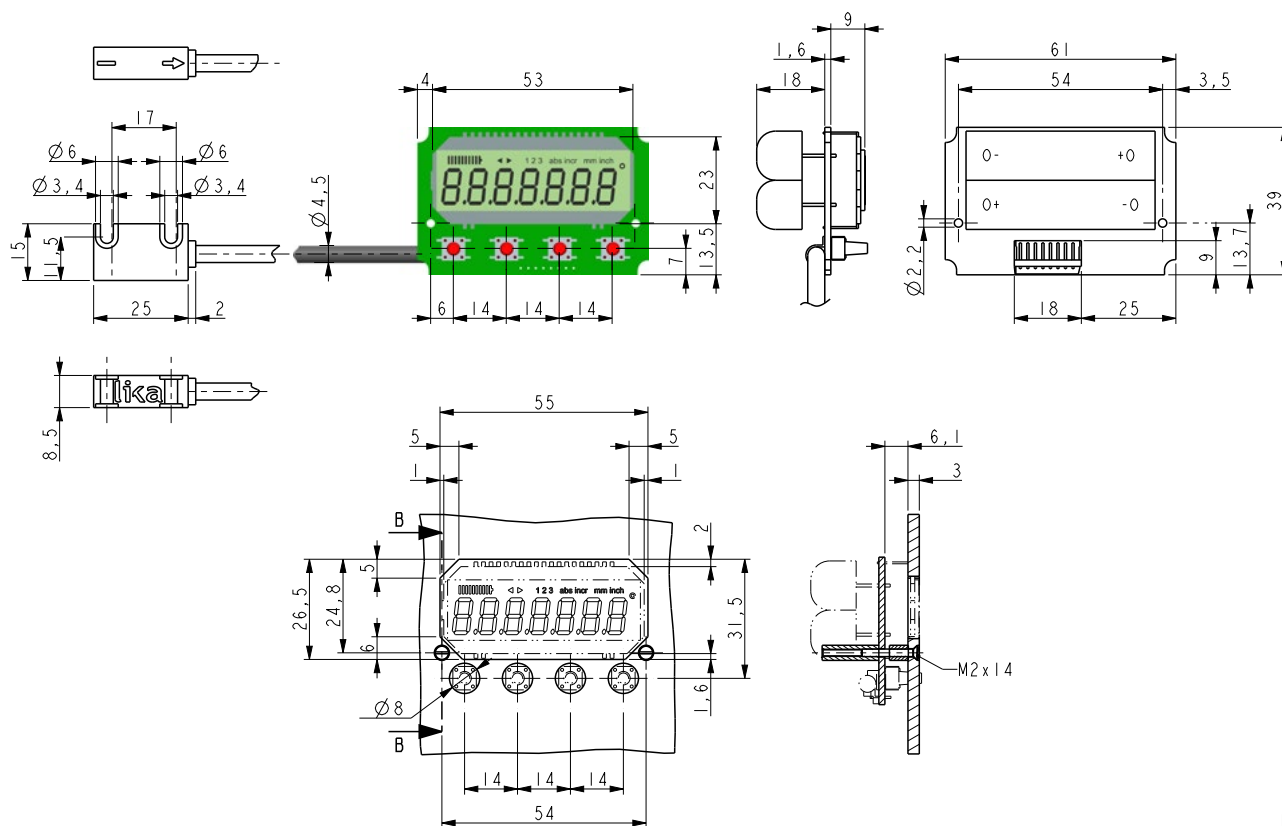
Display resolution:	max. 0,01 mm or 1/64 inch
System accuracy:	± 0,05 mm typ.
Repeat accuracy:	± 1 digit
Display range:	-999999 to 999999
Measurement speed:	max. 5 m/s
Magnetic sensor:	SM25
Reading distance sensor/tape:	0,1 - 1,0 mm
Dimensions:	see drawing
Connections:	Battery holder (AAA type) Cable (sensor)

ELECTRICAL SPECIFICATIONS

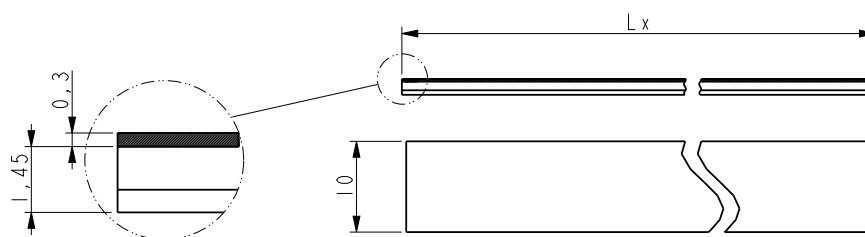
Power supply:	Integrated batteries (2 x 1,5 V)
Consumption:	~ 220 µA

ACCESSORIES

MT25:	Magnetic tape
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LD111



MT25

Order code - Display

LD111	-	XX	X	XX
		(a)	(b)	(c)

(a) INPUT

M7 = magnetic sensor

(b) SENSOR

R = rectangular

(c) CABLE LENGTH

0,2 = cable 0,2 meter

1 = cable 1 meter

X = cable X meters
(5 meters max.)

Order code - Tape

MT25	-	XX	-	XXX	-	X
		(a)		(b)		(c)

(a) LENGTH

1 = 1,0 m

2 = 2,0 m

4 = 4,0 m

10 = 10,0 m

20 = 20,0 m

30 = 30,0 m

(b) ACCURACY CLASS

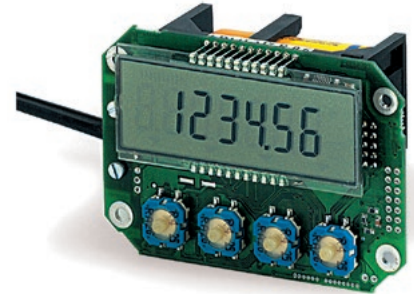
100 = ± 85 µm/m

50 = ± 35 µm/m (up to 30 m)

(c) COVER STRIP

1 = included

- Quasi-absolute LCD display, 14 mm height
- Max. display accuracy 0,01 mm or 1/64 inch
- Actual value memory
- Linear & Angular display mode
- Compact OEM version without housing
- Reading distance sensor/tape up to 1 mm
- RS232 interface (optional)



LD141

PARAMETERS

3 offset values, Preset value, Linear and angular display mode, mm & fractional inch display, Relative/absolute measurement

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range:	0°C to +50°C (+32°F to +122°F)
Storage temperature range:	-20°C to +80°C (-4°F to +176°F)
Protection:	IP00 (or depending on customers assembly)

MECHANICAL SPECIFICATIONS

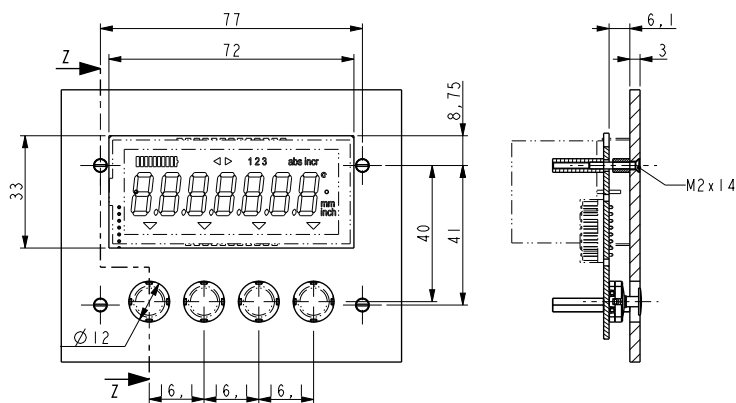
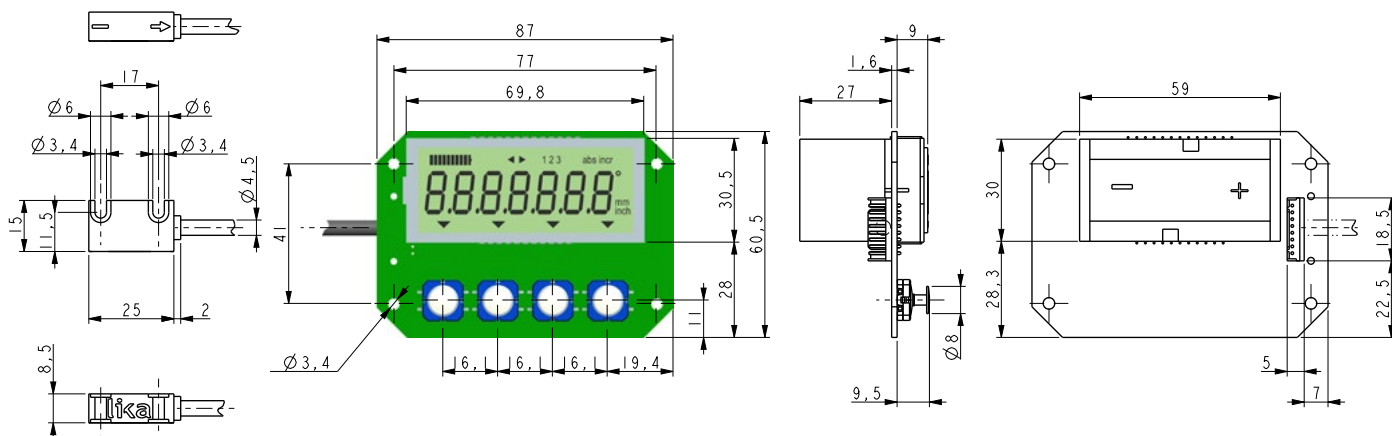
Display resolution:	max. 0,01 mm or 1/64 inch
System accuracy:	± 0,05 mm typ.
Repeat accuracy:	± 1 digit
Display range:	-999999 to 999999
Measurement speed:	max. 5 m/s
Magnetic sensor:	SM25
Reading distance sensor/tape:	0,1 - 1,0 mm
Dimensions:	see drawing
Connections:	Battery holder (AAA type) Cable (sensor) DSub 9 pin (RS232)

ELECTRICAL SPECIFICATIONS

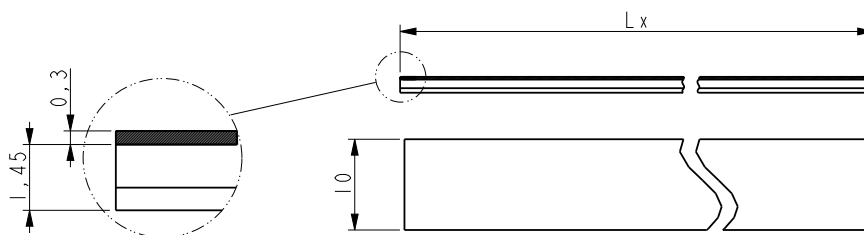
Power supply:	Integrated batteries (2 x 1,5V)
Consumption:	~ 700 µA
Interface:	RS232 (optional)

ACCESSORIES

MT25:	Magnetic tape
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LD141



MT25

Order code - Display

LD141	-	XX	X	XX	-	XX
		(a)	(b)	(c)		(d)

Order code - Tape

MT25	-	XX	-	XXX	-	X
		(a)		(b)		(c)

(a) INPUT M7 = magnetic sensor	(c) CABLE LENGTH 0,2 = cable 0,2 meters 1 = cable 1 meter X = cable X meters (5 meters max.)	(d) INTERFACE I1 = RS232
(b) SENSOR R = rectangular		

(a) LENGTH 1 = 1,0 m 2 = 2,0 m 4 = 4,0 m 10 = 10,0 m 20 = 20,0 m 30 = 30,0 m	(b) ACCURACY CLASS 100 = ± 85 µm/m 50 = ± 35 µm/m (up to 30 m)	(c) COVER STRIP 1 = included
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- Quasi-absolute LCD display, 14 mm height
- Max. display accuracy 0,01 mm or 1/64 inch
- Actual value memory
- Linear & Angular display mode
- Panel mount housing
- Fixed or pluggable sensor
- Reading distance sensor/tape up to 1 mm
- RS232 interface (optional)



LD140

PARAMETERS

3 offset values, Preset value, Linear and angular display mode, mm & fractional inch display, Relative/absolute measurement

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range:	0°C to +50°C (+32°F to +122°F)
Storage temperature range:	-20°C to +80°C (-4°F to +176°F)
Protection:	IP60 front, IP40 back

MECHANICAL SPECIFICATIONS

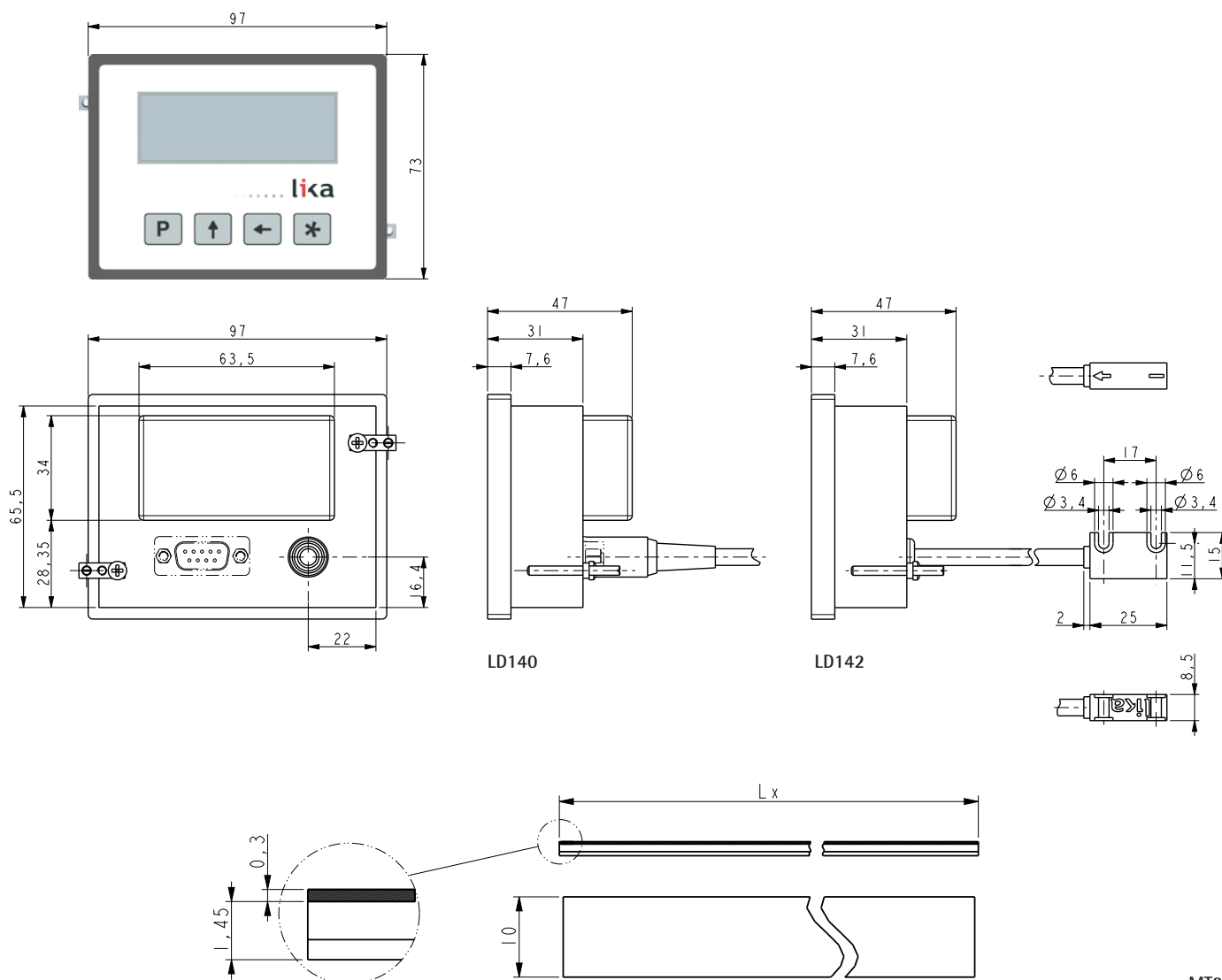
Display resolution:	max. 0,01 mm or 1/64 inch
System accuracy:	± 0,05 mm typ.
Repeat accuracy:	± 1 digit
Display range:	-999999 to 999999
Measurement speed:	max. 5 m/s
Magnetic sensor:	SM25
Reading distance sensor/tape:	0,1 - 1,0 mm
Dimensions:	see drawing
Cut-out:	91,5 x 67,5 mm ²
Connections:	Battery holder (AAA type) Cable (sensor) DSub 9 pin (RS232)

ELECTRICAL SPECIFICATIONS

Power supply:	Integrated 1,5V battery
Consumption:	~ 700 µA
Interface:	RS232 (optional)

ACCESSORIES

SM25:	Magnetic sensor
MT25:	Magnetic tape
PF4012:	Fixing support



MT25

Order code - Display

LD140	-	XX ⓐ	-	XX ⓑ
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ⓐ INPUT	ⓑ INTERFACE
M7 = magnetic sensor	I1 = RS232

Order code - Display

LD142	-	XX ⓐ	X ⓑ	XX ⓒ	-	XX ⓓ
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ⓐ INPUT	ⓑ SENSOR	ⓒ CABLE LENGTH	ⓓ INTERFACE
M7 = magnetic sensor	R = rectangular	0,2 = cable 0,2 m X = cable X meters (5 meters max.)	I1 = RS232

Order code - Sensor

SM25	-	R ⓐ	XX ⓑ
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ⓐ SENSOR	ⓑ CABLE LENGTH
R = rectangular	0,2 = cable 0,2 meter 1 = cable 1 meter X = cable X meters (5 meters max.)

Order code - Tape

MT25	-	XX ⓐ	-	XXX ⓑ	-	X ⓒ
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ⓐ LENGTH	ⓑ ACCURACY CLASS
1 = 1,0 m 2 = 2,0 m 4 = 4,0 m 10 = 10,0 m 20 = 20,0 m 30 = 30,0 m	100 = ± 85 µm/m 50 = ± 35 µm/m (up to 30 m)
	ⓑ COVER STRIP
	1 = included

- Universal display with multiple inputs
- Works with HTL, TTL, SSI and sine/cosine encoders
- High brightness LEDs, 8 digits, 10 mm
- RS232 interface
- Dedicated menus for angular & linear encoders
- mm, inch & fractional inch display



LD200

PARAMETERS

Offset value, Preset, mm/inch/fractional inch display, Angular display mode (360°), Limit switches

ENVIRONMENTAL SPECIFICATIONS

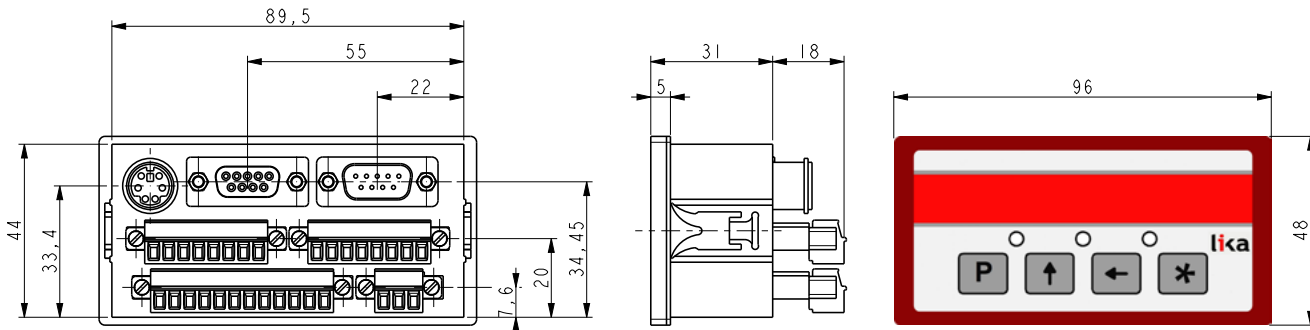
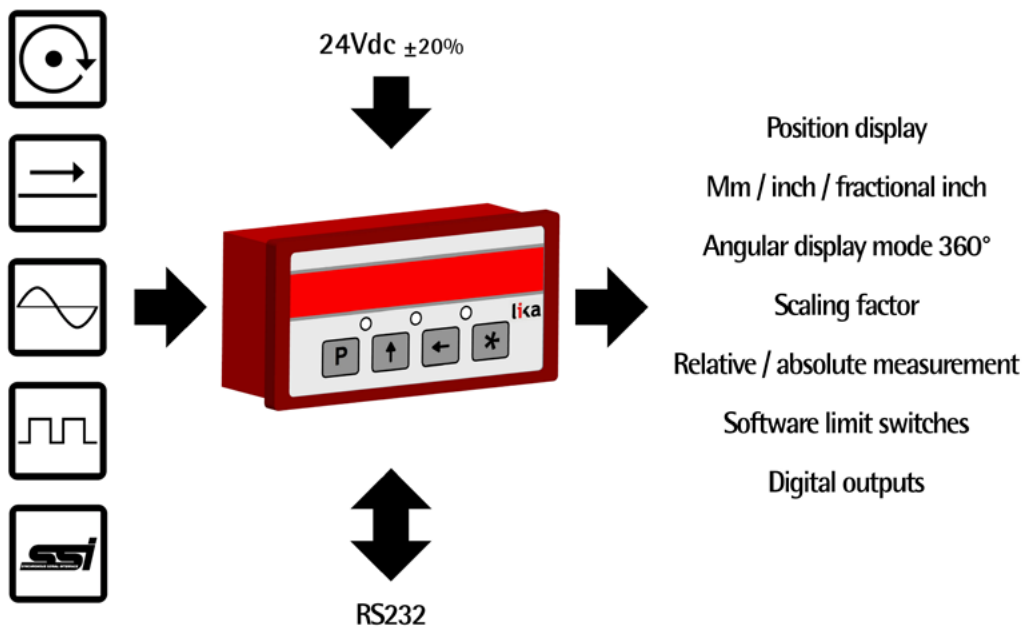
Operating temperature range:	0°C to +70°C (+32°F to +158°F)
Storage temperature range:	-20°C to +80°C (-4°F to +176°F)
Protection:	IP65 front, IP20 overall

MECHANICAL SPECIFICATIONS

Display range:	-99999999 to 99999999
Dimensions:	see drawing
Cut-out:	90 x 44 mm ²
Connections:	Terminal blocks DSub 9 pin (RS232) MiniDIN (SM sensors)

ELECTRICAL SPECIFICATIONS

Power supply:	24Vdc ±20%
Consumption:	4,5 W
Counting frequency:	1 MHz for incremental signals 6 kHz for sine/cosine signals
Sensor input:	Push-Pull (HTL), RS422 (TTL), 1Vpp, SSI SM5/SM2 magnetic sensors
Interface:	RS232
Outputs:	3 x 24V @ 23 mA max.
Inputs:	1 x Vin 30V max.



LD200

Order code

LD200	-	XX ⓐ
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ⓐ POWER SUPPLY P8 = 24 Vdc ± 20%

- Multi-function display for SSI encoders
- Position display, linear and angular mode
- Programmable bit blanking
- Digital or analogue outputs
- Multivoltage supply 24Vdc, 115/230Vac
- LD250 SSI display
 - LD251 SSI display with analogue output
 - LD252 SSI display with digital I/O
 - LD253 SSI display with serial interface



LD250

FUNCTIONS

Linear/angular display mode, Bit blanking, Linearization of analogue output, Scaling factor, Round loop function, Switching mode of digital outputs

ENVIRONMENTAL SPECIFICATIONS

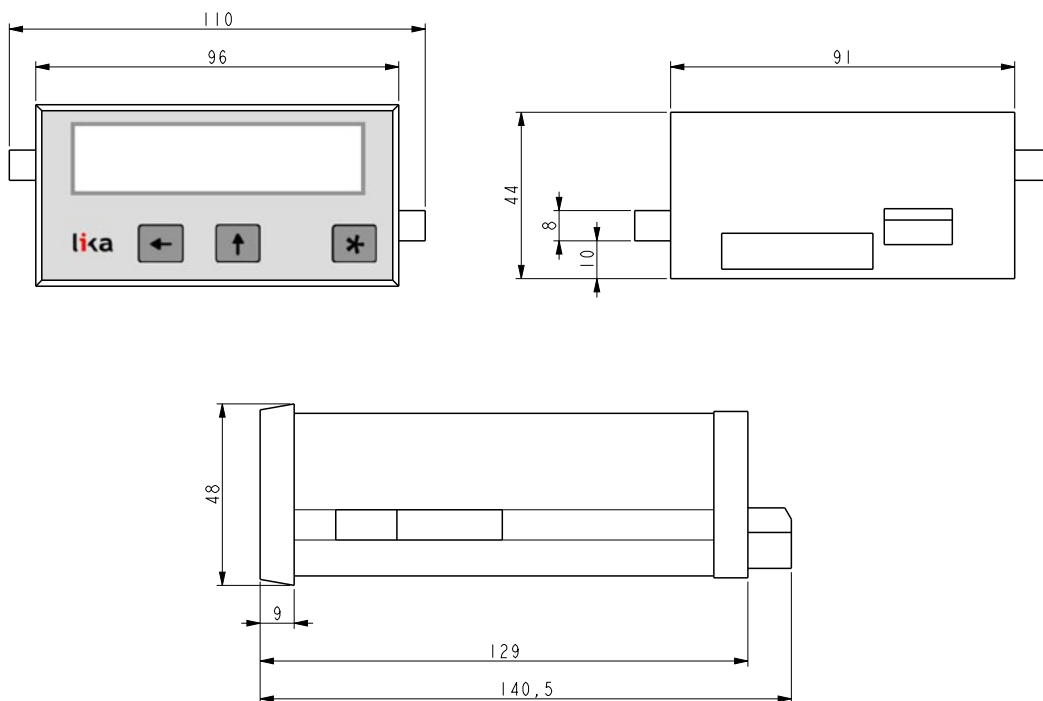
Operating temperature range:	0°C +45°C (+32°F, +113°F)
Storage temperature range:	-20°C +80°C (-4°F, +176°F)
Protection:	IP65 front, IP20 back

MECHANICAL SPECIFICATIONS

Dimensions:	96 x 48 x 141 mm ³
Cut out:	91 x 44 mm ²
Display:	LED, 6 digits x 15 mm (-199999 ÷ 999999)

ELECTRICAL SPECIFICATIONS

Power supply:	24Vdc ± 20%, 115/230 Vac
Consumption:	3,6 W or 7,5 VA (without sensor)
SSI clock rate:	100 kHz max. - 1MHz
Sensor input:	SSI, any protocol, 8 to 32 bit
Interface:	RS232/RS485 (LD253)
Outputs:	LD251: analogue 0/4-20 mA, 0 ±10V LD252: digital PNP 2 x 30V - 150 mA
Input:	LD252: 3 digital inputs (PNP, NPN or Namur)



LD250

Order code

LD250	-	XX	-	XX
LD251		Ⓐ		Ⓑ
LD252				
LD253				

Ⓐ POWER SUPPLY
PM = 24Vdc ±20%, 115/230 Vac

Ⓑ SENSOR INPUT
M5 = SSI (8-32 bit)

Series

LD300
LD301 • LD302 • LD303



- Multi-function display for incremental encoders
- Position display, tachometer, start/stop speed display event counter
- Digital or analogue outputs
- Multivoltage supply 24Vdc, 24/42Vac, 115/230Vac
- LD300 display
 - LD301 display with analogue output
 - LD302 preset display with digital outputs
 - LD303 display with serial interface



LD300

FUNCTIONS

Counter/Position, Tachometer, Time display, Stop watch, Transition speed, Linearization of analogue output, Scaling factor

ENVIRONMENTAL SPECIFICATIONS

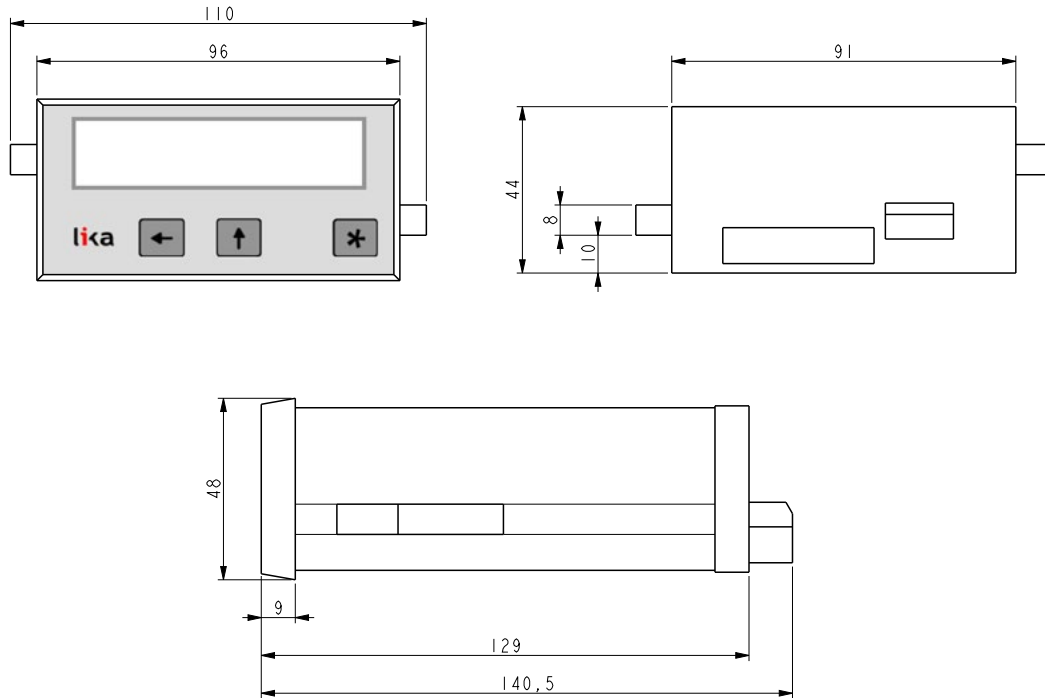
Operating temperature range:	0°C +45°C (+32°F, +113°F)
Storage temperature range:	-20°C +80°C (-4°F, +176°F)
Protection:	IP65 front, IP20 back

MECHANICAL SPECIFICATIONS

Dimensions:	96 x 48 x 141 mm ³
Cut out:	91 x 44 mm ²
Display:	LED, 6 digits x 15 mm (-199999 ÷ 999999)

ELECTRICAL SPECIFICATIONS

Power supply:	24Vdc ± 20%, 115/230 Vac 24Vdc ± 20%, 24/42 Vac
Consumption:	3,6 W max or 7,5 VA (without sensor)
Counting frequency:	100 kHz max. (counter mode) 25 kHz max. (other operating modes)
Sensor input:	PNP or NPN (HTL) TTL
Interface:	RS232/RS485 (LD303)
Outputs:	LD301: analogue 0/4-20 mA, 0 ± 10V LD302: digital PNP 2 x 30V - 150 mA



LD300

Order code

LD300	-	XX	-	XX
LD301		Ⓐ		Ⓑ
LD302				
LD303				

Ⓐ POWER SUPPLY PM = 24Vdc ±20%, 115/230 Vac P4 = 24Vdc ±20%, 24/42 Vac	Ⓑ SENSOR INPUT M1 = PNP, NPN (HTL) M8 = TTL
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- Programmable position display for encoders
- Counting frequency up to 1 MHz
- Large range power supplies



MC150

FUNCTIONS

Set value, Power down memory, Scaling factor, Edge evaluation, Counting direction, Decimal point, Key functions, Reset and Set logic, Absolute/relative mode, Offset logic, Offset value, In- and Output logic, Security code, Reference pulse

ENVIRONMENTAL SPECIFICATIONS

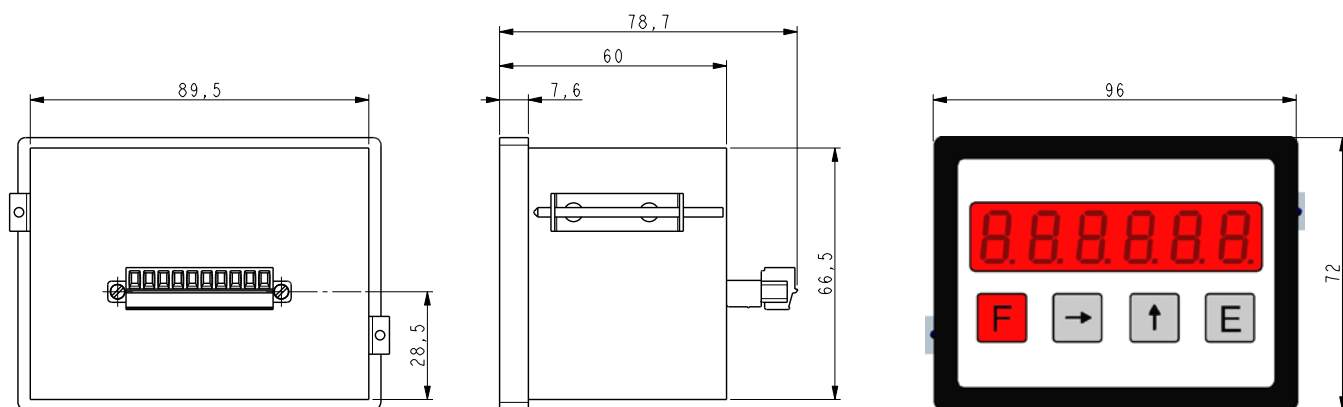
Operating temperature range:	0°C +50°C (+32°F, +122°F)
Storage temperature range:	-20°C +65°C (-4°F, +149°F)
Protection:	IP42 front, IP20 back

MECHANICAL SPECIFICATIONS

Dimensions:	96 x 72 x 77 mm ³
Cut out:	94 x 66 mm ²
Display:	6 digit x 14 mm (-999999 ÷ 999999)

ELECTRICAL SPECIFICATIONS

Power supply:	24 Vdc/Vac, 115 Vac, 230 Vac
Consumption:	150 mA (excl. encoders)
Counting frequency:	1 MHz
Encoder input:	AB0, AB0 /AB0 (HTL or TTL selectable) Function input for reset, preset, relative/absolute mode
Power supply for encoder:	5 Vdc/24 Vdc (12 Vdc with P5)
Outputs:	2 digital outputs 24V, 600 mA, PNP (optional, only with power supply P1) 2 relays (optional, only with power supply P1)
Interface:	RS232 (optional)



MC150

Order code

MC150	-	XX ⓐ	-	XXX ⓑ	-	XX ⓒ	-	XX ⓓ
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ⓐ POWER SUPPLY

P1 = 24Vdc ± 10%
 P5 = 230 Vac ± 10%
 P6 = 115 Vac ± 10%

ⓑ INPUT

M12 = ABO, ABO /ABO

ⓒ INTERFACE

- = no interface
 I1 = RS232

ⓓ OUTPUT

- = no output
 O1 = 2 digital outputs (only with P1)
 O2 = 2 relays (only with P1)



- Position display for encoders
- Encoder or potentiometer input
- Low-cost version



MC111

FUNCTIONS

Offset, preset, scaling factor, edge evaluation, decimal point, keyboard function, reset and set logic, absolute/relative mode, counting direction, actual position memory, logic of inputs/outputs, security code, reference pulse

ENVIRONMENTAL SPECIFICATIONS

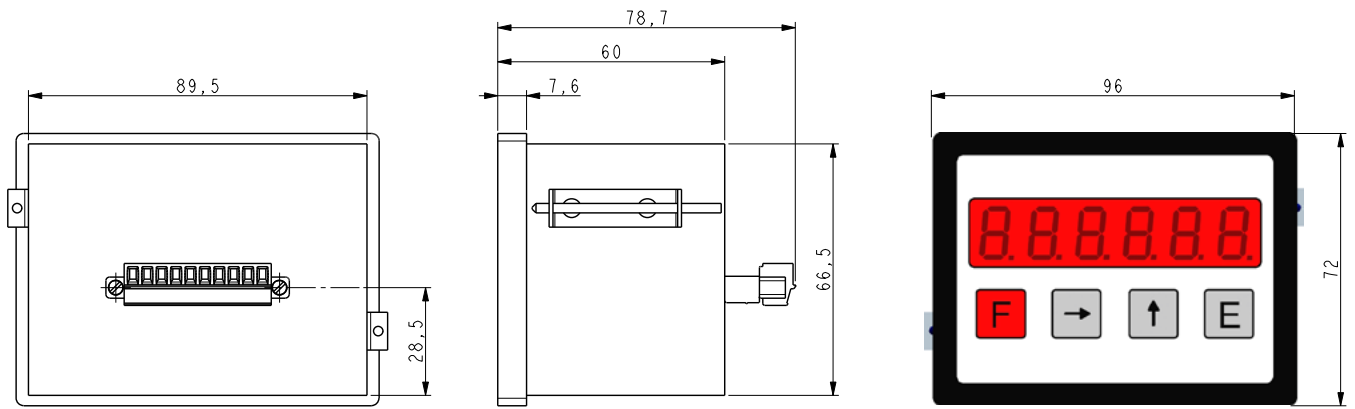
Operating temperature range:	0°C +50°C (+32°F, +122°F)
Storage temperature range:	-20°C +80°C (-4°F, +176°F)
Protection:	IP42 front, IP20 back

MECHANICAL SPECIFICATIONS

Dimensions:	96 x 72 x 60 mm ³
Cut out:	94 x 66 mm ²
Display:	6 digit x 14 mm (-999999 ÷ 999999)

ELECTRICAL SPECIFICATIONS

Power supply:	24 Vdc +10%
Consumption:	80mA (excl. encoders)
Counting frequency:	30 kHz
Encoder input:	AB0, AB0 /AB0 (HTL or TTL selectable) Function input for reset, preset, relative/absolute mode
Sensor input:	1 x AB (HTL) 2 x analogue 12 bit (min. 500 Ω)
Power supply for encoder:	24 Vdc
Power supply for potentiometer:	5 Vdc
Digital inputs/outputs:	2 selectable for preset, reset, software limit switch



MC111

Order code

MC111	-	XX Ⓐ	-	XXX Ⓑ	-	XX Ⓒ	-	XX Ⓓ
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Ⓐ POWER SUPPLY
P8 = 24Vdc ± 10%

Ⓑ INPUT
M1 = AB (HTL)
A10 = 2 x analogue

Ⓒ OUTPUT
- = no output
01 = 2 outputs 24V-600mA, PNP
(Function inputs not available)



- 2 axes position display for incremental encoders
- Compact housing
- 3 axes version available on request



MC221

FUNCTIONS

Set value, power down memory, scaling factor, edge evaluation, counting direction, decimal point, key functions, reset and set logic, absolute/relative mode, offset logic, offset value, In- and output logic, security code, reference pulse

ENVIRONMENTAL SPECIFICATIONS

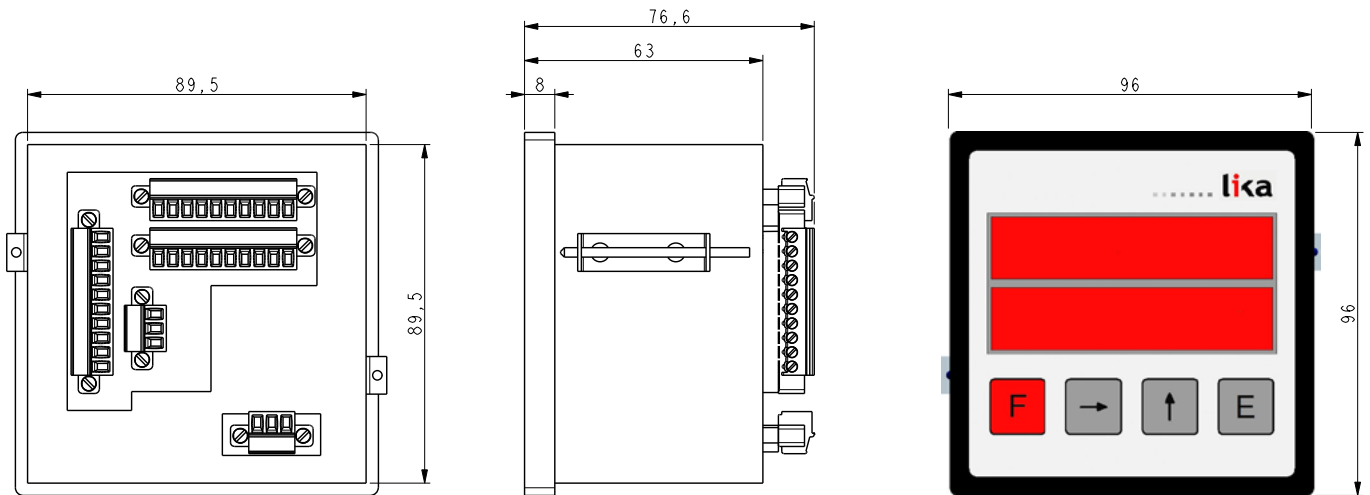
Operating temperature range:	0°C +50°C (+32°F, +122°F)
Storage temperature range:	-20°C +65°C (-4°F, +149°F)
Protection:	IP42 front, IP20 back

MECHANICAL SPECIFICATIONS

Dimensions:	96 x 96 x 72 mm ³ (incl. connectors)
Cut out:	92 x 92 mm ²
Display:	2 x 6 digit x 14 mm (-999999 ÷ 999999)

ELECTRICAL SPECIFICATIONS

Power supply:	24 Vdc +10%, 115 Vac, 230 Vac
Consumption:	170 mA max. (excl. encoders)
Counting frequency:	500 kHz max.
Encoder input:	2 x ABO, ABO /ABO (HTL + TTL)
Power supply for encoder:	5 Vdc/24 Vdc
Digital inputs:	4 for preset, reset, abs/rel mode
Interface:	RS232 (optional)
Outputs:	2 digital outputs 24V@600 mA, PNP (optional)



MC221

Order code

MC221	-	XX ⓐ	-	XXX ⓑ	-	XX ⓒ	-	XX ⓓ
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ⓐ POWER SUPPLY
 P8 = 24Vdc ± 10%
 P5 = 230 Vac ± 10%
 P6 = 115 Vac ± 10%

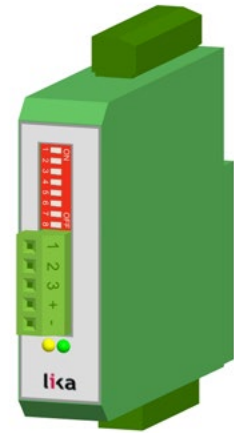
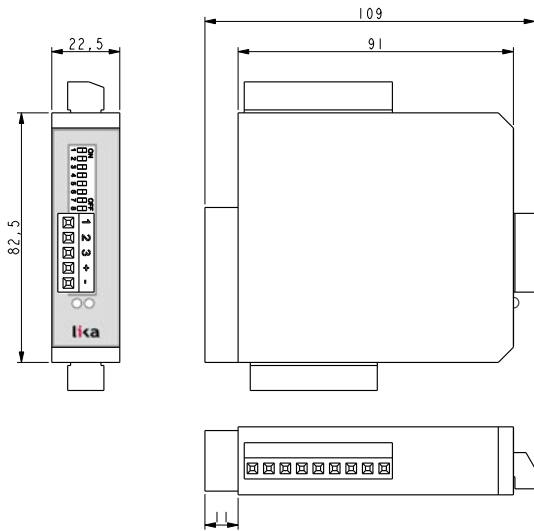
ⓑ INPUT
 M12 = ABO, ABO /ABO

ⓒ INTERFACE
 - = no interface
 I1 = RS232 interface

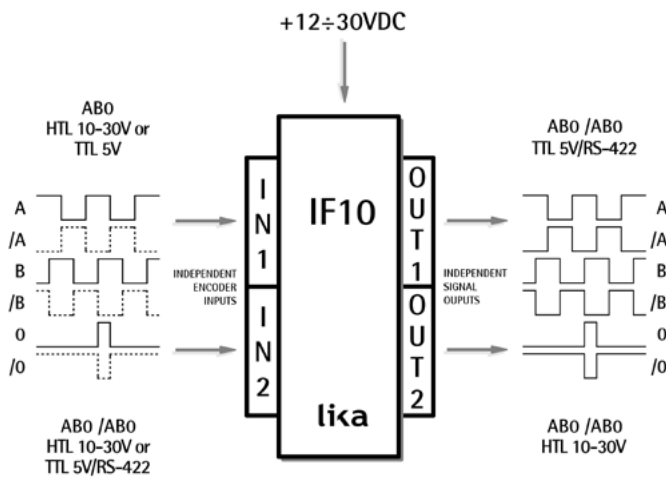
ⓓ OUTPUT
 - = no output
 01 = 2 digital outputs

Series

IF10



Order code: IF10



FUNCTIONS

Encoder signal splitter, signal level converter/repeater and encoder cross switcher

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range: 0°C +50°C (+32°F +113°F)
 Storage temperature range: -25°C +75°C (-13°F +158°F)
 Protection: IP40

MECHANICAL SPECIFICATIONS

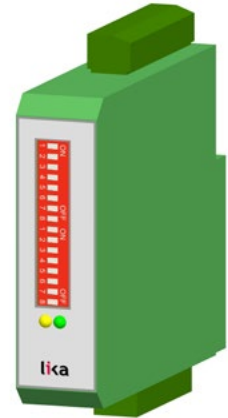
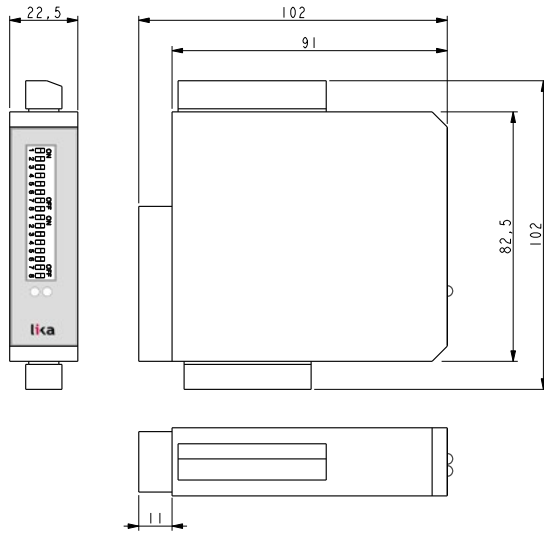
Dimensions: see drawing
 Electrical connections: screw terminals
 Weight: ~ 0,1 Kg (3,5 oz)

ELECTRICAL SPECIFICATIONS

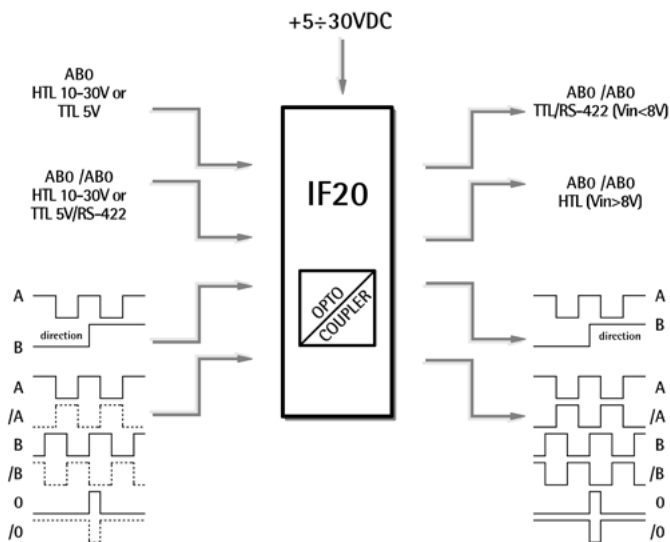
Power supply: +12Vdc +30Vdc
 Consumption: 50 mA (without sensor)
 Counting frequency: RS422 or TTL differential: 1 MHz
 HTL or TTL: 250 kHz
 Sensor input: see diagram
 Outputs: HTL, TTL, Push-Pull ABO, /ABO 5-30V @ 30 mA

Series

IF20



Order code: IF20



FUNCTIONS

Encoder signal splitter, signal level converter and potential separator

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range: 0°C +50°C (+32°F +113°F)
 Storage temperature range: -25°C +75°C (-13°F +158°F)
 Protection: IP40

MECHANICAL SPECIFICATIONS

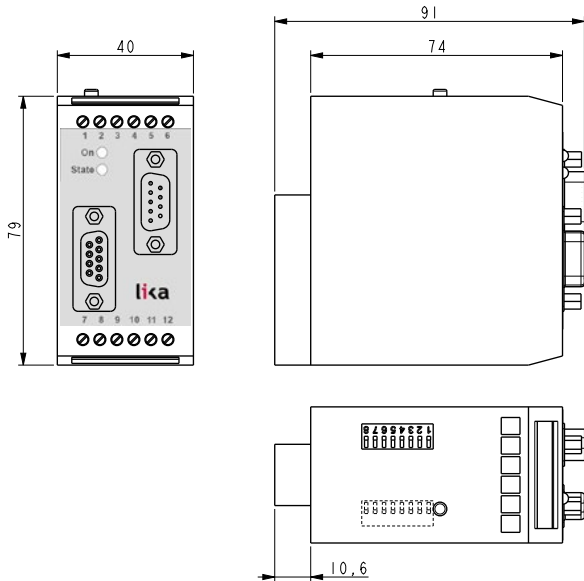
Dimensions: see drawing
 Electrical connections: screw terminals, DSub connectors
 Weight: ~ 0,1 Kg (3,5 oz)

ELECTRICAL SPECIFICATIONS

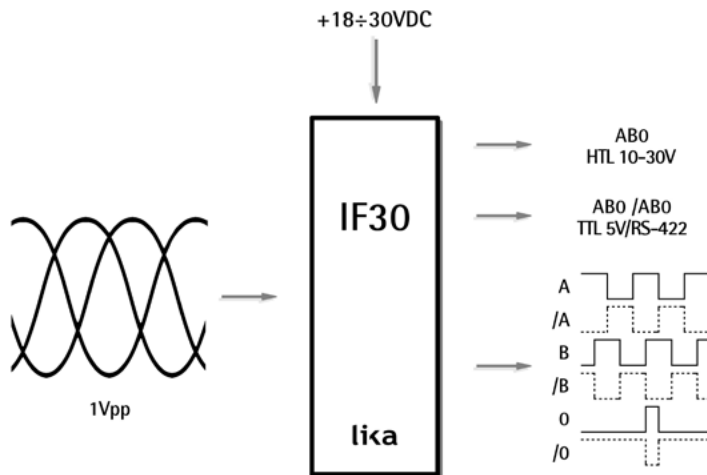
Power supply: +5Vdc +30Vdc
 Consumption: 50 mA (without sensor)
 Counting frequency: RS422: 500 kHz
 HTL: 300 kHz
 Sensor input: see diagram
 Interface: RS232
 Outputs: HTL, TTL, Push-Pull ABO, /ABO 5-30V @ 30 mA

Series

IF30



Order code: IF30



FUNCTIONS

Adjustable interpolation rate 5÷50, Divider function 1:1 ÷ 1:128 (to reduce output frequency), Filtering functions, adjustable output signal level

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range:	0°C +50°C (+32°F +113°F)
Storage temperature range:	-25°C +75°C (-13°F +158°F)
Protection:	IP40

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Electrical connections:	screw terminals, Dsub connectors
Weight:	~ 200 g

ELECTRICAL SPECIFICATIONS

Power supply:	+18Vdc +30Vdc
Consumption:	150 mA max. (without sensor)
Sensor input:	sine/cosine 1Vpp (0,8 ÷ 1,2 Vpp)
Output:	HTL: Vin - 4V, TTL acc. to RS422

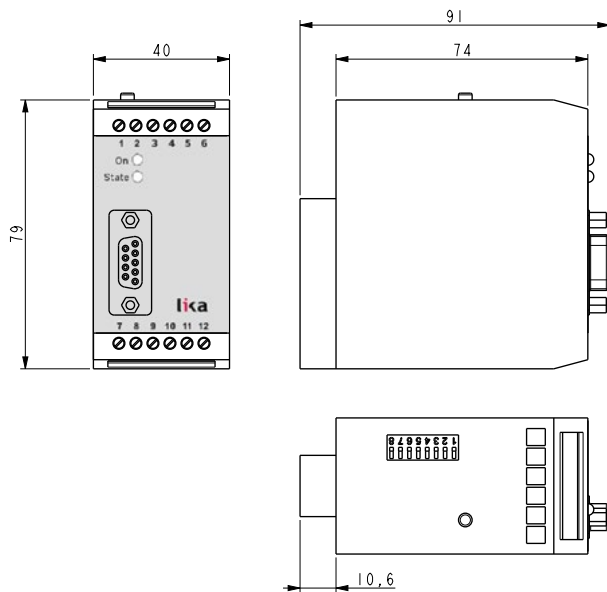
POSICONTROL

Signal converter for incremental encoders

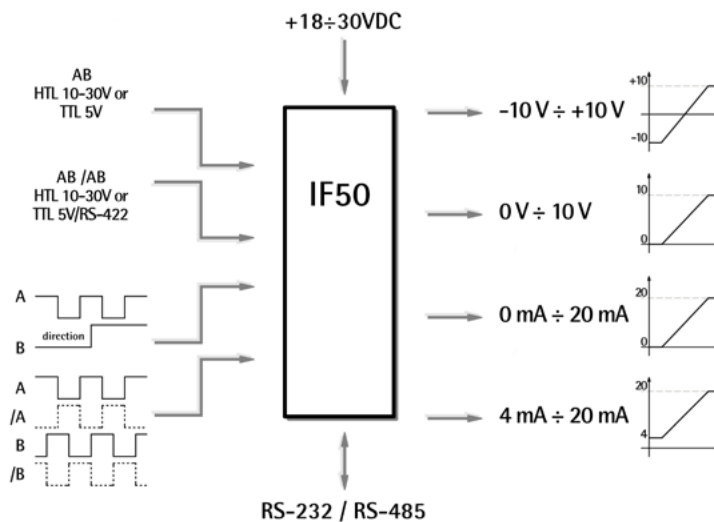
www.lika.biz

Series

IF50



Order code: IF50



FUNCTIONS

Incremental quadrature to analogue or RS232/485 conversion, free scaling, linearization curves, teach-in function, encoder supply + 5Vdc

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range: 0°C +50°C (+32°F +113°F)

Storage temperature range: -25°C +75°C (-13°F +158°F)

Protection: IP40

MECHANICAL SPECIFICATIONS

Dimensions: see drawing

Electrical connections: screw terminals, Dsub connectors

Weight: ~ 190 g

ELECTRICAL SPECIFICATIONS

Power supply: +18Vdc +30Vdc

Consumption: 85 mA max. (without sensor)

Sensor input: Line Driver (RS422/TTL diff.), TTL, HTL

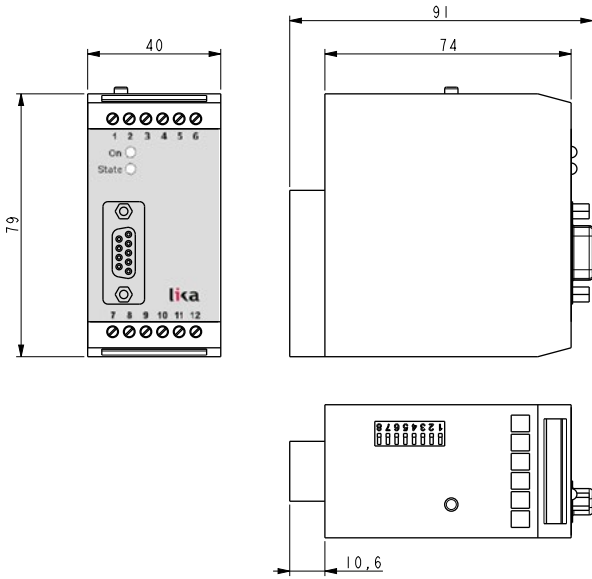
Output: analogue $\pm 10V$, 0-10V, 0-20 mA, 4-20 mA

Interface: RS232/RS485

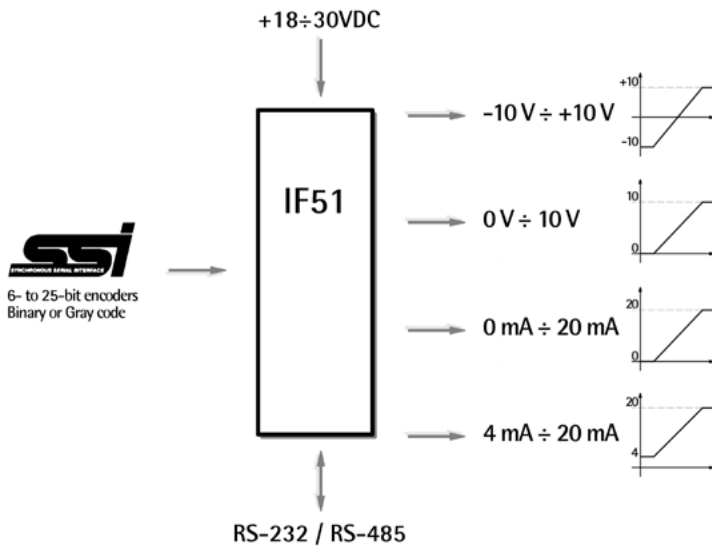
Specifications subject to changes without prior notice

Series

IF51



Order code: IF51



FUNCTIONS

SSi signal converter, master or slave mode, free scaling, linearization curves, bit blanking

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range: 0°C +50°C (+32°F +113°F)
 Storage temperature range: -25°C +75°C (-13°F +158°F)
 Protection: IP40

MECHANICAL SPECIFICATIONS

Dimensions: see drawing
 Electrical connections: screw terminals, DSub connectors
 Weight: ~ 190 g

ELECTRICAL SPECIFICATIONS

Power supply: +18Vdc +30Vdc
 Consumption: 170 mA max. (without sensor)
 Sensor input: any SSI protocol: 6 to 25 bit (see diagram)
 Clock output: differential (acc. to RS422), 1 MHz
 Interface: RS232, RS485
 Outputs: ±10 V, 0-10V, 0-20 mA, 4-20 mA

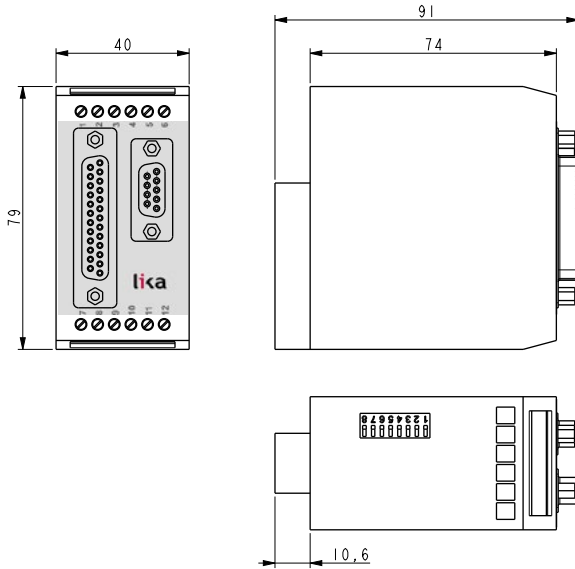
POSICONTROL

Absolute encoder signal converter, SSI to Bit parallel

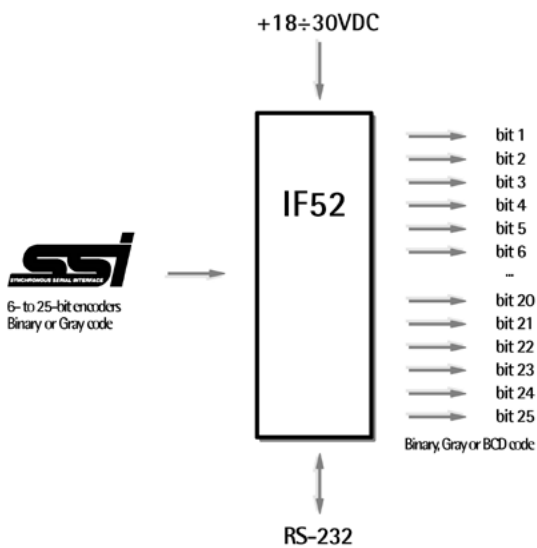
www.lika.biz

Series

IF52



Order code: IF52



FUNCTIONS

SSI signal converter, master or slave mode, free scaling, linearization curves, latch input

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range: 0°C +50°C (+32°F +113°F)

Storage temperature range: -25°C +75°C (-13°F +158°F)

Protection: IP40

MECHANICAL SPECIFICATIONS

Dimensions: see drawing

Electrical connections: screw terminals, Dsub connectors

Weight: ~ 190 g

ELECTRICAL SPECIFICATIONS

Power supply: +18Vdc +30Vdc

Consumption: 200 mA max. (without sensor)

Sensor input: any SSI protocol: 6 to 25 bit, Gray or Binary coded

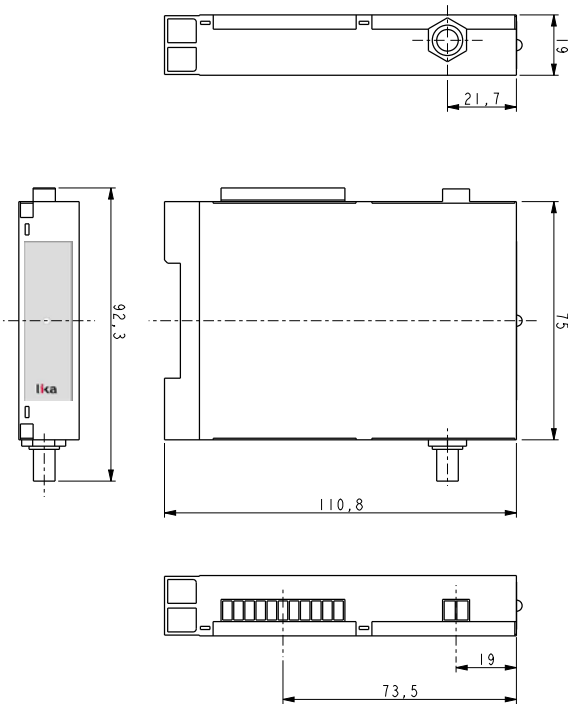
Output: Push Pull (short circuit proof) , Gray, Binary or BCD coded

Interface: RS232

Specifications subject to changes without prior notice

Series

IF60 • IF61



IF60 - IF61

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range:	0°C +50°C (+32°F +113°F)
Storage temperature range:	-25°C +75°C (-13°F +158°F)
Protection:	IP40

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Optical fiber connection:	ST connector ø 9 mm
Glass fibre:	2,5 mm ² max., multimode, 50/125 µm, 62.5/125 µm
Weight:	~ 200 g

ELECTRICAL SPECIFICATIONS

Power supply:	+5Vdc ±5%, 10-30 Vdc
Consumption:	< 2 W each module
Encoder input:	TTL/RS422, HTL
Input/output frequency:	1 MHz max.
Signal sampling rate:	10 M samples/sec.

Order code

IF60 transmitter

IF60	XX-X Ⓐ
------	-----------

Order code

IF61 receiver

IF61	XX-X Ⓐ
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Ⓐ INTERFACE - POWER SUPPLY

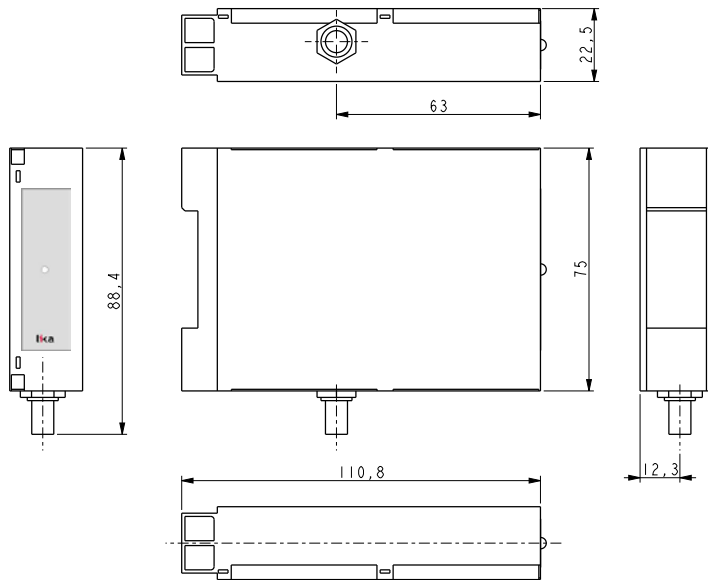
L-1 = RS422, +5Vdc ± 5%
 L-2 = RS422, +10Vdc +30Vdc
 YC-2 = HTL/Push-Pull (ABO /ABO), +10Vdc +30Vdc
 Y-2 = HTL/Push-Pull (ABO), +10Vdc +30Vdc

Ⓐ INTERFACE - POWER SUPPLY

L-1 = RS422, +5Vdc ± 5%
 L-2 = RS422, +10Vdc +30Vdc
 YC-2 = HTL/Push-Pull, +10Vdc +30Vdc

Series

IF62 • IF63



IF62 - IF63

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range:	-10°C +60°C (14°F +140°F)
Storage temperature range:	-10°C +60°C (14°F +140°F)
Protection:	IP40

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Optical fiber connection:	ST connector, 13 mm, Ø 9 mm
Glass fibre:	2,5 mm ² max., multimode, 50/125 µm, 62.5/125 µm
Weight:	~ 200 g

ELECTRICAL SPECIFICATIONS

Power supply:	+5Vdc +5%, 10-30 Vdc
Consumption:	< 2 W each module
Encoder input:	SSI (clock +/-, data +/-)
Clock rate:	500 kHz max.
Optical transmission rate:	120 MBit/s

Order code

IF62 transmitter

IF62	XX-X Ⓐ
------	-----------

Order code

IF63 receiver

IF63	XX-X Ⓐ
------	-----------

Ⓐ INTERFACE - POWER SUPPLY

S-1 = SSI (RS422), +5Vdc ± 5%
S-2 = SSI (RS422), +10Vdc +30Vdc

Ⓐ INTERFACE - POWER SUPPLY

S-1 = SSI (RS422), +5Vdc ± 5%
S-2 = SSI (RS422), +10Vdc +30Vdc