L23







Modular sealed photoelectric linear encoder L23 has measuring length up to 20 meters and more on special order.

The encoder is used to convert linear displacements of machine key components into electrical signals containing information about the value and direction of the displacement.

The encoder operates in reflected from metal band light

beam. Metal band with made on its surface grating scale is fixed in rigid aluminium housing with double protection lips.

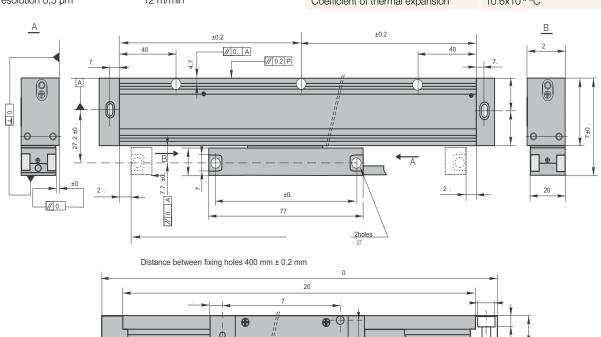
The encoder consists of several separate modules with length up to 3,0 m, which are jointed together, and reading head.

The standard encoder has three square-wave TTL output signals: 2 main signals, shifted by 90 degrees and one reference signal.

MECHANICAL DATA

Measuring lengths (ML), mm	250, 300, 350, 400, 450, 50020000 (more on option)			
Accuracy grades to any metre within the ML (at 20°C)	±10; ±5; ±3 μm			
Grating period (T)	400; 40; 20 μm			
Max. traversing speed: - when T=400 μm and resolution 100, 50, 10 μm - when T=40 μm and: - resolution 10, 5 μm - resolution 1 μm - when T=20 μm and: - resolution 5 μm	120 m/min 80 m/min 25 m/min 60 m/mi			
- resolution 0,5 μm	12 m/min			

Reference marks (RI): - N - M - P (optional)	without reference mark every 50 mm RI number and place
Required moving force	< 4 N
Protection (IEC 529) -without compressed air -with compressed air	IP54 IP64
Weight	0.4 kg + 2.8 kg/m
Operating temperature	0+50°C
Storage temperature	-20+70°C
Permissible vibration (102000 Hz)	\leq 100 m/s ²
Permissible shock (11 ms)	\leq 150 m/s ²
Coefficient of thermal expansion	10.6x10 ⁻⁶ °C



Positi e is lacement

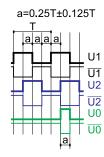




ELECTRICAL DATA

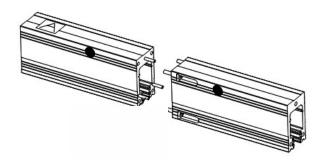
VERSION	L23-F Γ∐ πL
Supply voltage (U _p)	+5V±5%/ 65 mA; +12V±5%/ 65mA
Light source	LED
Resolution	100, 50; 10; 5; 1; 0.5 µm (after 4-fold in subsequent electronics)
Incremental signals	Differential square-wave U1/U1 and U2/U2
Reference signal	Differential square-wave U0/U0
Signal levels at load current 20 mA:	- low (logic "0") < 0.5 V at Up=+5V - high (logic "1") > 2.4 V at Up=+5V - low (logic "0") < 1.5 V at Up=+12V (HTL) - high (logic "1")>(Up-2) V at Up=+12V (HTL)
Direction of signals	U2 lags U1 (displacement from left to right and head position down)
Standard cable length	4 m armoured, without connector
Maximum cable length	25 m

Output signals



Note: If cable extension is used the power supply conductor section should not be smaller than 0.5 mm².

MODULE CONNECTION PRINCIPLE



ACCESSORIES

CONNECTORS FOR CABLE	B12 12-pin round connector	C9 9-pin round connector	C12 12-pin round connector	D9 9-pin flat connector	D15 15-pin flat connector	RS10 10-pin round connector	ONC 10-pin round connector
DIGITAL READOUT DEVICES	CS3000			CS5000			

ORDER FORM

