

LS 388 C

Incremental Sealed Linear Encoder

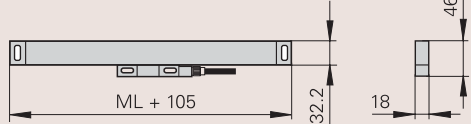
Specifications

Dimensions

Connecting Elements and Cables

Electrical Connection

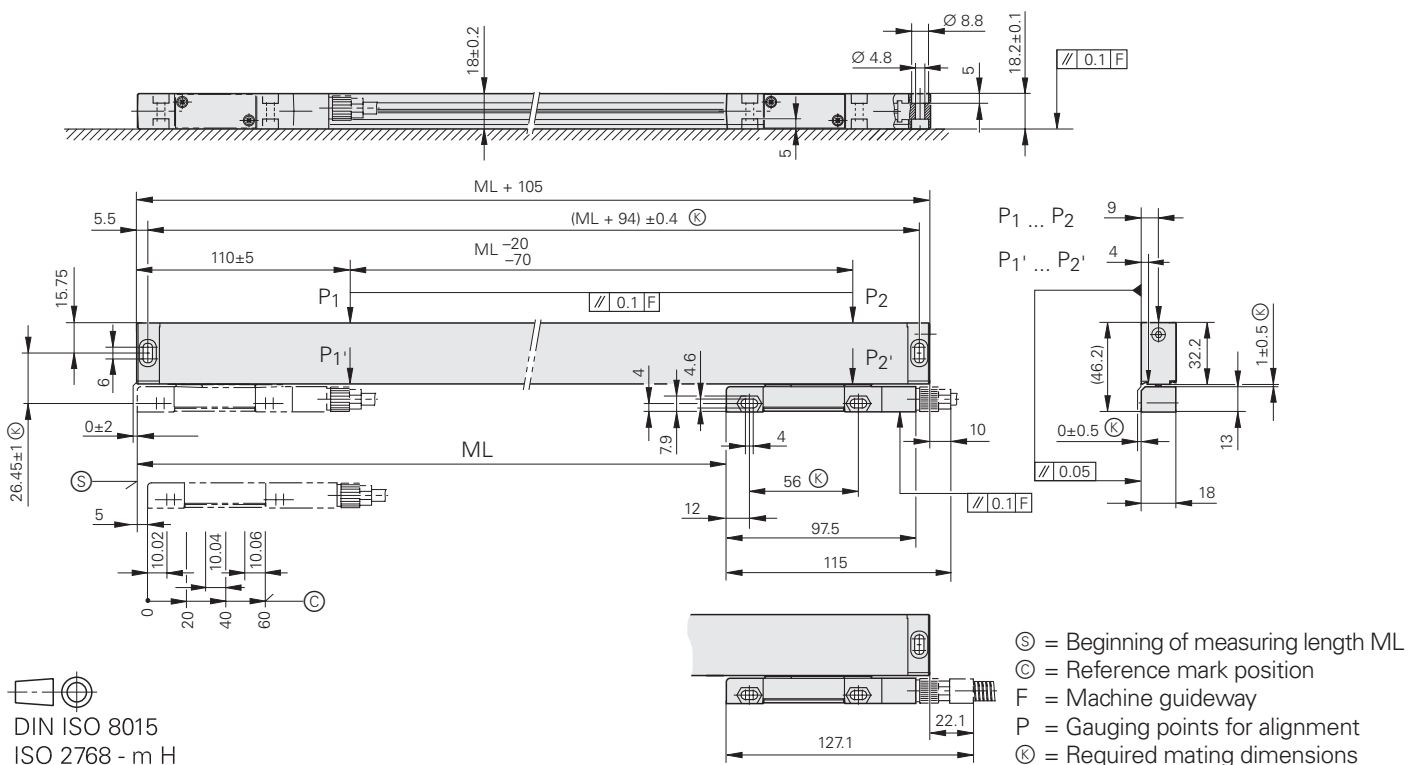


<p>Mechanical design</p>	
<p>Output signals</p>	<p>Incremental signals $\sim 1V_{PP}$</p>
<p>Measuring length</p>	<p>70 to 1240 mm</p>
<p>Special features</p>	<ul style="list-style-type: none"> • For limited installation space • Small mounting block • Adapter cable with circular connecting element



Specifications	LS 388C
Measuring standard Grating period Thermal expansion coefficient	Glass scale with DIADUR graduation 20 µm $\alpha_{\text{therm}} \approx (8 \pm 1) \cdot 10^{-6} \text{ K}^{-1}$
Accuracy grade	$\pm 10 \text{ µm}$
Measuring length ML in mm	70 to 1070, in 50 mm steps; 1140, 1240
Reference marks	Distance-coded; absolute position value available after max. 20 mm traverse
Max. traversing speed	60 m/min
Vibration 55 to 2000 Hz Shock 11 ms Acceleration in measuring direction	$\leq 150 \text{ m/s}^2$ (IEC 60068-2-6) $\leq 100 \text{ m/s}^2$ (IEC 60068-2-27) $\leq 100 \text{ m/s}^2$
Required moving force	$\leq 5 \text{ N}$
Protection IEC 60529	IP 53 when installed according to the mounting instructions
Operating temperature	0 to 50 °C
Weight	0.28 kg +0.65 kg/m measuring length
Power supply	5 V \pm 5%
Output signals/signal period	$\sim 1 \text{ V}_{\text{PP}}/20 \text{ µm}$
Electrical connection	Separate adapter cable (1 m/3 m/6 m/9 m) connectible to mounting block
Cable length to subsequent electronics	30 m max. (98.5 ft)

Dimensions
in mm

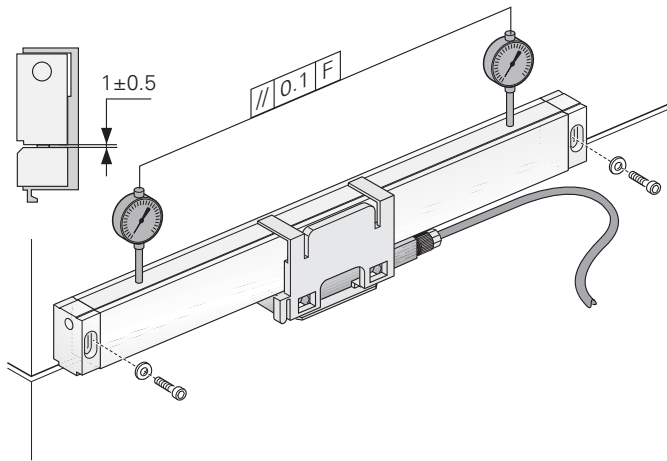



 DIN ISO 8015
 ISO 2768 - m H

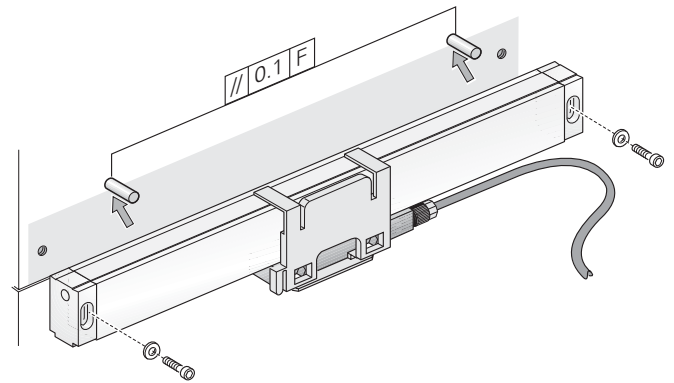
Mounting

1st step: Align the scale housing to the machine guideway (F)

Use a dial gauge to align the housing

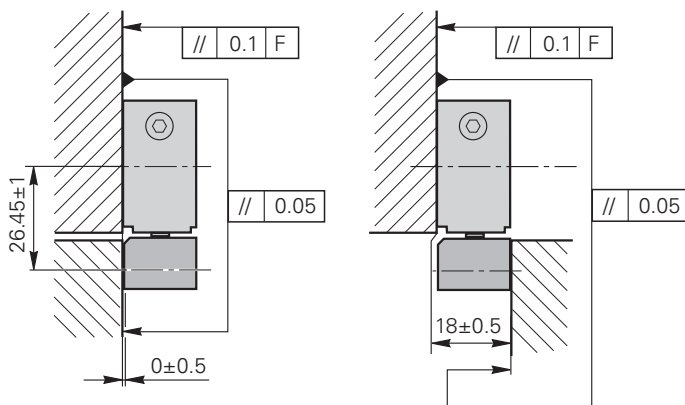


Orient against pins or edges



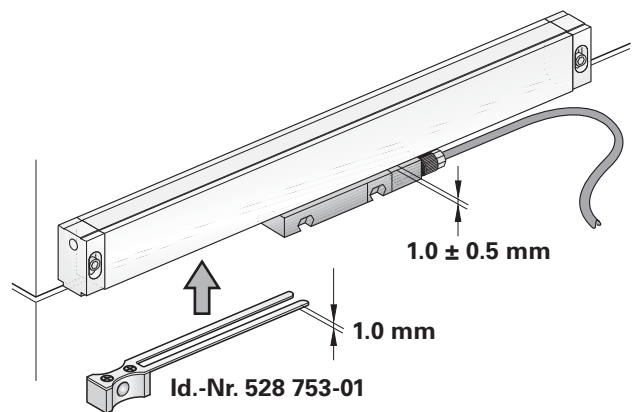
2nd step: Adjust the scanning unit

**Tolerance between mounting base and machine chassis:
 ± 0.5 mm**



**Tolerance between mounting base and scale housing:
 ± 0.5 mm**

Aid: Mounting aid 528 753-01



Electrical Connection

12-pin HEIDENHAIN coupling					12-pin HEIDENHAIN connector					15-pin D-sub connector				
	Power supply				Incremental signals						Other signals			
	12	2	10	11	5	6	8	1	3	4	9	7	/	
	1	9	2	11	3	4	6	7	10	12	5/8/ 13/15	14	-	
	U _P	Sensor U _P	0V	Sensor 0V	A+	A-	B+	B-	R+	R-	Vacant	Vacant	Vacant	
	Brown/ Green	Blue	White/ Green	White	Brown	Green	Gray	Pink	Red	Black	/	Violet	Yellow	

Shield on housing; **U_P** = Power supply voltage

Sensor: The sensor line is connected internally with the corresponding power line.

Adapter cable

Adapter cable with coupling (male) 12-pin		Cable Ø 6 mm	Id. Nr. 360645-xx
Adapter cable without connector		Cable Ø 6 mm	Id. Nr. 354319-xx
Adapter cable with connector (male) 12-pin		Cable Ø 6 mm Cable Ø 4.5 mm	Id. Nr. 344228-xx Id. Nr. 352611-xx
Adapter cable in metal armor with connector (male) 12-pin		Cable Ø 10 mm	Id. Nr. 344451-xx
Adapter cable with D-sub connector (15-pin) for HEIDENHAIN controls, IK 220 and PT 880		Cable Ø 6 mm	Id. Nr. 360974-xx
Adapter cable in armor with D-sub connector (15-pin) for HEIDENHAIN controls, IK 220 and PT 880		Cable Ø 10 mm	Id. Nr. 539878-xx

Available cable lengths: 1 m/3 m/6 m/9 m

You will find the applicable connecting elements and connecting cables in the *Sealed Linear Encoders* brochure.

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For more information

- Brochure: *Sealed Linear Encoders*