

# **MAGNESCALE**

*digital magnetic scale*



## **Series PL60 with MJ100/110, SL110, SL331**

### **Key-Features:**

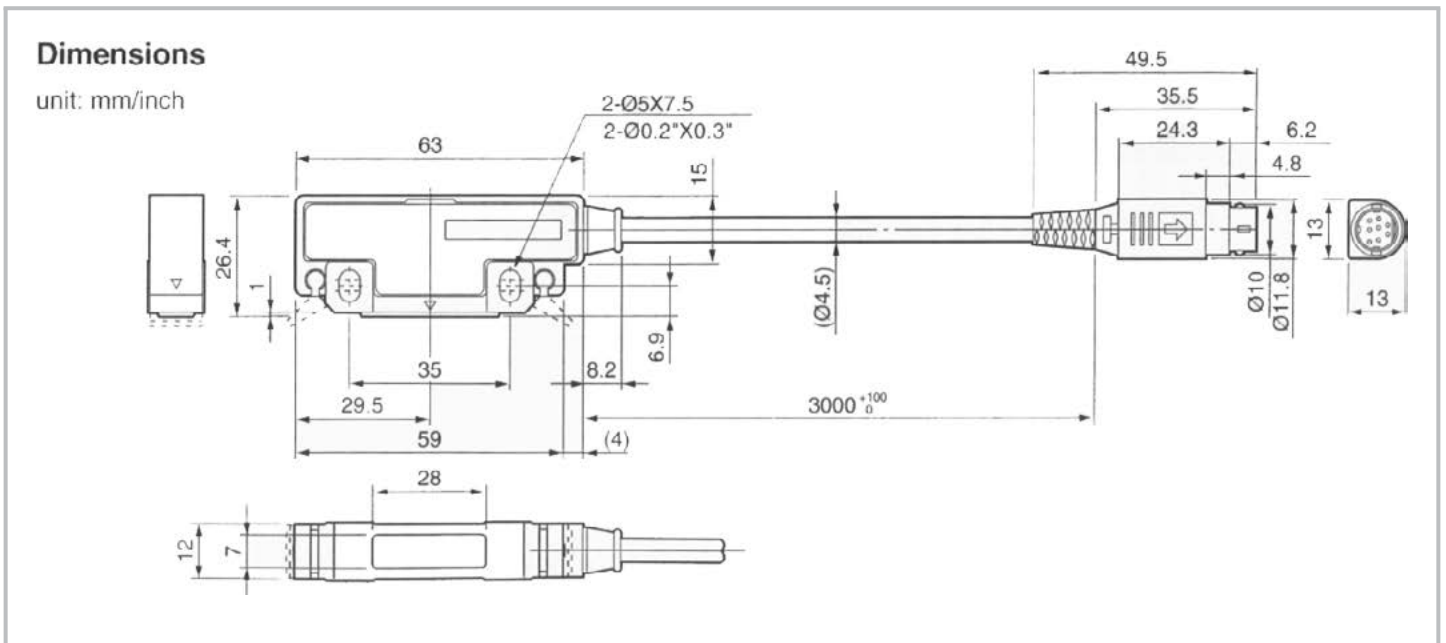
- Measurement ranges: 200 - 8000 mm
- Resolution up to 2  $\mu$ m
- MJ100/110: A/B TTL output signal or HTL open collector output
- Resistant against dirt, water, oil, vibrations and shock
- Protection class PL60: IP65
- High displacement speed
- Working temperature 0...+45 °C
- Easy mounting

### **Content:**

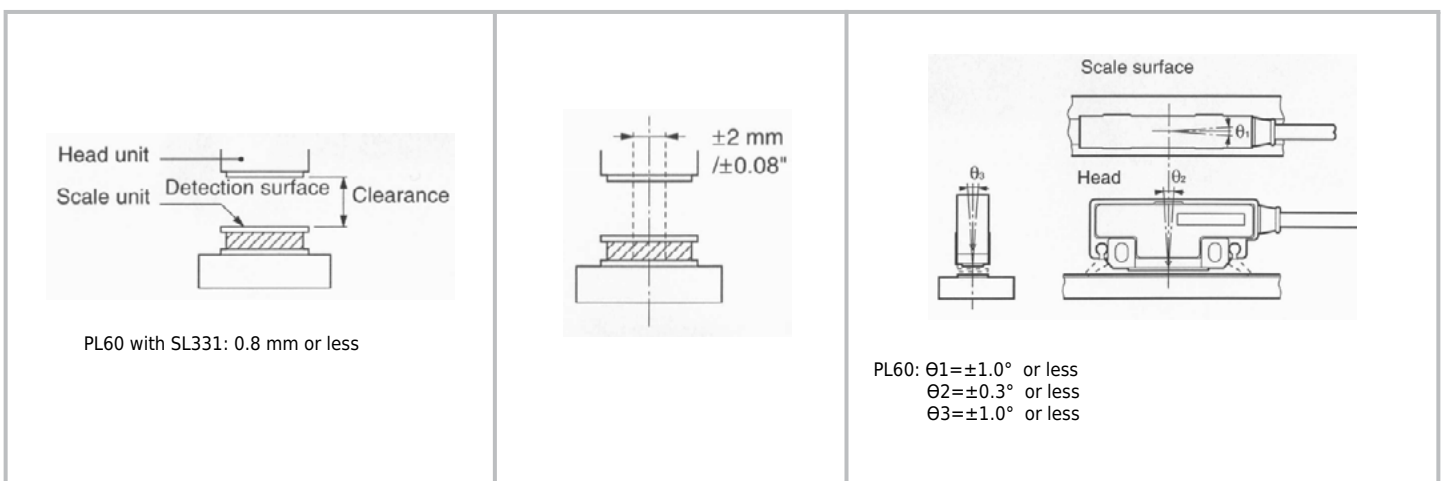
## TECHNICAL DATA PL60

Model	PL60
Cable length	3 m
Resolution (20°C)	up to 2 µm (depending on the settings of the MJ interpolator)
Output signal	A/B quadrature signal (according to RS422)
Screw tightening torque	0.7 to 1.1 Nm
Working temperature	0 to 45 °C
Storage temperature	-10 to 50 °C
Protection class	IP65
Displacement speed	dependent on chosen resolution of the MJ interpolator
Distance reading head - magnetic tape	max. 0.8 mm (no contact)
Bending radius cable	min. 100 mm
Compatible scales	SL331
Compatible interpolator	MJ100, MJ110

## TECHNICAL DRAWING PL60



## INSTALLATION PL60

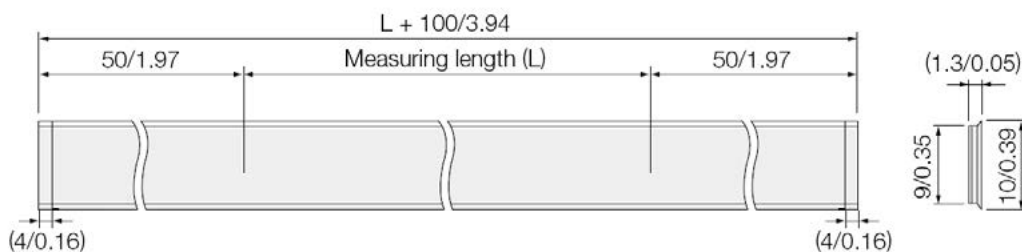


## TECHNICAL DATA SL331

Model		SL331
Measurement Range	[mm]	200 / 300 / 400 / 500 / 600 / 700 / 800 / 1000 / 1200 / 1500 / 1600 / 1700 / 1800 / 2000 / 2500 / 3000 / 4000 / 5000 / 6000 / 7000 / 8000
Resolution (20°C)	[µm]	5
Accuracy (20°C)	[µm]	±(15 + 5L/1000)
Reference point		without
Working temperature	[°C]	0 to 45
Storage temperature	[°C]	-10 to 50
Displacement speed	[m/min]	dependent on chosen resolution of the MJ interpolator
Expansion coefficient		(11,1 ±1) x 10 <sup>-6</sup> /°C
Total length	[mm]	MB + 100
Reading head		PL60

## TECHNICAL DRAWING SL331

### Magnetic tape SL331



Model	Measuring length	Max. travel	Overall length
SL331-20	200	230	300
SL331-30	300	330	400
SL331-40	400	430	500
SL331-50	500	530	600
SL331-60	600	630	700
SL331-70	700	730	800
SL331-80	800	830	900
SL331-100	1000	1030	1100
SL331-120	1200	1230	1300
SL331-150	1500	1530	1600
SL331-160	1600	1630	1700
SL331-170	1700	1730	1800
SL331-180	1800	1830	1900
SL331-200	2000	2030	2100
SL331-250	2500	2530	1600
SL331-300	3000	3030	3100
SL331-400	4000	4030	4100
SL331-500	5000	5030	5100
SL331-600	6000	6030	6100
SL331-700	7000	7030	7100
SL331-800	8000	8030	8100

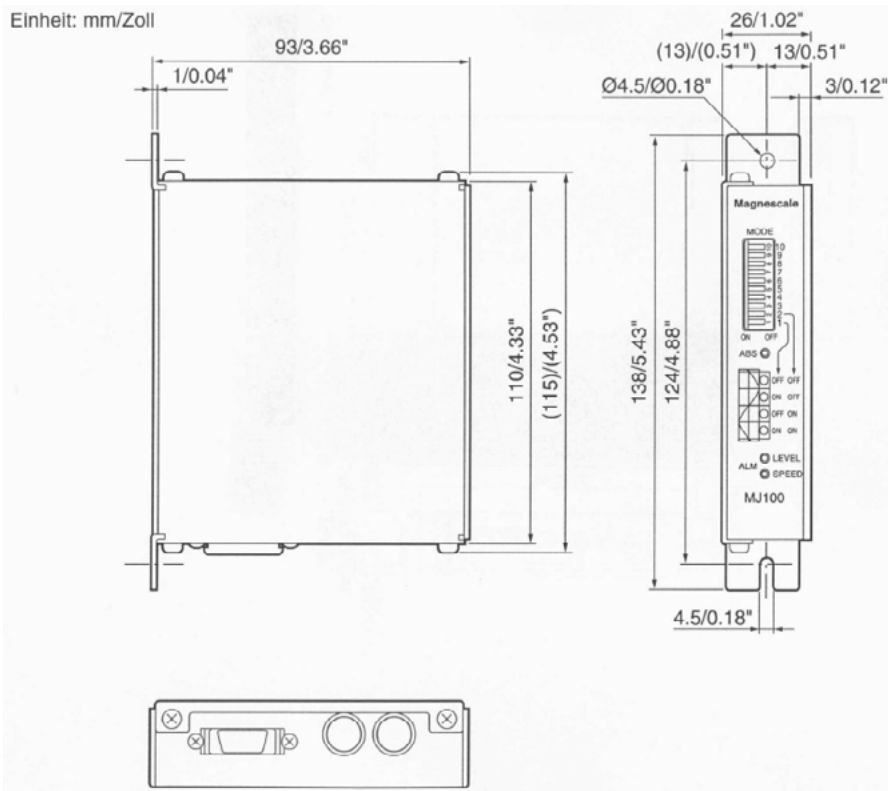
Unit: mm

## TECHNICAL DATA INTERPOLATOR MJ100/110

Model	MJ100	MJ110
Power supply	5 V (4,5 bis 6 V)	12 bis 30 V (11 bis 31 V)
Power consumption	4 W	3 W
Output interface	Line Driver (entsprechend RS422)	Open Collector (Iol=50 mA max.)
Outputs	A/B-Phasensignal, U/V/W-Phasensignale, Bezugspunkt- und Alarmsignal	A/B-Phasensignal, Bezugspunkt- und Alarmsignal
Number of divisions	1000, 960, 800, 512, 500, 480, 400, 256, 240, 200, 128, 120, 100, 80, 64, 40 mit Hilfe der 1/2- Teilfunktion ist es möglich die Anzahl der genannten Teile zu halbieren (doppelte Auflösung)	
Maximum response frequency		
1000 divisions	6 kHz, 1800 m/min	600 kHz, 180 m/min
500 divisions	15 kHz, 4500 m/min	1.5 kHz, 450 m/min
200 divisions	42 kHz, 12600 m/min	4 kHz, 1200 m/min
120 divisions	70 kHz, 21000 m/min	7.4 kHz, 2220 m/min
Minimum phase difference	100 ns	1 µs
Alarms	Speed alarm (minimum phase difference time or maximum response frequency) Level alarm (0.4 Vp-p or less), Minimum alarm time approx. 400 ms	
System start-up time	within 0.5 seconds after the power is online	
External dimensions	138 x 93 x 26 mm	
Compatible head unit	PL25 and PL60	
Working temperature	0...45°C	
Storage temperature	-20...60°C	
Mass	350 g	
Supplied accessories	Manual, output connector, connector cap, mounting screws	
Options	SET-P16-1 (for external reference point), Scale extension cable, external reference point extension cable, output connector with cable	

## TECHNICAL DRAWING INTERPOLATOR MJ100/110

### MJ100/110 INTERPOLATOR



## ORDER CODE FOR MAGNESCALE MAGNETIC TAPE

<b>SL331 magnetic tape</b>	
SL331-20	Measurement range 200 mm
SL331-30	Measurement range 300 mm
SL331-40	Measurement range 400 mm
SL331-50	Measurement range 500 mm
SL331-60	Measurement range 600 mm
SL331-70	Measurement range 700 mm
SL331-80	Measurement range 800 mm
SL331-100	Measurement range 1000 mm
SL331-120	Measurement range 1200 mm
SL331-150	Measurement range 1500 mm
SL331-160	Measurement range 1600 mm

SL331-170	Measurement range 1700 mm
SL331-180	Measurement range 1800 mm
SL331-200	Measurement range 2000 mm
SL331-250	Measurement range 2500 mm
SL331-300	Measurement range 3000 mm
SL331-400	Measurement range 4000 mm
SL331-500	Measurement range 5000 mm
SL331-600	Measurement range 6000 mm
SL331-700	Measurement range 7000 mm
SL331-800	Measurement range 8000 mm

## ORDER CODE MAGNESCALE READING HEAD, INTERPOLATOR

<b>Reading head PL60</b>	<b>PL60-3</b>
CE08-3	CE08-3
CE08-5	CE08-5
CE08-10	CE08-10
CE08-15	CE08-15

<b>Interpolator MJ100</b>	<b>MJ100</b>
<b>Interpolator MJ110</b>	<b>MJ110</b>
Magnetswitch (1.5 m cable)	SET-P16-1
Extension cable 3 m	CE09-3
Extension cable 5 m	CE09-5
Extension cable 10 m	CE09-10



Subject to change without prior notice.

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