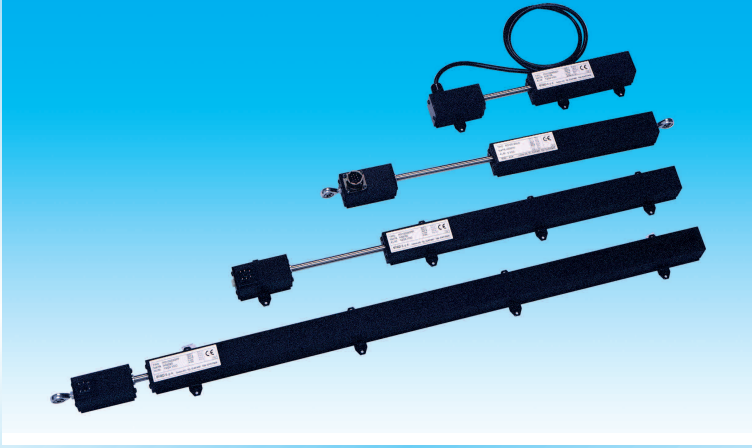


elap PD/PE

INCREMENTAL LINEAR TRANSDUCERS



- High reading resolution (up to a 0.005 mm)
 - Easy mounting method
 - High protection degree (IP65)
- Accurate, strong, easy to mount, and weatherproof, transducers series PD and PE are the ideal solution when you need to measure thickness or control linear displacement on any kind of industrial machine. There are three versions available, each one with or without zero pulses:
- PD100: reading resolution 0.01 mm
 - PD500: reading resolution 0.005 mm
 - PE050: reading resolution 0.05 mm
- TYPICAL APPLICATIONS:** • Measuring thickness (of glass panes, wood plates, paper sheets) • Control of strokes length • Wood-working machinery, glass/marble-working, sheet, plastics, paper machinery • Hydraulic and pneumatic motion systems



GENERAL SPECIFICATIONS

	PD100	PD 500	PE050
Operating principle	Optoelectronic reading on glass graduated scale 2 mm thick		Optoelectronic reading on polyester film graduated scale 0.18 mm thick
Grating pitch	20+20 micron	10 + 10 micron	100 + 100 micron
Grating accuracy	± 3micron/m		± 0.01 mm
Reading resolution	0.01 mm	0.005 mm	0.05 mm
	after the electronic quadrupling		
Reference pulses	Standard: 1 at mid-stroke or 1 each 25 mm. On request placed according to the customer's requirements		
Measuring element material	Floatglass		Film polyester
Thermal expansion of the measuring element	8 x 10 ⁻⁶ /°C		18 x 10 ⁻⁶ /°C

MECHANICAL SPECIFICATIONS

	PD100	PD 500	PE050
Strokes	60 to 990 mm		
Protection degree	IP64 - IP65 for the version with O-ring		
Max speed	60 m/min.	120 m/min.	
Max acceleration	40 m/sec ²		
Reference serach max speed	12 m/min.	24 m/min.	
Progress strength	1 + 3 N		
Case	Anodised aluminium - square dimensions 31x31 mm		
Stem	Stainless steel diameter 8 mm		
Fixing	Metal clamping feet placed freely along the body or ball joints at the ends		
Operating temperature	0 + 50° C		
Stocking temperature	-20 + +70° C		
Dimensions	See the drawing		

ELECTRICAL SPECIFICATIONS

	PD100	PD 500	PE050
Lighting signal source	LED		
Supply	10 + 24 Vdc - 5 Vdc ± 5% protection against polarity reversal		
Current consumption	max. 50 mA - 90 mA for line driver output		
Output signals	2 square waves, 90 ± 15 degree out of phase or 2 sinusoidal waves 90 ± 15 degree out of phase 1V _{pp}		2 square waves, 90 ± 15 degree out of phase
	Zero signal 90° ± 15°		
Electronic output	push-pull, open collector NPN, line driver (5 or 10/24 Vdc) Protection against short circuits		
Electrical connections	By connector		

SPECIAL VERSIONS

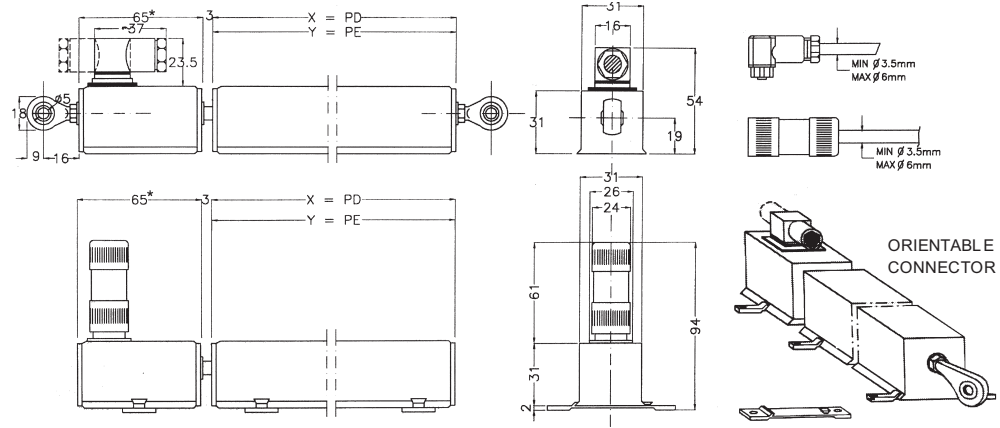
- PRESSURIZED VERSION (IP67) with connection for compressed air
- version with cable connection
- version with amplifier
- CUSTOMIZED VERSIONS ON REQUEST

CONNECTOR SIGNAL

• PUSH PULL OUTPUT	• LINE DRIVER OUTPUT
NPV OPEN COLLECTOR OUTPUT	A signal 1
1 signal 1	B signal 1
2 signal 2	C signal 2
3 OV	D signal 2
4 +Vdc	E signal Z
5	F signal Z
6 signal Z	G
	H
	J 0 Volt
	K +Vdc



DIMENSIONS PD/PE SERIES



* versions with sinusoidal waves output: 82 mm

SLIDING CLAMPING FEET

STROKE	X SERIES PD	Y SERIES PE	N° CLAMPINGS
60	153	137	3
120	213	197	3
170	263	247	3
200	293	277	3
220	313	297	3
255	348	332	4
280	372	357	4
360	512	497	4
380	532	517	4
440	592	577	5
520	672	657	5
580	732	717	5
650	813	787	6
750	913	887	7
990	1153	1127	7

variations admitted without notice

09/07



POPHOF Antriebstechnik
Schützenstr. 14a, D-77933 Lahr

Tel. 07821-983 913
Fax 07821-983 914

info@pophof.de
www.pophof.de

ELAP S.P.A. I-20094 CORSICO (MI) ITALIA - VIA VITTORIO VENETO 4 - TEL. (+39) 02 4519561 R.A.
FAX (+39) 02 45103406 - E-MAIL: elapsa@tin.it - URL www.elap.it