

APPLICATIONS

- Measurement of linear displacements
- Presses, injection-moulding machines



DESCRIPTION

PY2-range, sensors are designed to measure linear displacements from 0-10 mm to 100 mm. Three measurement ranges are available, all with the linearity ranging from 0.2 to 0.1 %. They feature a contact tip and a return spring and they include a potentiometric plastic track.

- Separate linearity up to $\pm 0,1\%$
- Infinite resolution.
- Lifespan > 100x10⁶ operations
- Displacement speed up to 10m/s.
- Protection class: IP40

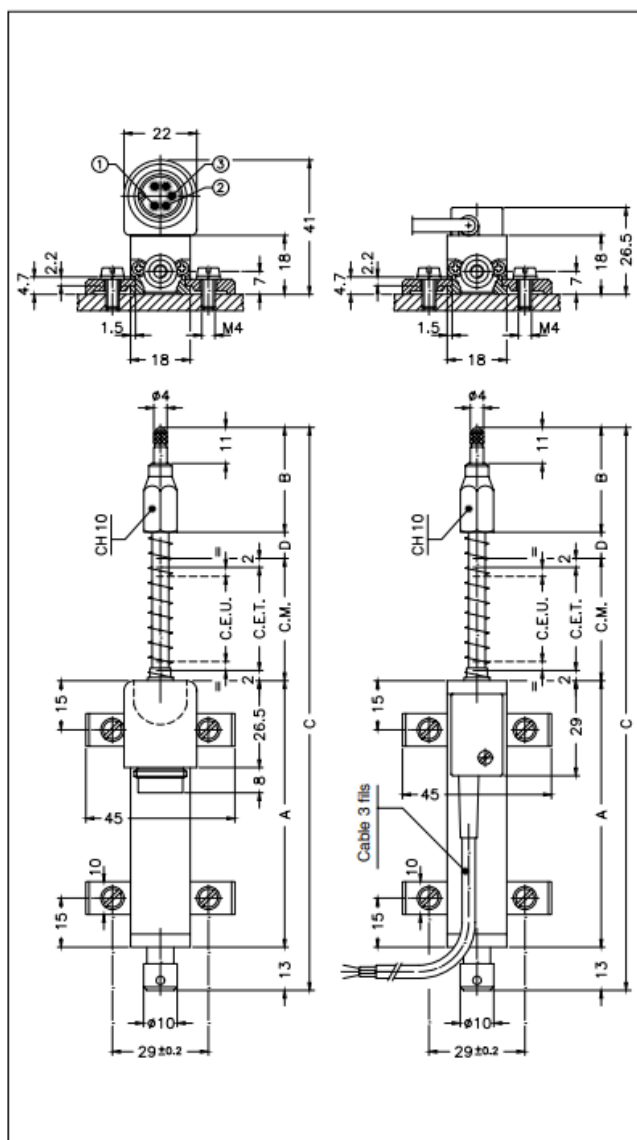
TECHNICAL FEATURES

Useful electrical stroke (C.E.U.)	10/25/50/75/100
Resolution	Infinite
Independent linearity (within C.E.U.)	See table
Displacement speed	≤ 10 m/s
Displacement force	≤ 4 N
Life	$>25 \times 10^6$ m strokes, or 100×10^6 operations, whichever is less (within C.E.U.)
Vibrations	5...2000 HZ, $A_{max}=0,75$ mm $a_{max.} = 20$ g
Shock	50 g , 11ms
Tolerance on resistance	$\pm 20\%$
Recommended cursor current	$< 0,1$ μ A
Maximum applicable	10 mA
Maximim applicable voltage	See table
Electrical isolation	$>100M\Omega$ à 500V=, 1bar, 2s
Dielectric strength	>100 μ A à 500V~, 50 Hz, 2s, 1bar
Dissipation at 40°C (0W at 120°C)	See table
Actual temperature coefficient of the output voltage	$< 1,5$ ppm/°C
Working temperature	-30...+100°C
Storage temperature	-50...+120°C
Case material	Anodised aluminium Nylon 66 G 25
Control rod material	Stainless steel AISI 303
Fixing	Brackets with variable longitudinal axis

Important :

All the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor $I_c \leq 0.1$ mA.

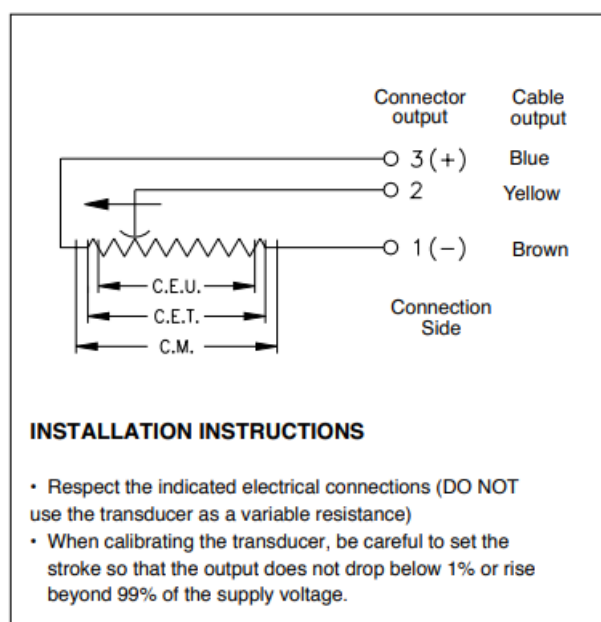
DIMENSIONS



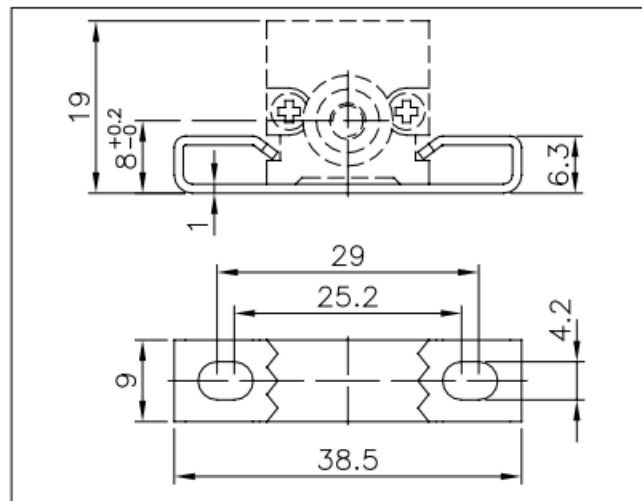
MECHANICAL / ELECTRICAL DATA

Model		10	25	50	75	100
Useful electrical stroke (C.E.U.) +1/-0	mm	10	25	50	76	101
Theoretical electrical stroke (C.E.T.) ± 1	mm	C.E.U. +1			76	101
Resistance (C.E.T.)	k Ω	1	1	5	5	5
Independent linearity (within C.E.U.)	\pm %	0.3	0.2	0.1	0.1	0.1
Dissipation at 40° (0W at 120°C)	W	0.2	0.6	1.2	1.8	2.4
Maximum applicable voltage	V	14	25	60	60	60
Mechanical stroke (C.M.)	mm	C.E.U. + 5				
Case length (A)	mm	C.E.U. + 38				
Tip length (B)	mm	32	32	40	40	40
Total length (C)	mm	108	138	196	251	307
Quote (D)	mm	-	-	-	5	11

ELECTRICAL CONNECTIONS



OPTIONAL FIXING KIT PKIT006



ORDER CODE

Displacement transducer PY2		<input type="checkbox"/> S <input type="checkbox"/> M			<input type="checkbox"/> 0 <input type="checkbox"/> 0 <input type="checkbox"/> 0 <input type="checkbox"/> X <input type="checkbox"/> 0 <input type="checkbox"/> 0 <input type="checkbox"/> 0 <input type="checkbox"/> 0
3 pole PVC cable output 3x0.25 1m	F	Cable length (in metres) This part of the code only applies to the model with cable output	No certificate attached	0	
5 pole connector output DIN 43322	C		Linearity curve to be attached	L	
Model			Standard mounting brackets (PKIT005)	X	
			Optional mounting brackets (PKIT006)	S	
			Color of plastic heads (green)	0	

Ex.: PY2 - C - 100
 Displacement transducer model PY2, 5-pole connector output, useful electrical stroke (C.E.U.) 100mm.

ACCESSORIES

STANDARD ACCESSORIES

Fixing kit: 4 brackets, M4x10 screws, washer	PKIT005
Fixing kit: 2 "wraparound" brackets (0000X000S00 configurator option)	PKIT006
Tip with bal	PTAS000

OPTIONAL ACCESSORIES

5-pin axial female PCB connector DIN43322 IP40 clamp for wire $\varnothing 4$ - $\varnothing 6$ mm	CON011
5-pin axial female PCB connector DIN43322 IP65 clamp PG7 for wire $\varnothing 4$ - $\varnothing 6$ mm	CON012
5-pin 90° radial female PCB connector DIN43322 IP40 clamp for wire $\varnothing 4$ - $\varnothing 6$ mm	CON013

SPHEREL Systems reserves the right to make any kind of design or functional modification at any moment without prior notice