

Position Transducers with Restoring Spring

KPY series position sensors employing conductive-plastic resistance and collector tracks provide direct means of measuring position or profile, without the need of a solid mechanical coupling. The side connection creates a through-rod structure with double rod support, guaranteeing greater overall strength of the transducer.

One important feature of the KPY Series is the industry proven double-bearing systems on both actuator shaft and spring. This arrangement reduces side load errors that could occur in an application such as cam-following and is one of the design factors that enable the outstanding linearity of this series. The return spring automatically returns the rod to zero position, making the transducer suitable for comparator applications.

KPY2 with stainless steel ball and KPY3 with roller bearing both are suitable for applications where the object to be measured is not subject to shifts transverse to the transducer axle.

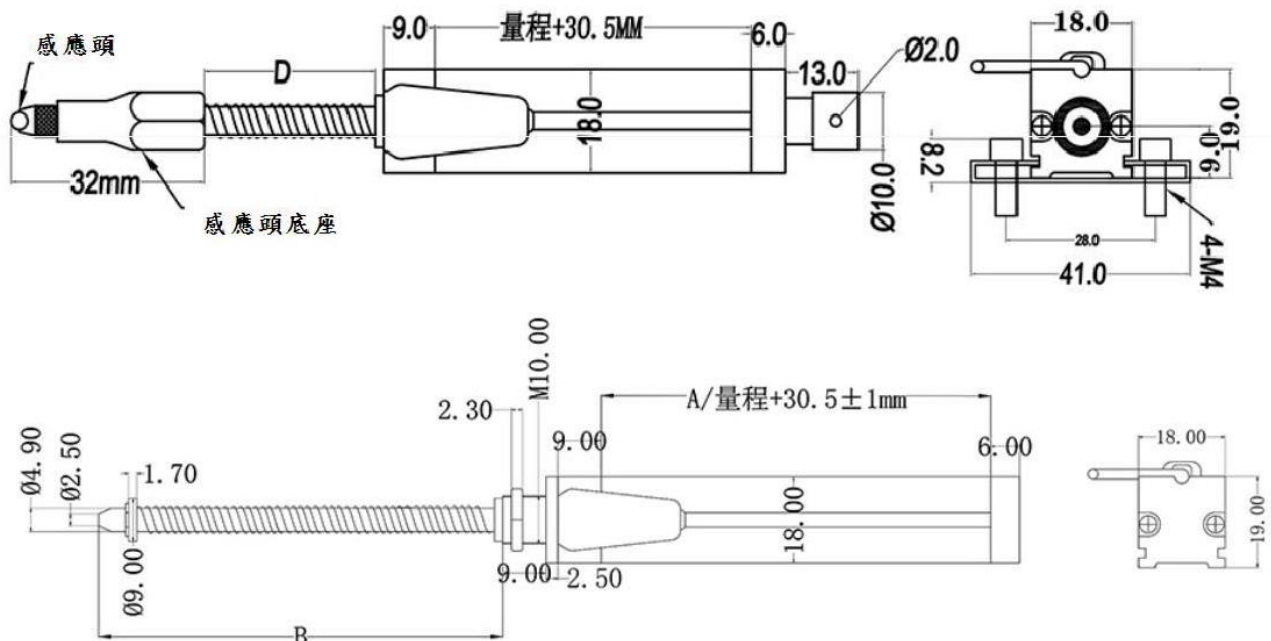


4 Pole cable output (F)

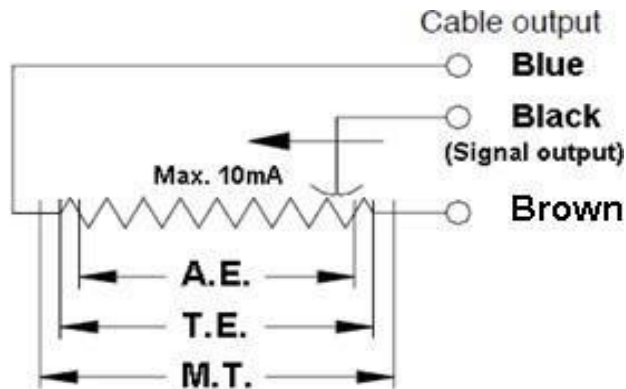


4 Pole connector output (C)

MECHANICAL DIMENSIONS: (Unit: mm)



ELECTRICAL CONNECTIONS:



ACCESSORIES:

STANDARD:

- Fix kit: 4 brackets, 4 screws
- KPY2 (Stainless steel ball)
- KPY3 (Roller bearing)
- F (4 Pole cable output)
- C (4 Pole connector output)

ELECTRICAL / MECHANICAL DATA

KPY series	model	10/15/25/50/75/100/125/150/175/200/225/250/275/300	
Useful electrical stroke (A.E)	mm	10~25	50~300
Resistance (T.E) ±20%	KΩ	1	5
Independent linearity (within A.E)	± %	0.1	
Mechanical stroke (M.T. ,B)	mm	stroke+3mm	
Case length (A)	mm	Model+45.5	
Resolution		infinite	
Repeatability	mm	0.002	
Displacement speed	m/s	≤ 10 Standard	
Protection level		IP67	
Life		25x10 ⁶ M or 100x10 ⁶ operations	
Displacement force	N	4	
Vibrations		5 - 2000Hz, Amax =0.75 mm amax. = 20 g	
Shock		50 g, 11ms	
Recommended cursor current	μA	< 1	
Max. cursor current	mA	10	
Maximum applicable voltage	V	12	60
Electrical isolation	MΩ	>100 @ 500V ,50Hz, 2s,1bar	
Dielectric strength	μA	< 100 @ 500V~ ,50Hz, 2s,1bar	
Actual Temperature Coefficient ≤ 5ppm/°C typical of the output voltage			≤ 1.5 ppm/°C typical
Working temperature	°	-60--+150	
Material for transducer case		Anodised aluminium Nylon	
Material for pull shaft		Stainless steel	
Mounting		Brackets with adjustable distance with screw	