

Rectilinear Displacement Transducer With Cylindrical Case

KPC/KPS Position Transducers was designed to satisfy extreme applicative demands in terms of mechanical strength.

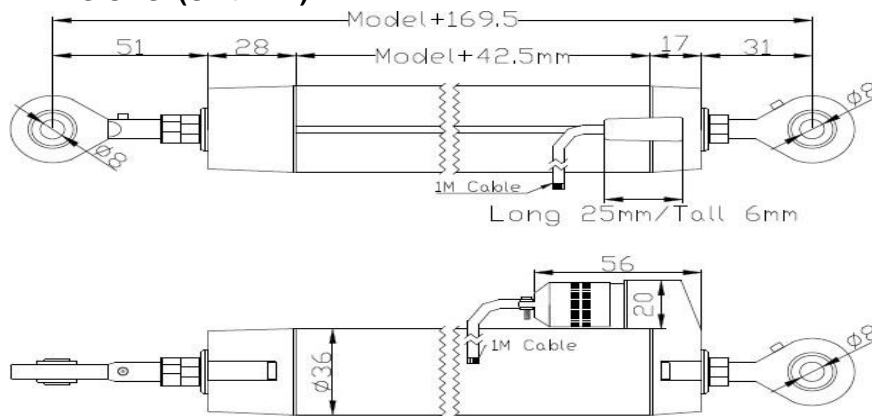
Outstanding linearity and accurate measurement are achieved with a resistance element made of conductive plastic and wiper system is mounted on the actuating rod and coupled free-of-backlash for a long life and trouble-free operation and control of mechanical strokes.

Installation is simplified by the lack of electrical signal variation at output outside theoretical electrical stroke.

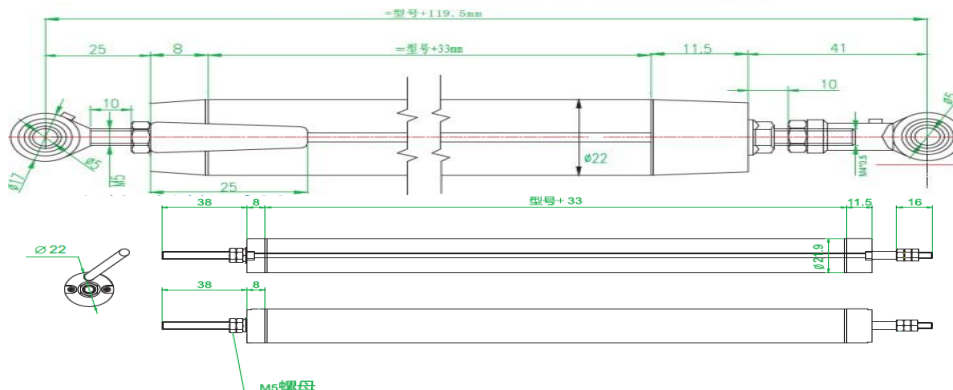
The structure based on self-aligning and weight-bearing ball joints permits assembly with free movement of the transducer axle.



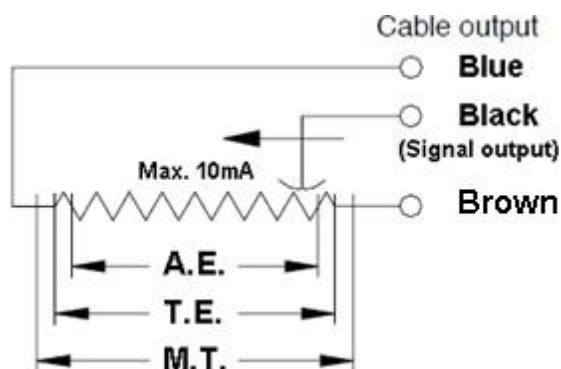
KPC MECHANICAL DIMENSIONS: (Unit: mm)



KPS MECHANICAL DIMENSIONS: (Unit: mm)



ELECTRICAL CONNECTIONS:

Cable Output Type:


- F (4 Pole cable output)
- C (4 Pole connector output)

KPC ELECTRICAL / MECHANICAL DATA:

KPC	Model	50~550	600~1250
Useful electrical stroke (A.E.)	mm	50~550	600~1250
Resistance (T.E.) $\pm 10\%$	K Ω	5	10
Independent linearity (within A.E.)	+ - %	0.1	0.05
Mechanical stroke (M.T.)	mm	A.E.+7mm	
Resolution		infinite	
Repeatability	mm	0.01	
Displacement speed	m/s	≤ 5 (Standard)	
Protection level		IP67	
Life		100×10^6 strokes	
Displacement force	N	≤ 10	
Vibrations		5 – 2KHz, $A_{max} = 0.75$ mm, $a_{max} = 20$ g	
Shock		50 g, 11ms	
Recommended cursor current	μA	< 1	
Max. cursor current	mA	10	
Max. applicable voltage	V	60	
Electrical isolation		$> 100 M\Omega @ 500V, 2s, 1bar$	
Dielectric strength		$< 100 \mu A @ 500V \sim , 50Hz, 2s, 1bar$	
Actual Temperature Coefficient of the output voltage	ppm/ $^{\circ}C$	≤ 1.5 (typical)	
Working temperature	$^{\circ}C$	-60~+150	
Material for transducer case		Anodized aluminum Nylon 66 G 25	
Control rod Material		Stainless steel AISI 303	
FIX		2 Self loading and self aligning ball-joints	

KPS ELECTRICAL / MECHANICAL DATA:

KPS	Model	10/15/25/50/75/100/125/150/175/200/225/250/275/300	
Useful electrical stroke (A.E.)	mm	10~75	100~300mm
Resistance (T.E.) $\pm 10\%$	K Ω	1	5
Independent linearity (within A.E.)	+ - %	0.1	0.05
Mechanical stroke (M.T.)	mm	A.E.+3mm	
Resolution		infinite	
Repeatability	mm	0.01	
Displacement speed	m/s	≤ 5 (Standard)	
Protection level		IP67	
Life		100x10 ⁶ strokes	
Displacement force	N	≤ 10	
Vibrations		5 – 2KHz, Amax =0.75 mm, amax. = 20 g	
Shock		50 g, 11ms	
Recommended cursor current	μA	< 1	
Max. cursor current	mA	10	
Max. applicable voltage	V	12	60
Electrical isolation		>100 M Ω @ 500V, 2s, 1bar	
Dielectric strength		< 100 μA @ 500V~ ,50Hz, 2s,1bar	
Actual Temperature Coefficient of the output voltage	ppm/ $^{\circ}C$	≤ 1.5 (typical)	
Working temperature	$^{\circ}C$	-60~+150	
Material for transducer case		Anodized aluminum Nylon 66 G 25	
Control rod Material		Stainless steel AISI 303	
FIX		2 Self loading and self aligning ball-joints	