



# KTF LINEAR MOTION POSITION SENSORS

□ 38 Section, STANDARD 50-3000mm

## Rodless Type



### Unique Features

- Durable bearing and slider
- Anodized Aluminium Housing
- Smooth Low Noise Output from Conductive Plastic Tack
- Very Long Life
  - >100 x 10<sup>6</sup> Cycles
  - >25 x 10<sup>6</sup> m
- Stroke : 50-3000mm
- Outstanding Linearity
  - : ±0.07%(50-375mm)
  - : ±0.05%(400-3000mm)
- High Resolution : Infinite
- Excellent Repeatability : ± 0.01mm
- Max operating speed : 10m/s max.
- DIN 43650 ISO 4400 Connector
- Fuse Protected optional
- Operating temperature : -30~100°C
- Storage Temperature : -50~120°C

KTF standard linear transducers are designed for direct absolute measurement and are available in stroke lengths up to 3000mm.

The rodless design allows the actuator to be driven from side and along the whole length.

A magnetically restrained stainless steel band covering all the opening through which the actuator operates.

The KTF series is a rodless version which provides minimum installation length. The slider has a ball coupling which reduces the effects of mis-alignment with the actuating part and eliminates forces generating from angular off-sets transmitting to the bearing surfaces.

An improved technique for making connection to resistance track (Double Trimming Technique) ensures the higher degrees of reliability and linearity, while multi-fingers wipers stabilize output signals, even in the most adverse working conditions.

The fixing feet are adjustable to the desired positions.

Technical Specifications	
Sealing - KTF	IP50
Current Resistance	≤ 10mA
Wiper	≤ 1mA
Operating Force	≤ 2N
Power Consumption	3W-10W
Output Smoothness	<± 0.1% against input voltage
Input Voltage	60 V Max
Insulation Voltage	500V-1 min Residue < 5 μA
Vibration	IEC 68-2-6:1982 10g
Shock	IEC 68-2-29:1968 40g

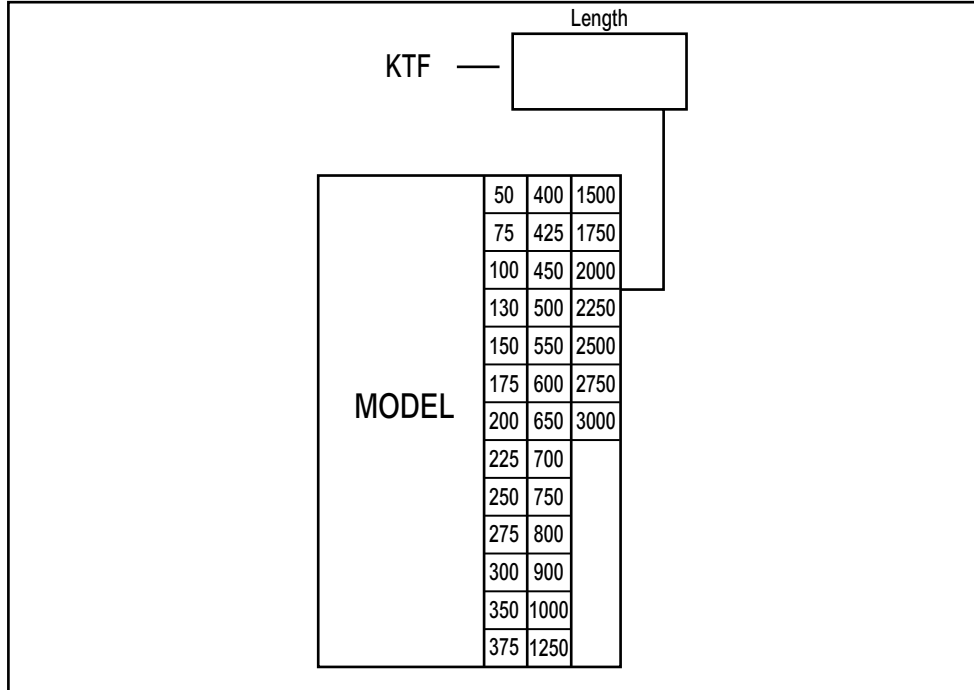


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**ORDER CODE**



KTF series		50	75	100	130	150	175	200	225	250	275	300	350	375	400	425	450	500	550	600	650	700	750	800	900	1000	1250	1500	1750	2000	2250	2500	2750	3000
Total Electrical Travel(T.E)	mm	53	78	103	133	153	178	204	229	254	279	304	354	380	406	432	457	508	558	609	659	710	762	812	914	1017	1271	1521	1771	2021	2273	2526	2778	3030
Active Electrical Travel (A.E)	mm	51	76	101	131	151	176	202	227	252	277	302	352	378	404	430	455	506	556	607	657	708	760	810	912	1015	1269	1519	1769	2019	2271	2524	2776	3028
Resistance ±20%	kΩ	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	10	10	10	10	10	10	20	20	20	20	20	20	20	20
Independent Linearity	±%	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Mechanical Travel (M.T)	mm	63	88	113	143	163	188	214	239	264	289	314	364	390	416	442	467	518	568	619	669	720	772	822	924	1027	1281	1531	1781	2031	2283	2536	2788	3040
Resolution		infinite																																
Recommended Cursor Current	μA	< 1																																
Temperature Range	°C	-30 to +100																																
Dimensions (A)	mm	198	223	248	278	298	323	349	374	399	424	449	499	525	551	577	602	653	703	754	804	855	907	957	1059	1162	1416	1666	1916	2166	2418	2671	2923	3175

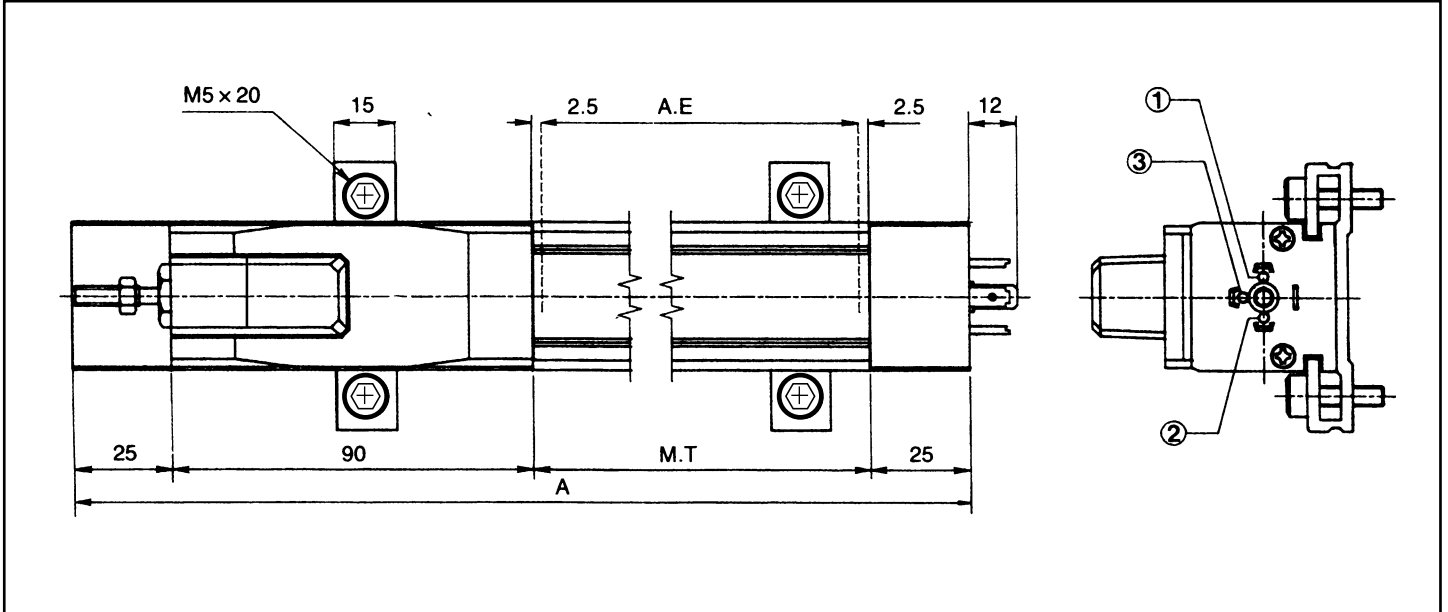
\* Dimensions for reference only

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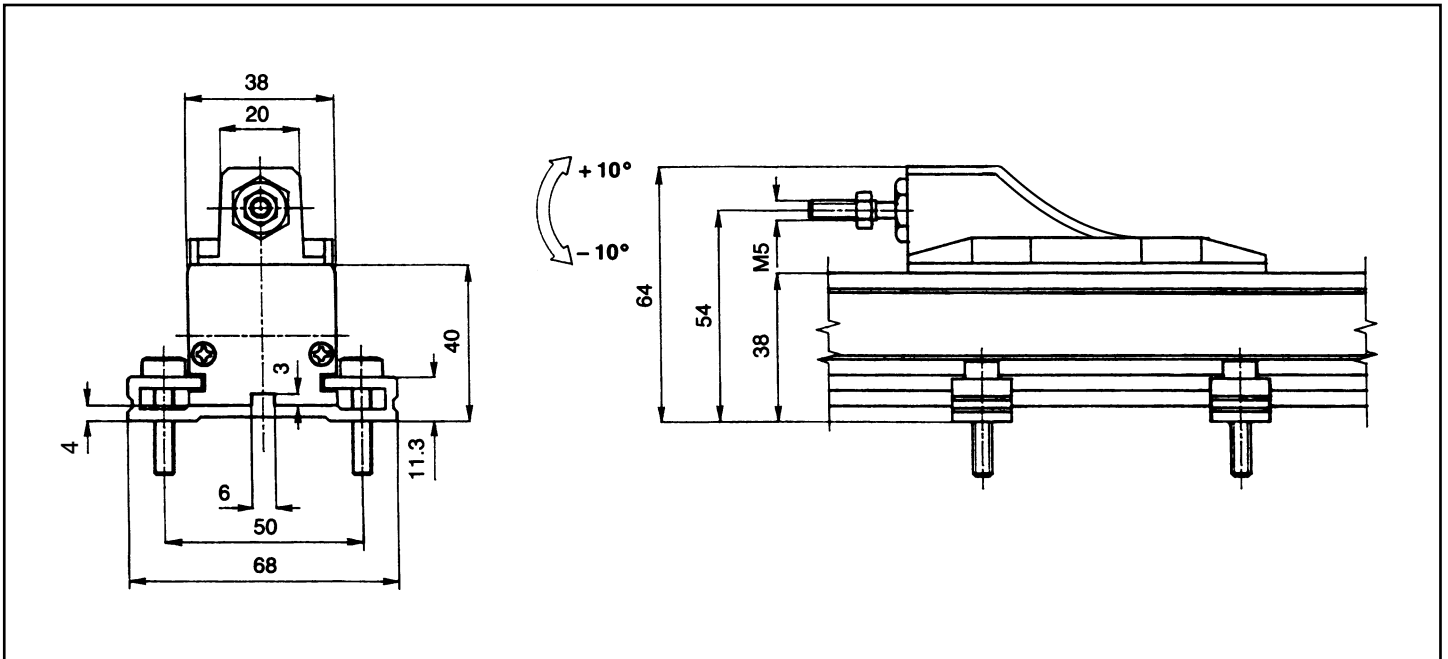
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### MECHANICAL DIMENSIONS KTF



### COUPLING JOINT



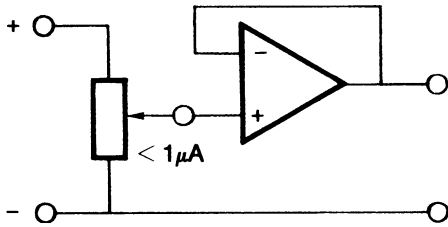


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### RECOMMENDED MEASUREMENT CIRCUIT



**Important:**

The published technical data are applicable only when the transducer is used correctly, and in accordance with the user manual / instructions. The KTF linear Position transducers must be used as voltage dividers with a maximum current in the wiper contact of  $1\mu A$ ; should the system downstream require more current, further circuitry will be required.

### ELECTRICAL CONNECTIONS

