

Potentiometer conductive plastic linear

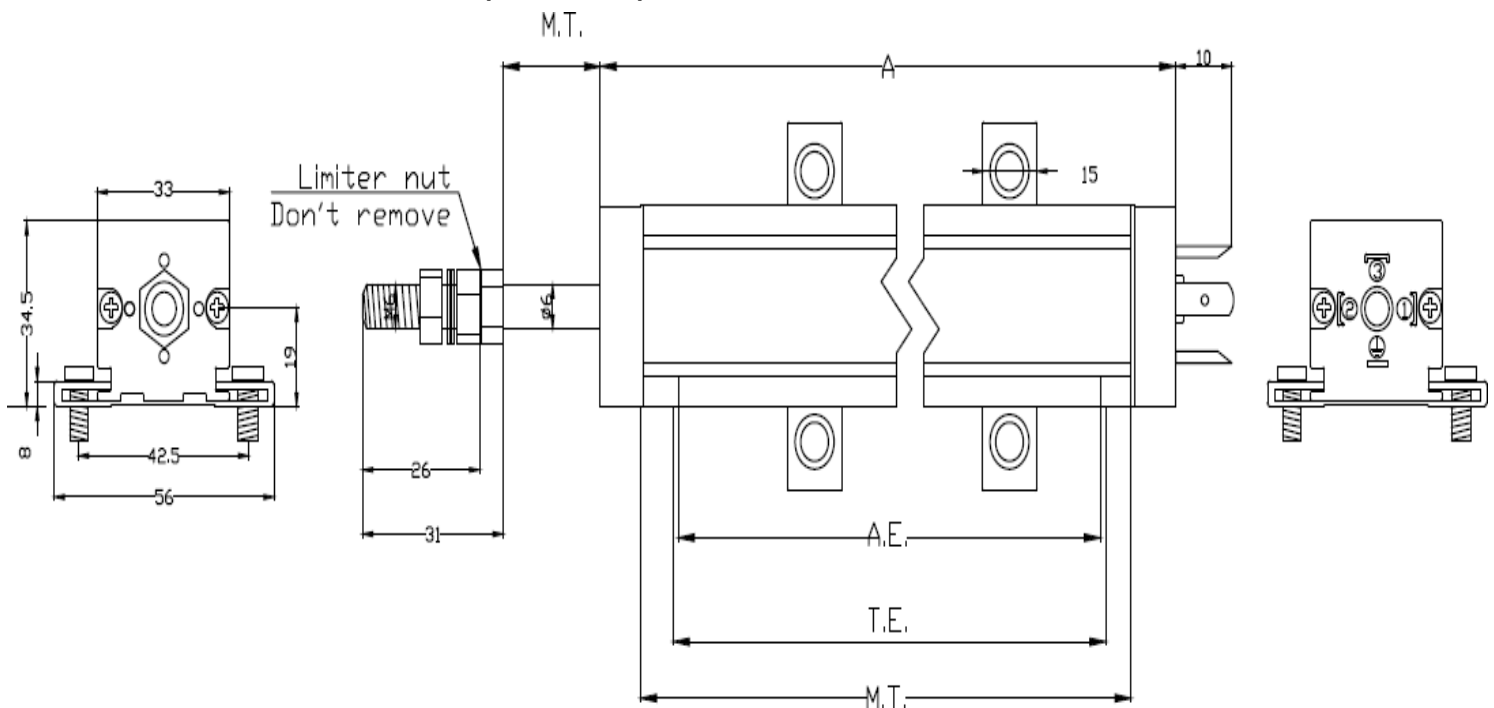
KTC potentiometer transducer with conductive track suitable for the measurement, monitoring and control of mechanical strokes. Critical in providing a smooth DC output, mechanically dependent on the stable glide of the shaft and wiper on the element's surface. Application includes industrial controls, robotics, process systems or replacement of a linear voltage differential transformer (LVDT). Ideal for applications on plastic injection presses, vertical presses, and on many other processing machines.

Feature:

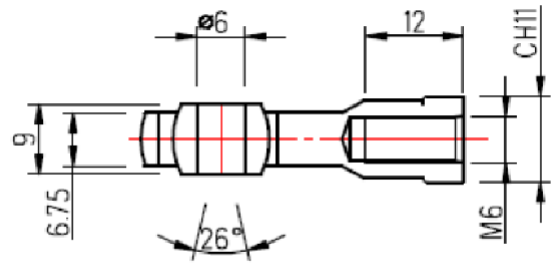
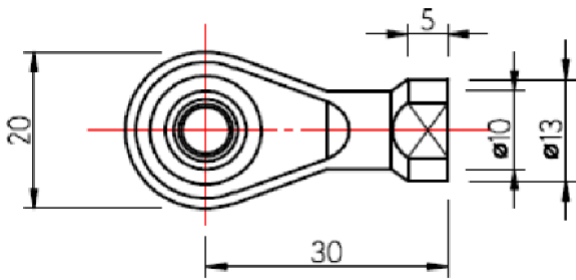
- Anodized aluminum case
- Brushes for both collector and resistive tracks in noble metal
- Conductive plastic track on polymer base
- The new grooves provide an excellent alternative to the usual system of fastening with brackets
- Stainless steel for pull shaft
- Infinite resolution
- Protection level IP67
- Life time > 100 X 10⁶
- travelled > 25 x10⁶ meters
- Repeatability within 0.01 mm



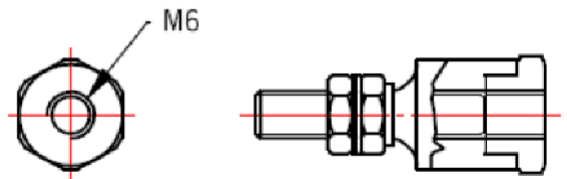
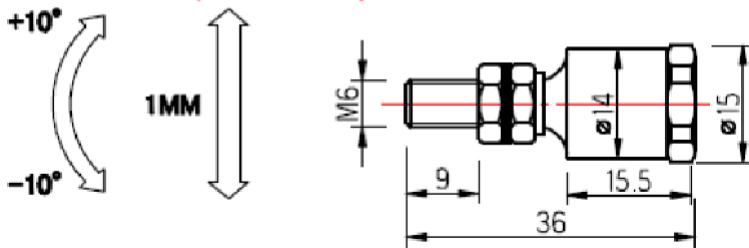
MECHANICAL DIMENSIONS: (Unit : mm)



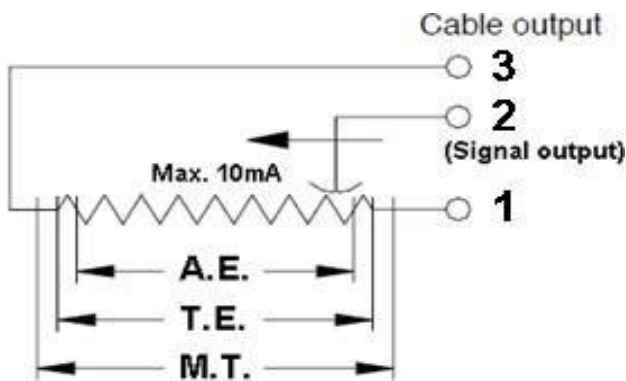
ROD END BEARING (KTC - 01)



LINK BALL (KTC - 02)



ELECTRICAL CONNECTIONS:



ACCESSORIES:

STANDARD:

- Ball connection joint: KTC-01 or KTC-02
- KTC mounting kit, 2 brackets, 4 screws
- 4-pole 90° radial female connector DIN43650 (IP65)

ON REQUEST:

- 4-pole 90° radial female connector DIN43650 (IP65)

4-pole 90° radial female connector DIN43650



ELECTRICAL / MECHANICAL DATA (75 ~ 650)

| KTC series | 75 | 100 | 150 | 175 | 200 | 225 | 250 | 300 | 350 | 375 | 400 | 450 | 500 | 525 | 600 | 650 |
|--|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|
| Useful electrical stroke (A.E.) mm | 75 | 100 | 150 | 177 | 203 | 226 | 253 | 302 | 353 | 378 | 403 | 455 | 503 | 531 | 607 | 653 |
| Resistance (T.E.) $\pm 20\%$ | 5 K Ω | | | | | | | | | | | | | | | 6.9k Ω |
| Independent linearity (within A.E.) | $\pm 0.05\%$ | | | | | | | | | | | | | | | |
| Mechanical stroke (M.T.) mm | 79 | 104 | 155 | 181 | 207 | 231 | 258 | 307 | 358 | 384 | 409 | 460 | 508 | 536 | 612 | 658 |
| Case length (A) mm | 139 | 164 | 215 | 240 | 266 | 291 | 317 | 367 | 418 | 444 | 469 | 520 | 571 | 596 | 672 | 723 |
| Resolution | infinite | | | | | | | | | | | | | | | |
| Repeatability | 0.01mm | | | | | | | | | | | | | | | |
| Electrical connections | 4-pole connector DIN43650 | | | | | | | | | | | | | | | |
| Displacement speed | $\leq 10\text{m/s}$ (Standard) | | | | | | | | | | | | | | | |
| Protection level | IP67 | | | | | | | | | | | | | | | |
| Life | 25x10 ⁶ M or 100x10 ⁶ strokes | | | | | | | | | | | | | | | |
| Displacement force | $\leq 25\text{N}$ | | | | | | | | | | | | | | | |
| Vibrations | 5 - 2000Hz, Amax =0.75 mm, amax. = 20 g | | | | | | | | | | | | | | | |
| Shock | 50 g, 11ms | | | | | | | | | | | | | | | |
| Acceleration operative | 200 m/S ² max (20g) | | | | | | | | | | | | | | | |
| Recommended cursor current | < 1 μA | | | | | | | | | | | | | | | |
| Max. cursor current | 10mA | | | | | | | | | | | | | | | |
| Maximum applicable voltage | 60V | | | | | | | | | | | | | | | |
| Electrical isolation | >100M Ω @ 500V, 1bar, 2s | | | | | | | | | | | | | | | |
| Dielectric strength | < 100 μA @ 500V ,50Hz, 2s, 1bar | | | | | | | | | | | | | | | |
| Dissipation | 3W @40°C, 0W @120°C | | | | | | | | | | | | | | | |
| Thermal coefficient of resistance | -200 ~ + 200 ppm/°C (typical) | | | | | | | | | | | | | | | |
| Actual Temperature Coefficient of the output voltage | $\leq 5\text{ppm}/^\circ\text{C}$ (typical) | | | | | | | | | | | | | | | |
| Working temperature | -55 ~ +125 °C | | | | | | | | | | | | | | | |
| Storage temperature | -55 ~ +150 °C | | | | | | | | | | | | | | | |
| Material for transducer case | Anodized aluminum Nylon 6063-T1 | | | | | | | | | | | | | | | |
| Material for pull shaft | 303 Stainless steel | | | | | | | | | | | | | | | |
| Mounting | Brackets with adjustable distance between centers or with M4 screw | | | | | | | | | | | | | | | |

ELECTRICAL / MECHANICAL DATA (750 ~1500)

| KTC series | 750 | 800 | 900 | 1000 | 1250 | 1500 |
|--|--|--------------|---------------|------|---------------|---------------|
| Useful electrical stroke (A.E.) mm | 759 | 803 | 912 | 1013 | 1263 | 1513 |
| Resistance (T.E.) $\pm 20\%$ | 10 K Ω | 9 K Ω | 10 K Ω | | 13 K Ω | 16 K Ω |
| Independent linearity (within A.E.) | $\pm 0.05\%$ | | | | | |
| Mechanical stroke (M.T.) mm | 765 | 809 | 917 | 1019 | 1269 | 1519 |
| Case length (A) mm | 825 | 875 | 977 | 1078 | 1330 | 1582 |
| Resolution | infinite | | | | | |
| Repeatability | 0.01mm | | | | | |
| Electrical connections | 4-pole connector DIN43650 | | | | | |
| Displacement speed | $\leq 10\text{m/s}$ (Standard) | | | | | |
| Protection level | IP67 | | | | | |
| Life | 25x10 ⁶ M or 100x10 ⁶ strokes | | | | | |
| Displacement force | $\leq 25\text{N}$ | | | | | |
| Vibrations | 5 - 2000Hz, Amax =0.75 mm, amax. = 20 g | | | | | |
| Shock | 50 g, 11ms | | | | | |
| Acceleration operative | 200 m/S ² max (20g) | | | | | |
| Recommended cursor current | $< 0.1\mu\text{A}$ | | | | | |
| Max. cursor current | 10mA | | | | | |
| Maximum applicable voltage | 60V | | | | | |
| Electrical isolation | $>100\text{M}\Omega$ @ 500V,1bar,2s | | | | | |
| Dielectric strength | $< 100\mu\text{A}$ @ 500V ,50Hz, 2s,1bar | | | | | |
| Dissipation | 3W @40°C, 0W @120°C | | | | | |
| Thermal coefficient of resistance | -200 ~ + 200 ppm/°C (typical) | | | | | |
| Actual Temperature Coefficient of the output voltage | $\leq 5\text{ppm}/^\circ\text{C}$ (typical) | | | | | |
| Working temperature | -55 ~ +125 °C | | | | | |
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| Material for transducer case | Anodized aluminum Nylon 6063-T1 | | | | | |
| Material for pull shaft | 303 Stainless steel | | | | | |
| Mounting | Brackets with adjustable distance between centers or with M4 screw | | | | | |