Tool Setter & Touch Probe

for Brother
CNC Compact Machining Centers
SPEEDIO
Tool Setter

500,000 units installed, The Best-Selling Tool Setters!!

Improve machine accuracy of CNC machine tools. Tool setters can be used to detect wear and breakage and correct thermal distortion as well as to preset tool length.

![Tool length preset](image1)

![Tool wear detection](image2)

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**TM26D-01-03S / 04S / 05S**

<table>
<thead>
<tr>
<th>Product No.</th>
<th>Base height</th>
</tr>
</thead>
<tbody>
<tr>
<td>TM26D-01-03S</td>
<td>60</td>
</tr>
<tr>
<td>TM26D-01-04S</td>
<td>100</td>
</tr>
<tr>
<td>TM26D-01-05S</td>
<td>150</td>
</tr>
</tbody>
</table>

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**Wiring diagram**

- Blue / Black
- Green
- Green / Black
- White
- Brown
- 4.7kΩ
- Yellow
- Gray
- Orange
- Red

**Circuit diagram**

- Built-in I/F unit (Standard)
  - Power supply voltage: DC24V
  - Power consumption: 10mA
  - Output capacity:
    - DC90V 100mA (Resistance load)
    - AC250V 100mA (Peak value)
    - 50mA (Max)

**Base height**

- TM26D-01-03S: 60
- TM26D-01-04S: 100
- TM26D-01-05S: 150

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**Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
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<tbody>
<tr>
<td>Contact diameter</td>
<td>φ20</td>
</tr>
<tr>
<td>Removable contact</td>
<td>Stationary type</td>
</tr>
<tr>
<td>Surface finishing</td>
<td>Grinding 4s</td>
</tr>
<tr>
<td>Contact material</td>
<td>Tungsten carbide</td>
</tr>
<tr>
<td>Contact structure</td>
<td>NC (Normally closed)</td>
</tr>
<tr>
<td>Output mode</td>
<td>NO (Normally open)</td>
</tr>
<tr>
<td>Pretravel</td>
<td>Approx. 0</td>
</tr>
<tr>
<td>Stroke</td>
<td>5mm</td>
</tr>
<tr>
<td>Repeatability</td>
<td>0.001mm (Recommended operating speed of 50 - 200mm/min)</td>
</tr>
<tr>
<td>Contact life time</td>
<td>3 million</td>
</tr>
<tr>
<td>Protective structure</td>
<td>IP67</td>
</tr>
<tr>
<td>Contact force</td>
<td>1.5N (Installation position: Vertical)</td>
</tr>
<tr>
<td>Contact rating</td>
<td>DCS5 - DC24V 10mA (Max20mA) resistance load</td>
</tr>
<tr>
<td>Cable</td>
<td>Oil resistant φ4.8 / 6 cores Tensile strength 30N, Minimum bending R7</td>
</tr>
<tr>
<td>LED lamp</td>
<td>Default: LED OFF / Operating: LED ON</td>
</tr>
<tr>
<td>Over travel signal (built-in microswitch)</td>
<td>NC (Normally closed) &quot;About 2.5mm from skip signal&quot;</td>
</tr>
<tr>
<td>Contact rating</td>
<td>DC24V 100mA resistance load</td>
</tr>
</tbody>
</table>
Touch Probe

2.4GHz, Uninterrupted by NOISE!!

Metrol’s Touch probe is resistant to radio wave interference compared to conventional infrared-ray communication and not affected by obstacles and coolant.

RC-K3E-004-018S

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<tr>
<td>VIOLET / BLACK</td>
</tr>
<tr>
<td>GREEN / BLACK</td>
</tr>
<tr>
<td>WHITE / BROWN</td>
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</tbody>
</table>
| RED /

Single direction repeatability | 1.0 μm (2σ) *(At the Speed of: 150mm/min)* |
Signal transmission format | FSK (DSSS) wireless transmission format |
No. of channels | 37 |
Wireless frequency | 2400MHz - 2480MHz |
Power ON/OFF signal | M code (wireless signal) |
Signal transmission range | Max. 15m |
Receiver / interface | Receiver antenna-integrated interface |
Sensing directions | 5 directions ±X, ±Y, +Z |
Contact Force | XY: 0.5N |
(when using 50 mm straight stylus) |
Overtravel | XY directions: ±7° / Z direction: 3 mm |
Operating environment | For indoor use only |

Waterproof design | IEC IP67 |
Storage temperature | -10°C to 70°C |
Operating temperature | 5°C to 50°C |
Weight (excluding a shank) | With battery: 290g |

Battery | 1/3AA lithium-thionyl chloride battery (3.6V) 1Time |
Time until battery replacement | After start of low battery indication: approx. 1 hour |
Low battery indication | Flashing of battery alarm LED (red) |
Dead battery indication | Illumination of battery alarm LED (red) |
Battery life | 5%/use (72min/day): 62 days |
(continuous use: 180 hours) |
About METROL

Founded in 1976.
METROL specializes in manufacturing High-precision Sensors/Switches.

METROL has developed “precision mechanical switches/sensors”, while most industrial sensors were electrical.
This was unlike any other in the world.

Our High-precision switches/sensors can work in high accuracy even under harsh working conditions where coolant and cutting chips splatter.
We also own more than 50 patents both inside and outside Japan for their originality.

In machine tool industry, METROL tool setters are widely used by more than 70 machine tool builders in 17 countries.
We have been dedicated to contribute manufacturers by improving machine accuracy and reducing costs.

Our products are now used in not only long standing automobile industry and machine tool industry but also in leading companies in semiconductor, robot, medical equipment and smartphone industries.

Our unique and distinct product development is supporting manufacturing across the world.

Contact Us

We accept inquiry regarding product selection, exclusive specification, and technical matter. Please feel free to contact us.

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The specifications and descriptions are subject to change without notice due to improvements in products.