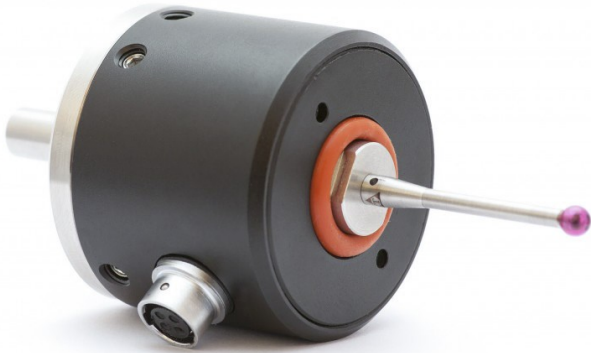


TPA2

- Overview
- Features
- Specifications
- Wiring
- Dimensions and exploded view

Overview

Robust and compact shank mounted 5 way touch-trigger probe used for coordinate measuring machines (CMMs)



Features

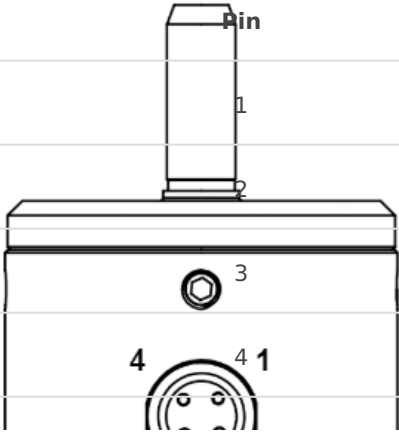
- Black anodized aluminium body and stainless steel shaft
- Anti-oxidizing electrical system covered with dielectric fluid
- Modular construction
- Ingress protected against dust and splashes of water from all directions
- Probe is designed with normally closed internal switch contacts
- Shielded flexible cable with quick action connector
- Each probe is tested before being shipped
- Probe is designed with normally closed internal switch contacts
- Concentricity calibration 4 or 3 set screws with included Allen key. Optically calibrated before shipment.
- Standard M3x0.5 probe tip thread

Specifications

| | |
|---------------------------------|---|
| Approach direction | $\pm X, \pm Y, \pm Z$ |
| Repeatability | 2 μm |
| Trigger force | Axial=5 N, Radial=1 N |
| Weight | 160 g |
| Over travel protection distance | Radial 8mm (with 31mm tip), Axial 5mm |
| Dimensions | $\varnothing=40$ mm, H=35mm, shaft=20mm |
| Included cable length | 3 m |
| Resistance | Closed = 10-30 Ω , Open = ∞ |
| Shaft diameter | 7mm +0.0/-0.05 |

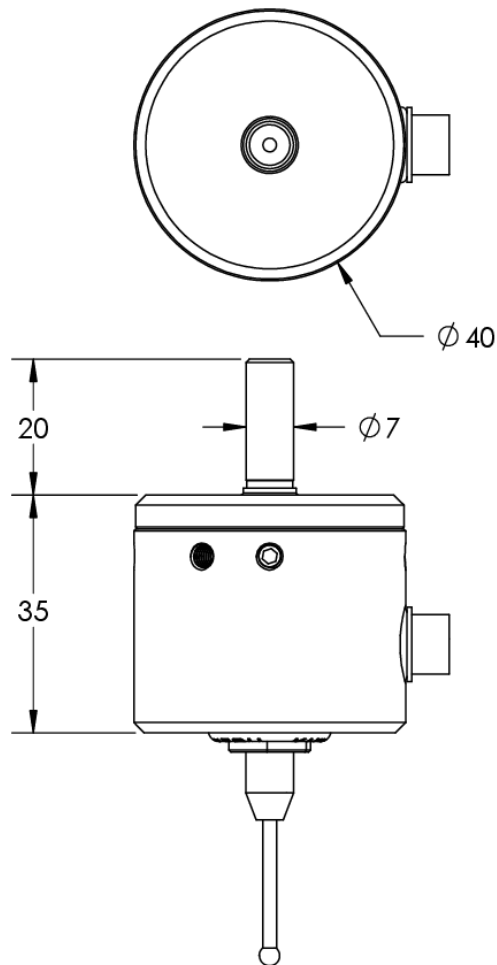
Wiring

Internal electrical TPA2 connection resembles simple switch with normally connected contacts. After stylus is actuated, contacts become disconnected. Signals are isolated from instrument body.

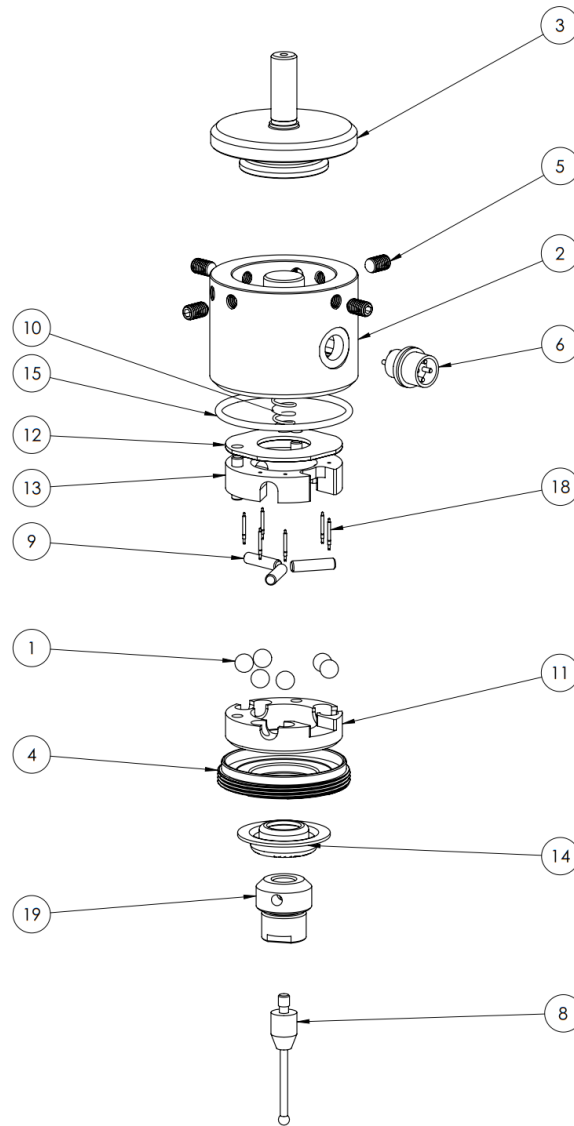
| | |
|---|------------------------|
|  | Function |
| | Not used (unconnected) |
| | Signal |
| | Signal |
| | Not used (unconnected) |

Dimensions and exploded view

Dimensions



Exploded view



| Iten nr | Part number | Description | Qty |
|---------|----------------------|----------------------------|--------|
| 1 | Carbide ball 5mm | Tungsten carbide 5mm ball | 6 |
| 2 | LP18G-P0001 | Aluminium body | 1 |
| 3 | LP18G-P0002 | Stainless steel shank part | 1 |
| 4 | LP18G-P0003 | Aluminium retention ring | 1 |
| 5 | DIN 7991 - M3 x 8 8N | Set screws | 3 or 4 |
| 6 | YC8-4p socket | | 1 |
| 7 | YC8-4p connector | | 1 |

| | | | |
|----|----------------|--------------------------------------|---|
| 8 | Stylus | Stylus with M3 thread | 1 |
| 9 | Dowel pin 3x12 | Tungsten carbide dowel pin D=3, L=12 | 3 |
| 10 | LP18-P0010 | Custom spring | 1 |
| 11 | LP18G-P0005 | POM spacer | 1 |
| 12 | LP18-P0007 | PCB | 1 |
| 13 | LP18G-P0004 | POM part | 1 |
| 14 | LP18-P0008 | Ingress protection gasket | 1 |
| 15 | LP18-P0014 | O-ring | 1 |
| 18 | Spring pin | Spring loaded contact | 6 |
| 19 | LP18G-P0006 | Aluminium part | 1 |

3D model

Simplified 3D model is maintained on [GitHub](#)