TPA2

DATASHEET

KUROKESU

2021-04-25, Rev. #23

Overview

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

Features

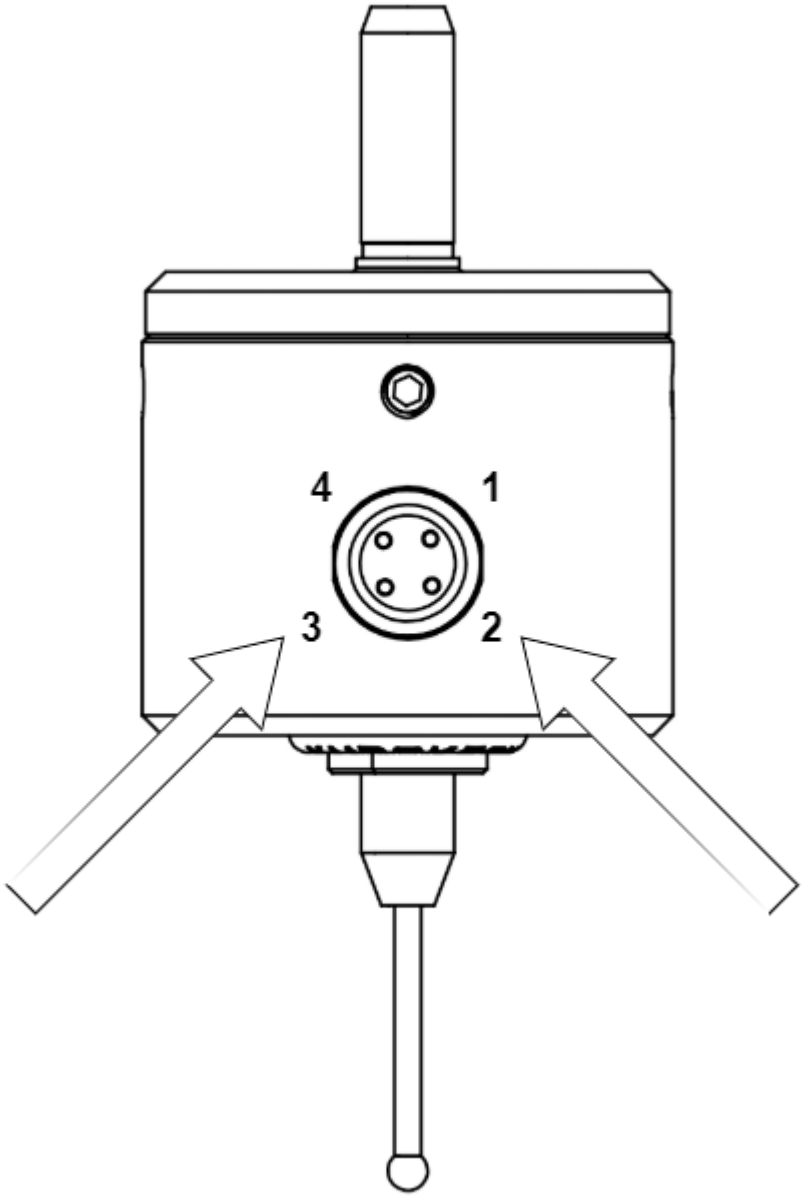
- Black anodized aluminium body and stainless steel shaft
- Anti-oxidizing electrical system covered with dielectric fluid
- Modular construction
- Ingress protected against dust and splashes of water from all directions
- Probe is designed with normally closed internal switch contacts
- Shielded flexible 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	±X, ±Y, ±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	Ø=40 mm, H=35mm, shaft=20mm
Included cable length	3 m
Resistance	Closed = 10-30 Ω, Open = ∞
Shaft diameter	7mm +0.0/-0.05

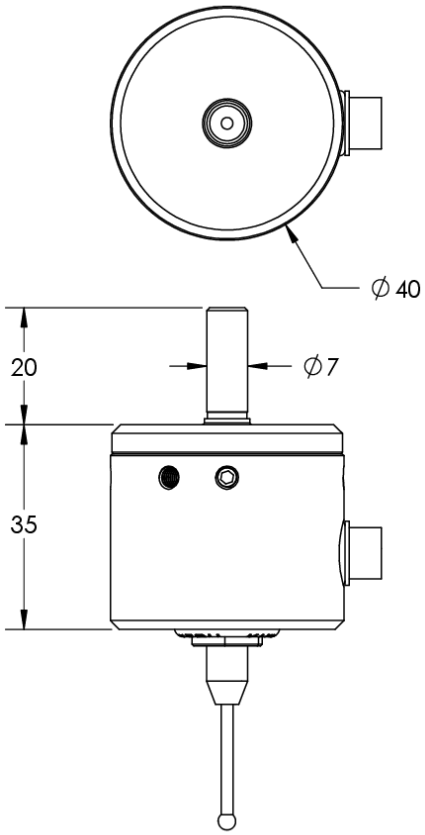
Wiring

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

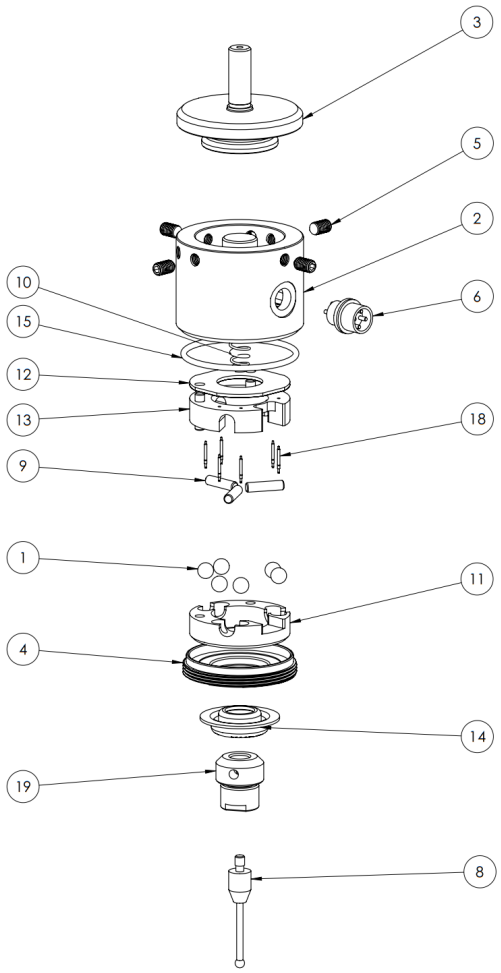


Dimensions and exploded view

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