DynamiTech Wired TP1-W-R Touch Probe

Reference Manual

DynamiTech

None

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1. Introduction

The DynamiTech Wired W-A Touch Probe, Wired W-R Touch Probe, and Wireless IR Touch Probe are touch-trigger CNC instruments. Each wired device provides two output wires for signaling stylus deflection:

- **TOUCH_NO** (yellow wire) — Normally open PNP output, for controls that expect the signal to turn on at a touch
- **TOUCH_NC** (green wire) — Normally closed PNP output, for controls that expect the signal to turn off at a touch

Both wires carry the same TOUCH signal, with opposite polarity. Choose the wire that matches the skip input of your machine control.

1.1 Device Variants

DynamiTech produces the following device variants:

VARIANT	DESCRIPTION
TP1-IR	Touch probe with infrared receiver
TP1-W-R	Touch probe with radial cable (TOUCH_NO / TOUCH_NC)
TP1-W-A	Touch probe with axial cable (TOUCH_NO / TOUCH_NC)

See the W-A touch probe, W-R touch probe, or IR touch probe datasheet for measuring performance, electrical limits, environmental ratings, and cable details.

All variants share a common kinematic mechanism and an M4 stylus thread. Variant-specific connections and settings are documented in their respective manuals.

1.2 About This Manual

This manual covers the connections and wiring setup for your device variant. Each section includes wire assignments, ratings, and setup steps.

2. Getting Started

2.1 Physical Connections

The device has two cable connections:

CONNECTION	WIRES	RATING	DESCRIPTION
Power	Brown VCC, white GND	5–24 V DC	Supply from the machine control
Signal	Yellow TOUCH_NO or green TOUCH_NC	PNP, 200 mA max.	Connection to the skip input of the machine control

Connect to the skip input using either TOUCH wire. The TOUCH_NC wire is useful for controls that expect a normally closed probe signal.

2.2 Connecting via PNP Output

The device runs on any 5–24 V DC supply. Connect it, then verify the connection:

- **Connect the supply:** VCC to the positive terminal and GND to the 0 V terminal.
- **Verify the connection:** Deflect the stylus. The device responds with a TOUCH signal, and the LED turns red.

3. Mounting

The device has two mounting adapters:

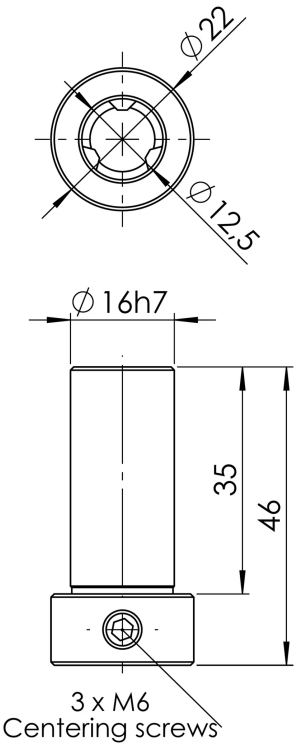
ADAPTER	POSITION	INTERFACE	DESCRIPTION
Straight Shank	Spindle	Ø16h7 shank	Workpiece setup and inspection
Mounting Base	Machine table	2 × M8 screws	Tool length and diameter measurement, broken tool detection

Mount the device using either adapter. The Mounting Base is useful for tool measurement or when checking for broken tools.

3.1 Straight Shank

The Straight Shank holds the device in the spindle.





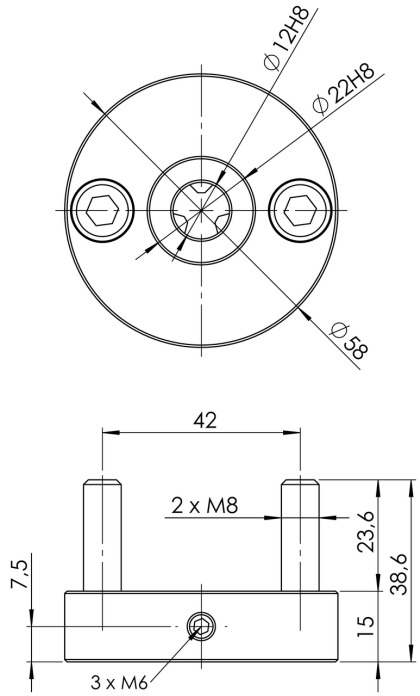
DIMENSION	VALUE
Shank	Ø16h7, 35 mm long
Overall length	46 mm
Collar	Ø22 mm
Bore	Ø12.5 mm
Centering screws	3 × M6

Insert the Ø12 mm mounting pin into the bore and center the stylus tip on the spindle axis with the three centering screws. Tighten the screws to secure the device.

3.2 Mounting Base

The Mounting Base holds the device on the machine table.





DIMENSION	VALUE
Plate	Ø58 mm, 15 mm high
Bore	Ø12H8
Recess	Ø22H8
Mounting screws	2 × M8, 42 mm apart
Clamping screws	3 × M6

Fasten the Mounting Base to the table with the two M8 mounting screws and insert the mounting pin into the bore. Tighten the three M6 clamping screws to secure the device.

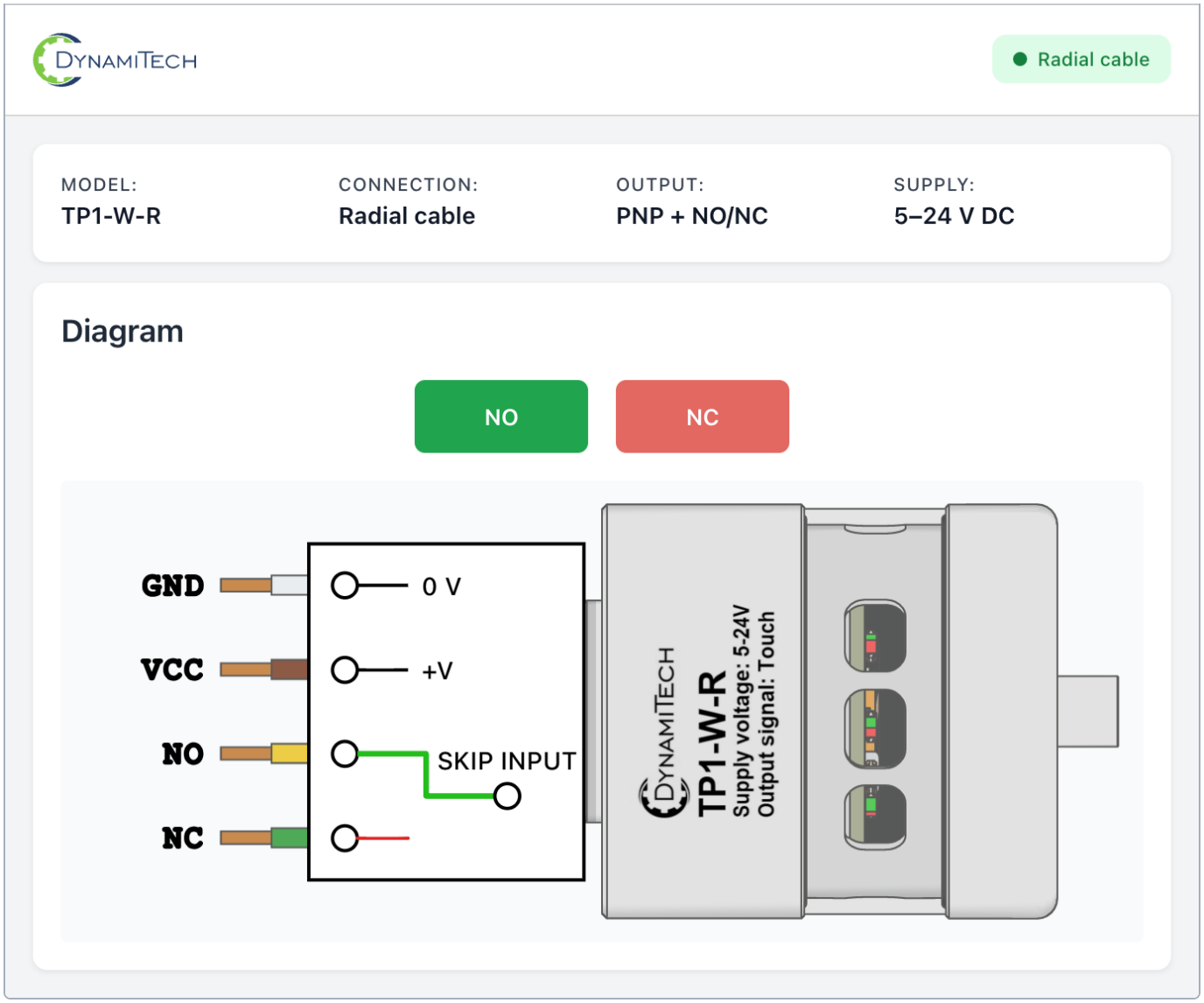
4. Control Panel

4.1 Control Panel Overview

The DynamiTech Control Panel is available on the DynamiTech home page:

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https://dynamitechs.com
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It provides a browser-based graphical interface for setting up the wiring of the device.



4.1.1 Layout

The interface consists of:

- **Tab bar** — Switches between W-A, W-R, and IR setup views
- **Header** — DynamiTech logo and connection type indicator
- **Product information card** — Model, connection type, output, and supply voltage
- **Diagram card** — Variant-specific wiring (NO or NC output function)