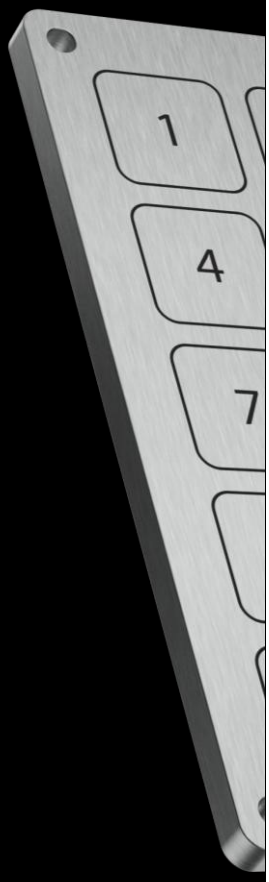
RNC Technologies

PiezoTouch Product Series

Always On. Never Down.

Touch Panels for Solar-Powered Infrastructure

As cities move toward smaller, sleeker street furniture and true solar autonomy, the interface can no longer be a compromise. RNC Technologies presents Solid-State Touch, a professional HMI category engineered for four design pressures in modern solar-powered public infrastructure.



Solar Autonomy	Accessibility Compliant	Street Furniture 2.0	Fortress Architecture
Battery-neutral <10µA	1 Newton activation	Slim & smaller housings	Decoupled Interaction
90% backlight savings	EEA & ADA ready	High-density keys	Asset protection
Zero-lag response	Tactile & braille	Pole-mounted fit	Revenue protection

Applications

- Parking Meters
- Payment Stations
- EV Chargers
- Transit Ticketing
- Kiosks
- Vending

Solve the Solar Autonomy Gap

In the race for battery neutral operation, every microamp is a critical asset. We provide the industry's most efficient power profile, ensuring your HMI never dictates your battery size.

- **Instant Wake Up:** Our Solid-State panels utilize a sophisticated sleep and awake cycle that operates at less than 10 microamps. Hardware-triggered wake on keypress means zero polling and zero false wakes.Users experience an instant response with no perceptible wake up delay..
- **Level of Self Discharge:** At under 10 microamps, the HMI consumes less power than the natural self discharge of your battery pack, providing a premium experience with zero impact on your energy harvest.
- **System Level Optimization:** Our decoupled architecture allows you to keep high power display backlights dark until a physical 1 Newton activation occurs, significantly extending field runtime.

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Built in Accessibility Compliance

Public infrastructure must be usable by everyone. Unlike flat glass interfaces, Solid State Touch provides a native path to meeting ADA and European Accessibility Act (EAA) 2025 mandates.

- **Built-In Braille & Tactile:** We offer custom embossed surfaces, raised icons, and integrated braille directly on the metal panel.
- **No Add-Ons Required:** Eliminate the need for expensive external tactile components. Our panels provide the physical feedback required for the visually impaired while maintaining a sleek, modern aesthetic.
- **Low Force. Full Access.:** The 1 Newton sensitivity ensures the interface is easy to operate for the elderly or those with limited motor skills, regardless of weather or glove use. Adjustable to below 0.5N if required.

Support for Street Furniture 2.0

Modern street furniture is moving away from bulky cabinets toward slim, modular profiles and pole-mounted meters. Solid State Touch is the only interface engineered to fit this trend.

- **High Density Interfacing:** Our technology supports a 10mm pitch between activation centers. This allows you to fit full alphanumeric keypads into narrow or slim housings where integrated display modules physically cannot fit.
- **Space Optimization:** By taking up significantly less internal volume than a touchscreen stack, our panels allow you to reduce the overall footprint and weight of your machine.
- **Scratch Resistant Printing:** We utilize a specialized printing process on aluminum that is fully scratch resistant. This ensures your branding and key legends remain crisp and legible after years of heavy use and cleaning.

61.5% of new kiosks are solar powered, *making energy autonomy a requirement. Centralizing hardware into multi space kiosks creates a single point of failure where one malfunction disables up to 20 parking spaces.* ***With 23% of devices*** *requiring annual servicing due to weather or vandalism, these systems only succeed if the hardware is as energy efficient as it is indestructible.*

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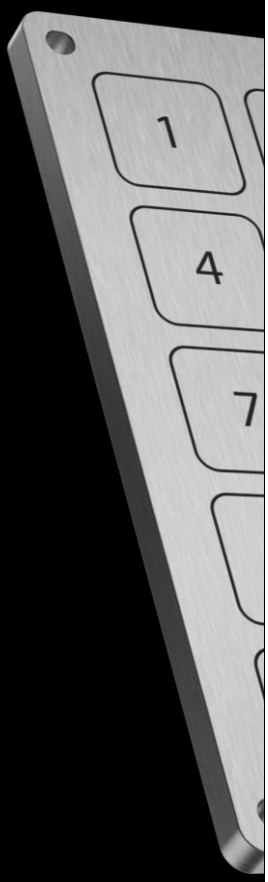

Revenue Protection through Fortress Architecture

Maintenance is the largest hidden cost of public infrastructure. Our design philosophy eliminates the single point of failure common in integrated touchscreens.

- **Decoupled Interaction:** We separate the interactive solid metal panel from the visual display. Let our structural stainless steel or aluminum handle the physical abuse and 50 million plus activations.
- **Uninterrupted Service:** Place your display behind a separate, unbreakable Lexan window. If a window is scratched or cracked, the metal panel remains 100 percent functional.
- **Zero Lost Revenue:** Your machine continues to collect money and process transactions until a low cost, scheduled window replacement can be performed. Avoid emergency truck rolls and maintain constant uptime.

Your Spec. Our Expertise.

Every panel is engineered to your exact requirements: size, layout, graphics, protocol. You define what your product needs, we bring 15+ years of piezo touch expertise and ISO 9001 certified manufacturing to deliver it. Our panels are deployed across North America and Europe in battery-neutral solar meters operating through harsh winters below minus 30°C, with no heaters, no recalibration, and no field failures. Whether you're launching a new platform or replacing a legacy supplier, we've helped OEMs reach production-ready samples in 12 weeks.

How it works: We start with a requirements review to understand your mechanical constraints, electrical requirements, communication interface, and environmental conditions. Design and tooling takes 6 to 8 weeks, with production-ready samples by week 12. Production runs on 4-to-6-week lead times.

Designing a new product? Let's talk

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Technical Snapshot

Activation Force	~1 Newton (adjustable)
Operating Temperature	-40°C to +80°C
Operating Voltage	5V-24V AC/DC
Current Consumption	<10 µA
Durability	50+ million activations
Scratch Resistance	Best-in-class printing durability (17-19 µ)
Communication Protocols	UART, SPI, I2C, RS485, etc.
Protection Rating	IP69K / IK10+
Wake-up behaviour	Zero-lag (Instant)
EMI Immunity	Designed for high EMC/ESD robustness
Weather Challenges	Reliable in rain, snow, ice, and dirt
Glove Operation	Operates with any glove types
Surface Material	Stainless steel (3mm), aluminium
Panel Density	10mm pitch between activation centers

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