

PushGate®

Pushbutton switch that provides the thin design of a membrane switch with the tactile feel of a mechanical switch.

Crisp, Consistent Tactile Feel

- Superior tactile feel does not degrade over time or use;
- Set your product line apart from your competition by giving your keypad a high-quality feel.

Durability and Reliability

- 30 million plus actuations;
- Ideal replacement for tac or metal dome switches;
- Impossible to "tease", (Click=Closure);
- No bending or flexing parts to fail.

Integration

- Easily integrated with other Duraswitch products including thiNcoder® RT and MagnaMouse™ product lines;
- Flex circuit or PCB compatible.

Save Costs

- Eliminate costly wire harnesses from your electrical designs.

Various Overlay Options

- Perfect for polyester or elastomer overlays, as well as metal and plastic key caps;
- Can be used in conjunction with Duraswitch's patented magnetically retained removable overlay.

Full-Key Illumination Options

- Maintains crisp tactile feel with EL, Fiberoptics, and LED backlighting.

High Impact Construction Available

- Superior performance where keypads are subject to abuse or vandalism.

Large Keys Available

- Flat panel key specs up to 2" x 3" active key area.

Environmentally Sealed Option

- Superior performance in harsh environments.

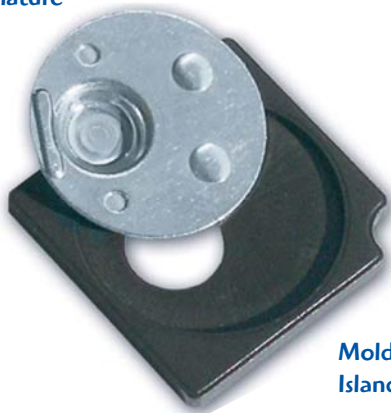
Extreme Temperature & Pressure Constructions

Customized Design Options

- Normally closed or open designs;
- Dual output available for redundancy or multi-function switching;
- Multiple armatures and constructions available for various key sizes and spacing.

New Molded Magnetic Islands

Armature

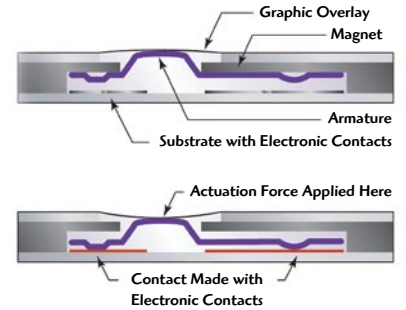


Molded Magnet
Island

U.S. PAT. Nos. 5,523,730; 5,666,096; 5,867,082; 5,990,772;
6,023,213; 6,069,545; 6,069,552; 6,130,593; 6,137,387;
6,262,646; 6,305,071; 6,369,692; 6,466,118
CANADA PAT. No. 2177540
CHINA PAT. No. ZL96110385.X
TAIWAN PAT. Nos. NI 090979; NI 132948
AUSTRALIA PAT. No. 727962

Mechanical

	PCB Applications	Flex Circuit Application
Thickness (Typical)	0.145"/3.7 mm	0.086"/2.2 mm
Switch Armature Spacing	0.500"/12.7 mm Centre Spacing	0.500"/12.7 mm Centre Spacing
ESD/EMI/RFI Shielding	Capable	Capable
Life	>30 Million Actuation Constructions Available	>30 Million Actuation Constructions Available
Typical Action Variance	No Noticeable Difference	No Noticeable Difference
Switch Travel	0.012"/0.3 mm	0.012"/0.3 mm
Contact Bounce	1ms Typical	1ms Typical
Actuation Force	625 Armature 10 oz./ 284 gm/2.8 N	625 Armature 10 oz./ 284 gm/2.8 N
	406 Armature 8 oz./ 227 gm/2.2 N	406 Armature 8 oz./ 227 gm/2.2 N



Electrical

	PCB Applications	Flex Circuit Application
Operating Voltage	3 – 50 VDC or AC Peak	3 – 30 VDC or AC Peak
Current	50 mA	20 mA
Power	1.5 W	0.6 W
Switch Resistance	Less Than 2 ohms Initial	Less Than 100 ohms Initial

Material

	PCB Applications	Flex Circuit Application
Magnetic Material	Bonded Ferrite	Bonded Ferrite
Armature Material	1008/1010 Steel with Silver Plating	1008/1010 Steel with Nickel and Electro-Tin Plating



Environment

	PCB Applications	Flex Circuit Application
Storage	-40°C to 85°C	-40°C to 85°C
Operating Temperature: Standard Construction	-40°C to 85°C	-40°C to 85°C
Operating Temperature: Extreme Construction	-54°C to 105°C	-54°C to 105°C
Positive Pressure: Extreme Construction	+5psi	+5psi
Altitude	40,000 ft	40,000 ft
Thermal Shock	-40°C to 85°C	-40°C to 85°C
Humidity Resistance	95% RH	95% RH
Salt Fog, 5% Solution	24 Hours	24 Hours
Shock	100 g	100 g
Drop	3 feet	3 feet

