



Dignity Electronics Membrane Switch

Membrane Switch & Overlay Product Line



Product Size Range

*As per customer
requirement*



Customization Options

*Full range of substrates,
interfaces and backlighting
available*



Product Support

*Application & design
engineering support
available*

Product Overview

Dignity has nearly 25 years of experience in designing, manufacturing and supplying high quality membrane switches for the home appliance, industrial and medical markets. With our considerable experience in producing quality HMI products for a range of products, Dignity's product team can provide the right solution for your needs. Our membrane switch technology is the standard for most HMI projects, and while it does not have the same design flexibility as capacitive switches or touch panels, membrane switches are cost effective, reliable and an extremely mature technology.

Product Applications



Home
Appliances



Office
Automation



Industrial &
Instrumentation



Medical
Equipment

Features

- Customizable to fit virtually any application
- Fully sealed surface, easy to clean, easily sterilized and water-resistant designs can meet NEMA and IP specifications
- Durable and robust, million plus actuations possible
- A cost-effective alternative – less costly than rubber keypad assemblies and capacitive touch keypads
- Easily interfaces with existing controllers, no need for specialized electronics

Product Customization

<i>Parameter</i>	<i>Options & Notes</i>
Size	As per customer requirements
Structure / Construction	Flat / Embedded Switching / Raised Switching / Overlays
Integration	Gaskets and industrial adhesive integration options available
<i>Overlay / Cover Options</i>	
Cover Materials	PC, PVC, PET, Silicone, Polyester
Decoration	Screen printing, transparent or tinted windows, graphic overlays
Additional Options	UV hard-coat surface, various textures
<i>Interface</i>	
Interface Options	Pin, FFC, FPC
Pin Spacing	2.54 / 1.25/1.0mm
<i>Product Enhancements</i>	
Tactile	Plastic & metal tactile domes and switches
Sealability	Gaskets, sealing integration, water-resistant designs
EMI Resistance	EMI shielding layer or filters incorporated
Lighting	LEDs, Electroluminescent (EL), fiber optic lighting
Other	Backplate integration, anti-bacterial materials, etc.

Product Specifications - Touch

<i>Item</i>	<i>Specifications</i>
<i>General</i>	
Type	Membrane Switch
Electrical Circuit	Silver, Carbon, other conductive inks or pastes
Hardness	≥ 3H – 6H (Hard Coat)
<i>Durability</i>	
Warranty	Standard Products: 1 year / Custom: As per application
Actuation Cycles	≥ 1 Million
Bending Durability	Bending radius of 1.0mm, 180° bending ≥ 50 times
<i>Electrical</i>	
Operating Voltage	35V, 100mA, 1W

Response Time	≤ 5 ms
<i>Mechanical</i>	
Contact Travel	0.1 – 0.4mm / 0.4 – 1mm (switching)
Actuation Force (switching)	200 – 750g
Actuation Force (no switch)	50 – 350g
<i>Environmental</i>	
Storage Temp	-40°C ~ +80°C
Operating Temp	-30°C ~ +70°C
Relative Humidity	20 – 95% RH Non-Condensing

To find out more about our range of standard and custom touch solutions, or to consult on a project, please visit www.dignity.com.cn or contact the sales office nearest you.

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