

DESIGNING FOR HARSH ENVIRONMENTS

These questions are essential to consider when designing a membrane switch to ensure it functions properly for the life of the switch, no matter what it is exposed to

END USER?

Who will be using this product, plumbers, well-diggers, nurses, utility companies, factory workers, consumers, office workers, lab technicians etc.? What will the end user use to activate the switch? Finger, gloved hand, pencil/pen, stylus, tools?



INDOOR/OUTDOOR?

How will this product be used, or what does it do? Will this product be used outdoors? Will it be left outdoors? Is it constantly being operated by the end user or used once for set up and then left with limited use? Is it in NEMA enclosure? What is the IPX rating for both fluid and solid particle ingress protection?

EXPOSED TO ELEMENTS?

Will the switch be exposed to water, rain, snow, humidity, gas, oil, gasoline, diesel, or other fluids? Dust or wind? Sun UVA or UVB rays?



CLEANED AFTER USE?

Many environments are conducive to dirt and germs, will it need to be cleaned after use? Are harsh cleaners or chemicals used? Does the graphic overlay need to be antimicrobial?

DEGREE OF SEALING

Sealing will prevent the electrical components from exposure to liquids or particles that could damage or erode the circuit. The answers to these questions help design engineers understand the full scope of the product to determine if the switch needs to be sealed and to what degree.

