

COLLISION AVOIDANCE & DETECTION



(hmi)
human machine interface

THE
HALL
COMPANY

EXPANDING THE POSSIBILITIES

FOR ALMOST 3 DECADES WE HAVE BEEN DESIGNING AND MANUFACTURING CUSTOM COLLISION SWITCHES ("BIG SWITCH") FOR VARIOUS MEDICAL DEVICES. THIS PRODUCT PROTECTS THE PATIENT FROM BEING PINCHED OR CRUSHED IN THE EVENT THAT THE MACHINE COMES INTO CONTACT WITH THEM. WHEN CONTACT IS MADE, OUR SAFETY SWITCH CLOSURES AND ALERTS THE MACHINE TO STOP. THE HALL COMPANY® RECOGNIZED THE BENEFIT FOR NOT ONLY DETECTING A COLLISION, BUT ALSO IN SENSING HOW CLOSE THE MACHINE IS TO THE PATIENT. WITH THE ADDITION OF CAPACITIVE PROXIMITY SENSING TO OUR CURRENT COLLISION SWITCH, YOU GAIN THE ABILITY TO STOP THE MACHINE BEFORE CONTACT IS EVER MADE.

PRODUCT FEATURES:

COLLISION SWITCH: ("BIG SWITCH™")

- SINGLE OR MULTI-KEY/ZONE
- OVERSIZED TOUCH SURFACE FROM 1 SQUARE INCH TO MANY SQUARE FEET
- ACTUATION PRESSURES CAN BE REGULATED FROM A FEW OUNCES TO SEVERAL POUNDS
- EMI, RFI, & ESD SHIELDING AVAILABLE
- FAIL-SAFE CHECK CIRCUITS AVAILABLE WITH CUSTOM CIRCUITRY
- VARIOUS INTERCONNECT DEVICES AVAILABLE
- PRODUCED WITH OR WITHOUT BACKPLATE
- MULTI-COLORED GRAPHICS
- CAN BE APPLIED TO RADIUS AS SMALL AS .500"

PROXIMITY SENSING

- RANGE/DISTANCE CUSTOMIZABLE
- MULTI-LEVEL DETECTION
- BIG SWITCH & PROXIMITY SENSING AVAILABLE TOGETHER OR SEPERATELY

TECHNICAL DATA:

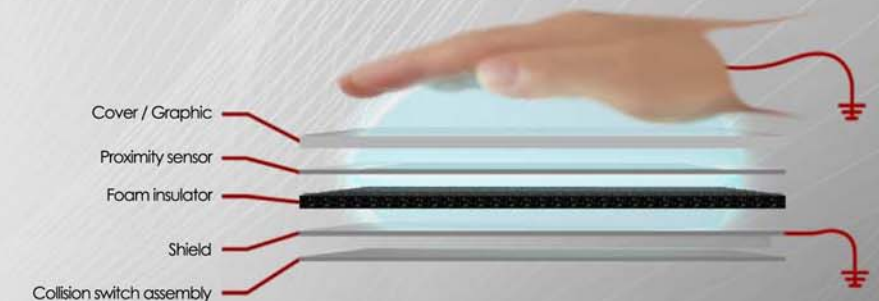
COLLISION SWITCH: ("BIG SWITCH™")

- CLOSED CONTACT RESISTANCE: VARIES W/ CIRCUIT CONFIGURATION & SIZE (GENERALLY LESS THAN 100Ω)
- POWER: 1 WATT MAXIMUM)
- LIFE EXPECTANCY: 5 MILLION ACTUATIONS (DEPENDING UPON OPERATING ENVIRONMENT & METHOD OF ACTUATION)
- TEMPERATURE RANGE:
STORAGE: -40°C TO 90°C / -40°F TO 194°F
OPERATING: -20°C TO 70°C / -4°F TO 158°F

PROXIMITY SENSING

- OPERATING CURRENT: <175µA @ 2V, 4 MHZ TYPICAL
- STANDBY CURRENT: 100 NA @ 2V TYPICAL

SIMPLE, 1 BUTTON DESIGN



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PUSHING THE LIMITS OF TECHNOLOGY
50th ANNIVERSARY 1961-2011

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