

TS1 Series Specifications

MECHANICAL (X & Y AXES)	
ANGLE OF MOVEMENT	45° (22.5° EACH DIRECTION)
EXPECTED CYCLE LIFE	2.5 MILLION
CENTERING	SPRING RETURN
MAX. VERTICAL LOAD	67.5 lbF
MAX. HORIZONTAL LOAD	50 lbF *

* Measured 0.62" Above Panel Surface

ELECTRICAL	
SENSOR TYPE	HALL EFFECT
RESOLUTION	12 BIT
SUPPLY VOLTAGE	5VDC ± 0.01VDC
OUTPUT VOLTAGE	SEE OPTIONS
RETURN TO CENTER VOLTAGE	± 50mV
OVERVOLTAGE MAX.	20VDC
REVERSE POLARITY MAX.	-10VDC

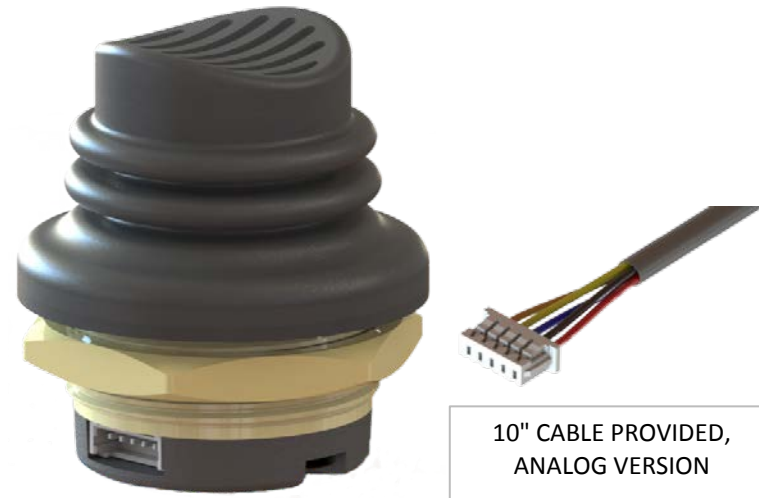
PUSHBUTTON SWITCH	
ELECTRICAL LIFE	300,000 CYCLES
RATING	50mA, 12VDC
ACTUATION FORCE	1.15lbF

ENVIRONMENTAL	
OPERATING TEMPERATURE	-40°F TO 185°F
STORAGE TEMPERATURE	-40°F TO 185°F
IP SEALING ABOVE FLANGE	IP67
EMC IMMUNITY LEVEL	EN61000-4-3 *Compliance to 30A/m
EMC EMISSIONS LEVEL	EN61000-6-3
ESD IMMUNITY LEVEL	EN61000-4-2 *Compliance to ±15kV/±8kV

*Extended Testing Levels

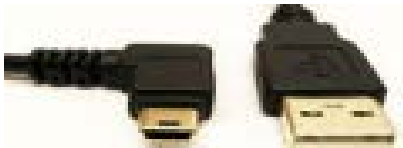
MOLEX 530480510 CONNECTOR (ANALOG)		
PIN #	WIRE COLOR	DESCRIPTION
1	RED	POWER (+5V)
2	BLACK	GROUND
3	BLUE	X AXIS SENSOR
4	YELLOW	Y AXIS SENSOR
5	ORANGE	PUSHBUTTON**

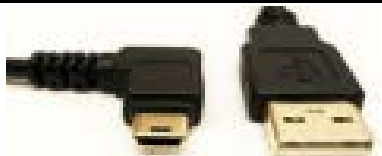
**Optional



MATERIALS	
PLASTIC HOUSING	MINERAL & GLASS FILLED NYLON
METAL HOUSING	GOLD ANODIZED ALUMINUM
BOOT & ACTUATORS	SILICONE

IP RATING: IP67 (ABOVE PANEL, ALL CONFIGURATIONS)

TS1 ELECTRICAL SPECIFICATIONS (USB VERSION)	
RESOLUTION	10 BIT
SUPPLY VOLTAGE	5VDC via USB CABLE
SYSTEM SUPPORT	WINDOWS (ALL), OSX, LINUX
SUPPORTED PROTOCOLS	USB HID 1.1 GAME CONTROLLER STANDARD DIRECTX HID DRIVERS JOYSTICK: 2 HID AXES PUSHBUTTONS: UP TO 1 HID BUTTON
CABLE	 USB MALE TYPE A to RIGHT ANGLE MINI B 5FT (60") LENGTH (MINI B TO JOYSTICK)

CURSOR CONTROL OUTPUT OPTION:	
The <i>Cursor Control</i> output option converts the analog joystick output into a USB cursor control device. This is achieved by the joystick's microprocessor converting the absolute position of the joystick into a cursor velocity or mouse position.	
CABLE	 USB MALE TYPE A to RIGHT ANGLE MINI B 5FT (60") LENGTH (MINI B TO JOYSTICK)

