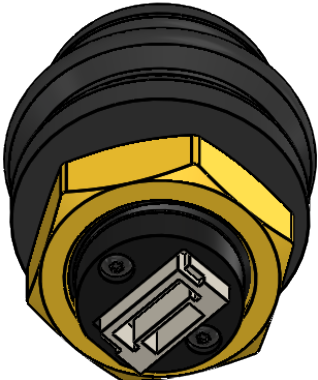
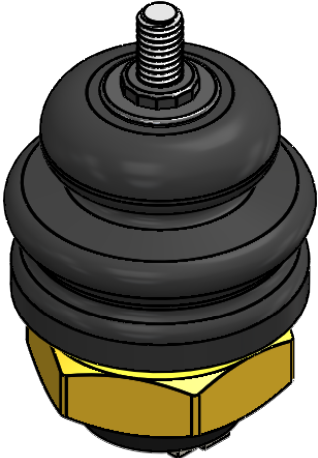
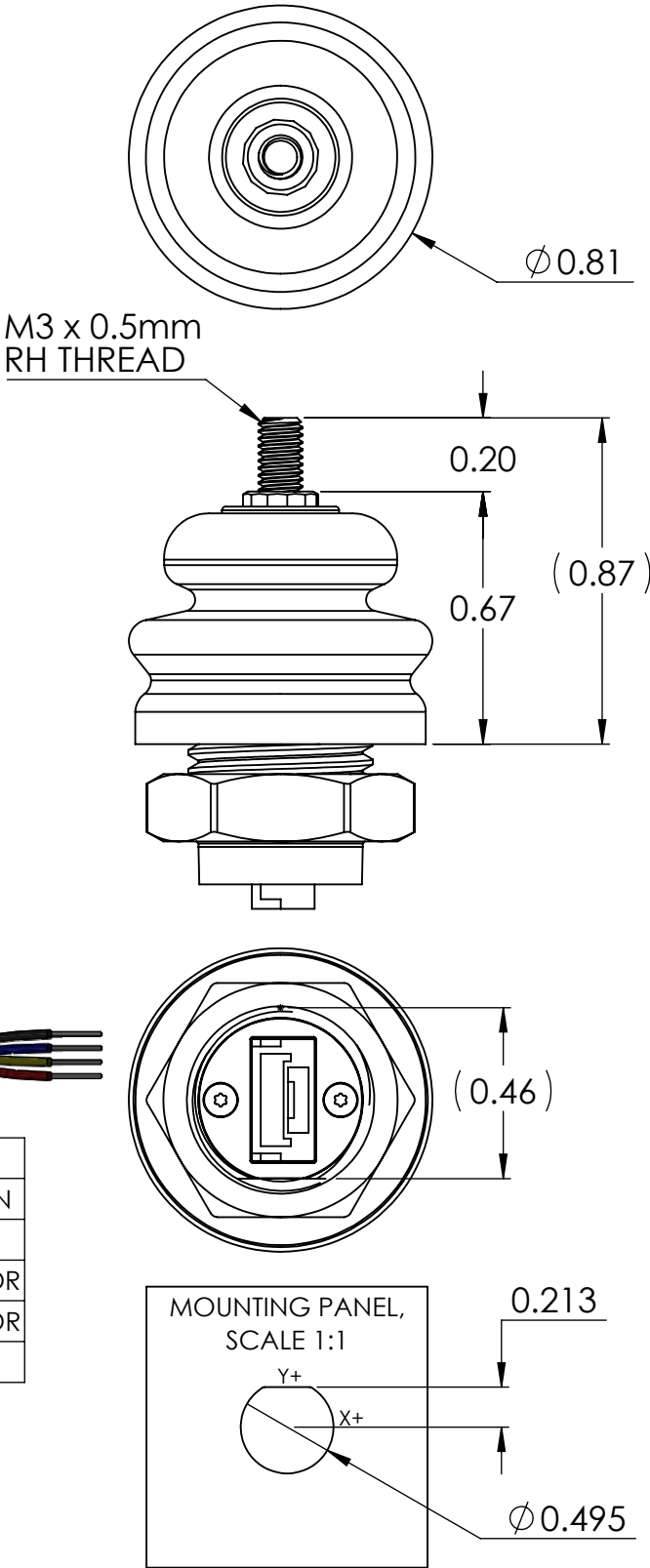


P/N: TSD-1-R-T-2-C-BK-2 2
SCALE 2:1



28AWG CABLE TERMINATION		
PIN	WIRE COLOR	DESCRIPTION
1	RED	+5VDC
2	YELLOW	Y AXIS SENSOR
3	BLUE	X AXIS SENSOR
4	BLACK	GROUND

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS
DRAWING IS THE SOLE PROPERTY OF
RUFFY CONTROLS INC. ANY
REPRODUCTION IN PART OR AS A WHOLE
WITHOUT THE WRITTEN PERMISSION OF
RUFFY CONTROLS INC. IS PROHIBITED.



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
2	P/N CHANGED TO "TSD-1-R-T-2-C-BK-2"; ADDED 0.7N ACTUATION FORCE; MASS/WEIGHT UPDATED TO 13g.	4/9/24	DMH

MECHANICAL (X & Y AXIS)

Angular travel: 30° total (15° each direction from center)

Expected life: 2.5 million operations

Centering: Spring return

Mass/ weight: 13 grams*

Maximum vertical load: 50 lbf

Maximum horizontal load: 15 lbf **

Actuation Force: 0.7 ± 0.1N

* Approximate weight. Actual weight dependent on configuration

** Measured 0.62" above panel surface

ELECTRICAL

Technology: Hall effect sensor, single

Resolution: 12 bit

Supply voltage: 5.00VDC +/- 0.01VDC regulated transient free

Supply voltage tolerance: 5.00VDC +/- 0.25VDC

Supply current: 20mA max

Ratiometric output voltage: See options

Return to center voltage tolerance: +/-100mV***

Transient overvoltage max: 20VDC

Reverse polarity max: -10VDC

Output impedance: 2Ω

Start up time: 15ms max

ENVIRONMENTAL

Operating temperature: -40°C to +85°C

Storage temperature: -40°C to +85°C

Above panel sealing: IP67*

EMC immunity level: EN61000-4-3 **Compliance to 30A/m

EMC emissions level: EN61000-6-3: 2001 + A1:20011 + AC:2012
FCC 47 CFR Part 15, Subpart B - Verification
ICES-003 Issue 7: 2020

ESD immunity level: EN61000-4-2 **Compliance to +/-15kV/+/-8kV
EN61000-6-1: 2007

Vibration: Per SAE J1455 Section 4.9 & MIL-STD810G 514.6

Mechanical shock: Per SAE J1455 Section 4.10 & MIL-STD-202G

* Above panel sealing. All configurations. Product is idle and not in use.

** Extended testing levels.

*** Based on supply voltage 5.00VDC +/- .01VDC. Outputs are ratiometric and dependent upon supply voltage.