

Reimagining the User Experience

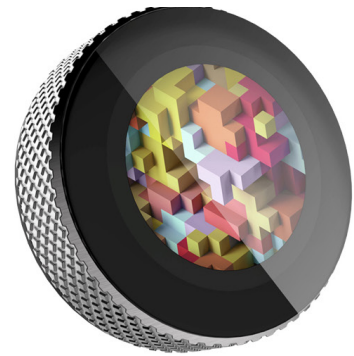
Touch Encoder



Stylish



Robust



Vivid Display

KEY HIGHLIGHTS

- Supported Gestures: Tap + Swipe + Turn
- Tablet Based Intuitive Development Platform
- Supports Up to 100 Functions (32MB memory) and 1500 Functions (128MB memory)
- 304 Stainless Steel Knob; Brushed & Knurled
- RoHS 2018/863 Compliant
- Multiple Configurable Standard Widgets
- Accidental Touch Prevention
- Field Upgradable Application and Firmware
- 1,000,000 Encoder Cycles
- High Resolution Display: 320X300
- USB 2.0 or CAN J1939 Compliant

MATERIALS

Cover Lens: Polyester Overlay

Knob: 304 Stainless Steel/Black Chrome Plated 304 Stainless Steel

Rear Housing: Nylon

Mounting Nut: Nylon

Tap, Swipe and Turn the only interface device you need

GENERAL

Diameter (O.D.): 2.200 in (55.88 mm)

Diameter (A.A.): 1.340 in (34.00 mm)

Diameter (V.A.): 1.320in (33.50 mm)

Touchscreen: Projected Capacitive

Display - Type: Round Color TFT LCD, 320 X 300

Display - Brightness: 200 Cd/m2

Positions/Revolution: 32

Connector Style: M12 5-Pin Connector

ELECTRICAL FUNCTION

Operating Voltage: 4.5 to 18 Vdc; 8 to 32 Vdc is available with interface cable. This device requires filtered input power

Operating Current: 700 mA @ 5V Full Bright

Electrical Fast Transient/Burst: IEC 61000-4-4 ±1kV Coupling Clamp

Memory: 32MB or 128 MB

Sleep Mode Power Use: < 1mA

Sleep Mode Wakeup Time: 500 mSec

PWM Output: 5V @ 1mA

USB Interface: 2.0 Composite Device

CANBUS Interface: J1939 Compliant

ENCODER FUNCTION

Initial Rotational Torque: 3.50 ± 1.50 in-oz (Median Torque Option)

Rotational Life: 1,000,000 Cycles

Detent Type: Ball Spring

Encoder Coding Technology: Hall Effect

TOUCH SCREEN

Touchscreen Sensitivity: 0.250" Diameter Conductive Disk

Display / T.S. Mounting: OCA

Construction Type: ITO

SOFTWARE DEVELOPMENT KIT

Inside the Kit:

- Power Supply
- CAN Adapter Cable
- iPad



MECHANICAL

Pushout Force (Maximum): 45 lbs (200 N)

Pullout Force (Maximum): 45 lbs (200 N)

Side Load Force: 45 lbs (200 N)

Lens Hardness: 2H

Lens Impact: Ik6

Mounting Torque: 4 - 8 in-oz

Mounting Torque (Maximum): 10 in-oz

M12 Connector Torque (Max): 10 in-oz

M12 Connector Pull-Out: 15 lbs (66.7 N)

Mounting Alignment (Maximum): < 1Deg

ENVIRONMENTAL

Operating Temp. Range: -20 to 65 °C

Storage Temperature: -30 to 70 °C

Humidity: 95% @ 65 °C

Seal (Electronics & Behind Panel): IP67 Mechanical Shock: ANSI EP455 5.14

Radiated Immunity: IEC 6100-4-3 10V/M 80 MHz to 2.5 GHz

Conducted Immunity: IEC 6100-4-6 LEVEL 1 - 120 dBµV, 150 KHz to 80 MHz

ESD: IEC 61000-4-2: 8 kV Contact; 15 kV Air

Vibration (Random): 50 - 2000 Hz, 2hr Each Axis ANSI EP455 5.15.2

Vibration (Sinusoidal): ANSI EP455 5.15.2

Chemical Resistance: Super Sany-3, DEET, 1.0% NaCl Solution, Coffee w/ Milk & Sugar, Chlorine Bleach 30%, Isopropanol 70%, 1.0% Iodine in 70% Ethanol, Cola, Water, Butadiene, Steris Spor-Klenz, Civco T-Spray II; 72 hr Exp.

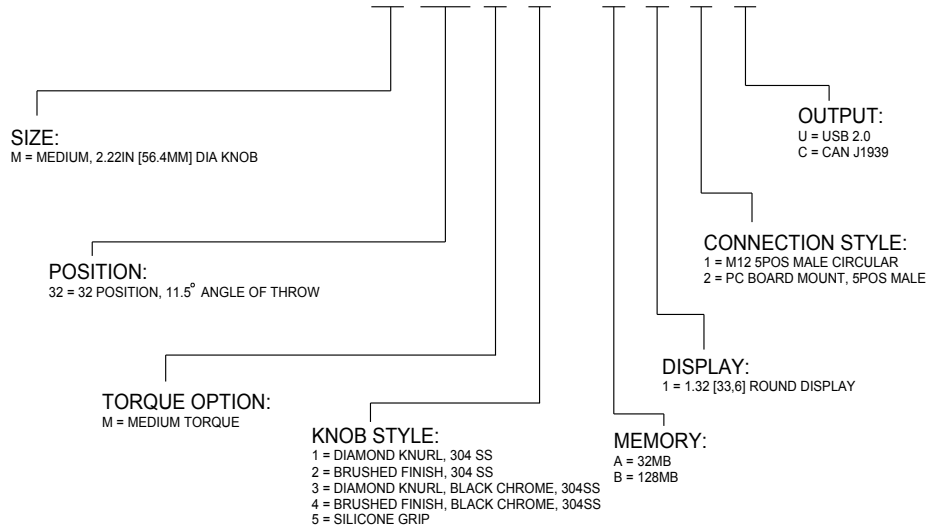
Solar Radiation: ISO 4892.2 Method B

Power Frequency Magnetic Field: Meets IEC 61000-4-8, 100 V/m"

Preliminary

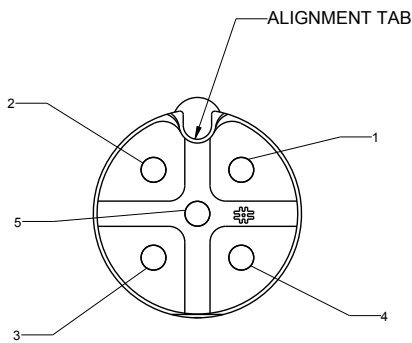
Touch Encoder Part Numbers

TE-X32XX -XXXX



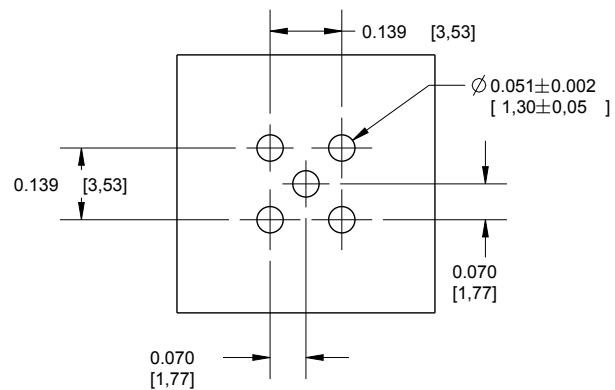
Pinouts

PIN NUMBERING DETAIL



CONNECTOR OUTPUT		
PIN #	USB	CAN
1	USB +	CAN +
2	PWM	PWM
3	V _{IN}	V _{IN}
4	USB -	CAN -
5	GND	GND

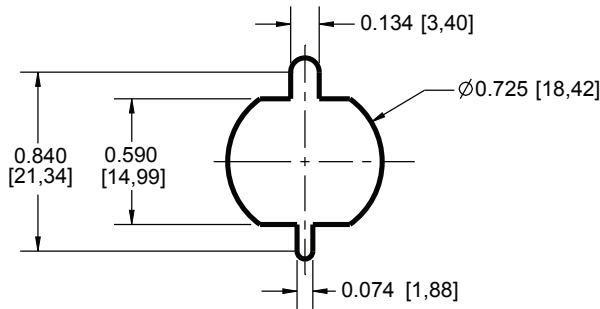
SUGGESTED PCB HOLE PATTERN
IN [MM]



0.092 [2,34] MAX PCB THCKNESS

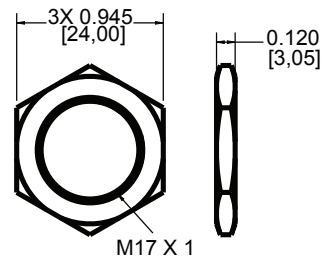
Mounting Information

SUGGESTED MOUNTING PATTERN
IN [MM]



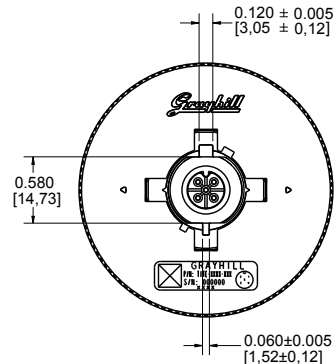
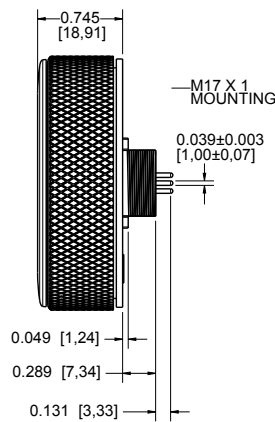
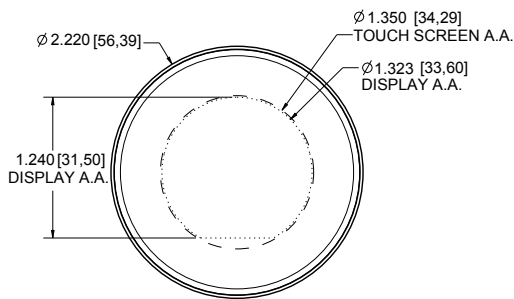
Max Corner Radius = 0.020 [0.5]

STANDARD MOUNTING NUT
IN [MM]



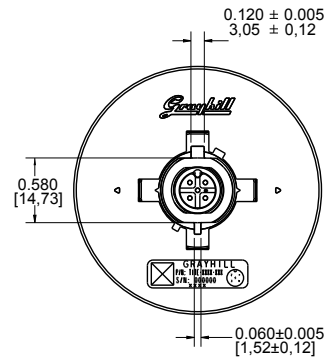
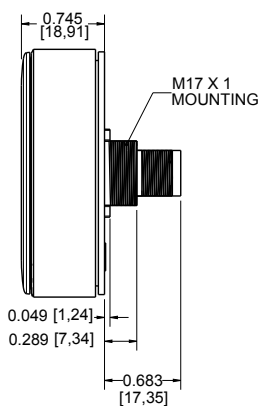
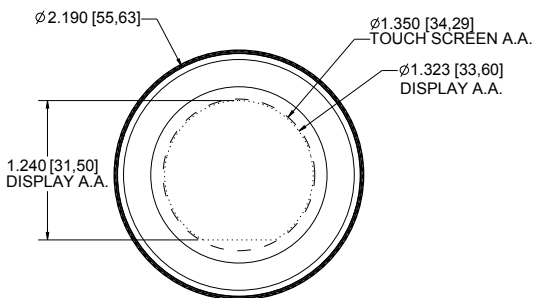
Dimensions

T1TE-MXXX1-X12X
IN [MM]



MATING CONNECTORS:
CONIC P/N 43KA1438
PHOENIX CONTACT P/N1411976
PHOENIX CONTACT 1411977

T1TE-MXXX2-X11X
IN [MM]



MATING CONNECTOR:
M12 5-PIN CIRCULAR CONNECTOR
Per IEC 61076-2-101

Preliminary