NEW!

Features/Benefits

- *Omni-directional analog control*
- *Variable speed (rate and control)*
- *Small form factor*
- *Low power (instant wake-up)*
- *Integrated switch (center click)*
- *True deflection device (pointing device)*
- *Simple electrical interface*
- *Environmental protection*
- *Long life*

Typical Applications

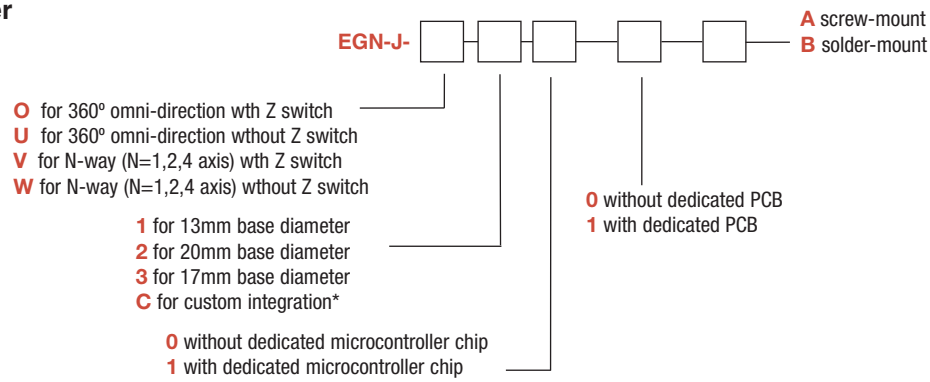
- *Cell phones*
- *Gaming devices*
- *MP3 players*
- *PDA's*
- *GPS devices*
- *Remote controls*
- *Laptops*
- *Convergent devices*
- *Others*

	Series Values	EGN-Jx3x-xx	EGN-Jx2x-xx
PCB FOOTPRINT REQUIREMENT (mm):	17.3-20.3	16.3 topside, 17.3 bottom	19.3 topside 20.3 bottom
PCB TO ACTUATOR TIP HEIGHT (mm):	5.8-7.5	5.8	7.5
MIN ACTUATION ANGLE (deg):	less than 2	less than 2	less than 2
MAX DEFLECTION FROM VERTICAL (deg):	25	25	25
LATERAL FORCE @ MIN ACTUATION (g force):	23-24	23 or less	24 or less
LATERAL FORCE @ MAX ACTUATION (g force):	74-120	74	120
MIN VERTICAL FORCE TO ACTIVATE (g force):	9-20	9	20
DOME SWITCH ACTUATION FORCE (g force):	210-380	210	380
SINGLE LARGE LATERAL FORCE SURVIVABLE (g force):	2000	2000	2000

User Interface

NUMBER OF AXSIS PROVIDED:	1, 2, 4 & continous
DIRECTIONS/VECTORS:	>360
NUMBER OF RATE STEPS FROM FULL:	Up to 1024
SOUTH to FULL NORTH DEFLECTION	64 standard
POSITION SAMPLING RATE:	25-40hz 40hz standard
SIGNAL LATENCY:	< 4ms

How To Order



*Custom Integration - ErgoNav EGN-J Series can be customized per the design rules and limitations:

-Joystick footprint and actuator height (scalable per the design rules)

-Joystick top cap (plastic or silicone; color & fashion)

-Joystick plastic retainer (reference retainer integratable to device chassis per the design rules)

-Dedicated microcontroller (contains firmware for quick I/O interface, or firmware compiled into device controller)

ERGO-NAV EGN-J Series
Analog Joystick Navigation Device

ELECTRICAL/SOFTWARE

	Series Values
LINEARITY OF DEVICE OUTPUT:	R^2>0.97
REPEATABILITY OF SINGLE DEVICE OUTPUT:	±2%
SETTING TIME OF SIGNAL VOLTAGE IN DEVICE:	Negligible
RESISTANCE FOR NS OR EW AXIS:	400-10,000Ω
JOYSTICK NOT ACTUATED RESISTANCE:	10MΩ
DOME SWITCH OPEN/CLOSED RESISTANCE:	500kΩ/250Ω
POWERING VOLTAGES:	1.8-5
# OF A/D INPUTS REQUIRED:	One 8 bit ADC
# OF GPIO INTERFACE NEEDED:	5
ROM REQUIREMENTS:	10kb max
CONTINUOUS USE CURRENT PEAK*	
TYPICAL/WORST CASE:	3.1/8.3 mA
CONTINUOUS USE CURRENT AVERAGE*	
TYPICAL/WORST CASE:	62/165µA
SLEEP POWER CONSUMPTION:	0µW

* Typical transducers are 800-1600 ohms, worse case current is for 400 ohm transducer

RELIABILITY

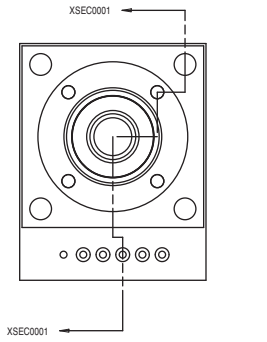
	Series Values
OPERATING LIFE (DEFLECTIONS):	>3M
DOME SWITCH OPERATING LIFE, (CYCLES):	500,000
VIBRATION:	No Effects
PULLOUT FORCE:	2kgf/4.5lbf
DROP TEST:	Pass
EMI/EMC:	Pass
ESD RATING:	Pass

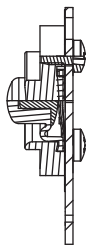
ENVIRONMENTAL

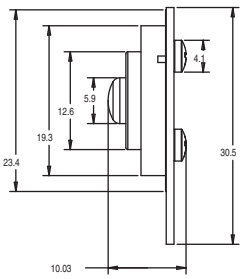
	Series Values
OPERATING TEMP (deg C):	-10 TO 45
STORAGE TEMP (deg C):	-30 TO 70
SHIPPING ALTITUDE (feet):	40,000ft (0.2 atm)
RELATIVE HUMIDITY:	0-85%
DUST PROTECTION:	IP5X
CONTAMINATION RESISTANCE: BABY OIL, HAND CREAM:	No effect
ROBUST CONTAMINANT RESISTANCE; WATER, SUGAR WATER, SALT WATER, COFFEE:	IPX4

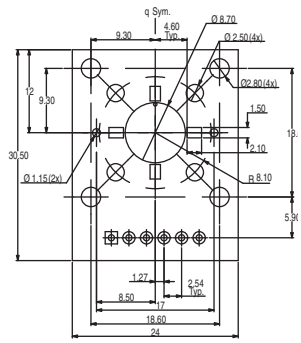
Specific test reference / method is available upon request

EGN-J-X-2

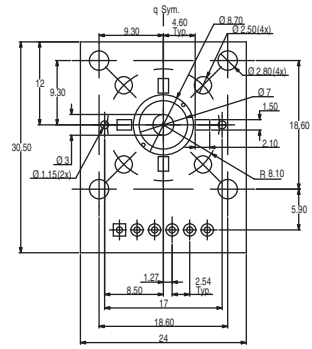




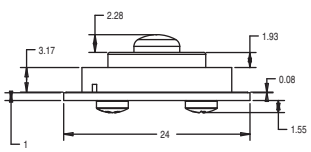




PCB no switch

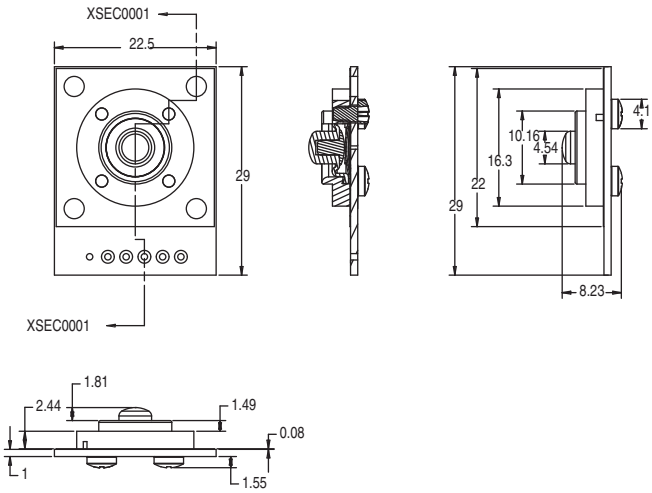


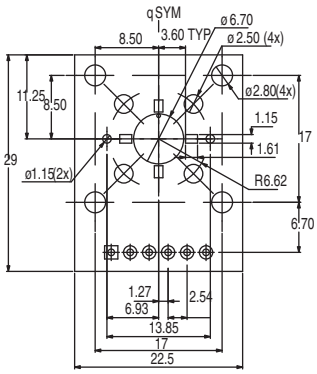
PCB with switch



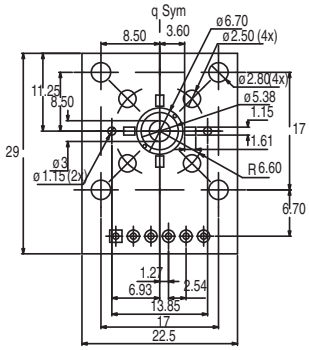
** Reference only

EGN-J-X-3





PCB no switch



PCB with switch

** Reference only