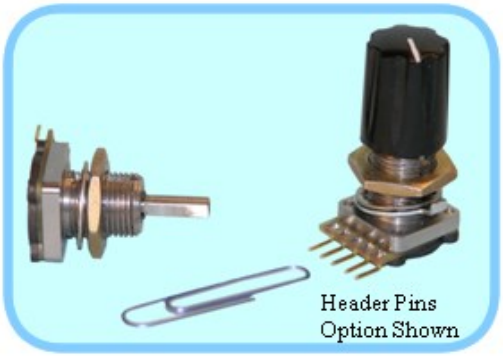
DIGITRAN®
Unit of Electro Switch Corp.

SERIES 57 - VLP®

VERY LOW PROFILE ROTARY SWITCHES
MICRO – MINIATURE LOW CURRENT SERIES

Description: Unique Patent VLP® Designs Give The Designer The Most Functionality in The Least Space—Up to 83% Savings of Post Panel Depth Over Standard Rotary Switches!



- » Meets or exceeds MIL-DTL-3786/13 Requirements
- » .530 " Square Body
- » .125" or .250 " Shaft Diameter
- » 75,000 Mechanical Life Min.
- » 15°, 30°, 36°, 45° Indexing
- » Multiple Pole Options
- » Flux sealed, Multiple Code Output
- » Optional Programmable Stops
- » Mechanical Isolation Options-Push/Pull

Mechanical Specifications:
- » Post panel depth for 1 deck: .142" (flex circuit interface w/o rear cover)
- » Mechanical life: 75,000 cycles min.
- » Rotational torque: 8 - 24 in-oz
- » Stop strength: 8.0 in-lbs minimum
- » Weight: 9.5 grams maximum

Electrical Specifications:
- » Switching current: 500 mA max @ 28 VDC resistive
  250 mA max @ 28 VDC inductive
- » Non-switch (continuous): 3 A max @ 28 VDC
  (20° temperature rise)
- » Contact style: Non-shorting or shorting
- » Contact Resistance: 10 mΩ max initial
  50 mΩ max after life
- » Insulation resistance:: 1000 Megaohms minimum IAW MIL-STD-202, Method 302, Test condition A (shaft and terminals)
- » Dielectric strength: 750 VRMS IAW MIL-STD-202, Method 301, (shaft and terminals)

Environmental Specifications:
- » Altitude: 70,000 feet
- » Temperature: -60°C to +85°C (working)
  -65°C to +125°C (storage)
- » Thermal shock: -55°C to +85°C per MIL-STD-202, Method 107, Test condition A
- » Shock: 100 G's, 6 milliseconds IAW MIL-STD-202, Method 213, Test condition I
- » Vibration: 15 G's at 70 - 2000 Hz; .06" double amplitude at 10 - 70 Hz IAW MIL-STD-202, Method 204, Test condition B
- » Explosion proof: IAW MIL-STD-202, Method 109 with test load 125 mA @ 28 VDC
- » Salt spray: IAW MIL-STD-202, Method 101, Test condition B
- » Sand and dust: IAW MIL-STD-202, Method 110,Test condition B
- » EMI/RFI Shielding: IAW MIL-DTL-3786 with 2 ohms shaft to ground

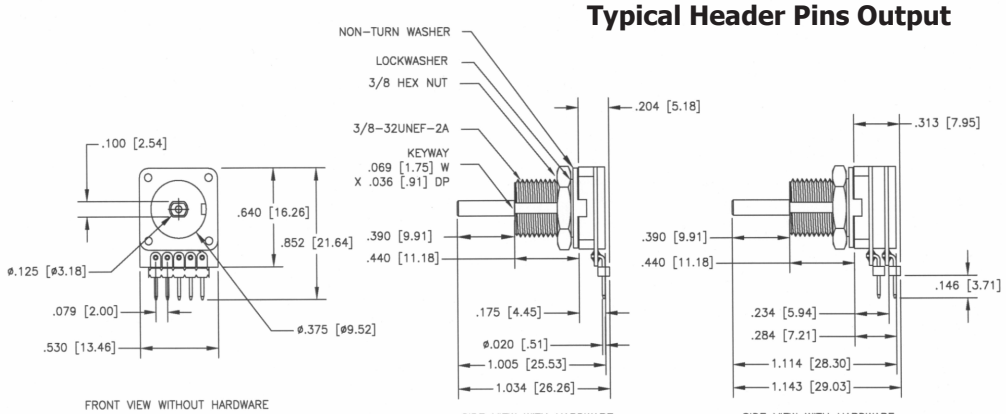
Material Specifications:
- » Molded parts: Thermoplastic
- » Machined parts: Stainless steel and non-corrosive materials
- » Printed circuit board: FR-4 laminate per MIL-PRF-55110
- » Contact: Beryllium copper with gold plating
- » Terminals: Gold plated pins
- » Hardware: Cadmium plated brass (nut and washer)

Applications

» Avionics Panels
» Display Systems
» Portable Equipment
» Flight Deck Instrumentation
» Medical Instrumentation
» Entertainment Equipment
» High Reliability Controllers
» Signal Processing Equipment
» Rugged Instrumentation
» Cockpit Displays
» Navigation Equipment
» Patient Monitors

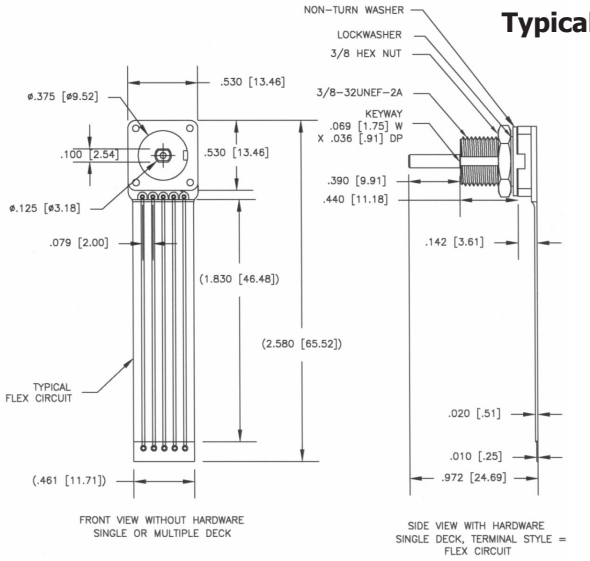
DIGITRAN SERIES 57 – VLP® (VERY LOW PROFILE) ROTARY SWITCHES

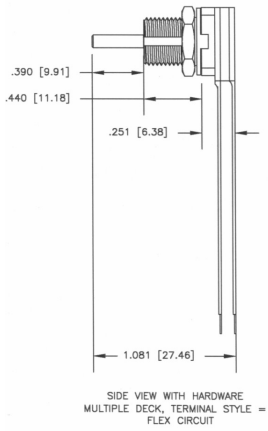
Typical Header Pins Output



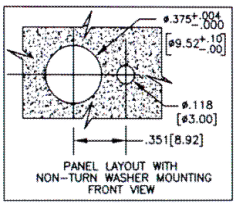
NOTES:
1. Dimensions: Inches [mm]
2. Tolerances: in ±.010, mm ±.25
3. Each deck adds .109 in to depth
4. Decks numbered out from panel
5. All terminals gold plated
6. Hardware included with switch
7. Mating connector & harness P/N 116507–XXXXX

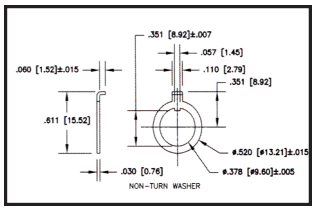
Typical Integrated Flex Circuit Connector





Note: For Absolute Minimum Depth, Rear Cover Can Be Eliminated, As Shown. Rear Cover Adds 0.035" to PPD





ORDERING GUIDE

57X - XX X- X X X - X X XX

571 = 0.125" Dia Shaft, Stainless Steel Bushing
572 = 0.25" Dia Shaft, Stainless Steel Bushing
573 = 0.125" Dia Shaft, Aluminum Bushing
574 = 0.25" Dia Shaft, Aluminum Bushing
575 = 0.125" Dia Shaft, Composite Bushing
576 = 0.25" Dia Shaft, Composite Bushing

INDEXING ANGLE (15°, 30°, 36°, 45°)

NUMBER OF DECKS (4 DECKS MAX)

POLES PER DECK (2 Max)

OUTPUT CODE
(1=Direct, 2=Binary, 3=Custom, 4=Mixed)

TERMINAL STYLE (1=Solder Tabs, 2=Header Pins, 3=PCB Pins)

STOP FEATURES:
With S (stop feature): For this option, add number of active positions for switch. For example, S5 means stops between positions 1 and 5.
With C (continuous): Full turn without stops.

MIL SPEC (M*=Full MIL-DTL-3786 Compliant, X=Non-Mil) All units, M or X, Have Shaft & Panel Seal.

CONTACT STYLE (N=Non-Shorting, S=Shorting)

Questions? Contact Digitran Sales Department at extension 3227, or via email at **sales@digitran-switches.com**

DIGITRAN®
AS9100D Certified

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