



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

Mechanical Specifications:

- Post panel depth for 1 deck: .142” (flex circuit interface w/o rear cover)
- Rotational 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 @ 28 VDC resistive
250 mA @ 28 VDC inductive
- Non-switch (continuous): 3 A @ 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
- 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

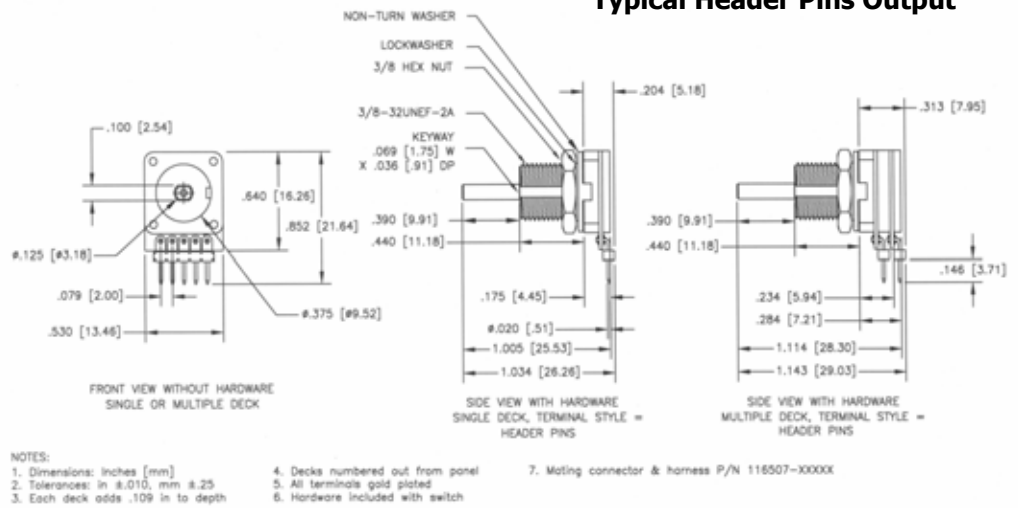
- Avionics Panels
- Display Systems
- Portable Equipment
- Flight Deck Instrumentation
- Medical Instrumentation
- Entertainment Equipment
- High Reliability Controllers
- Signal Processing Equipment
- Rugged Instrumentation
- Cockpit Displays
- Navigation Equipment
- Patient Monitors

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

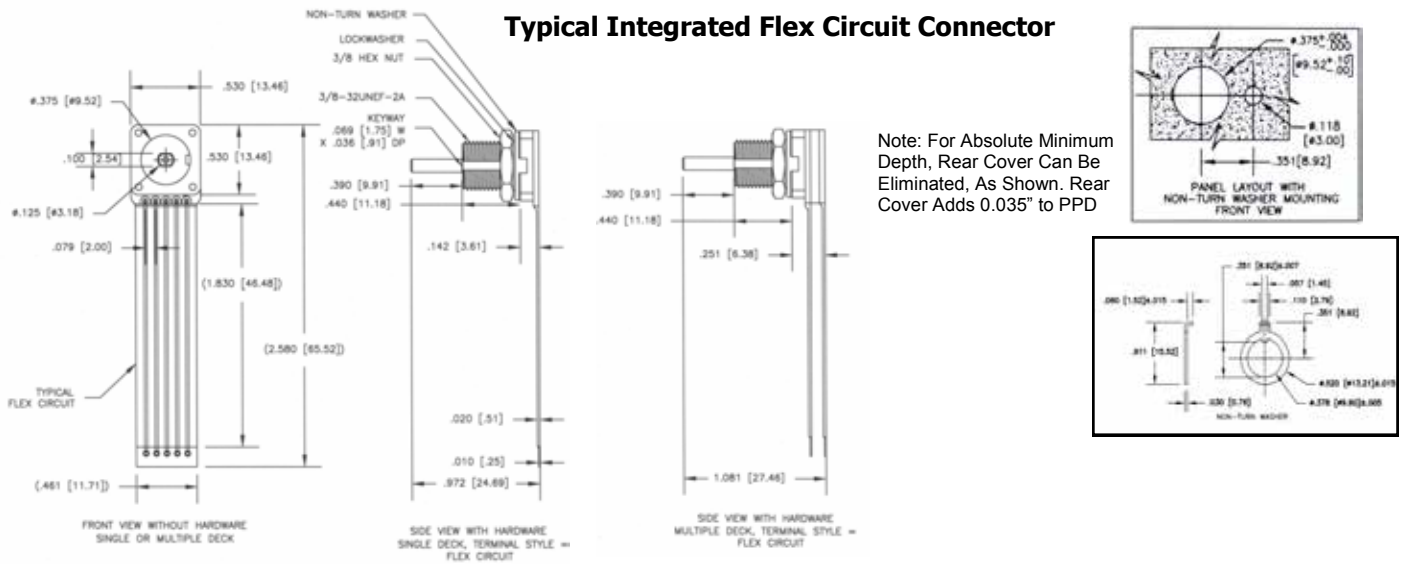
Design & Selection

1. Determine Index Angle
2. Determine Output Code
3. Determine # Poles & Decks
4. Determine Stop Locations
5. Determine Contact Type (Shorting or Non-Shorting)
6. Select Interconnect Type—For Flex Circuit, Specify Length & Interface (Connector, Solder Rings, etc.)
7. Determine Part Number From Ordering Guide (Below)
8. Contact Factory with Questions

Typical Header Pins Output



Typical Integrated Flex Circuit Connector



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 3223, or via e-mail at "sales@digitran-switches.com"



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