

### **Interface Technologies**

# Master Vehicle Light Switch (MVLS)

## Features and Benefits

#### Solid State

- Multi-Function
- Back-mounted switch assembly
- Aluminum with elastomeric keyboard
- Solid state switching and firmware for safety
- Logic stored in non-volatile memory
- Backlit keypad when master power is supplied
- •Switch maintains memory of present lighting mode when experiencing momentary power interruptions
- Switch is selfprotected against reverse polarity, currents over 20 Amps and voltage greater than 30V

### Designed for Harsh Environments

Esterline Interface Technologies originally designed the MVLS for the US Military to replace the original 1950s era mechanical lever switch. Our design eliminated the need for two-handed operation and improved reliability in a streamlined package. The MVLS is used in "truck like" vehicles such as tractors, forklifts, medium vehicles, heavy vehicles, wreckers, and dump trucks for both combat and non-combat operation.



Designed for operation in the harshest environments, the MVLS controls vehicle head lamps, stop lamps, panel lamps, driving lamp, clearance lamp, marker lamp, turn indicator lamps, tail lamps, parking lamps, and battery lamp. The MVLS has three levels of backlighting capability: bright, dim or off.

MVLS is equipped with control circuits to prevent accidental energizing of lighting circuits in a blackout condition.

MECHANICAL Operating force Switch life (mechanical and electrical) Attachment hole pattern Thread pattern ENVIRONMENTAL Operating temperature Storage temperature Shock Vibration - random Vibration - sinusoidal Corrosion Water resistance ELECTROMAGNETIC COMPATIBILITY MIL-STD-1275 SAE J1113-11 SAE J1113-12 SAE J1113-14 SAE J11455 VARIOUS Dimensions Weight Grounding cable length (optional) Mating connector (male) Warranty PART NUMBERS Esterline Sinus delectrical)  3.5 ± 0.5 pounds 3.5 ± 0.5 pounds 1 million keystrokes 1 million keystrokes 2.156" (w) x 3.21" (h) 1 million keystrokes 3.5 ± 0.5 pounds 1 million keystrokes 2.156" (w) x 3.21" (h) 2 million keystrokes 2.156" (w) x 3.75" (h) x 3.25" (d) 2 pounds 7 2 inches MIL-DLT-5015, shell size 28, contact arrangement 28 MIL-DLT-501	Voltage Internal Architecture  MECHANICAL Operating force Switch life (mechanical and electrical) Attachment hole pattern Thread pattern ENVIRONMENTAL Operating temperature Shock Vibration - random Vibration - sinusoidal Corrosion Water resistance ELECTROMAGNETIC COMPATIBILITY MIL-STD-1275 SAE J1113-11 SAE J1113-12 SAE J1113-12 SAE J1113-14 SAE J1455 VARIOUS Dimensions Weight Grounding cable length (optional) Mating connector (male) Warranty PART NUMBERS Esterline Defense Logistics Agency NSN US Arnol Cannects to  A STOP lamp switch B PANEL lamps  MECHANICAL Resettable fuse, Fail-safe fusing Resettable fuse, Fail-safe fusing Resettable fuse, Fail-safe fusing Event monitoring  Resettable fuse, Fail-safe fusing Event monitoring  Resettable fuse, Fail-safe fusing Event monitoring  3.5 ± 0.5 pounds 1 million keystrokes 2.156" (w) x 3.219" (h) #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10-32  #10	Voltage Internal Architecture  Resettable fuse, Fail-safe fu Event monitoring  MECHANICAL Operating force Switch life (mechanical and electrical) Attachment hole pattern Thread pattern Thread pattern ENVIRONMENTAL Operating temperature Storage temperature Shock Vibration - random Vibration - sinusoidal Corrosion Water resistance ELECTROMAGNETIC COMPATIBILITY MIL-STD-202G, method 213, condition G at 100 MIL-STD-202G, method 210, condition A Salt fog MIL-STD-202G, method 101D: 240 hou 6 Psig no leakage ELECTROMAGNETIC COMPATIBILITY MIL-STD-1275 SAE J1113-11 SAE J1113-12 SAE J1113-14 SAE J1455 VARIOUS Dimensions Weight Grounding cable length (optional) Mating connector (male) Warranty PART NUMBERS Esterline Defense Logistics Agency NSN US Army Tank and Automotive Command  Pin Connects to  Pin Connects to  Pin Connects to  Pin Connects to  PSOP SAL J1119-845 Resettable fuse, Fail-safe fur Event monitoring Resettable fuse, Fail-safe fur Event monitoring Resettable fuse, Fail-safe fur Event monitoring  1. St. ± 0.5 pounds 1 million keystrokes 2.156" (w) x 3.21" (h)  #ID-32  MIL-STD-202G, method 213, condition G at 100 MIL-STD-202G, method 204, condition A Salt fog MIL-STD-202G, method 101D: 240 hou 6 Psig no leakage  ELECTROMAGNETIC COMPATIBILITY  G1  CE102, CS101, CS114, CS115, CS116, RE102, RS Power supply: Surges and Sp Power s	ELECTRICAL	G1	G3
Operating force Switch life (mechanical and electrical) Attachment hole pattern Thread pattern ENVIRONMENTAL Operating temperature Storage temperature Shock Vibration - random Vibration - sinusoidal Corrosion Water resistance ELECTROMAGNETIC COMPATIBILITY MIL-STD-1275 SAE J1113-11 SAE J1113-12 SAE J1113-14 SAE J1113-14 SAE J1155 VARIOUS Dimensions Weight Grounding cable length (optional) Mating connector (male) Warranty PART NUMBERS Esterline Defense Logistics Agency NSN  A 10-32  3.5 ± 0.5 pounds 1 million keystrokes 2.156" (w) x 3.219" (h) 1 million expertions 4 ploase 4 poor + 105°F -65°F to +165°F MIL-STD-202G, method 204, condition G at 1000 MIL-STD-202G, method 201, c	Operating force Switch life (mechanical and electrical) Attachment hole pattern Thread pattern Thread pattern Storage temperature Storage temperature Shock Vibration - random Vibration - sinusoidal Corrosion Water resistance ELECTROMAGNETIC COMPATIBILITY MIL-STD-1275 SAE J1113-11 SAE J1113-12 SAE J1113-14 SAE J1113-14 SAE J1455 VARIOUS Dimensions Weight Grounding cable length (optional) Mating connector (male) Warranty PART NUMBERS Esterline Defense Logistics Agency NSN US Army Tank and Automotive Command  3.5 ± 0.5 pounds 1 million keystrokes 2.156" (w) x 3.219" (h) ##10-32  ##10-32    Mill-STD-46" (w) x 3.219" (h)   ##10-32   Mill-STD-202G, method 213, condition G at 100G   MIL-STD-202G, met	Operating force Switch life (mechanical and electrical) Attachment hole pattern Thread pattern  EIN/IRONMENTAL Operating temperature Storage temperature Shock Vibration - random Vibration - sinusoidal Corrosion Water resistance ELECTROMAGNETIC COMPATIBILITY MIL-STD-202G, method 204, condition A Salt fog MIL-STD-202G, method 101D: 240 hou 6 Psig no leakage ELECTROMAGNETIC COMPATIBILITY MIL-STD-461 MIL-STD-1275 SAE J1113-11 SAE J1113-12 SAE J1113-12 SAE J1113-14 SAE J1455 VARIOUS Dimensions Weight Grounding cable length (optional) Mating connector (male) Warranty PART NUMBERS Esterline Defense Logistics Agency NSN US Army Tank and Automotive Command  Pin Connects to  A STOP lamp switch B PANEL lamps C SERVICE stop lamp D BLACKOUT driving lamp E BLACKOUT driving lamp E BLACKOUT driving lamp E BLACKOUT turn indicator lamp BLACKOUT turn indicator lamp  BLACKOUT turn indicator lamp	Voltage	9-33 Volts	9-33 Volts Resettable fuse, Fail-safe fusir
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Dimensions  Weight Grounding cable length (optional) Mating connector (male) Warranty  PART NUMBERS Esterline Defense Logistics Agency NSN  2.69"(w) x 3.75"(h) x 3.25"(d) 2 pounds 72 inches MIL-DLT-5015, shell size 28, contact arrangement 28 One year limited warranty 9375-00117 9375-00311 5930-01-491-9893 6220-01-586-5430	Dimensions Weight Grounding cable length (optional) Mating connector (male) Warranty PART NUMBERS Esterline Defense Logistics Agency NSN US Army Tank and Automotive Command  A STOP lamp switch B PANEL lamps  2.69"(w) x 3.75"(h) x 3.25"(d) 2 pounds 72 inches MIL-DLT-5015, shell size 28, contact arrangement 28- 0ne year limited warranty 9375-00117 9375-00311 5930-01-491-9893 6220-01-586-5430 12484558  Pin Connects to  Pin Connects to  Pin Connects to	Dimensions Weight Grounding cable length (optional) Mating connector (male) Warranty  PART NUMBERS Esterline Defense Logistics Agency NSN US Army Tank and Automotive Command  A STOP lamp switch B PANEL lamps C SERVICE stop lamp D BLACKOUT driving lamp E BLACKOUT marker lamp BLACKOUT turn indicator lamp  DIMEDIT-5015, shell size 28, contact arrangement 2 One year limited warranty  9375-00117 9375-00311 9375-00117 9375-00311 5930-01-491-9893 6220-01-586-5430 12484558  Pin Connects to  Pin Connects to  Pin Connects to  F BATTERY H SERVICE tail lamp SERVICE clearance lamp SERVICE turn indicator L 8 K STOP lamp switch (rear sic L PARKING lamp M SERVICE head lamp M SERVICE head lamp	MIL-STD-461 MIL-STD-1275 SAE J1113-11 SAE J1113-12 SAE J1113-14 SAE J1455		, CS115, CS116, RE102, RS10 Power supply: Surges and Spike Power supply: Surges and Spike Power supply: Surges and Spike
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