# **Switches For Military Vehicles**

# **Product Application Sheet**

# Sealed Switches

Originally designed to MS39058, CPI's sealed switches are completely submersible. Ideal for use in the engine compartment and in harsh exterior locations - even under the chassis.

## Thermal Switches

Setpoint capability of 0°F to 1850°F, CPI offers unmatched precision and the most rapid response time available in a thermal switch.

#### **Sealed Switches**



E1 Series Limit Switches\* E1161a bracket (top) E1294 bracket (bottom)



J4 & D1 Series Plunger Switches\*\* D1040 (top) J4401-514 (bottom)

#### **Thermal Switches**



Plugstat M Series M1 Model w/ screw terminals



AD, X, and M Series snap-action to bimetal designs

### **Specifications - Sealed Switches**

#### **Electrical rating:**

E1s: (28VDC/120VAC): 5 amps resistive, 3 amps inductive. Higher ratings available on special order. J4s: 28VDC, 5 amps inductive

**Endurance:** 100,000 to 5 million cycles (depending on configuration)

**Operating temperature range:** -65F to 221F, depending on item; (J4 Series: -50°F to 302°F)

**Environmental resistance:** Excellent resistance to both high and low temperatures, acids, alkalies, salt spray, sand, dust and fungus.

### **Specifications - Thermal Switches**

#### **Electrical rating:**

SnapStats: (28VDC/120VAC) 5 amps resistive, 3 amps inductive. Gold contacts available special order. PlugStats (bimetal): (28VDC/115VAC) 2 amps resistive, 1/2 amp inductive

Rod & Tube: (28VDC/115VAC) 1.5 amps resistive, 1/2 amp inductive

#### Setpoint temperature ranges:

Snapstats: 0°F - 300°F / PlugStats: 0°F - 650°F / R&T: 0°F - 1750°F

For performance specifications and more product details, please visit our website or contact us

<sup>\*</sup>E1 limit switches are assemblies of E1 Series brackets and B Series momentary switches.

<sup>\*\*</sup>J4 Series come in plated steel, brass, and stainless steel versions.

#### **WATERPROOF SWITCHES**

#### E1002-501 (USATAC 12339494) / engine kickdown - HMMWV

Commercially available B2 Series switch within a customized mounting bracket design to fit the operating requirements of the application. Customer specified MS connectors are provided with the switch to make a completely waterproof product.

D1011-501 (USATAC 11669772) / cold-start ether injection - M939 5-ton truck B2 Series waterproof switch within plunger bracket

E2038 (USATAC 11669094) / brake light switch - M939 5-ton truck

K1013-501 (USATAC 11669679) / 2- to 6-wheel drive shifter - M939 5-ton trucks B2 momentary within custom molded housing

E1344-501 (Oshkosh) / idle validation - LVSR & HEMTT

D1021-538 (Oshkosh) / spare tire hoist on/off - FHTV PLS

E1117-525 (Oshkosh) / dumpster stow position limit for roll-off

K1111-501 (Oshkosh) / fuel door detection switch - HEMTT fuel truck

J4401-514 (BAE-Sealy/USATAC 12505576) / cab tilt position - LTAS J4 switch and specialized adaptor with long plunger and scraper seal

J4001 / J4002 (General Dynamics) / seat switch, operator prescence - Pandur

Ordinance & MIL-STD P/Ns:

A2001 (Ord #7389132) • A2004 (MS-39058-1) • A2005 (MS-39058-2) • A2006 (MS-39058-3)

#### **THERMAL SWITCHES**

AD105-503 (USATAC 12338599) / engine HOT thermal switch - HMMWV

Standard AD threaded switch with waterproof MS plug connectors and wire markers.

M1002-538 (Textron MLS) / view screen anti-freeze protection - ASV

standard M1 Series thermal switch with added screw terminals for easy, non-solder connection

M2003-502 (Honeywell) / lube oil overheat switch in gas turbine engine - M-1 Abrams Tank Off-the-shelf M2 Series with gold contacts

M2146-503, -504 (BAE - Leicester) / cooling system, water anti-freeze switch for startup - Terrier M2 switches with commercially available BSPP thread mounting adaptor

AD053-508 (Supacat) / coolant system, caution and warning indication - HMT 400 dual-temperatures to indicate two system conditions to operator

