

# Control Products Inc.

## Switches For Military Vehicles



CPI manufactures high-endurance waterproof and thermal switches plus indestructible hydraulic position sensors for one purpose – to bring precision, efficiency, reliability and safety to your equipment, in the most demanding applications.



### 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.



#### E1 Series

Limit Switches\*

E1161a bracket (top)

E1294 bracket (bottom)



#### J4 & D1 Series

Plunger Switches\*\*

D1040 (top)

J4401-514 (bottom)



### Thermal Switches

Setpoint capability of -17°C to 100°C, CPI offers unmatched precision and the most rapid response time available in a thermal switch.



#### 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:** -53°C to 105°C, depending on item; (J4 Series: -45°C to 150°C)
- **Environmental resistance:** Excellent resistance to both high and low temperatures, acids, alkalis, 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:* -17°C to 150°C / *PlugStats:* -17°C to 340°C / *R&T:* -17°C to 950°C

\* E1 limit switches are assemblies of E1 Series brackets and B Series momentary switches.

\*\* 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 presence - 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



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