



Product / Parts Catalog



INDEX

SENSORS & CONTROLS

When quality matters

Index Sensors & Controls, Inc.

is a leading manufacturer of switches, sensors, and controls for the commercial truck, engine, agricultural, off-road, and industrial equipment markets. Our products monitor, control and protect some of the world's toughest equipment.

For over 40 years, Index has built a reputation for designing and producing products that stand up to the harshest environments.

Index Sensors is a supplier to the world's most demanding equipment manufacturers, including Cummins, Caterpillar, John Deere, all makes of Class 8 trucks, and a wide range of specialty original equipment manufacturers (OEMs).

We continue to expand our focus on helping industrial vehicle manufacturers, equipment OEMs, and users add innovation and efficiency to their products.

Index's switches, sensors, and controls play a growing role "behind the scenes" improving basic machine operation, as well as benefit equipment users with easier operation, diagnostics, and lower maintenance costs.

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Index's sensor and switch manufacturing facility and headquarters are located in Bellingham, Washington, 90 miles north of Seattle on the I-5 corridor.

Constructed to LEED Gold standards, our building was designed to support Index's advanced engineering and quality labs, world-class manufacturing processes, flexible layout, effective inventory management, and advanced computer information system.

We are a Tier 1 OEM supplier to over 50 engine and vehicle producers.

Index maintains an industry-leading 2-week turnaround for standard catalog items with a 99% on-time delivery rate.

Looking for custom-engineered items? We are happy to work with you to develop and manufacture products to fit your specific application. See page 22 for more information or call toll free (800) 726-1737.

Part of our company

mission is to have satisfying relationships with our customers. We appreciate your business and strive to delight each customer throughout every stage of your order.

■ Customer Support

Representatives are available to assist you with your order. They can answer your questions about orders in process and the availability of new or existing products. Reach our representatives toll free at (800) 726-1737 or via email: customersupport@indexsensors.com

■ Sales Support

At Index, we are always looking for ways we can help enhance your products and your business – and make your life a little easier in the process. Whether you are looking for rugged and reliable products, smarter components or custom-engineered controls, we are ready to help.

If you are interested in learning more about Index products, please call (800) 726-1737 or via email: sales@indexsensors.com

■ Technical Support

We understand that technical questions come up over the life of our products. To help with these questions, contact our technical support staff for additional information about any of our products at (800) 726-1737 or (360) 629-5200, or via email: customersupport@indexsensors.com

Index has been certified to ISO-9001 since 2013. We have been IATF 16949:2016 (TS16949) certified since 2017.



Index offers a variety of ways to order...

Original Equipment Manufacturers

Index provides components and custom-engineered products to Original Equipment Manufacturers (OEMs) in a variety of fields: heavy-duty highway (truck & bus), automotive, construction, agriculture/lawn care, marine, defense, and assorted industrial applications.

If your company is an OEM or if you need particular performance characteristics or design features for your application, give us a call at (800) 726-1737 or contact us via email at: oemsales@indexsensors.com



Aftermarket Independent Distributor

In addition to OEM distributors, our products are also carried by independent heavy-duty parts distributors all over the world. Some parts can be rushed for next-day delivery. Contact us to locate a distributor near you.



Aftermarket Heavy Vehicle Dealers

Index parts are carried by OEM dealers and distributors. Contact your local OEM truck dealer to purchase.

The Index family of products

AIR CONDITIONING CONTROLS

Protective controls that extend life and service intervals for air conditioning systems by preventing heat and over-cycling damage from improper pressures and voltage. Includes ACX-10 A/C Life Extender and APADs A/C Protection and Diagnostic System.

ELECTRONIC TEMPERATURE SWITCHES

Custom-programmable flexibility and functionality including multiple outputs, timed switching, blink signals, PWM, and more. Highly accurate temperature monitoring, control, overtemp warning, and shutdown for engines and industrial equipment.

MECHANICAL TEMPERATURE AND PRESSURE SWITCHES

Temperature control and monitoring for engines, hydraulics, and similar applications in on- and off-road vehicles as well as stationary equipment. Pressure switch applications include air conditioning, transmission, air pressure, hydraulic, brake fluid, and oil pressure.

EMBEDDED CONTROL MODULES

Flexible "distributed intelligence" modules applying custom-programmed control logic to a variety of potential inputs. Can include user interface panels or keypads.

LIQUID LEVEL PROBES

Liquid sensing probes improve the reliability and operation of your vehicle: Coolant Level probes increase the overall longevity of your vehicle engine and Water-In-Fuel probes keep your engine running smoothly without costly repairs or downtime.

SENSORS (LEVEL, TEMPERATURE, PRESSURE, POSITION)

Heavy-duty aftermarket replacement sensors for a variety of both on- and off-highway applications.



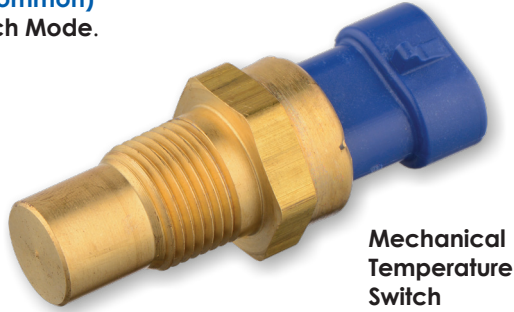
Key definitions

■ Burst Pressure

The maximum pressure that can be applied to a pressure device without risking catastrophic damage. A switch's burst pressure should exceed the maximum potential pressure in the system, including under abnormal conditions. Index burst pressures were validated within the switch temperature range (-40° to 260° F). Burst pressure for Index pressure switches is 2500 psi.

■ CO (Common)

See **Switch Mode**.



Mechanical
Temperature
Switch

■ Differential

The pressure or temperature difference between the rising contact actuation set point and the falling contact de-actuation reset point. Also sometimes referred to as **hysteresis**.

■ Electrical Environment

Index switches are designed for 12 to 24 volts DC systems and have current ratings typically in the range of 5-7 amps. Higher current and dry circuit devices are available.

■ Falling Contact De-actuation

The pressure or temperature at which the switch changes electrical contact state (closed to open, or open to closed) when the pressure or temperature is falling. Also known as **reset point**.

■ Fan Trigger Pressure Switch

Turns on engine fan to lower A/C system pressure when set point is reached, either directly or by signaling an Engine Control Mode. Mounted on the high-pressure side of a compressor.

■ High Pressure Cutout Switch

Prevents A/C system damage due to excessive pressure by disabling the A/C compressor when pressure exceeds the set point. Allows the compressor to resume when the pressure drops below the reset point. Mounted on or near the receiver dryer.

■ Inductive Load

An electrical load from coil-type devices such as solenoids, relays, and electromagnetic clutches. When an inductive circuit is switched open, the energy stored in the coil rushes backwards through the circuit. This sometimes causes arcing at the electric contacts. See also **Resistive Load**.

■ Low Pressure Cutout Switch

Prevents system damage due to low pressure or low refrigerant charge by disabling the A/C compressor when pressure drops below the reset point. Allows the compressor to resume when the pressure rises above the set point. Mounted on the low-pressure side of the compressor.

■ Nominal Pressure (referring to rising set versus falling reset point)

Nominal operating pressure is designated based on what is the most important for the switch's function. For switches responding to decreasing pressure conditions, the falling reset point should be designated as nominal. For switches responding to increasing pressure conditions, the rising set point should be designated as nominal.

■ NC (Normally Closed)

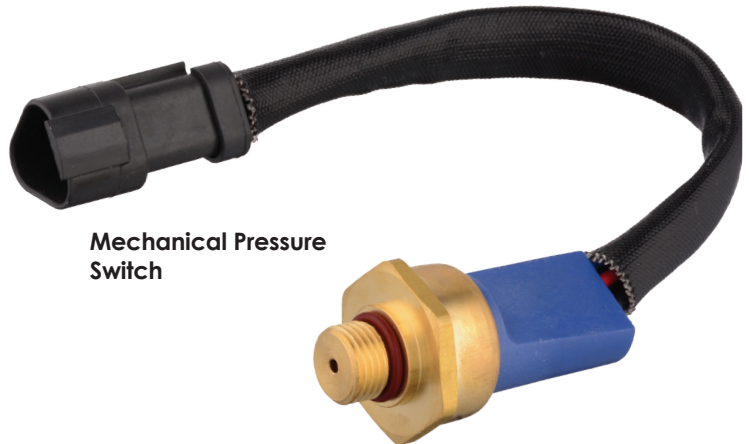
See **Switch Mode**.

■ NO (Normally Open)

See **Switch Mode**.

■ Proof Pressure

The maximum pressure that can be applied to a pressure switch without harming its operating characteristics. A switch's proof pressure should exceed the system's maximum pressure under expected normal operating conditions (including pressure spikes). Proof pressure for Index pressure switches is 650 psi.



Mechanical
Pressure
Switch

■ Reset Point

The pressure or temperature at which the switch changes electrical contact state (closed to open, or open to closed) when the pressure or temperature is falling. Also known as **falling contact de-actuation**.

■ Resistive Load

An electrical load from devices such as heaters or lights. Resistive loads draw electrical current in one direction through the circuit. See also **Inductive Load**.

■ Rising Contact Actuation

The pressure or temperature at which the switch

changes electrical contact state (closed to open, or open to closed) when the pressure or temperature is rising. Also known as **set point**.

■ Sensing Element

The part of a switch or control that detects change in the medium, e.g., temperature or pressure. In Index pressure and temperature switches, the sensing element is a snap disc that moves to open or close the electrical contacts at the set and reset points. Index electronic switches and controls have thermistor sensing elements that then signal the electronic circuitry.

■ Set Point

The pressure or temperature at which the switch changes electrical contact state (closed to open, or open to closed) when the pressure or temperature is rising. Also known as **rising contact actuation**.

■ Sinking vs. Sourcing Circuit

Refers to the position of the switch in an electrical circuit with respect to power, load and ground.

Sinking: switches are wired between the load and ground.

Sourcing: switches are wired between power and the load.

Mechanical switches can generally be wired in both Sinking or Sourcing positions. Electronic switches and controls are designed as either Sinking (only) or Sourcing (only) devices.

■ Switch Mode

The setting of the switch contacts at ambient pressure or temperature. Index switches offer three modes: Normally Open, Normally Closed, and Common (both NO and NC).

NO (Normally Open): a switch that does not conduct electricity at ambient conditions (contacts open) until it reaches its set point, at which point the contacts close and electrical current flows.

NC (Normally Closed): a switch that conducts electricity at ambient conditions (contacts closed) until it reaches its set point, at which point the contacts open and the electrical current stops.

CO (Common): a switch with both Normally Closed and Normally Open outputs having the same set and reset points. In the case of mechanical switches, these are 3-terminal devices, also described as **single-pole, double-throw (SPDT)**.

■ Temperature Exposure Range

The range of temperatures within which switches can operate normally. Index switches operate between -40° F and 257° F (-40° C to 125° C).



How to read Index part descriptions

Index product descriptions use codes to shorten the descriptions. Housings and connectors are simplified to two-digit identification codes. Other words are abbreviated to allow thorough descriptions in a small space.

Examples

8037026P Temp Ctrl 195 NO H1 T1

8040178 Psw 034R Psi NC D H2 C3 A/C Low

Housing & Connector Key

Housings – Temperature

| | |
|-----------|-----------------|
| H0 | 3/8" NPTF |
| H1 | 1/2" NPTF |
| H2 | 3/4-16 UNF |
| H3 | 3/4-16 UNF Long |
| H4 | 1/2" NPT Long |
| H5 | 3/8" BSPT |
| Hx | Other |

Connectors

| | | |
|-----------|---------------|------------------|
| T0 | 1/4" spade | Spade |
| T1 | 8-32 screw | Threaded |
| C2 | Metripack 280 | Tower w/socket |
| C3 | Metripack 280 | Shroud w/pin |
| C4 | Metripack 150 | Tower w/socket |
| C5 | Metripack 150 | Shroud w/pin |
| C6 | Weatherpack | Tower w/socket |
| C7 | Weatherpack | Shroud w/pin |
| C8 | Deutsch | Plug w/socket |
| C9 | Deutsch | Receptacle w/pin |
| Cw | None | Bare wire |
| Cx | Other | Other |

Housings – Pressure

| | |
|-----------|--------------------|
| H0 | 1/4" F Schrader |
| H1 | M10 F Schrader |
| H2 | M12 F Schrader |
| H3 | 1/4" NPTF External |
| H4 | 1/8" NPTF External |
| H5 | 1/8" NPTF Long |
| H6 | M12 x 1.5 |
| H7 | M14 x 1.5 |
| H8 | 9/16" -18 UNF |
| H9 | 1/4" NPTF Internal |
| Hx | Other |

Ambient Condition Settings

NO Normally Open

NC Normally Closed

CO Common (NO & NC)

Product Feature Abbreviations

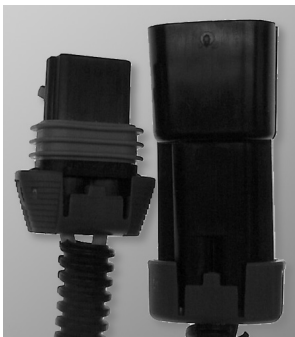
Pressure Switches

| | |
|-----------------------|--|
| Psw | Pressure switch |
| R | Nominal refers to rising set point |
| F | Nominal refers to falling set point |
| D | Diagnostic resistor (e.g. APAdS switches) |
| T | Time Delay |
| R12 | For R12 A/C System |
| R134a | For R134a A/C System |
| APAdS | APAdS switches |
| Air, Oil, Fuel | Multi-purpose – suitable for air, oil, fuel, water, transmission, hydraulic or brake fluid |

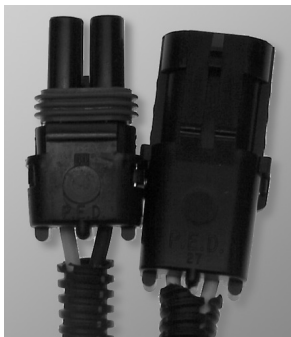
Temperature Switches

| | |
|------------------|--|
| Temp Ctrl | Temperature control – heavy duty, wide current range |
| Temp Sw | Temperature switch – medium duty, current to 1 amp |
| TW | Electronic temperature switch |
| 1fn | Single function electronic temperature switch |
| 2fn | Dual function electronic temperature switch |
| Src | Sourcing – switch wired between power and load |
| Snk | Sinking – switch wired between load and ground |
| Fan timer | Fan timing temperature switch (takes input from A/C pressure switch) |
| PWM | Pulse width modulation |

Connector Key



Metripack™ Tower (L) and Shroud (R)



Weatherpack™ Tower (L) and Shroud (R)



Deutsch Plug (L) and Receptacle (R)

Weatherpack and Metripack are tradenames of Delphi Corporation.

Deutsch connectors are made by Deutsch Industrial products division.



Air Conditioning Protection Products from Index help you keep your cool

Our air conditioning system protection modules go beyond monitoring conditions of low or high pressure and voltage. They stop damaging events, such as over-cycling, and coordinate functions within the system.

Designed to thrive in harsh under-hood environments, Index Air Conditioning Protection Products save money by extending the life of the A/C system and identifying problems before they become costly repairs.

ACX-10 Air Conditioning Life Extender

■ Detection and protection system

The ACX-10 detects rapid cycling before you even notice that your air conditioner isn't working properly. As your A/C system charge levels drop, clutch cycles increase. The ACX-10 limits A/C clutch cycles to four engagements per minute, reducing system wear and tear.

■ Pressure protection

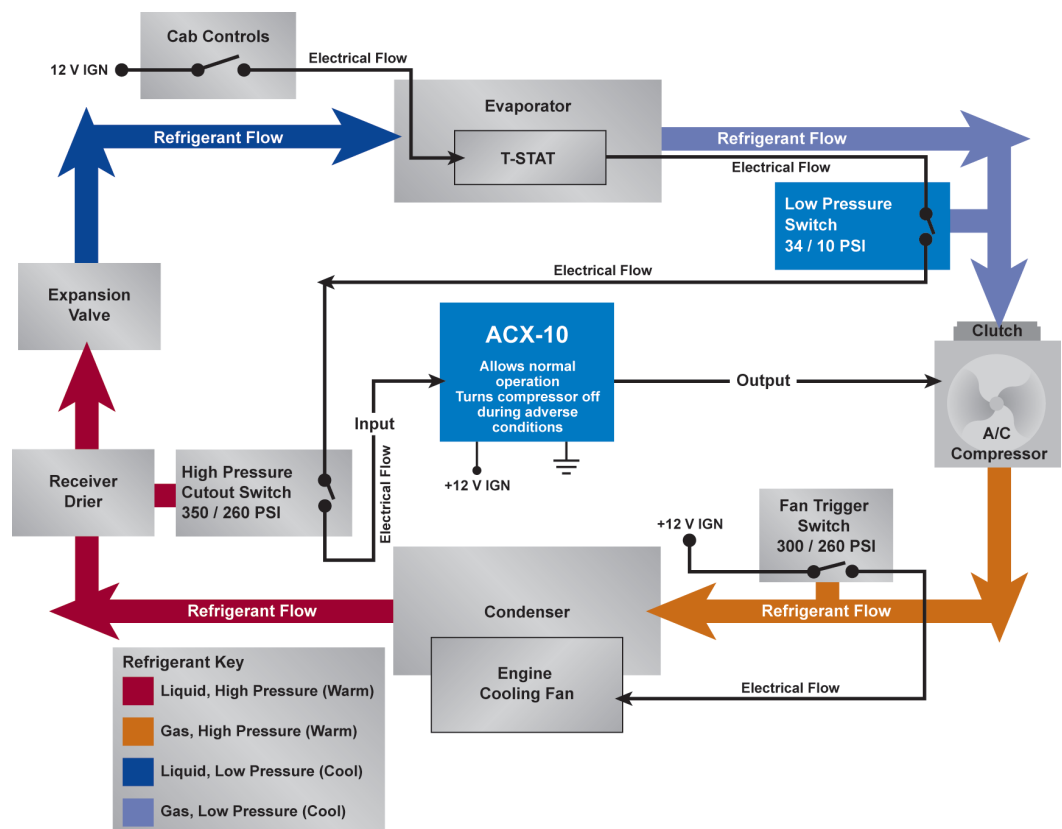
Improper system pressure can lead to rapid cycling. The ACX-10 limits system cycles to four engagements per minute, eliminating heat build-up.

■ Voltage protection

Over-voltage causes excessive current and heat in the clutch coil, which shortens its life. Worse yet, under-voltage can cause the clutch to slip and burn out. The ACX-10 detects poor voltage conditions and disengages the A/C clutch until the voltage returns to the normal, safe operating range.

■ Bonus! Starter motor protection

If the A/C is on during the vehicle's ignition cycle, the starter motor has to crank the compressor as well as the engine. The ACX-10 unburdens the starter motor and extends its life by delaying the A/C clutch engagement until 15 seconds after ignition.



INDEX P/N

8041188

See definitions and connector key on page 8.

Description

ACX-10

Notes

Weatherpack connector

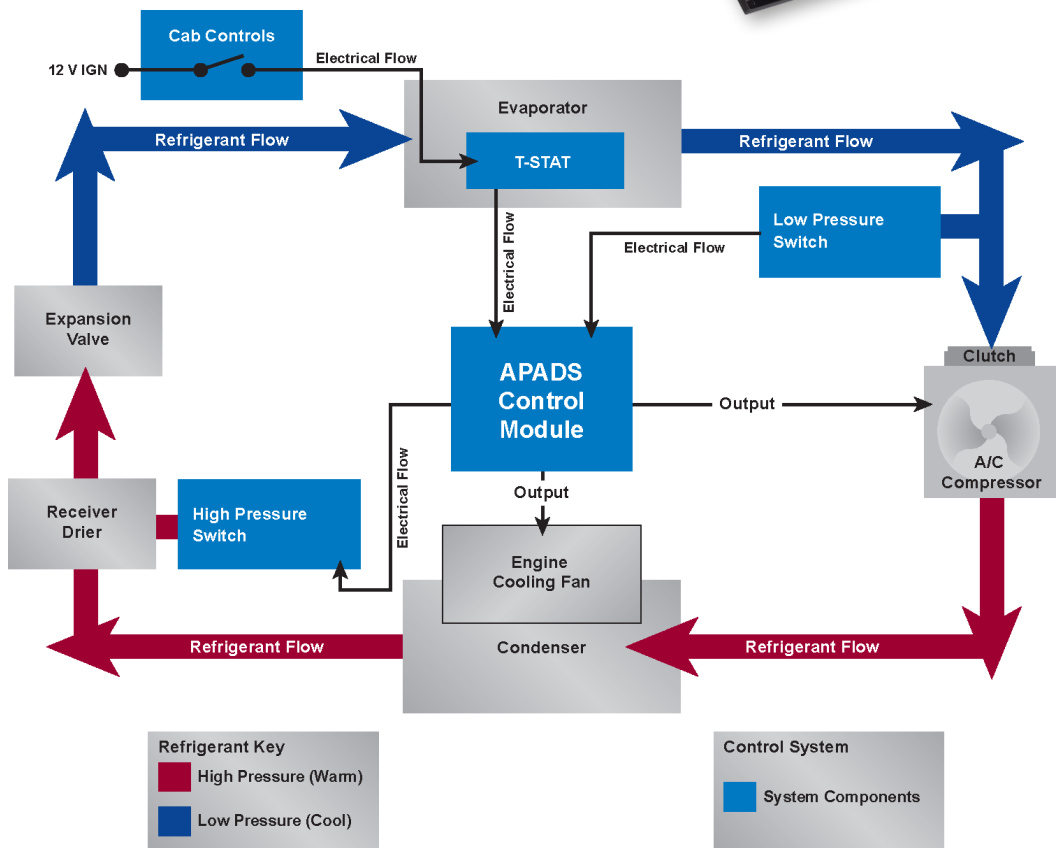
APAd[®] Air Conditioning Protection and Diagnostics System



Available as an OEM option, the APAd system offers full air conditioning control, protection, and diagnostics. Its microprocessor-based intelligence offers all the protection of the ACX-10, plus year-round compressor lubrication and cooling fan coordination to prevent fan cycling at idle. APAd also aids in preventive maintenance and troubleshooting with its easy-to-read diagnostic fault codes. Specifying the APAd system on your new vehicle will save you hundreds or even thousands of dollars in A/C maintenance, repair, and downtime over your years of ownership.

APAd offers multi-function control

- Prevents clutch damage from rapid cycling.
- Prevents clutch slippage from low voltage or over voltage.
- Improves A/C efficiency at idle.
- Eases troubleshooting with easy-to-interpret codes.
- Enhances preventive maintenance.
- Reduces expensive unscheduled repairs.
- Detects A/C problems even when A/C is turned off.



APAd is a registered trademark of Index Sensors & Controls, Inc. Patent number 5,761,918

| OEM | New Truck Spec Option Code # | Notes | Module P/N (Service Parts) | Low Pressure Switch P/N (Service Parts) | High Pressure Switch P/N (Service Parts) |
|---------------|------------------------------|---|----------------------------|---|--|
| Mack | 1739008 | | 8042121 | 8040189 | 8040135 |
| International | 016-WJC016-WJH | For On/Off Fan Drives For Viscous Fan Drives | 8042103 8042124 | 8040189 8040189 | 8040135 8040172 |
| Kenworth | 81040125 | | 8042103 | 8040189 | 8040135 |
| Peterbilt | | Call Index for information | | | |
| Freightliner | 702-009 | | 8042103 | 8040189 | 8040135 |
| Volvo | — | | 8042152 | 8040189 | 8040135 |

See definitions and connector key on page 8.



Heavy-Duty Pressure Switches that withstand harsh underhood conditions

Index's Heavy-Duty Pressure Switches are ideal for a wide range of heavy vehicle and equipment applications where durability and reliability are crucial.

Index switches are proven to withstand the shock and vibration of harsh underhood and off-road conditions.

Heavy-Duty Pressure Switches

- Exceptional vibration resistance.
- Specially designed for long life on heavy-duty equipment – up to 1 million cycles.
- Special time delay and diagnostic features available.
- Tight tolerances where high precision is needed.
- Pressure indication, interlock and control for engines, transmissions, hydraulics, fluid tanks, and similar industrial applications.
- Broad media compatibility: air, oil, water, coolant, hydraulic fluid, transmission fluid, and more.
- Custom-specifiable set and reset pressures.
- Numerous fittings and connectors available.
- Stable, drift-free calibration.

■ Built-in Vibration Resistance

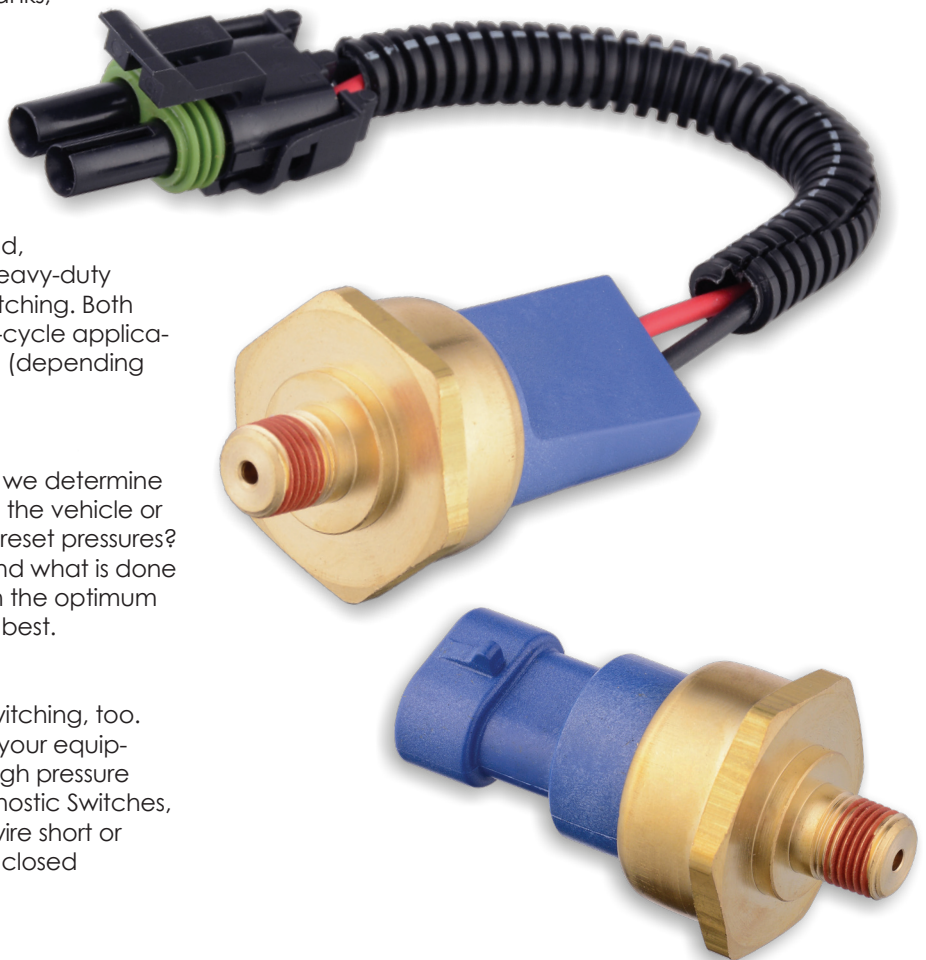
Index Pressure Switches put up a double line of defense against vibration with two snap-action elements. Under load, a crisp-response pressure disc triggers a heavy-duty micro switch, assuring clean electrical switching. Both elements are real workhorses in high duty-cycle applications, lasting up to 1 million cycles or more (depending on load/voltage conditions).

■ Custom Specs

By working closely with a variety of OEMs, we determine exactly how a pressure switch functions in the vehicle or machine. What are the optimum set and reset pressures? What receives the switch signal output, and what is done with that information? Then we can dial in the optimum specs to help the entire system work at its best.

■ Time-Delay & Diagnostics

You have more options than just on/off switching, too. Index Time-Delay Pressure Switches allow your equipment to “ignore” a normal, momentary high pressure spike or low pressure dip. With Index Diagnostic Switches, your control computer can distinguish a wire short or break from a normally-operating open or closed switch circuit.



Heavy-Duty Pressure Switches

With over 2,000 SKUs, many other parts are available – call or email for information.

Air Conditioning Pressure Switches: R134a Refrigerant Systems

High Pressure Cutout Switches – M10 female Schrader fitting

| Set | Reset | Mode | Connector | Notes | INDEX P/N | Description | OEM | Replaces Index PN |
|---------|-------|------|-------------------|-----------------------------|-----------|--|-------------------------------|-------------------------------|
| 300 psi | 260 | NC | Metripack Tower | for use with APADs system | 8040135 | Psw 300R psi NC D H1 C2 A/C high APADs | Volvo 3939317 | 8040147 8040177 8040279 |
| 300 psi | 300 | NC | Metripack Tower | for use with APADs system | 8040177 | Psw 300R psi NC D H1 C2 A/C high APADs | Navistar 2501256C1 | |
| 325 psi | 275 | NC | Weatherpack Tower | for use with APADs system | 8040172 | Psw 350R psi NC D H1 C6 A/C high APADs | | |
| 325 psi | 275 | NC | Weatherpack Tower | General Purpose | 8040312 | Psw 325R psi NC H1 C6 A/C high | | |
| 325 psi | 275 | NC | Metripack Tower | General Purpose - 30" wires | 8040277 | Psw 325R psi NC H1 C2 A/C high | Volvo 3948747 | 8040240 |
| 325 psi | 275 | NC | Metripack Tower | General Purpose - 6" wires | 8040239 | Psw 325R psi NC H1 C2 A/C high | Volvo 3948744 Mack 1MR3562 | 8040228 8040229 |
| 335 psi | 245 | NC | Metripack Tower | for use with APADs system | 8040317 | Psw 335R psi NC D H1 C2 A/C high APADs | Mack 1MR3594M | 8040308 |

Fan Trigger Switches – M10 female Schrader fitting

| Set | Reset | Mode | Connector | Notes | INDEX P/N | Description | OEM | Replaces Index PN |
|---------|-------|------|--------------------|-------------------------------|-----------|-------------------------------|--------------------------------|-------------------------------|
| 275 psi | 235 | NO | Weatherpack Tower | General Purpose | 8040315 | Psw 275R psi NO H1 C6 A/C fan | | |
| 275 psi | 235 | NC | Deutsch Receptacle | use with Index Fax Temp Timer | 8040235 | Psw 275R psi NC H1 C9 A/C fan | Volvo 3948748 Volvo 3949500 | 8040241 8040283 8040242 |
| 275 psi | 235 | NC | Weatherpack Tower | General Purpose | 8040314 | Psw 275R psi NC H1 C6 A/C fan | | |
| 300 psi | 260 | NC | Weatherpack Tower | General Purpose | 8040164 | Psw 300R psi NC H1 C6 A/C fan | | |

Low Pressure Cutout Switches – M12 female Schrader fitting

| Set | Reset | Mode | Connector | Notes | INDEX P/N | Description | OEM | Replaces Index PN |
|--------|-------|------|--------------------|-----------------------------|-----------|---------------------------------------|--|--|
| 34 psi | 10 | NO | Weatherpack Tower | General Purpose & w/ACX-10 | 8040321 | Psw 034R psi NO H6 C7 A/C low | | |
| 34 psi | 10 | NO | Metripack Shroud | General Purpose | 8040281 | Psw 034R psi NO H2 C3 A/C low | Volvo 8025565 Mack 1MR3561 | 8040202 8040207 |
| 34 psi | 8 | NC | Metripack Shroud | for use with APADs system | 8040189 | Psw 034R psi NC D H2 C3 A/C low APADs | Volvo 3966805 | 8040161 8040136 8040178 8040170 |
| 34 psi | 34 | NC | Metripack Shroud | for use with APADs system | 8040136 | Psw 034R psi NC D H2 C3 A/C low Apads | Volvo 20437760 Navistar 1699310C1 Cat 232-8506 | |
| 34 psi | 34 | NC | Metripack Shroud | for use with APADs system | 8040178 | Psw 034R psi NC D H2 C3 A/C low Apads | Navistar 2501257C1 Volvo 3966805 | |
| 40 psi | 32 | NO | Metripack Tower | Note M10 F Schrader fitting | 8040282 | Psw 040R psi NO H1 C2 A/C low | Volvo 3948749 | 8040217 |
| 47 psi | 25 | NO | Weatherpack Shroud | for use with CCOT systems | 8040318 | Psw 047R psi NO H2 C7 A/C low CCOT | | |
| 47 psi | 25 | NC | Weatherpack Shroud | for APADs on CCOT systems | 8040194 | PSW 047R psi NC D H2 C7 A/C low APADs | | |

Air Conditioning Pressure Switches: R12 Refrigerant Systems

High Pressure Cutout Switches – 1/4" F Flare fitting

| Set | Reset | Mode | Connector | Notes | INDEX P/N | Description | OEM | Replaces Index PN |
|---------|-------|------|--------------------|---------------------------|-----------|--|------------------------------|--------------------|
| 310 psi | 220 | NC | Weatherpack Shroud | General Purpose | 8040225 | Psw 310R psi NC H0 C7 A/C high R12 | | |
| 335 psi | 245 | NC | Metripack Tower | General Purpose | 8040316 | Psw 335R psi NC H0 C2 A/C high R12 | Mack 1MR2463 Mack 1MR2451 | 8040227 8040226 |
| 350 psi | 300 | NC | Weatherpack Tower | for use with APADs system | 8040171 | Psw 350R psi NC D H0 C6 A/C high APADs | | |

Fan Trigger Switches – 1/4" F Flare fitting

| Set | Reset | Mode | Connector | Notes | INDEX P/N | Description | OEM | Replaces Index PN |
|---------|-------|------|-----------------------|-------------------------------|-----------|-----------------------------------|----------------------------------|--------------------|
| 39 psi | 39 | NO | None – bare wires R12 | | 8040201 | Psw 039R psi NO H0 Cw A/C low R12 | Kysor 2299010 Red Dot 71R6040 | |
| 250 psi | 250 | NC | Weatherpack Tower | | 8040230 | Psw 250R psi NC H0 C6 A/C fan R12 | Red Dot 71R6402 | |
| 275 psi | 235 | NC | Deutsch Receptacle | use with Index Fan Temp Timer | 8040082 | Psw 275R psi NC H0 C9 A/C fan R12 | | 8040134 |
| 275 psi | 235 | NC | Weatherpack Shroud | General Purpose | 8040243 | Psw 275R psi NC H0 C7 A/C fan R12 | Mack 1MR2456 | 8040236 8040230 |
| 275 psi | 235 | NC | Weatherpack Tower | General Purpose | 8040231 | Psw 275R psi NC H0 C6 A/C fan R12 | Navistar 1622648C91 | 8040232 |
| 300 psi | 260 | NC | Weatherpack Tower | General Purpose | 8040307 | Psw 300R psi NC H0 C6 A/C fan R12 | | |
| 300 psi | 260 | NO | Weatherpack Tower | General Purpose | 8040313 | Psw 300R psi NO H1 C6 A/C fan R12 | | |
| 300 psi | 300 | NC | Deutsch | High Pressure A/C Switch | 8040088 | Psw 300R psi NC H1 C9 A/C fan R12 | Red Dot RD5-10008 | |

Heavy-Duty Pressure Switches (continued)

With over 2,000 SKUs, many other parts are available – call or email for information.

Heavy-Duty Pressure Switches for Cummins® Applications

| Thread Size 1/8" NPTF | 1/4" NPTF | Connector | INDEX P/N | Cummins Equivalent |
|--------------------------|-----------|------------|----------------|--------------------|
| ◆ | | Integrated | 8040400 | 3408612 / 2897694 |
| ◆ | | Integrated | 8040424 | 3408613 / 2897695 |
| ◆ | | Integrated | 8040351 | 3408607 / 2897691 |
| ◆ | | Integrated | 8040426 | 3408614 / 4307059 |
| ◆ | | Integrated | 8040399 | 3408608 / 2897692 |
| ◆ | | Integrated | 8040406 | 3408619 / 2897696 |
| | ◆ | Integrated | 8040410 | 3408609 |
| | ◆ | Integrated | 8040409 | 3408606 |

Multi-purpose Pressure Switches: Specified by Falling Reset Point

| Nominal Pressure | Mode | Nominal Set Point (Rising Pressure) | Nominal Reset Point (Falling Pressure) | 1/8" NPTF | 1/4" NPTF | Connector | INDEX P/N | Description |
|------------------|------|-------------------------------------|--|-----------|-----------|--------------------|----------------|------------------------------------|
| 006 | NC | 12 | 6 | ◆ | | Weatherpack Shroud | 8040310 | Psw 006F psi NC H4 C7 Air Oil Fuel |
| 008 | CO | 16 | 8 | ◆ | | Weatherpack Tower | 8040263 | Psw 008F psi CO H4 C6 Air Oil Fuel |
| 120 | NC | 150 | 120 | ◆ | | None – bare wires | 8040245 | Psw 120F psi NC H4 Cw Air Oil Fuel |
| 006 | CO | 14 | 6 | | ◆ | Weatherpack Shroud | 8040258 | Psw 006F psi CO H3 C6 Air Oil Fuel |
| 006 | CO | 15 | 6 | | ◆ | None – bare wires | 8040265 | Psw 006F psi CO H3 Cw Air Oil Fuel |
| 006 | CO | 15 | 6 | ◆ | | None – bare wires | 8040250 | Psw 006F psi CO H4 Cw Air Oil Fuel |
| 007 | NO | 15 | 7 | ◆ | | Other | 8040218 | Psw 007F psi NO H4 Cx Air Oil Fuel |
| 010 | CO | 18 | 10 | | ◆ | Weatherpack Shroud | 8040260 | Psw 010F psi CO H3 C7 Air Oil Fuel |
| 010 | NC | 18 | 10 | | ◆ | Weatherpack Shroud | 8040223 | Psw 010F psi NC H3 C7 Air Oil Fuel |
| 010 | NC | 18 | 10 | ◆ | | Weatherpack Tower | 8040212 | Psw 010F psi NC H4 C6 Air Oil Fuel |
| 010 | NC | 16 | 10 | ◆ | | Weatherpack Shroud | 8040272 | Psw 010F psi NC H4 C7 Air Oil Fuel |
| 014 | NC | 14 | 6 | | ◆ | Metripack Tower | 8040224 | Psw 014F psi NC H3 C2 Air Oil Fuel |
| 015 | CO | 25 | 15 | ◆ | | None – bare wire | 8040251 | PSW 015F psi CO H4 Cw Air Oil Fuel |
| 015 | CO | 25 | 15 | ◆ | | Other | 8040268 | Psw 015F psi CO H4 Cx Air Oil Fuel |
| 015 | NC | 25 | 15 | ◆ | | Weatherpack Tower | 8040221 | Psw 015F psi NC H4 C6 Air Oil Fuel |
| 040 | NC | 55 | 40 | ◆ | | None – bare wires | 8040246 | Psw 040F psi NC H4 Cw Air Oil Fuel |
| 060 | CO | 75 | 60 | ◆ | | None – bare wires | 8040266 | Psw 060F psi CO H4 Cw Air Oil Fuel |
| 060 | CO | 75 | 60 | ◆ | | None – bare wires | 8040252 | Psw 060F psi CO H4 Cw Air Oil Fuel |
| 065 | NC | 75 | 65 | | ◆ | Metripack Tower | 8040237 | Psw 065F psi NC H3 C2 Air Oil Fuel |
| 070 | CO | 90 | 65 | ◆ | | Weatherpack Shroud | 8040255 | Psw 070F psi CO H4 C7 Air Oil Fuel |
| 075 | NC | 85 | 75 | | ◆ | Metripack Tower | 8040238 | Psw 075F psi NC H3 C2 Air Oil Fuel |

Multi-purpose Pressure Switches: Specified by Rising Set Point

| Nominal Pressure | Mode | Nominal Set Point (Rising Pressure) | Nominal Reset Point (Falling Pressure) | 1/8" NPTF | 1/4" NPTF | Connector | INDEX P/N | Description |
|------------------|------|-------------------------------------|--|-----------|-----------|--------------------|----------------|------------------------------------|
| 008 | NO | 8 | 4 | ◆ | | Ring Terminals | 8040311 | Psw 008R psi NO H4 Cx Air Oil Fuel |
| 009 | CO | 9 | 7 | | ◆ | Weatherpack Shroud | 8040262 | Psw 009R psi CO H3 C7 Air Oil Fuel |
| 014 | CO | 14 | 8 | | ◆ | Weatherpack Shroud | 8040280 | Psw 014R psi CO H3 C7 Air Oil Fuel |
| 014 | CO | 14 | 8 | ◆ | | Weatherpack Shroud | 8040257 | Psw 014R psi CO H4 C7 Air Oil Fuel |
| 035 | CO | 35 | 25 | | ◆ | Weatherpack Shroud | 8040254 | Psw 035R psi CO H3 C7 Air Oil Fuel |
| 060 | NO | 60 | 50 | ◆ | | Metripack Tower | 8040215 | Psw 060R psi NO H4 C2 Air Oil Fuel |
| 060 | NO | 60 | 50 | ◆ | | Weatherpack Shroud | 8040216 | Psw 060R psi NO H4 C7 Air Oil Fuel |
| 100 | CO | 100 | 85 | ◆ | | Weatherpack Shroud | 8040256 | Psw 100R psi CO H4 C7 Air Oil Fuel |

All pressures in PSI. See definitions and connector key on page 8.

Index Electronic Temperature Switches are built to endure tough conditions

Ideal for engines, transmissions, fuel, and fan control, Index Temperature Switches are designed to give you precise temperature control, indication, warning, alarm, and monitoring for thousands of heavy-duty applications.

Index Temperature Switches are built to withstand tough conditions and remain highly accurate in extreme environments. With no moving parts to wear out, they keep operating through whatever situation they face.



Solid State/PWM Electronic Temperature Switches

- Offers long life and high precision for tough applications.
- One or two independently specifiable temperatures.
- Combine and coordinate two functions in one device.
- Quick response time.
- Solid state design assures years of accurate switching.
- Reverse polarity protection.

■ Versatile performance

- Accurate to $\pm 1.5^{\circ}\text{F}$.
- Functions from -20° to 230°F (-29° to 110°C).
- Fully custom set and reset points.
- Operates in a variety of fluids.
- Numerous fittings and connectors available.
- Customizable PWM outputs available.
- Gauge driving available.

■ Available in either single- or dual-function designs

Two outputs from one location assures coordination of functions through one device. Dual-function maximizes the use of limited installation ports.

- Single-function: shutter control, fan control, overtemp warning/engine shutdown, low transmission temperature (-10° to 32°F / -23° to 0°C), and fuel temperature.
- Dual-function provides two functions with a single port: overtemp warning/engine shutdown, fan control/shutter control.



Air-sensing Fan Drivers with special fast-response tip

| Function 1 | | Function 2 | | Sourcing | Sinking | Connector | INDEX P/N | Description | OEM | OEM PN |
|------------|------|------------|------|----------|---------|--------------------|----------------|--|-----|--------|
| Set Point | Mode | Set Point | Mode | | | | | | | |
| 150 | NC | | | | ◆ | Deutsch Receptacle | 8036154 | TE Air Snk 150 NC H1 C9 Intake Air Temp Sw | | |
| 150 | NC | | | ◆ | | Weatherpack Shroud | 8036186 | TE Air Src 150 Nc H1 C7 Intake Air Temp Sw | | |
| 190 | NO | | | ◆ | | Deutsch Plug | 8036098 | TE Air Src 190 NO H1 C8 Intake Air Temp Sw | | |

Electronic Temperature Switches

With over 2,000 SKUs, many other parts are available – call or email for information.

Single- and Dual-Function Temperature Switches

| Function 1 | | Function 2 | | Sourcing | Sinking | Connector | INDEX P/N | Description | OEM | OEM PN |
|------------|------|------------|------|----------|---------|------------------------|-----------|---|---------------|------------|
| Set Point | Mode | Set Point | Mode | | | | | | | |
| 200 | NC | | | | ◆ | Metripack Shroud | 8036023 | TE 1fn Snk 200 NC H1 C3 Nav 1516893C91 | International | 1516893C91 |
| 200 | NO | | | | ◆ | Weatherpack Tower | 8036205 | TE 1fn Snk 200 NO H1 C6 | | |
| 200 | NO | | | | ◆ | Weatherpack Shroud | 8036206 | TE 1fn Snk 200 NO H1 C7 | | |
| 060 | NC | | | ◆ | | Metripack Tower | 8036128 | TE 1fn Src 060 NC H1 C4 | | |
| 080 | NC | | | ◆ | | Metripack Shroud | 8036043 | TE 1fn Src 080 NC H1 C3 | | |
| 150 | NC | | | ◆ | | Weatherpack Shroud | 8036157 | TE 1fn Src 150 NC H1 C6 Nav 1621011C91 | International | 1621011C91 |
| 150 | NO | | | ◆ | | Weatherpack Shroud | 8036152 | TE 1fn Src 150 NO H1 C7 | | |
| 185 | NC | | | ◆ | | Metripack Shroud | 8036200 | TE 1fn Src 185 NC H1 C3 | | |
| 185 | NC | | | ◆ | | Weatherpack Shroud | 8036052 | TE 1fn Src 185 NC H1 C7 Nav 1621007C92 | International | 1621007C92 |
| 200 | CO | | | ◆ | | Screw Terminals | 8036178 | TE 1fn Src 200 CO H0 Cx | | |
| 200 | NC | | | ◆ | | Weatherpack Shroud | 8036061 | TE 1fn Src 200 NC H1 C7 | | |
| 205 | NC | | | ◆ | | Metripack Shroud | 8036167 | TE 1fn Src 205 NC H1 C3 Volvo 3942759 | Volvo | 3942759 |
| 205 | NC | | | ◆ | | Weatherpack Shroud | 8036056 | TE 1fn Src 205 NC H1 C7 | | |
| 205 | NO | | | ◆ | | Weatherpack Shroud | 8036058 | TE 1fn Src 205 NO H1 C7 Nav 2016585C91 | International | 2016585C91 |
| 160 | NO | 200 | NO | | ◆ | Metripack Tower | 8036201 | TE 2fn Snk 160 NO 200 NO H1 C4 | | |
| 172 | NC | 187 | NC | | ◆ | Metripack Tower | 8036217 | TE 2fn Snk 172 NC 187 NC H1 C4 | | |
| 172 | NC | 187 | NO | | ◆ | Metripack Tower | 8036216 | TE 2fn Snk 172 NC 187 NO H1 C4 | | |
| 195 | NC | 210 | NC | | ◆ | Metripack Tower | 8036158 | TE 2fn Snk 195 NC 210 NC H1 C4 | | |
| 200 | NO | 215 | NO | | ◆ | Weatherpack Shroud | 8036198 | TE 2fn Snk 200 NO 215 NO H1 C7 | | |
| 215 | NO | 220 | NC | | ◆ | None – bare wire | 8036213 | TE 2fn Snk 215 NO 220 NC H1 Cw | | |
| 185 | NC | 195 | NC | ◆ | | Weatherpack (2) Shroud | 8036143 | TE 2fn Src 185 NC 195 NC Nav 1621005C91 | International | 1621005C91 |
| 185 | NC | 195 | NC | ◆ | | None/Other | 8036142 | TE 2fn Src 185 NC 195 NC Nav 1985130C91 | International | 1985130C91 |

Cooling Fan Timer Temperature Control Switches

Controls engine fan when needed to cool the engine or reduce air conditioning system pressure. Contains a fan control temperature switch plus a time circuit that takes input from an Index A/C fan trigger switch. When needed by the A/C system, the fan stays on for 3 minutes to greatly reduce system pressure and prevent rapid fan cycling.

| Function 1 | | Function 2 | | Sourcing | Sinking | Connector | INDEX P/N | Description | OEM | OEM PN |
|------------|------|------------|------|----------|---------|--------------------|-----------|--|---------------|----------------|
| Set Point | Mode | Set Point | Mode | | | | | | | |
| 180 | NC | | | ◆ | | Weatherpack Shroud | 8036076 | TE fan timer 180 NC H1 C7 Nav 1688070C91 | International | 1688070C91 |
| 195 | NC | | | ◆ | | Deutsch Receptacle | 8036165 | TE fan timer 195 NC H1 C9 Volvo 3940177 | Volvo | 3940177 |
| 195 | NO | | | ◆ | | Deutsch Plug | 8036100 | TE fan timer 195 NO H1 C8 | | |
| 200 | NC | | | ◆ | | Deutsch Receptacle | 8036083 | TE fan timer 200 NC Ford F3HT-10B843-SA | Ford | F3HT-10B843-SA |
| 200 | NC | | | ◆ | | Weatherpack Shroud | 8036078 | TE fan timer 200 NC H1 C7 | | |
| 200 | NC | | | ◆ | | Weatherpack Shroud | 8036077 | TE fan timer 200 NC H1 C7 Nav 2011857C91 | International | 2011857C91 |
| 200 | NO | | | ◆ | | Weatherpack Tower | 8036070 | TE fan timer 200 NO H1 C6 | | |
| 200 | NO | | | ◆ | | Weatherpack Tower | 8036071 | TE fan timer 200 NO H1 C6 Nav 2027243C1 | International | 2027243C1 |
| 200 | NO | | | ◆ | | Deutsch Plug | 8036101 | TE fan timer 200 NO H1 C8 | | |
| 205 | NC | | | ◆ | | Weatherpack Shroud | 8036080 | TE fan timer 205 NC H1 C7 | | |
| 205 | NC | | | ◆ | | Weatherpack Shroud | 8036081 | TE fan timer 205 NC H1 C7 Mack 1MR6546M | Mack | 1MR6546M |
| 205 | NC | | | ◆ | | Weatherpack Shroud | 8036079 | TE fan timer 205 NC H1 C7 Nav 1622647C91 | International | 1622647C91 |
| 205 | NC | | | ◆ | | Deutsch Receptacle | 8036087 | TE fan timer 205 NC H1 C9 | | |
| 205 | NC | | | ◆ | | Deutsch Receptacle | 8036169 | TE fan timer 205 NC H1 C9 Volvo 3942809 | Volvo | 3942809 |
| 205 | NC | | | ◆ | | Deutsch Receptacle | 8036168 | TE fan timer 205 NC H1 C9 Volvo 3942917 | Volvo | 3942917 |
| 205 | NO | | | ◆ | | Weatherpack Tower | 8036073 | TE fan timer 205 NO H1 C6 | | |
| 205 | NO | | | ◆ | | Deutsch Plug | 8036103 | TE fan timer 205 NO H1 C8 | | |
| 205 | NO | | | ◆ | | Deutsch Plug | 8036094 | TE fan timer 205 NO H1 C8 air sw trigger | | |
| 209 | NO | | | ◆ | | Deutsch Plug | 8036105 | TE fan timer 208.5 NO H1 C8 | | |

All temperatures in degrees fahrenheit. Switches listed have 1/2" NPT thread fittings. See definitions and connector key on page 8.

Go “beyond the basics” with Index Heavy-Duty Temperature Switches

The basic function of a mechanical temperature switch is to turn something on or off at a given temperature. Our temperature switches were designed for years of service under tough, high duty-cycle conditions.

With Index Temperature Switches, you get more than just the basics. We build switches to deliver improved performance and cost control for your engine, vehicle, or equipment.



Heavy-Duty Temperature Switches

- Exceptional vibration immunity.
- Long life – up to 1 million cycles or more.
- Fast response and superior accuracy for improved efficiency.
- Stable, drift-free switching temperatures.
- Versatile to fit a wide range of applications.
- Customizable specifications and features.
- Proven performance on millions of engines and vehicles.
- Numerous fittings and connectors available.

■ Efficiency from precise temperature control

Chances are there are particular set and reset temperatures that are optimal for your application, where energy and operating cost efficiencies are maximized. With Index switches' tight tolerances, fast response, and specifiable reset points, your equipment runs precisely and evenly, at just the right temperature.

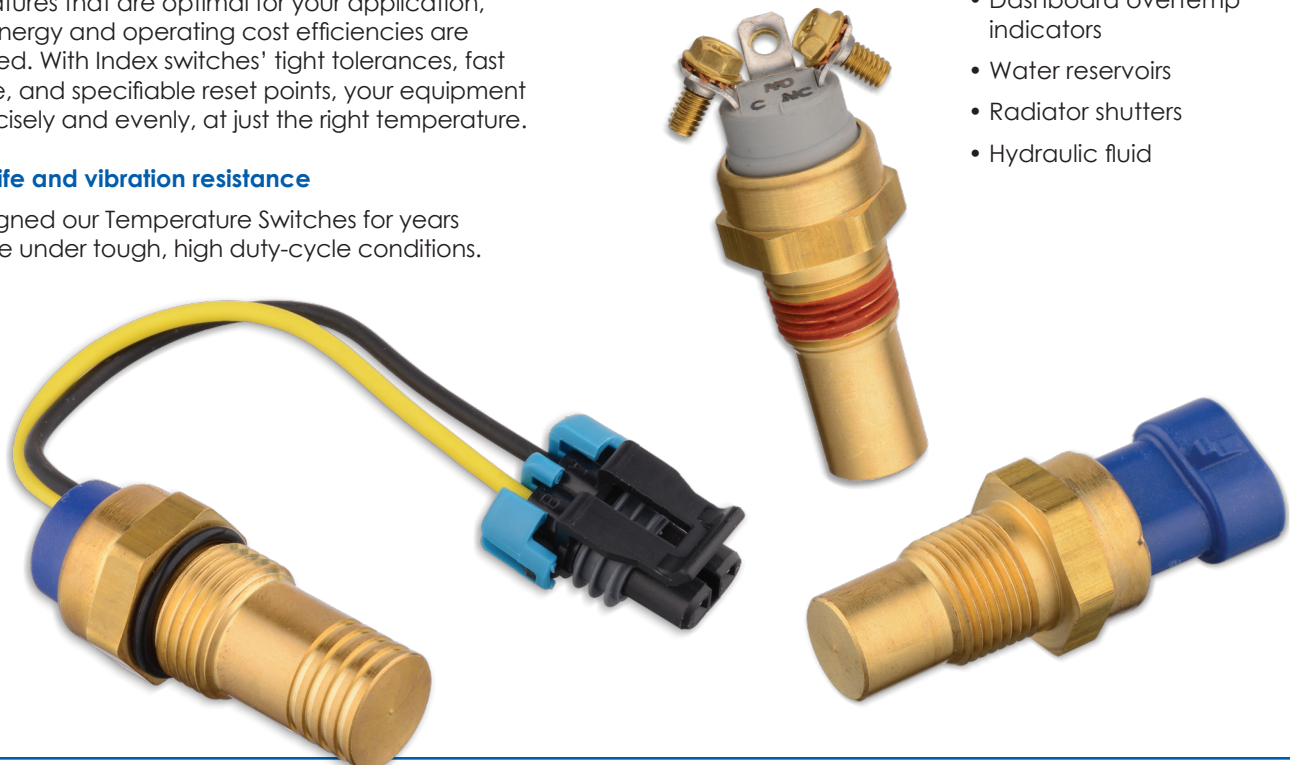
■ Long life and vibration resistance

We designed our Temperature Switches for years of service under tough, high duty-cycle conditions.

Because vibration sensitivity can significantly shorten the life of both a temp switch and your equipment, Index Temperature Control Switches put up a double line of defense against vibration with two snap-action elements. Crisp-response dual-temperature discs trigger a heavy-duty micro switch, assuring clean, no-chatter electrical switching. Both elements can deliver up to a million cycles or more.

■ Temperature control, indication, warning, alarm, and monitoring for:

- Engine cooling fans
- Transmissions
- Heating elements
- Heat exchange valve actuation
- Accessory implement monitoring & interlocks
- Dashboard overtemp indicators
- Water reservoirs
- Radiator shutters
- Hydraulic fluid



Temperature Control Switches

With over 2,000 SKUs, many other parts are available – call or email for information.

Heavy-Duty Temperature Switches

Two Terminals – 1/2" NPT Housing

| Temp °F | Mode | Terminals or Connector | | | INDEX P/N | Direct Replacement Medallion P/N | Old Kysor P/N | Direct Replacement Horton P/Ns | Can also replace these Medallion P/Ns* | Other Equivalents |
|------------|------|------------------------|-----------------------|---------------------|--------------|-------------------------------------|------------------|-----------------------------------|---|----------------------|
| | | 8-32 Screw | Weatherpack Shroud | Metripack Shroud | | | | | | |
| 105 | NO | ◆ | | | 8037106 | | | 15949 | | |
| 120 | NO | ◆ | | | 8037134 | 1002-05850-16 | | | | |
| 150 | NO | ◆ | | | 8037013 | 1002-05554-22 | 1002-05850-22 | 993662, 15953 | | |
| 160 | NO | ◆ | | | 8037240 | | | 993656, 16452 | | |
| 165 | NO | ◆ | | | 8037108 | 1002-05554-25 | 1002-05850-25 | | | |
| 180 | NO | ◆ | | | 8037014 | 1002-05554-28 | 1002-05850-28 | 993615, 15944 | | |
| 185 | NO | ◆ | | | 8037018 | 1002-05554-29 | 1002-05850-29 | 993616, 15942 | 1002-07988-29 | |
| 190 | NO | ◆ | | | 8037022 | 1002-05554-30 | 1002-05850-30 | 993617, 15943 | 1002-07988-30 | |
| 195 | NO | ◆ | | | 8037026 | 1002-05554-31 | 1002-05850-31 | 993653, 15957 | 1002-07988-31 | |
| 200 | NO | ◆ | | | 8037030 | 1002-05554-32 | 1002-05850-32 | 993654, 15954 | 1002-07988-32 | |
| 200 | NO | | | ◆ | 8037225 | | | | | |
| 205 | NO | ◆ | | | 8037034 | 1002-05554-33 | 1002-05850-33 | 993655, 15940, 15954 | 1002-07988-33 | |
| 210 | NO | ◆ | | | 8037037 | 1002-05554-34 | 1002-05850-34 | 993624, 15947 | 1002-07988-34 | |
| 215 | NO | ◆ | | | 8037184 | 1002-05554-35 | 1002-05850-35 | 993625, 15945 | 1002-07988-35 | |
| 220 | NO | ◆ | | | 8037041 | 1002-05554-36 | 1002-05850-36 | 993626, 15948 | 1002-07988-36 | |
| 250 | NO | ◆ | | | 8037111 | 1002-05554-42 | 1002-05850-42 | | | |
| 300 | NO | ◆ | | | 8037112 | 1002-05554-52 | 1002-05850-52 | 15946 | | |
| 165 | NC | ◆ | | | 8037107 | 1002-07393-25 | | | | |
| 185 | NC | ◆ | | | 8037016 | 1002-07393-29 | | 993619, 15952 | 1002-07479-29 | |
| 190 | NC | ◆ | | | 8037020 | 1002-07393-30 | | 993603, 15939 | 1002-07479-30 | |
| 195 | NC | ◆ | | | 8037024 | 1002-07393-31 | | 993605, 15949 | 1002-07479-31 | |
| 200 | NC | | | ◆ | 8037188 | | | | | |
| 200 | NC | ◆ | | | 8037028 | 1002-07393-32 | | 993606, 15941 | 1002-07479-32 | |
| 205 | NC | ◆ | | | 8037032 | 1002-07393-33 | | 993607, 15940 | 1002-07479-33 | |
| 210 | NC | ◆ | | | 8037036 | 1002-07393-34 | | | 1002-07479-34 | |
| 215 | NC | ◆ | | | 8037039 | 1002-07393-35 | | 993665 | 1002-07479-35 | |
| 220 | NC | ◆ | | | 8037040 | 1002-07393-36 | | | 1002-07479-36 | |

Three Terminals – 1/2" NPT Housing

| Temp °F | Mode | Terminals or Connector | | | INDEX P/N | Direct Replacement Medallion P/N | Old Kysor P/N | Direct Replacement Horton P/Ns | Can also replace these Medallion P/Ns* | Other Equivalents |
|------------|------|------------------------|-----------------------|---------------------|--------------|-------------------------------------|------------------|-----------------------------------|---|----------------------|
| | | 8-32 Screw | Weatherpack Shroud | Metripack Shroud | | | | | | |
| 180 | CO | ◆ | | | 8037044 | | | | | |
| 185 | CO | ◆ | | | 8037045 | | | | | Nav 1685131C92 |
| 190 | CO | ◆ | | | 8037048 | | | | | |
| 195 | CO | ◆ | | | 8037050 | | | | | Nav 1685132C92 |
| 200 | CO | ◆ | | | 8037053 | | | | | |
| 205 | CO | ◆ | | | 8037055 | | | | | Nav 1685171C92 |
| 210 | CO | | ◆ | | 8037228 | | | | | |
| 220 | CO | ◆ | | | 8037061 | | | | | |

* Replace Metripack connector on harness with ring terminals.
All temperatures in degrees fahrenheit. See definitions and connector key on page 8.

Temperature Control Switches (continued)

With over 2,000 SKUs, many other parts are available – call or email for information.

Heavy-Duty Temperature Switches (continued)

Two Terminals – 3/8" NPT Housing

| Temp °F | Mode | Terminals or Connector | | | INDEX P/N | Direct Replacement Medallion P/N | Old Kysor P/N | Direct Replacement Horton P/Ns | Can also replace these Medallion P/Ns* | Other Equivalents |
|------------|------|------------------------|-----------------------|---------------------|--------------|-------------------------------------|------------------|-----------------------------------|---|----------------------|
| | | 8-32 Screw | Weatherpack Shroud | Metripack Shroud | | | | | | |
| 180 | NO | ◆ | | | 8037183 | 1002-05825-28 | | | | |
| 195 | NO | ◆ | | | 8037082 | | 993610 | P-1602 | | |
| 220 | NO | | ◆ | | 8037163 | | | | | |
| 250 | NO | | ◆ | | 8037169 | | | | | |
| 150 | NC | ◆ | | | 8037121 | 1002-07393-22 | | | 1002-07479-22 | |

Three Terminals – 3/8" NPT Housing

| Temp °F | Mode | Terminals or Connector | | | INDEX P/N | Direct Replacement Medallion P/N | Old Kysor P/N | Direct Replacement Horton P/Ns | Can also replace these Medallion P/Ns* | Other Equivalents |
|------------|------|------------------------|-----------------------|---------------------|--------------|-------------------------------------|------------------|-----------------------------------|---|----------------------|
| | | 8-32 Screw | Weatherpack Shroud | Metripack Shroud | | | | | | |
| 140 | NC | ◆ | | | 8037142 | 1002-04880-20 | | | | |
| 160 | CO | ◆ | | | 8037090 | 1002-04880-24 | | | | |
| 180 | CO | ◆ | | | 8037175 | 1002-04880-28 | | | | |
| 185 | CO | ◆ | | | 8037176 | 1002-04880-29 | | | | |
| 190 | CO | ◆ | | | 8037177 | 1002-04880-30 | | | 102-07955-30 | |
| 195 | CO | ◆ | | | 8037093 | 1002-04880-31 | | | 102-07955-31 | |
| 200 | CO | ◆ | | | 8037178 | 1002-04880-32 | | | 102-07955-32 | |
| 205 | CO | ◆ | | | 8037179 | 1002-04880-33 | | | 102-07955-33 | |
| 210 | CO | ◆ | | | 8037180 | 1002-04880-34 | | | 102-07955-34 | |
| 215 | CO | ◆ | | | 8037098 | 1002-04880-35 | | | 102-07955-35 | |
| 220 | CO | ◆ | | | 8037099 | 1002-04880-36 | | | 102-07955-36 | |
| 225 | CO | ◆ | | | 8037126 | 1002-04880-37 | | | 102-07955-37 | |
| 240 | CO | ◆ | | | 8037127 | 1002-04880-40 | | | 102-07955-40 | |
| 250 | CO | ◆ | | | 8037224 | 1002-04880-42 | | | 102-07955-42 | |
| 255 | CO | ◆ | | | 8037181 | 1002-04880-43 | | | | |

* Replace Metripack connector on harness with ring terminals.
All temperatures in degrees fahrenheit. See definitions and connector key on page 8.



Temperature Control Switches (continued)

With over 2,000 SKUs, many other parts are available – call or email for information.

Heavy-Duty Switches for Cummins® Applications

| Housing 1/2" NPTF | Connector | INDEX P/N | Cummins Equivalent |
|----------------------|------------|----------------|--------------------|
| ◆ | Integrated | 8037318 | 3408624 |
| ◆ | Integrated | 8037445 | 3408625 |
| ◆ | Integrated | 8037319 | 3408626 |
| ◆ | Integrated | 8037320 | 3408627 |
| ◆ | Integrated | 8037374 | 3408629 |
| ◆ | Integrated | 8037321 | 3408631 |
| ◆ | Integrated | 8037375 | 3408632 |
| ◆ | Integrated | 8037372 | 3408634 |
| ◆ | Integrated | 8037377 | 3408635 |
| ◆ | Integrated | 8037380 | 3408636 |
| ◆ | Integrated | 8037322 | 3408639 |
| ◆ | Integrated | 8037316 | 3408643 |
| ◆ | Integrated | 8037317 | 3408645 |
| ◆ | Integrated | 8037429 | 4954948 |

Overtemp Warning Switches

One Terminal – 1/2" NPT Housing

| Temp °F | Mode | Terminals or Connector | | INDEX P/N | Direct Replacement Medallion P/N | Can also replace these Medallion P/Ns* | Other Equivalents |
|------------|------|------------------------|---------------|----------------|-------------------------------------|---|----------------------|
| | | 8-32 Stud | 1/4" Spade | | | | |
| 160 | NO | ◆ | | 8039076 | | | |
| 180 | NO | ◆ | | 8039057 | 1002-05511-28 | 1002-07690-28, 1002-07324-28 | |
| 190 | NO | ◆ | | 8039058 | 1002-05511-30 | 1002-07690-30, 1002-07324-30 | |
| 195 | NO | ◆ | | 8039064 | 1002-05511-31 | 1002-07690-31, 1002-07324-31 | |
| 200 | NO | ◆ | | 8039065 | 1002-05511-32 | 1002-07690-32, 1002-07324-32 | |
| 205 | NO | ◆ | | 8039054 | 1002-05511-33 | 1002-07690-33, 1002-07324-33 | |
| 205 | NO | ◆ | | 8039034 | 1002-05811-34 | | |
| 210 | NO | ◆ | | 8039014 | 1002-05511-34 | 1002-07690-34, 1002-07324-34 | |
| 215 | NO | ◆ | | 8039019 | 1002-05511-35 | 1002-07690-35, 1002-07324-35 | |
| 220 | NO | ◆ | | 8039023 | 1002-05511-36 | 1002-07690-36, 1002-07324-36 | |
| 225 | NO | ◆ | | 8039025 | 1002-05511-37 | 1002-07690-37, 1002-07324-37 | |
| 230 | NO | ◆ | | 8039026 | 1002-05511-38 | 1002-07690-38, 1002-07324-38 | |
| 250 | NO | ◆ | | 8039066 | 1002-05511-42 | 1002-07690-42, 1002-07324-42 | |
| 260 | NO | | ◆ | 8039078 | | | |
| 300 | NO | ◆ | | 8039029 | 1002-05511-52 | 1002-07690-52, 1002-07324-52 | |
| 185 | NC | ◆ | | 8039050 | | | Thomas 61230658 |
| 190 | NC | ◆ | | 8039010 | 1002-05768-30 | 1002-07474-30, 1002-07449-30 | |
| 195 | NC | ◆ | | 8039056 | 1002-05768-31 | 1002-07474-31, 1002-07449-31 | |
| 200 | NC | ◆ | | 8039067 | 1002-05768-32 | 1002-07474-32, 1002-07449-32 | |
| 205 | NC | ◆ | | 8039068 | 1002-05768-33 | 1002-07474-33, 1002-07449-33 | |
| 210 | NC | ◆ | | 8039012 | 1002-05768-34 | 1002-07474-34, 1002-07449-34 | |
| 215 | NC | ◆ | | 8039017 | 1002-05768-35 | 1002-07474-35, 1002-07449-35 | |
| 220 | NC | ◆ | | 8039021 | 1002-05768-36 | 1002-07474-36, 1002-07449-36 | |

* Replace Metripack connector on harness with ring terminals.

All temperatures in degrees fahrenheit. See definitions and connector key on page 8.

Temperature Control Switches (continued)

With over 2,000 SKUs, many other parts are available – call or email for information.

Overtemp Warning Switches

One Terminal – 3/8" NPT Housing

| Temp °F | Mode | Terminals or Connector | | INDEX P/N | Direct Replacement Medallion P/N | Can also replace these Medallion P/Ns* | Other Equivalents |
|------------|------|------------------------|---------------|--------------|-------------------------------------|---|----------------------|
| | | 8-32 Stud | 1/4" Spade | | | | |
| 165 | NO | ◆ | | 8039059 | 1002-05811-25 | | |
| 190 | NO | ◆ | | 8039071 | 1002-05811-30 | 1002-07700-30, 1002-07450-30 | |
| 200 | NO | ◆ | | 8039032 | 1002-05811-32 | 1002-07700-32, 1002-07450-32 | |
| 205 | NO | ◆ | | 8039051 | 1002-05811-33 | 1002-07700-33, 1002-07450-33 | |
| 210 | NO | ◆ | | 8039034 | 1002-05811-34 | 1002-07700-34, 1002-07450-34 | |
| 215 | NO | ◆ | | 8039052 | 1002-05811-35 | 1002-07700-35, 1002-07450-35 | |
| 220 | NO | ◆ | | 8039039 | 1002-05811-36 | 1002-07700-36, 1002-07450-36 | |
| 225 | NO | ◆ | | 8039041 | 1002-05811-37 | 1002-07700-37, 1002-07450-37 | |
| 230 | NO | ◆ | | 8039042 | 1002-05811-38 | 1002-07700-38, 1002-07450-38 | |
| 250 | NO | ◆ | | 8039045 | 1002-05811-42 | 1002-07700-42, 1002-07450-42 | |
| 300 | NO | ◆ | | 8039072 | 1002-05811-52 | 1002-07700-52, 1002-07450-52 | |
| 200 | NC | ◆ | | 8039031 | | | Thomas 61230646 |
| 205 | NC | ◆ | | 8039069 | 1002-05769-33 | 1002-07338-33, 1002-07476-33 | |
| 210 | NC | ◆ | | 8039070 | 1002-05769-34 | 1002-07338-34, 1002-07476-34 | |
| 220 | NC | ◆ | | 8039053 | 1002-05769-36 | 1002-07338-36, 1002-07476-36 | |





Improve the reliability and operation of your vehicle with Liquid Probes from Index

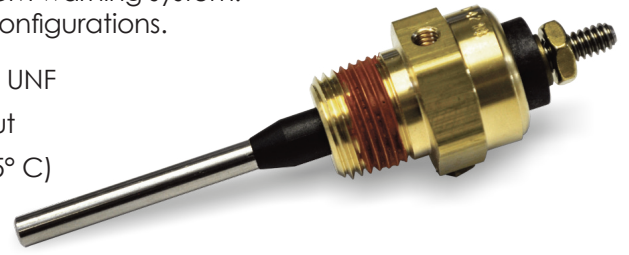
An engine leak can lead to costly repairs, rebuilds, or replacements. Maintain your fluid levels with a Liquid Probe from Index.

- Coolant level probes can increase the overall longevity of your vehicle engine.
- Water-In-Fuel probes keep your engine running smoothly without costly repairs or downtime.

Coolant Level Probe

Index heavy-duty coolant probes sense when the coolant level drops below the measuring point and provides input to a dashboard or ECM warning system. Probes are available in one-pin (case ground) and two-pin configurations.

- Standard fittings:** 1/4" NPT, 3/8" NPT, and 9/16" UNF
Terminal styles: Single threaded post with nut
Operating temperature range: -40° F to 257° F (-40° C to 125° C)

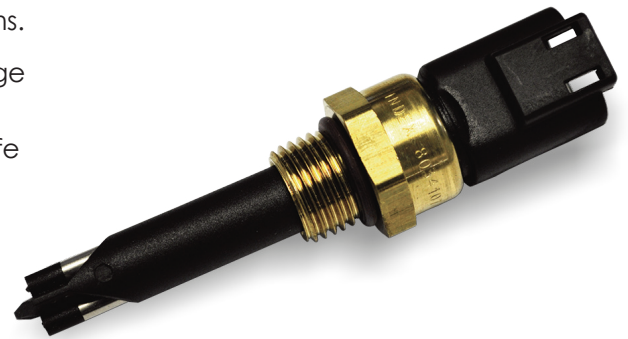


| Thread Size | Terminal Type | INDEX P/N | Direct Replacement Medallion P/N | Kysor P/N |
|-------------|---------------|----------------|----------------------------------|---------------|
| 3/8" | Single | 8034100 | 5022-33990-01 | 5022-01187-01 |
| 1/4" | Single | 8034101 | 5022-33670-03 | 5022-01185-01 |
| 1/4" | Deutsch | 8034109 | | |

Water-in-Fuel Probe

Index Water-in-Fuel probes ensure the engine will not falter due to improper liquids entering the engine. The driver is notified when water has collected in the fuel filter housing and can remove the water before it causes problems.

- Brass housing or stainless steel
- Designed for A/C or low duty cycle plum D/C current
- Single pin or dual pin
- Internal resistor available on two pin
- Designed for low voltage applications
- Tested to ensure long life in coolant



| Thread Size | Terminal Type | INDEX P/N | Direct Replacement Medallion P/N | Kysor P/N |
|-------------|---------------|----------------|----------------------------------|-----------|
| 1/4" | Deutsch | 8034107 | | |

See definitions and connector key on page 8.

If you need something different, just ask...

Index has a large variety of configurations with our standard products, but sometimes that isn't enough. If you require something different to suit your needs, just ask.

We can review your requirements, ranging from a simple "tweak" of a current product to a fully custom design.

Call (800) 726-1737 to speak with a Sales Engineer or email: sales@indexsensors.com



We deliver solutions that make sense

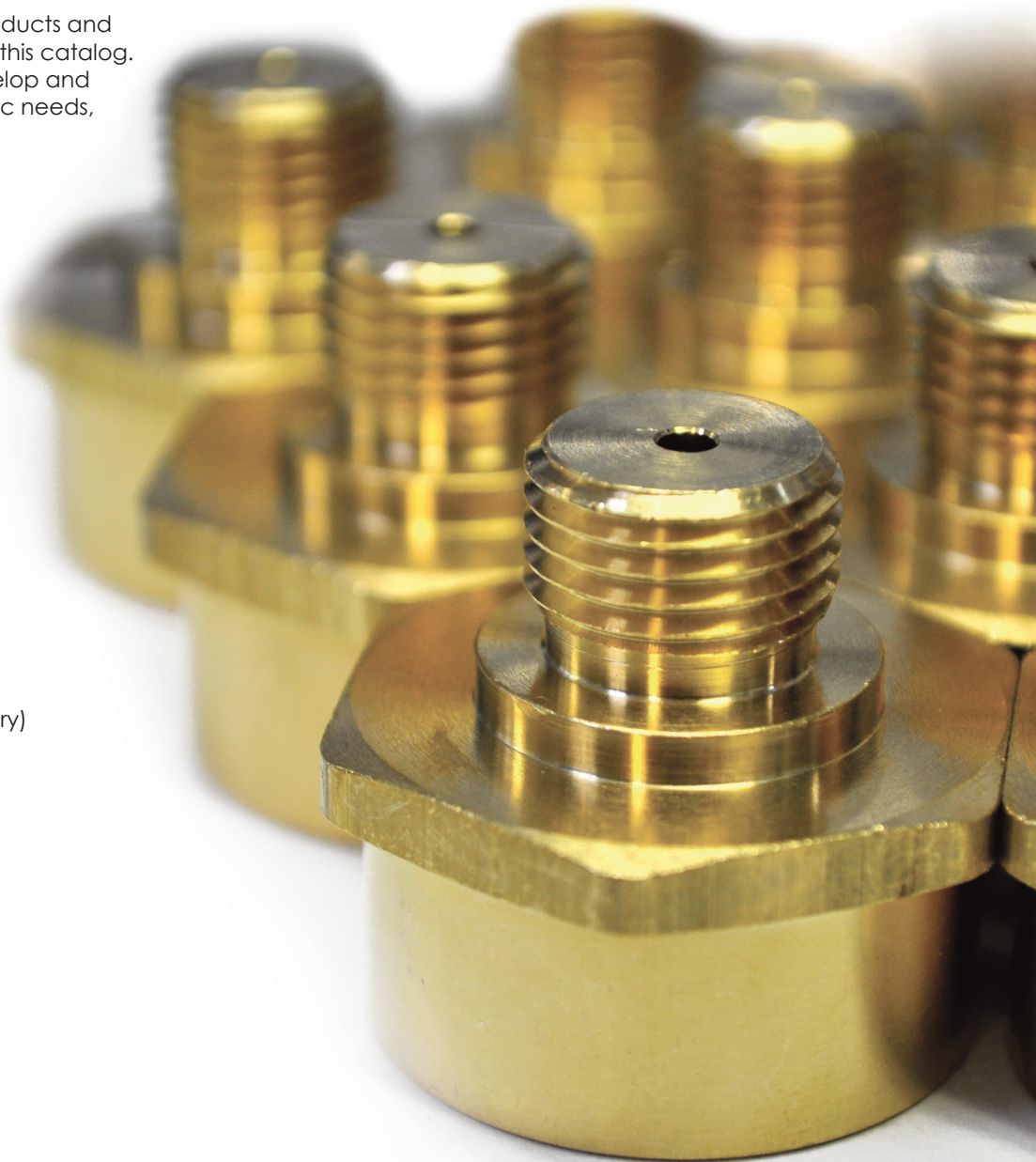
Index offers custom-specification of products and custom-designed products not listed in this catalog. We are happy to work with you to develop and manufacture products to fit your specific needs, all within a short lead time.

Our capabilities include:

- Multi-function control systems
- Electronic controls
- Mechanical and electrical temperature sensors and switches
- Mechanical and electrical pressure sensors and switches
- Liquid probes
- Position and level sensors
- Continuous flow manufacturing process
- Automated testing equipment
- AIAG bar-coded packaging
- Just-in-time delivery

Engineering Capabilities:

- Product design (custom and proprietary)
- Applications engineering
- System analysis
- Control algorithm design
- Hardware design
- Software development
- User interface design
- Mechanical design
- Design testing
- Reliability engineering
- CPK Analysis
- Test engineering



Level Sensors

Temperature Sensors

Position Sensors

Pressure Sensors

Index supplies a large assortment of popular sensors for a variety of heavy-duty aftermarket applications.

Our experienced technicians function-test every sensor prior to shipment to ensure high reliability and long life.

In addition, every sensor we sell carries our industry-leading warranty.

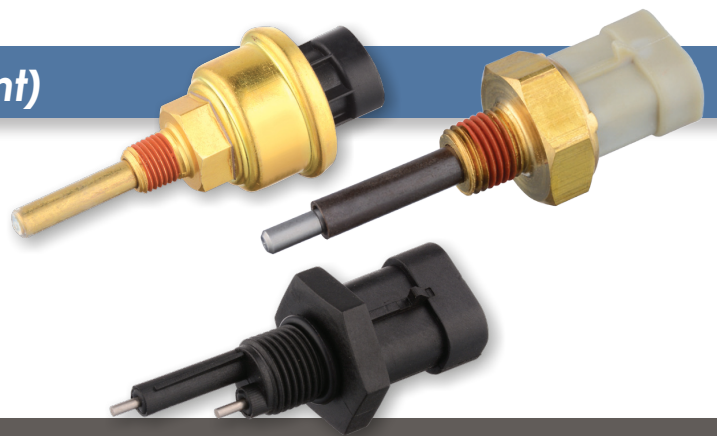
See pages 24-25 for a partial listing of direct replacement sensors that Index supplies to the aftermarket. Many other sensors are available – contact us toll free at (800) 726-1737 or email: customersupport@indexsensors.com

If you are looking for a custom-designed sensor or for a specific application, contact us.



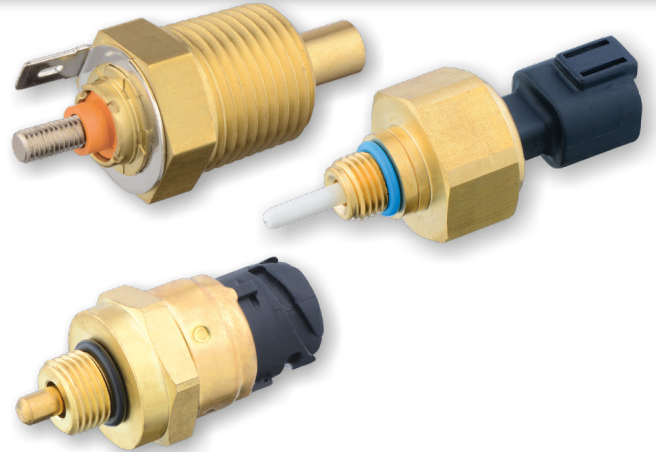
Level Sensors (Direct Replacement)

| OEM | OEM P/N | INDEX P/N |
|----------------|--------------|-----------|
| Cummins | 4903489 | 8060006 |
| Detroit Diesel | 23514708 | 8060011 |
| Detroit Diesel | 23520380 | 8060004 |
| Freightliner | 06-62384-002 | 8060005 |
| Mack | 25174715 | 8060007 |



Temperature Sensors (Direct Replacement)

| OEM | OEM P/N | INDEX P/N |
|----------------|------------|-----------|
| Caterpillar | 1022240 | 8062005 |
| Cummins | 3085185 | 8062006 |
| Cummins | 3408346 | 8062053 |
| Cummins | 3865346 | 8062054 |
| Cummins | 4921473 | 8062009 |
| Cummins | 4921475 | 8062003 |
| Detroit Diesel | 23515250 | 8032030 |
| Freightliner | 147584 | 8062072 |
| Freightliner | 2254800000 | 8062007 |
| Kenworth | K379-12 | 8062073 |
| Navistar | 1675751C1 | 8062040 |
| Peterbilt | 144455 | 8062004 |



Position Sensors (Direct Replacement)

| OEM | OEM P/N | INDEX P/N |
|----------------|-------------|-----------|
| Bendix | 801541 | 8065000 |
| Caterpillar | 2016615 | 8065009 |
| Caterpillar | 2454630 | 8065010 |
| Cummins | 2872277 | 8065025 |
| Cummins | 4921599 | 8065007 |
| Cummins | 4984223 | 8065003 |
| Detroit Diesel | 8929387 | 8065005 |
| Detroit Diesel | 8929388 | 8065008 |
| Mack | 20706327 | 8065011 |
| Mack | 25166488 | 8065012 |
| Meritor | R955329 | 8065013 |
| Meritor | R955335 | 8065001 |
| Meritor | R955342 | 8065002 |
| Meritor | S4410321840 | 8065059 |
| Meritor | S4410323810 | 8065052 |
| Navistar | 1807339C92 | 8065004 |
| Navistar | 1835985C92 | 8065024 |
| Navistar | 1876735C91 | 8065029 |
| Navistar | 1876736C91 | 8065030 |
| Navistar | 1885812C91 | 8065006 |
| Volvo | 21508269 | 8060003 |



Pressure Sensors (Direct Replacement)

| OEM | OEM P/N | INDEX P/N |
|----------------|-------------|-----------|
| Caterpillar | 1946724 | 8061003 |
| Caterpillar | 1946725 | 8061004 |
| Caterpillar | 2244535 | 8061005 |
| Caterpillar | 2244536 | 8061006 |
| Caterpillar | 2482169 | 8061007 |
| Caterpillar | 2746718 | 8061008 |
| Caterpillar | 2746719 | 8061009 |
| Caterpillar | 2842728 | 8061010 |
| Cummins | 2871960 | 8061022 |
| Cummins | 2897331 | 8061057 |
| Cummins | 3084521 | 8061019 |
| Cummins | 3330141 | 8061029 |
| Cummins | 4076493 | 8061015 |
| Cummins | 4902720 | 8061060 |
| Cummins | 4921487 | 8061026 |
| Cummins | 4921495 | 8061024 |
| Cummins | 4921501 | 8061020 |
| Cummins | 4921511 | 8061087 |
| Cummins | 4921517 | 8061011 |
| Cummins | 4928594 | 8061023 |
| Detroit Diesel | 23532797 | 8061047 |
| Freightliner | 2482165 | 8061018 |
| Freightliner | 23527829 | 8061021 |
| Kenworth | 79PSD4-1 | 8061017 |
| Navistar | 1807369C2 | 8061027 |
| Navistar | 1830669C92 | 8061025 |
| Navistar | 1839415C91 | 8061028 |
| Navistar | 1840078C1 | 8061012 |
| Navistar | 1846481C92 | 8061013 |
| Navistar | 1850351C1 | 8061014 |
| Navistar | 3C3Z9F838EA | 8061076 |
| Navistar | 5C3Z9J460B | 8061016 |
| Volvo | 1077574 | 8061030 |



Index supplies many other direct replacement sensors to the aftermarket. For more information, call (800) 726-1737 or email: customersupport@indexsensors.com

Limited Product Warranty

Index warrants all of its products to be free from defects in material and workmanship under normal use and service. All parts are non-returnable, however in the event a part proves to be defective in material or workmanship within the Warranty period covering the specific product to which the Warranty applies as specified below, will be repaired or replaced, at Index's option, with a new or functionally operative part.

General Conditions

INDEX's liability under this Limited Warranty shall be limited to repairing or replacing at its own factory or through an authorized service distributor or dealer, material which is determined by INDEX to have been defective in manufacture and upon which a claim has been made by the original purchaser or user to Index (or an authorized distributor or dealer) within the Warranty period. All returns must have an RMA number issued by INDEX clearly marked on the package upon receipt or package will be returned to sender at their expense. Claims under this Limited Warranty will be honored only if the product is returned within 90 days of the date that the part was determined to be defective. INDEX specifically assumes no responsibility for labor charges unless prior written authorization has been granted by INDEX before the labor has been performed. Approved return of parts or products will be on a prepaid transportation charge basis only and non-defective products will be returned collect. Claims under this Limited Warranty will be honored only upon return of product and INDEX's determination that the claim is covered by this Limited Warranty and Index shall incur no obligation under this Limited Warranty prior to such determination. This Limited Warranty does not apply to any device or component which has been (i) altered or repaired, except by INDEX or its authorized representatives ; (ii) subject to misuses, exceeding design specification temperature and or pressure limits, negligence, or accident, including, without limitation, use and operation of such machinery or equipment while any parts are loose, broken, out of order, or damaged by the elements, or (iii) used for a purpose for which it was not designed or used in conjunction with other products not approved for use by INDEX, or (iv) rendered inoperative due to miswiring or due to broken wires, or related connectors. Parts replaced under this Limited Warranty are warranted only through the remainder of the original Limited Warranty. Any and all claims for Warranty service must include such information as Index designates, and shall include specifically the part number and date code of each unit (if appropriate) prior to issuing an RMA number.

Recovery Payment Terms (Parts, Labor, Freight)

Parts: Parts returned and verified as failed, by Index, are reimbursed at sales price

Labor: Labor is reimbursed by applying a standard shop rate of \$65/hour times ½ hour/unit

Freight: Index reimburses actual freight costs on parts returned and verified as failed

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS OF PURPOSE AND ALL OTHER OBLIGATIONS OR LIABILITIES OF INDEX, INCLUDING ANY TORT LIABILITY FOR NEGLIGENT DESIGN OR MANUFACTURE OF THE PRODUCT, OR OTHERWISE.

THIS WARRANTY DOES NOT COVER CONSEQUENTIAL DAMAGES. IN NO EVENT WILL INDEX BE LIABLE TO BUYER FOR LOSS OF PROFITS, LOSS OF USE, OR DAMAGES OF ANY KIND BASED UPON A CLAIM FOR BREACH OF WARRANTY. INDEX EXPRESSLY DENIES ANY WARRANTY, EXPRESSED OR IMPLIED OF FITNESS FOR PURPOSE OR OF MERCHANTABILITY WHERE THE SPECIFIED DESIGN OF THE PRODUCT IS ESTABLISHED BY THE PURCHASER OR INDEX DOES NOT HAVE INTIMATE KNOWLEDGE OF THE INTENDED PURPOSE AND APPLICATION.

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Warranty Periods

Unless otherwise documented in writing by INDEX, products are warranted for a period of one (1) year from the date of installation. If the date of installation or resale cannot be documented, the date of installation will be assumed to be thirty days after the manufacturing date coded on the product.

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