

# Solutions that Make Sense

## 2013 Product and Parts Catalog



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# About Index

Index Sensors & Controls, Inc., now in its 37th year, is a leading U.S. manufacturer of heavy-duty switches, sensors and controls for the industrial, vehicle, engine and equipment markets. We offer standard and custom-designed products to meet the stringent performance and durability requirements of our customers. The company specializes in temperature, pressure, and humidity applications. Our products monitor, control, and protect some of the world's toughest equipment - Index products are made to perform under the harshest of environments - and our high-tech electronic modules boost the control logic or "intelligence" of customers' equipment, improving efficiency and performance. Index specializes in temperature, pressure, fluid level, water-in-fuel and A/C protection applications.

Manufactured in the U.S., Index products are distributed world-wide for use on all makes of heavy duty trucks and commercial vehicles. Our products are widely used by manufacturers of agriculture, construction, mining, stationary generator, hydraulic, oil field and engine-related equipment. Index products are integrated into many other applications, including HVAC controls, shutter controls, industrial packaging, and sophisticated OEM control systems. Our Sales and Engineering teams work closely with our customers to provide the products they need for emerging markets and new opportunities.



*Mount Index, Washington*



## Quality Management System

Customer Service and Quality are of utmost importance at Index. We utilize continuous improvement and lean manufacturing principles throughout our operation and have been operating under an ISO-9000 compliant quality management system since 1996. Our goal of increasing on-time delivery while decreasing warranty incident rates has been realized through quality management. We value engineer, manufacture, test and ship our products on-schedule. For seven years running, Index is proud to announce that we have achieved 100% on-time delivery with an industry low warranty incident rate of only 0.02% (200 PPM). Our cost-saving measures and manufacturing processes provide our customers the benefit of high-quality, high-value parts at competitive prices.



## Facility and Location

Index's manufacturing facility and offices are currently located in Bellingham, Washington, 90 miles north of Seattle and 50 miles south of Vancouver, British Columbia.

In January of 2012, we opened our our new facility, which we're proud to say is LEED (Leadership in Energy and Environmental Design) Gold certified and incorporates advanced manufacturing lines, engineering labs, and quality labs. Additionally, it supports effective inventory management, office staff and complete computer information systems.

## Technology Milestones

- 1976:** Bi-metal thermal switch technology refined for cooling fan control.
- 1982:** Multiple switching and control functions introduced in electronic temperature switches.
- 1991:** Developed K-7 fan control kit to improve operating link between engine cooling fan and air conditioning system.
- 1995:** Air conditioning Protection and Diagnostic System (APADs) launched.
- 1999:** Custom OEM equipment controls developed, including specialized control algorithms, embedded software, and user interface.
- 2001:** The ACX-10 Air Conditioning Life Extender, which encompasses the basic protection benefits of APADs, initially offered in the construction market.
- 2002:** The ACX-10 introduced in the heavy truck market.
- 2003:** Index's Universal Temperature Switch opened new possibilities in multi-function temperature sensor / switch functionality.

## Company Mission

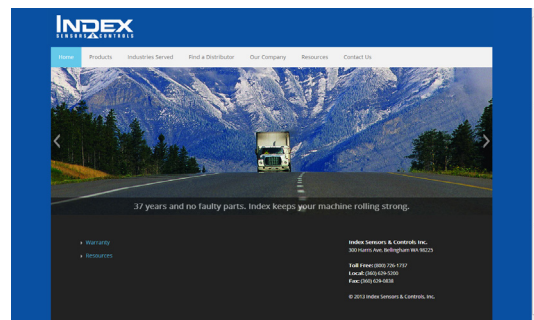
*To create Solutions that Make Sense for heavy-duty commercial vehicle and industrial equipment markets.*

**We make innovative, performance-enhancing switches, sensors, and controls, adding...**

**Precision      Protection  
Reliability      Intelligence**

**We offer efficient processes & value-added services.**

**We create satisfying relationships with customers, suppliers, and employees.**



**Please visit our website at [www.indexsensors.com](http://www.indexsensors.com) for additional information and to download the digital version of our catalog.**

# The Index Family of Products



We are proud to supply manufacturers of some of the world's most demanding equipment, including Cummins, Caterpillar, John Deere, all makes of Class 8 trucks, and a wide range of specialty original equipment manufacturers (OEMs).

## Electronic Temperature Switches

Extremely versatile and customizable, these switches can have up to four independent temperature set points programmed. Highly accurate, they feature additional functions such as pulse width modulation (PWM), timed switching, blink signals and more. Use for temperature monitoring, temperature control, electric fan control, over-temperature warning, shut-down control - these switches can be applied to a wide variety of applications.

## Air Conditioning Controls

Maintain your cool with AC-X10, an electronic control module that detects common A/C problems such as improper charge, over/under pressure conditions, and over/under voltage conditions. Through early detection, AC-X10 prevents over-cycling of the A/C clutch, extending the life of the clutch, compressor and hoses.

## Pressure Switches

Rugged, long-life switches for pressure control, indication, and cutout. Applications include air conditioning, transmission, air pressure, hydraulic, brake fluid, and oil pressure.

## Fluid Level Probes

Used for fluid level or water-in-fuel monitoring, Index probes are available in single pin or dual pin designs. Use as a switching circuit or to measure change in resistance between media and air, the probes can provide input to a dashboard or ECM warning system. An internal diagnostic resistor circuit is available on the 2-pin model.

## 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.

# 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 operating temperature range (-40° to 260° F). Burst pressure for Index pressure switches is 2500 psi.

## **CO (Common):**

See *Switch Mode*.

## **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 volt DC systems and have current ratings typically in the range of 5 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 temperature or pressure 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 Module. 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 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 sensor without harming its operating characteristics. A sensor'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.

## Key Definitions (continued)

### Reset Point:

The pressure or temperature at which the switch changes electrical contact state (closed to open, or open to closed) when the temperature or pressure 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 temperature or pressure 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 temperature or pressure 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 & NC).

#### 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.

#### 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.

#### CO (Common):

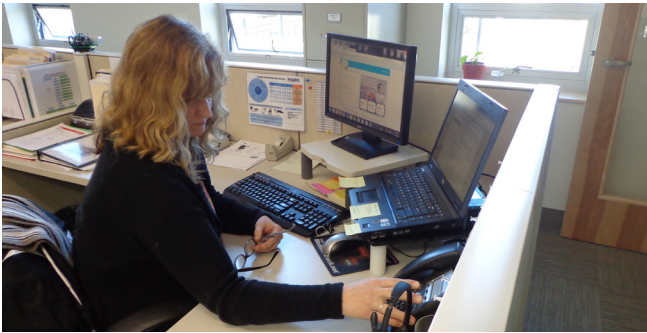
A switch with both Normally Open and Normally Closed outputs having the same set and reset points. In the case of mechanical switches, these are 3-terminal devices, also described as *single-pole, double throw* or *SPDT*.

### 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).



# Customer Support and Ordering Information



## Customer Support

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Part of our company mission is to have mutually beneficial relationships with our customers. You make our jobs possible. We appreciate your business and strive to delight each customer through all stages of an order.

Customer Support Representatives are available for your assistance. If you need help placing an order or would like to check the status of a current order, please contact Customer Support via phone at 800-726-1737 or 360-629-5200, via fax at 360-629-0838 or via email at [CustomerSupport@IndexSensors.com](mailto:CustomerSupport@IndexSensors.com).

## Sales Support

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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 application assistance, rugged and reliable products, smarter components, or need a custom product, our Sales Engineers are ready to respond.

To learn more about how our products can help your business, contact a Sales Engineer now at 800-726-1737 or email at [Sales@IndexSensors.com](mailto:Sales@IndexSensors.com).

## Technical Support

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We understand that technical questions come up over the life of our products. To help you with these questions, we have placed product technical information on our website. For the most up-to-date information on Index products, please visit our online document depot for white papers, installation and troubleshooting manuals, part numbers, and a part number cross reference guide.

If you have a question not answered in these documents, contact our Technical Support staff for additional information about any of our products via phone at (800) 726-1737 or (360) 629-5200, fax to (360) 629-0838, or email: [CustomerSupport@IndexSensors.com](mailto:CustomerSupport@IndexSensors.com).

You know the precision, reliability, and intelligence of Index parts are right for you. We offer a variety of ways of ordering parts:

## Original Equipment Manufacturers

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Index provides components and custom-engineered products to original equipment manufacturers.

We supply manufacturers in Heavy Duty Highway (Truck & Bus), Automotive, Construction, Agriculture/Lawn Care, Marine, Defense, and a variety of Industrial industries.

If your company is an original equipment manufacturer, or if you need particular performance characteristics or design features for your application, give us a call. We want to help you enhance your product's performance. Contact us at (800) 726-1737 or (360) 629-5200, by fax at (360) 629-0838, or e-mail: [Sales@IndexSensors.com](mailto:Sales@IndexSensors.com).

## Aftermarket Heavy Vehicle Dealers

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Index service parts are carried by customer dealer networks. Call your local dealer, or visit our website for a list of dealers in your area.

## Aftermarket Independent Distributor

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We are proud to have our products carried by independent heavy-duty parts distributors. Some parts can be rushed for next-day delivery. Follow the links on our website to visit our distributors.

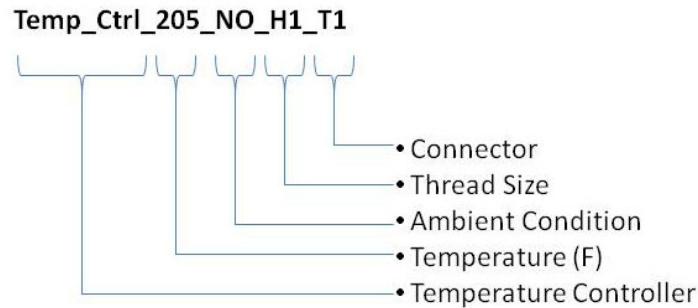




# Reading Index Part Descriptions

**Part Number Notation:** To order individually packaged parts, add the letter “P” to the end of the Index part number. Example: 8037034P. Harnesses and Face Bushings available in bulk packs only.

**Part Number Descriptions:** Part number descriptions refer to the part’s specifications. Below is the part description identification key.



## Housing & Connector Key

### Housings-Temperature

<b>H0</b>	3/8”NPTF
<b>H1</b>	1/2” NPTF
<b>H2</b>	3/4-16 UNF
<b>H3</b>	3/4-16 UNF Long
<b>H4</b>	1/2 NPT Long
<b>H5</b>	3/8 BSPT
<b>Hx</b>	Other

### Connectors

<b>T0</b>	1/4” spade	Spade
<b>T1</b>	8-32 screw	Threaded
<b>C2</b>	Metripack 280	Tower w/ Socket
<b>C3</b>	Metripack 280	Shroud w/ Pin
<b>C4</b>	Metripack 150	Tower w/ Socket
<b>C5</b>	Metripack 150	Shroud w/ Pin
<b>C6</b>	Weatherpack	Tower w/ Socket
<b>C7</b>	Weatherpack	Shroud w/ Pin
<b>C8</b>	Deutsch	Plug w/ Socket
<b>C9</b>	Deutsch	Receptacle w/ Pin
<b>Cw</b>	None	Bare wire
<b>Cx</b>	Other	Other

### Housings - Pressure

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

## Ambient Condition Settings

<b>NO</b>	Normally Open	<b>NC</b>	Normally Closed	<b>CO</b>	Common (NO & NC)
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## Product Feature Abbreviations

### Temperature Switches

<b>Temp Ctrl</b>	Temperature control - Heavy duty, wide current range
<b>Temp Sw</b>	Temperature switch - Medium duty, current to 1 amp
<b>TE</b>	Electronic temperature switch
<b>1fn</b>	Single function electronic temp switch
<b>2fn</b>	Dual function electronic temp switch
<b>Src</b>	Sourcing - switch wired between power and load
<b>Snk</b>	Sinking - switch wired between load and ground
<b>Fan timer</b>	Fan timing temp switch, takes input from A/C pressure switch
<b>UTS</b>	Universal Temperature Switch, programmable, multi-functional

### Pressure Switches

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

# Electronic Temperature Switches

- ◆ 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.
- ◆ Call Index to custom-specify temperatures, thread sizes, and connectors.



## Versatile Performance

- ◆ Accurate to  $\pm 1.5^\circ$  F.
- ◆ Will function from  $-20^\circ$  F to  $230^\circ$  F.
- ◆ Customizable set and reset points.
- ◆ Operates in a variety of fluids.
- ◆ Choice of fittings and connectors.
- ◆ Single-function and dual-function control.

Ideal for  
Engines,  
Transmissions,  
Fuel, Fan Control  
and Industrial  
Control

## Dual-function Option Adds Increased Capabilities

- ◆ Two outputs from one location assure coordination of functions through one device.
- ◆ Dual-function switches maximize the use of limited installation ports.

## Long Life and Accuracy in Tough Environments

Index temperature switches are built to endure tough conditions and remain highly accurate in extreme conditions. With no moving parts to wear out, they keep operating through whatever conditions they face.

### Air-Sensing Temperature Switches with Special Fast-response Tip

Function 1 Set Point	Function 1 Mode	Function 2 Set Point	Function 2 Mode	Sourcing	Sinking	Connector	Part Number	Description	OEM	OEM P/N
150	NC				◆	Deutsch Receptacle	<b>8036154</b>	TE Air Snk 150 NC H1 C9 Intake Air Temp Sw		
150	NC			◆		Weatherpack Shroud	<b>8036186</b>	TE Air Src 150 NC H1 C7 Intake Air Temp Sw		
190	NO			◆		Deutsch Plug	<b>8036098</b>	TE Air Src 190 NO H1 C8 Intake Air Temp Sw		

# Electronic Temperature Switches (continued)

## Single and Dual Function Temperature Switches

Function 1		Function 2		Sourcing	Sinking	Connector	Part Number	Description	OEM	OEM P/N
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 timer 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	Part Number	Description	OEM	OEM P/N
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 on page 4 and connector key on page 6.*

# Heavy-Duty Temperature Switches

## Performance and Reliability “Beyond the Basics”

- ◆ Exceptional vibration immunity.
- ◆ Long life — up to 1,000,000 cycles or more.
- ◆ Fast response and superior accuracy for improved efficiency.
- ◆ Stable, drift-free switching temperatures.
- ◆ Versatile to fit wide range of applications.
- ◆ Customizable specifications and features.
- ◆ Proven performance on millions of engines and vehicles.

## A Simple Choice for Better Performance

The basic function of a mechanical temperature switch is straightforward: turn something on or off at a given temperature.

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

## 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 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. A crisp-response temperature disc triggers a Honeywell Micro Switch™, assuring clean, no-chatter electrical switching. Depending on load and voltage conditions, both elements can deliver up to a million cycles or more.



Gives engines, heavy vehicles,  
and industrial equipment years of  
optimized, trouble-free temperature  
control

Temperature control, indication,  
warning, alarm, and monitoring for...

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

# Heavy-Duty Temperature Switches (continued)

## Temperature Control Switches

The performance standard for heavy-duty applications for years.

Use for applications requiring one or more of the following:

- ◆ Frequent switching (high duty cycle).
- ◆ Output used for temperature control (cooling fan or heater).
- ◆ High accuracy.
- ◆ Inductive current load (e.g. relay, solenoid or clutch).
- ◆ Exceptional vibration resistance.
- ◆ Current higher than 1 amp or lower than 100 mA.

Set °F	Mode	Housing Thread		Terminals or Connector			Part Number	Description	Equivalent
		1/2" NPTF	3/8" NPTF	8-32 Screw	Weatherpack Shroud	Metripack Shroud			
105°	NO	◆		◆			8037106	Temp Ctrl 105 NO H1 T1	Horton 15949
120°	NO	◆		◆			8037134	Temp Ctrl 120 NO H1 T1	
150°	NC		◆	◆			8037121	Temp Ctrl 150 NC H0 T1	Horton 15951
150°	NO	◆		◆			8037013	Temp Ctrl 150 NO H1 T1	Horton 15952
160°	NO	◆		◆			8037240	Temp Ctrl 160 NO H1 T1	
165°	NC	◆		◆			8037107	Temp Ctrl 165 NC H1 T1	
180°	CO	◆		◆			8037044	Temp Ctrl 180 CO H1 T1	
180°	NO	◆		◆			8037014	Temp Ctrl 180 NO H1 T1	Horton 15944
185°	CO	◆		◆			8037045	Temp Ctrl 185 CO H1 T1	Nav 1685131C92
185°	CO		◆	◆			8037176	Temp Ctrl 185 CO H0 T1	
185°	NC	◆		◆			8037016	Temp Ctrl 185 NC H1 T1	Horton 15950
185°	NO	◆		◆			8037018	Temp Ctrl 185 NO H1 T1	Horton 15942
190°	CO	◆		◆			8037048	Temp Ctrl 190 CO H1 T1	
190°	NC	◆		◆			8037020	Temp Ctrl 190 NC H1 T1	Horton 15939
190°	NO	◆		◆			8037022	Temp Ctrl 190 NO H1 T1	Horton 15943
195°	CO		◆	◆			8037093	Temp Ctrl 195 CO H0 T1	
195°	CO	◆		◆			8037050	Temp Ctrl 195 CO H1 T1	Nav 1685132C92
195°	NC	◆		◆			8037024	Temp Ctrl 195 NC H1 T1	Horton 15948
195°	NO		◆	◆			8037082	Temp Ctrl 195 NO H0 T1	Horton P-1602
195°	NO	◆		◆			8037026	Temp Ctrl 195 NO H1 T1	Horton 15957
200°	CO	◆		◆			8037053	Temp Ctrl 200 CO H1 T1	
200°	NC	◆				◆	8037188	Temp Ctrl 200 NC H1 C3	
200°	NC	◆		◆			8037028	Temp Ctrl 200 NC H1 T1	Horton 15941
200°	NO	◆				◆	8037225	Temp Ctrl 200 NO H1 C3	
200°	NO	◆		◆			8037030	Temp Ctrl 200 NO H1 T1	Horton 15955
205°	CO	◆		◆			8037055	Temp Ctrl 205 CO H1 T1	Nav 1685171C92
205°	NC	◆		◆			8037032	Temp Ctrl 205 NC H1 T1	
205°	NO	◆		◆			8037034	Temp Ctrl 205 NO H1 T1	Horton 15940, 15954
210°	CO	◆			◆		8037228	Temp Ctrl 210 CO H1 C7	
210°	NC	◆		◆			8037036	Temp Ctrl 210 NC H1 T1	
210°	NO	◆		◆			8037037	Temp Ctrl 210 NO H1 T1	Horton 15946
215°	NC	◆		◆			8037039	Temp Ctrl 215 NC H1 T1	Horton 15953
220°	CO	◆		◆			8037061	Temp Ctrl 220 CO H1 T1	
220°	NC	◆		◆			8037040	Temp Ctrl 220 NC H1 T1	
220°	NO		◆		◆		8037163	Temp Ctrl 220 NO H0 C7	
220°	NO	◆		◆			8037041	Temp Ctrl 220 NO H1 T1	Horton 15947
250°	NO		◆		◆		8037169	Temp Ctrl 250 NO H0 C7	
250°	NO	◆		◆			8037111	Temp Ctrl 250 NO H1 T1	
265°	NO		◆		◆		8037233	Temp Ctrl 265 NO H0 C7	

## Heavy-Duty Temperature Switches (continued)

### Temperature Indicator Switches

Use for lighter duty applications.

- ◆ Over-temperature warning light or alarm.
- ◆ Single terminal, case grounded electrical circuit.
- ◆ Current load up to 1 amp resistive.

Set °F	Mode	Housing Thread		Terminals or Connector			Part Number	Description
		1/2" NPTF	3/8" NPTF	8-32 Screw	Weatherpack Shroud	Metripack Shroud		
160°	NO	◆					8039076	Temp Sw 160 NO H1 T1
185°	NC	◆					8039050	Temp Sw 185 NC H1 T1
190°	NC	◆					8039010	Temp Sw 190 NC H1 T1
200°	NC		◆				8039031	Temp Sw 200 NC H0 T1
205°	NO	◆					8039034	Temp Sw 205 NO H1 T1
210°	NO	◆					8039014	Temp Sw 210 NO H1 T1
215°	NC	◆					8039017	Temp Sw 215 NC H1 T1
215°	NO	◆					8039019	Temp Sw 215 NO H1 T1
220°	NC	◆					8039021	Temp Sw 220 NC H1 T1
220°	NO	◆					8039023	Temp Sw 220 NO H1 T1
225°	NO		◆				8039041	Temp Sw 225 NO H0 T1
225°	NO	◆					8039025	Temp Sw 225 NO H1 T1
230°	NO		◆				8039042	Temp Sw 230 NO H0 T1
230°	NO	◆					8039026	Temp Sw 230 NO H1 T1
260°	NO	◆					8039078	Temp Sw 260 NO H1 T1

*All temperatures in degrees fahrenheit. Call Index for information on additional temperatures and configurations. See definitions on page 4 and connector key on page 6.*

# Heavy-Duty Pressure Switches

- ◆ Exceptional vibration resistance.
- ◆ Specially designed for long life on heavy-duty equipment — up to 1,000,000 cycles.
- ◆ Diagnostic features available.
- ◆ 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.
- ◆ Tight tolerances where high precision is needed.
- ◆ Stable, drift-free calibration.
- ◆ Choice of fittings and connectors.

Index 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.

## Built-in Vibration Resistance

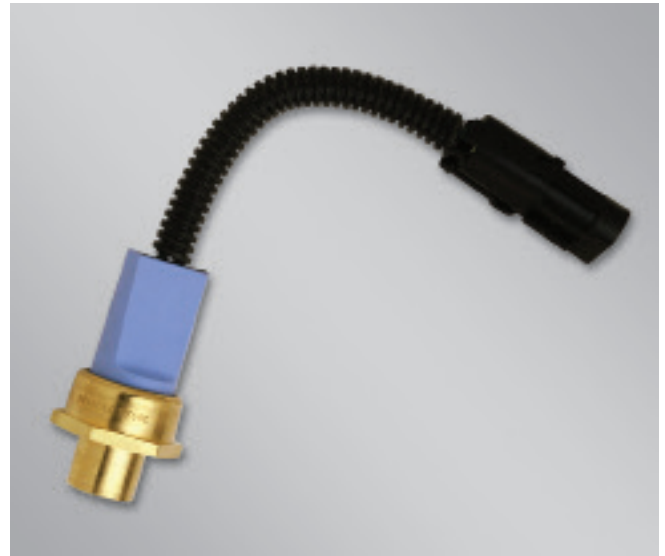
Index Pressure Switches put up a double line of defense against vibration with two snap-action elements. A crisp-response pressure disc triggers a Honeywell Micro Switch™, assuring clean electrical switching. Both elements are real workhorses in high duty-cycle applications, depending on load/voltage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

## Custom Specs

By working closely with OEM customers, we determine exactly how the application, product requirements, and switch function within the vehicle or machine. What are 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.

## Diagnostics

You have more options than just on-off switching, too. With Index Diagnostic Switches, your control computer can distinguish a wire short or break from a normally-operating open or closed switched circuit.



# Heavy-Duty Pressure Switches (continued)

## Air Conditioning Pressure Switches: R134a Refrigerant Systems

### High Pressure Cutout Switches — M10 female Schrader fitting

Set	Reset	Mode	Connector	Notes	Part No.	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
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	8040228
							Mack 1MR3562	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	Part No.	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 w/ Index Fan Temp Timer	8040235	Psw 275R psi NC - H1 C9 A/C fan	Volvo 3948748	8040241
							Volvo 3949500	8040283
								8040242
275 psi	235	NC	Weatherpack Tower	General Purpose	8040314	Psw 275R psi NC - H1 C6 A/C fan		
300 psi	260	NO	Weatherpack Tower	General Purpose	8040313	Psw 300R psi NO - 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	Part No.	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	8040202
							Mack 1MR3561	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
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	Part No.	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	8040227
							1MR2451	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	Part No.	Description	OEM	Replaces Index PN
275 psi	235	NC	Deutsch Receptacle	use w/ 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		



## Heavy-Duty Pressure Switches (continued)

### Multi-purpose Pressure Switches: Specified by Falling Reset Point

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

### Multi-purpose Pressure Switches: Specified by Rising Set Point

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

All pressures in PSI. See definitions on page 4 and connector key on page 6.

Call Index for information about additional configuration options for pressure settings, thread sizes and connectors.

# Air Conditioning Protection Products

Index is proud to offer control products specifically designed to protect air conditioning systems.

Our 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 A/C 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

Prevents early failure of the clutch and compressor.

## APAds

### A/C Protection & Diagnostics System

The protection of the ACX-10 plus system coordination and diagnostic troubleshooting.

## Heavy Duty Pressure Switches

### Double Line of Defense Against Vibration

Monitors refrigerant pressure, R12 and R134a.

# ACX-10

## Air Conditioning Life Extender

### ACX-10 Maintains Your Cool

- ◆ Prevents rapid cycling under improper pressure conditions.
- ◆ Extends life of clutch, compressor, and hoses.
- ◆ Prevents premature damage to clutch coil and plates.
- ◆ Reduces stress on starter motor and batteries.
- ◆ Installs quickly and easily with a few simple connections.
- ◆ Provides rapid payback in maintenance cost savings.



### Detection and Protection System

The ACX-10 detects rapid cycling before you even notice that your air conditioning 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

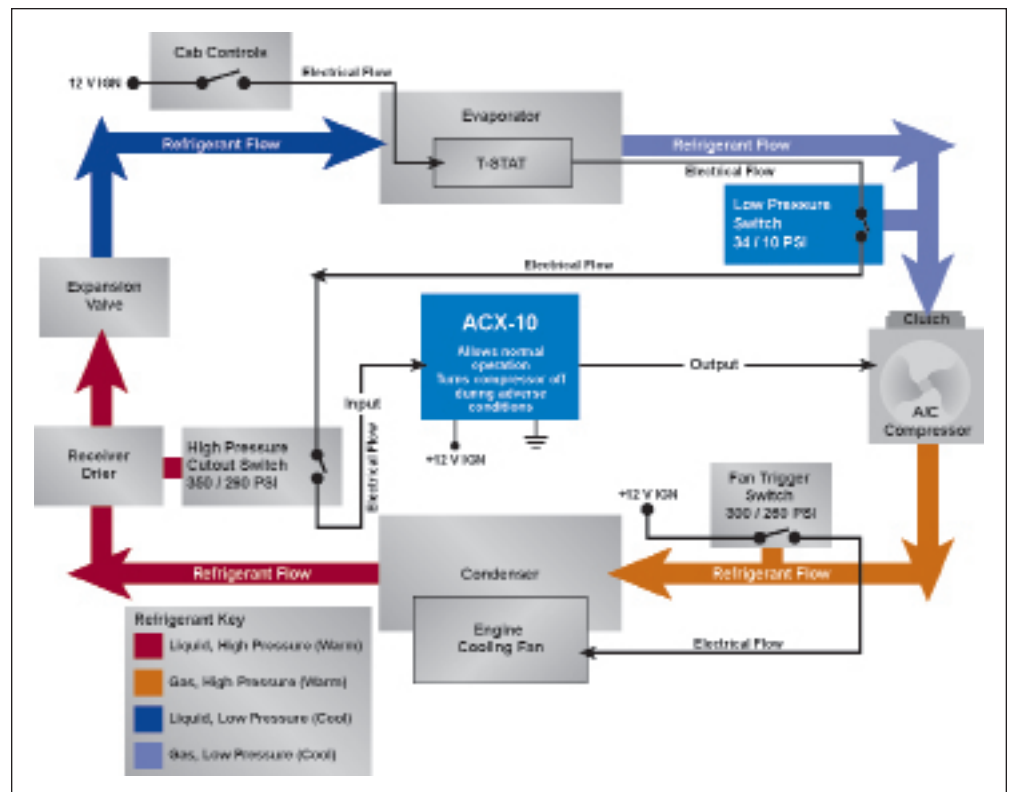
Improper system pressure can lead to rapid cycling. The ACX-10 limits system cycles to four engagements per minute, eliminating heat build-up.

### 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 Part Number

8041188

### Description

ACX-10

### Notes

Weatherpack connector

See definitions on page 4 and connector key on page 6.

# Liquid Probes

Index has developed two liquid sensing probes to improve the reliability and operation of your vehicle. 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.

- ◆ Single pin or dual pin.
- ◆ Internal diagnostic resistor available on two-pin probes.
- ◆ Tested to ensure long life in coolant.



## Coolant Level Probes

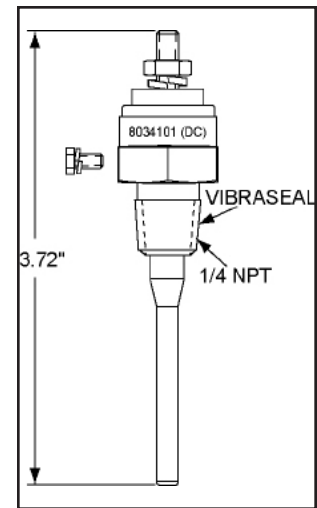
Index heavy-duty coolant probes sense when the coolant level drops below the measuring point and provides input to a dashboard or ECM warning system. Probes are available in one-pin (case ground) and two-pin configurations.

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)

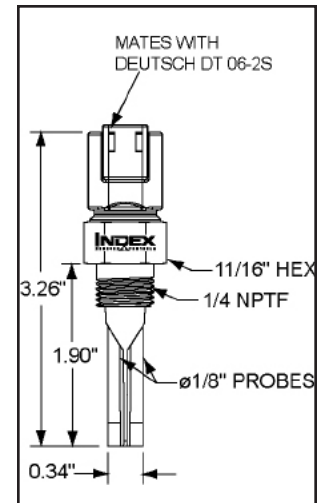
Part Number	Thread Size	Terminal Type
8034100	3/8"	Single Terminal
8034101	1/4"	Single Terminal



## Water-in-Fuel Probes

Index Water-in Fuel probes ensure the engine will not falter due to improper liquids entering the engine. These modules signal a dashboard or engine computer, which then triggers a display to the driver. For more information about Index Water-in-Fuel Probes, contact sales support at [sales@indexsensors.com](mailto:sales@indexsensors.com) or call 1-800-726-1737.

Part Number	Thread Size	Terminal Type
8034107	1/4"	Deutsch



See definitions on page 4 and connector key on page 6.

# Part Number Cross Reference Charts

Index parts can replace many Medallion Instrumentation Systems parts. Please use the reference below to find which Index part to order. The list also contains Horton part numbers and superseded Index part numbers.

## Heavy-Duty Temperature Switches

Example: Cooling Fan & Shutter Control

Double-snap action. 7 amps resistive, 4 amps inductive.

### Two Terminals 1/2 inch NPT Housing

Thread Size	Temp °F	Mode	Standard Index P/N	Old Index P/N	Direct Replacement Medallion P/N	Old Kysor P/N	Direct Replacement Horton P/Ns	Can also replace these Medallion P/Ns*
1/2 inch	120	NO	8037134P	TM-501C2-120NO		1002-05850-16		
1/2 inch	150	NO	8037013P	TM-501C2-150NO	1002-05554-22	1002-05850-22	993662 15953 B-14456	
1/2 inch	165	NO	8037108P	TM-501C2-165NO	1002-05554-25	1002-05850-25		
1/2 inch	180	NO	8037014P	TM-501C2-180NO	1002-05554-28	1002-05850-28	993615 15944 B-14017	
1/2 inch	185	NO	8037018P	TM-501C2-185NO	1002-05554-29	1002-05850-29	993616 15942 B-14015	1002-07988-29
1/2 inch	190	NO	8037022P	TM-501C2-190NO	1002-05554-30	1002-05850-30	993617 15943 B-14016	1002-07988-30
1/2 inch	195	NO	8037026P	TM-501C2-195NO	1002-05554-31	1002-05850-31	993653 15957 P-2296	1002-07988-31
1/2 inch	200	NO	8037030P	TM-501C2-200NO	1002-05554-32	1002-05850-32	993654 15954 P-2233	1002-07988-32
1/2 inch	205	NO	8037034P	TM-501C2-205NO	1002-05554-33	1002-05850-33	993655	1002-07988-33
1/2 inch	210	NO	8037037P	TM-501C2-210NO	1002-05554-34	1002-05850-34	993624 15947 B-14020	1002-07988-34
1/2 inch	215	NO	8037184P	TM-501C2-215NO	1002-05554-35	1002-05850-35	15945 B-14018	1002-07988-35
1/2 inch	220	NO	8037041P	TM-501C2-220NO	1002-05554-36	1002-05850-36	993626 15948 B-14021	1002-07988-36
1/2 inch	250	NO	8037111P	TM-501C2-250NO	1002-05554-42	1002-05850-42		
1/2 inch	300	NO	8037112P	TM-501C2-300NO	1002-05554-52	1002-05850-52	15946 B-14019	
1/2 inch	150	NC	8037121P	TM-501C2-150NC	1002-07393-22			1002-07479-22
1/2 inch	165	NC	8037107P	TM-501C2-165NC	1002-07393-25			
1/2 inch	185	NC	8037016P	TM-501C2-185NC	1002-07393-29		993619 15952 B-14024	1002-07479-29
1/2 inch	190	NC	8037020P	TM-501C2-190NC	1002-07393-30		993603 15939 B-14012	1002-07479-30
1/2 inch	195	NC	8037024P	TM-501C2-195NC	1002-07393-31		993605 15949 B-14022	1002-07479-31
1/2 inch	200	NC	8037028P	TM-501C2-200NC	1002-07393-32		993606 15941 B-14014	1002-07479-32
1/2 inch	205	NC	8037032P	TM-501C2-205NO	1002-07393-33		993607 15940 B-14013	1002-07479-33
1/2 inch	210	NC	8037036P	TM-501C2-210NO	1002-07393-34			1002-07479-34
1/2 inch	215	NC	8037039P	TM-501C2-215NO	1002-07393-35		993665 B-14751	1002-07479-35
1/2 inch	220	NC	8037040P	TM-501C2-220NO	1002-07393-36			1002-07479-36

### Two Terminals 3/8 inch NPT Housing

Thread Size	Temp °F	Mode	Standard Index P/N	Old Index P/N	Direct Replacement Medallion P/N	Direct Replacement Horton P/Ns	Can also replace these Medallion P/Ns*
3/8 inch	185	NC	8037176P	TM-502E2-185CO	1002-05825-29		
3/8 inch	190	NC	8037177P	TM-502E2-190CO	1002-05825-30		
3/8 inch	195	NC	8037093P	TM-502E2-195CO	1002-05825-31		
3/8 inch	200	NC	8037178P	TM-502E2-200CO	1002-05825-32		
3/8 inch	205	NC	8037179P	TM-502E2-205CO	1002-05825-33		
3/8 inch	210	NC	8037180P	TM-502E2-210CO	1002-05825-34		
3/8 inch	220	NC	8037099P	TM-502E2-220CO	1002-05825-36		
3/8 inch	195	NO	8037082P	TM-502C2-195NO		993610	P-1602
3/8 inch	180	NO	8037183P	TM-502C2-195NO	1002-05825-28		

\*replace Metripakconnector on harness w/ ring terminals

Medallion is the new name for BorgWarner commercial transportation parts. Many BorgWarner parts were formerly made by Kysor Medallion.

## Part Number Cross Reference Charts (continued)

### Three Terminals 3/8 inch NPT Housing

Thread Size	Temp °F	Mode	Standard Index P/N	Old Index P/N	Direct Replacement Medallion P/N	Can also replace these Medallion P/Ns*
3/8 inch	140	CO	8037142	TM-502E2-140CO	1002-04880-20	
3/8 inch	145	CO	8037143	TM-502E2-145CO	1002-04880-21	
3/8 inch	160	CO	8037090	TM-502E2-160CO	1002-04880-24	
3/8 inch	180	CO	8037175	TM-502E2-180CO	1002-04880-28	
3/8 inch	185	CO	8037176	TM-502E2-185CO	1002-04880-29	
3/8 inch	190	CO	8037177	TM-502E2-190CO	1002-04880-30	1002-07955-30
3/8 inch	195	CO	8037093	TM-502E2-195CO	1002-04880-31	1002-07955-31
3/8 inch	200	CO	8037178	TM-502E2-200CO	1002-04880-32	1002-07955-32
3/8 inch	205	CO	8037179	TM-502E2-205CO	1002-04880-33	1002-07955-33
3/8 inch	210	CO	8037180	TM-502E2-210CO	1002-04880-34	1002-07955-34
3/8 inch	215	CO	8037098	TM-502E2-215CO	1002-04880-35	1002-07955-35
3/8 inch	220	CO	8037099	TM-502E2-220CO	1002-04880-36	1002-07955-36
3/8 inch	225	CO	8037126	TM-502E2-225CO	1002-04880-37	1002-07955-37
3/8 inch	240	CO	8037127	TM-502E2-240CO	1002-04880-40	1002-07955-40
3/8 inch	250	CO	8037224	TM-502E2-250CO	1002-04880-42	1002-07955-42
3/8 inch	255	CO	8037181	TM-502E2-255CO	1002-04880-43	

### Overtemperature Warning Switches

#### 3/8 inch NPT Housing

Snap action temperature disc. 1 amp resistive, 0.5 amps inductive.

Thread Size	Temp °F	Mode	Standard Index P/N	Old Index P/N	Direct Replacement Medallion P/N	Can also replace these Medallion P/Ns*
3/8 inch	165	NO	8039059	TB-152A2-165NO	1002-05811-25	
3/8 inch	190	NO	8039071	TB-152A2-190NO	1002-05811-30	1002-07700-30 1002-07450-30
3/8 inch	200	NO	8039032	TB-152A2-200NO	1002-05811-32	1002-07700-32 1002-07450-32
3/8 inch	205	NO	8039051	TB-152A2-205NO	1002-05811-33	1002-07700-33 1002-07450-33
3/8 inch	210	NO	8039034	TB-152A2-210NO	1002-05811-34	1002-07700-34 1002-07450-34
3/8 inch	215	NO	8039052	TB-152A2-215NO	1002-05811-35	1002-07700-35 1002-07450-35
3/8 inch	220	NO	8039039	TB-152A2-220NO	1002-05811-36	1002-07700-36 1002-07450-36
3/8 inch	225	NO	8039041	TB-152A2-225NO	1002-05811-37	1002-07700-37 1002-07450-37
3/8 inch	230	NO	8039042	TB-152A2-230NO	1002-05811-38	1002-07700-38 1002-07450-38
3/8 inch	250	NO	8039045	TB-152A2-250NO	1002-05811-42	1002-07700-42 1002-07450-42
3/8 inch	300	NO	8039072	TB-152A2-300NO	1002-05811-52	1002-07700-52 1002-07450-52
3/8 inch	205	NC	8039069	TB-152A2-205NC	1002-05769-33	1002-07338-33 1002-07476-33
3/8 inch	210	NC	8039070	TB-152A2-210NC	1002-05769-34	1002-07338-34 1002-07476-34
3/8 inch	220	NC	8039053	TB-152A2-220NC	1002-05769-36	1002-07338-36 1002-07476-36

\*replace Metripakconnector on harness w/ ring terminals

Medallion is the new name for BorgWarner commercial transportation parts. Many BorgWarner parts were formerly made by Kysor Medallion.

## Part Number Cross Reference Charts (continued)

### One Terminal 1/2 inch NPT Housing

Thread Size	Temp °F	Mode	Standard Index P/N	Old Index P/N	Direct Replacement Medallion P/N	Can also replace these Medallion P/Ns*
1/2 inch	180	NO	8039057	TB-151A2-180NO	1002-05511-28	1002-07690-28 1002-07324-28
1/2 inch	190	NO	8039058	TB-151A2-190NO	1002-05511-30	1002-07690-30 1002-07324-30
1/2 inch	195	NO	8039064	TB-151A2-195NO	1002-05511-31	1002-07690-31 1002-07324-31
1/2 inch	200	NO	8039065	TB-151A2-200NO	1002-05511-32	1002-07690-32 1002-07324-32
1/2 inch	205	NO	8039054	TB-151A2-205NO	1002-05511-33	1002-07690-33 1002-07324-33
1/2 inch	210	NO	8039014	TB-151A2-215NO	1002-05511-34	1002-07690-34 1002-07324-34
1/2 inch	215	NO	8039019	TB-151A2-215NO	1002-05511-35	1002-07690-35 1002-07324-35
1/2 inch	220	NO	8039023	TB-151A2-220NO	1002-05511-36	1002-07690-36 1002-07324-36
1/2 inch	225	NO	8039025	TB-151A2-225NO	1002-05511-37	1002-07690-37 1002-07324-37
1/2 inch	230	NO	8039026	TB-151A2-230NO	1002-05511-38	1002-07690-38 1002-07324-38
1/2 inch	250	NO	8039066	TB-151A2-250NO	1002-05511-42	1002-07690-42 1002-07324-42
1/2 inch	300	NO	8039029	TB-151A2-300NO	1002-05511-52	1002-07690-52 1002-07324-52
1/2 inch	190	NC	8039010	TB-151A2-190NC	1002-05768-30	1002-07474-30 1002-07449-30
1/2 inch	195	NC	8039056	TB-151A2-195NC	1002-05768-31	1002-07474-31 1002-07449-31
1/2 inch	200	NC	8039067	TB-151A2-200NC	1002-05768-32	1002-07474-32 1002-07449-32
1/2 inch	205	NC	8039068	TB-151A2-205NC	1002-05768-33	1002-07474-33 1002-07449-33
1/2 inch	210	NC	8039012	TB-151A2-215NC	1002-05768-34	1002-07474-34 1002-07449-34
1/2 inch	215	NC	8039017	TB-151A2-215NC	1002-05768-35	1002-07474-35 1002-07449-35
1/2 inch	220	NC	8039021	TB-151A2-220NC	1002-05768-36	1002-07474-36 1002-07449-36

### Low Coolant Probes

Thread Size	Standard Index P/N	Old Index P/N	Direct Replacement Medallion P/N	Can also replace these Medallion P/Ns*
1/4 NPT	8034101	LCP-570-1	5022-33670-03	5022-01185-01
3/8 NPT	8034100	LCP-570-2	5022-33990-01	5022-01187-01



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