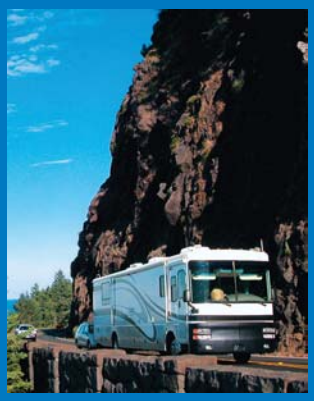
Solutions that Make Sense

Product and Parts Catalog



INDEX SENSORS & CONTROLS

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About Index

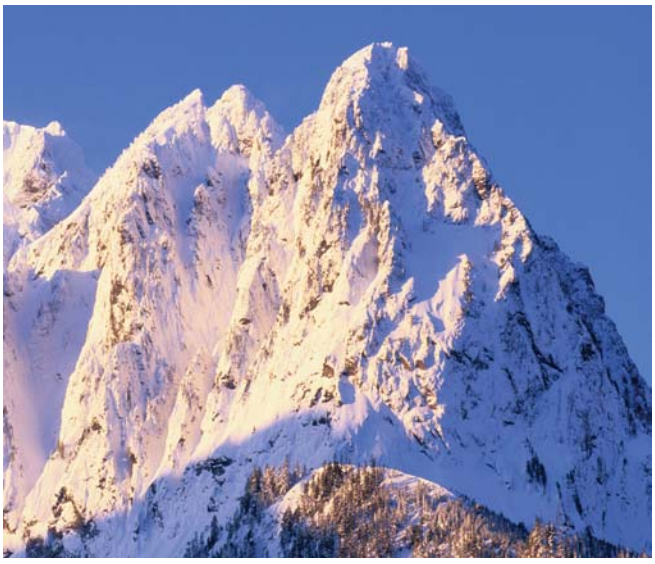
Index Sensors & Controls, Inc. is a leading manufacturer of switches, sensors, and controls for the industrial vehicle, engine, and equipment markets. We offer standard and custom-designed products to meet the stringent performance and durability requirements of our customers.

The company specializes in temperature, pressure, and humidity applications. Our products monitor, control, and protect some of the world's toughest equipment. Since 1976 we have built a reputation for designing and producing products that stand up to harsh environments. Our high-tech electronic modules boost the control logic or "intelligence" of customers' equipment, improving efficiency and performance.

Index products are distributed world-wide for use on all makes of heavy duty trucks and are widely used by manufacturers of agricultural, construction, and engine-related equipment. Our products are also integrated into many other applications, including HVAC controls, home heating, industrial packaging, and sophisticated OEM control systems. New markets are constantly under development. We manufacture, test, and ship on-schedule and incorporate into our processes all reasonable cost-saving measures, which benefit our customers via high-value and competitive pricing.

Quality Management System

Index has operated under an ISO-9000 / QS-9000 compliant quality management system since 1996. We will achieve registration to the ISO-9001:2000 T/S 16949 quality system standard in early 2004. Index employs continuous improvement and lean manufacturing principles throughout our operation.



Mount Index, Washington

Headquarters in Stanwood, Washington

Facility and Location

Index's manufacturing facility and offices are located in Stanwood, Washington, 50 miles north of Seattle on the Interstate 5 corridor. Constructed in 2000, our building was designed to support Index's advanced engineering and quality labs, manufacturing processes and flexible layout, effective inventory management, and complete computer information system. Prior to 2000, the company was located in Redmond, Washington.

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

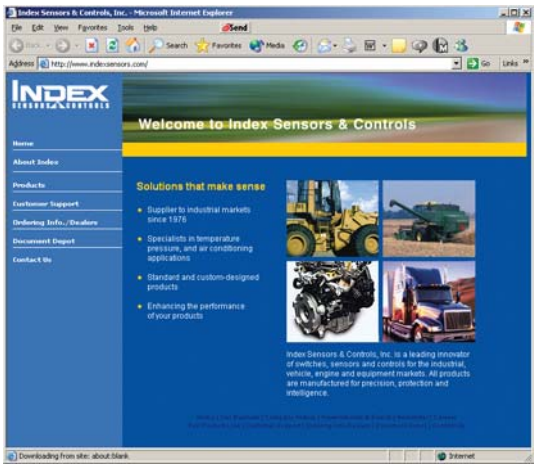
To create *Solutions that Make Sense* for industrial equipment and vehicle markets with:

Innovative, performance-enhancing switches, sensors, and controls, which add

Precision Protection
Reliability Intelligence

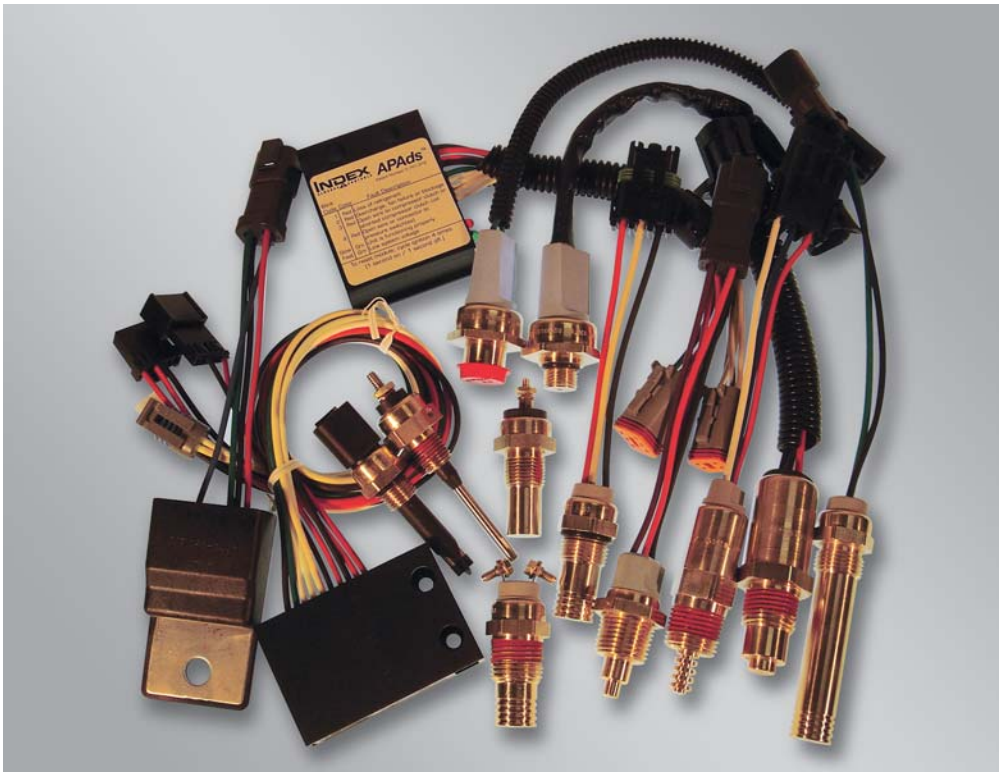
Efficient processes & value-added services

Satisfying relationships with customers, suppliers, and employees



Please visit our new website at www.indexsensors.com.

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)

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, and more. Highly accurate temperature monitoring, control, overtemp warning, and shutdown for engines and industrial equipment.

Mechanical Temperature Switches

Economical, workhorse devices for temperature control and monitoring for engines, hydraulics, and similar applications in on- and off-road vehicles and stationary equipment.

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.

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 know 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

Part of our company mission is to have satisfying 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.

Representatives are available to assist you with your order. They can answer your questions about orders in process and the availability of products. They can be reached at (800) 726-1737 or (360) 939-2773 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 & reliable products, smarter components, or custom-engineered controls, we are ready to respond.

If you are interested in learning more about Index products, please contact our inside sales representative at (800) 726-1737 or (360) 939-2738 or via email: sales@indexsensors.com.

Technical Support

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..

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

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.

Aftermarket Heavy Vehicle Dealers

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

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

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 N0 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

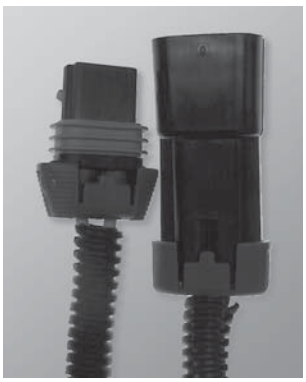
Pressure Switches

Psw	Pressure switch
R	Nominal refers to rising set point
F	Nominal refers to falling reset 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

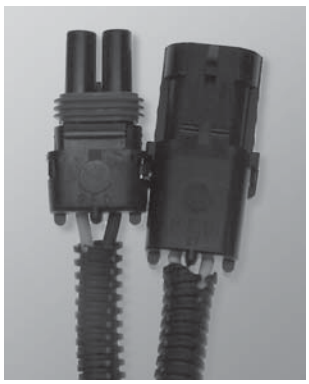
Temperature Switches

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

Connector Key



Weatherpack™ Tower (L) & Shroud (R)



Metripack™ Tower (L) & Shroud (R)

Deutsch Plug (L) & Receptacle (R)

Weatherpack and Metripack are tradenames of Delphi Corporation.

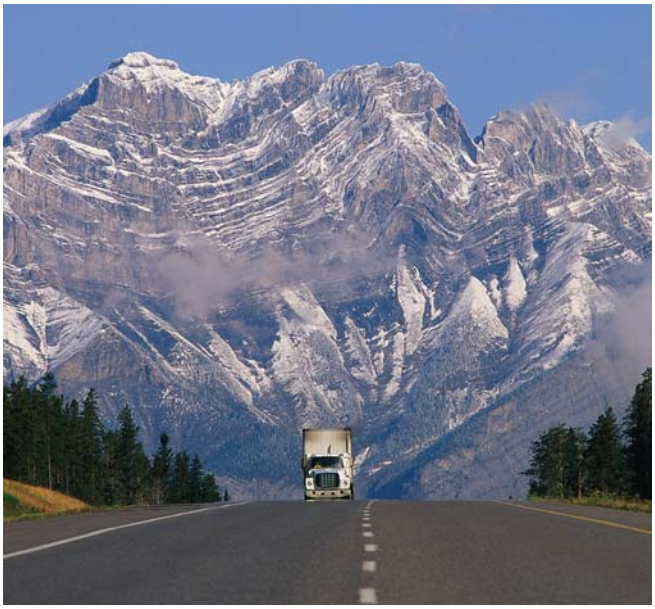
Deutsch connectors are made by Deutsch Industrial Products Division.

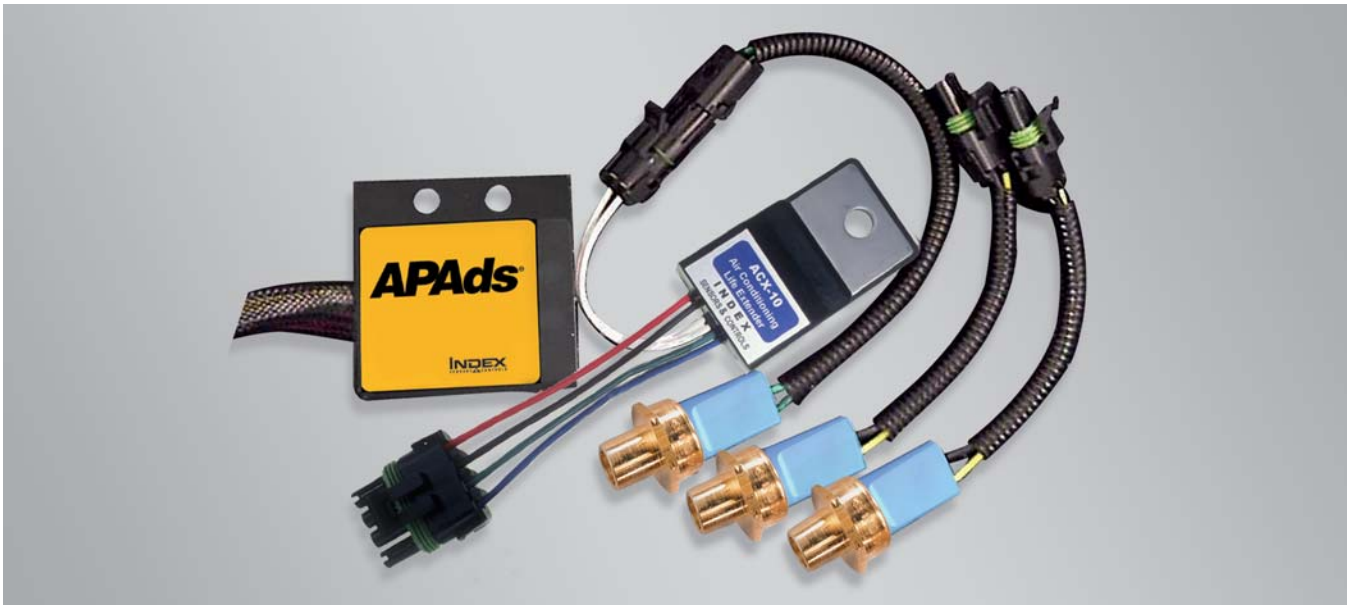
Air Conditioning Protection Products

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

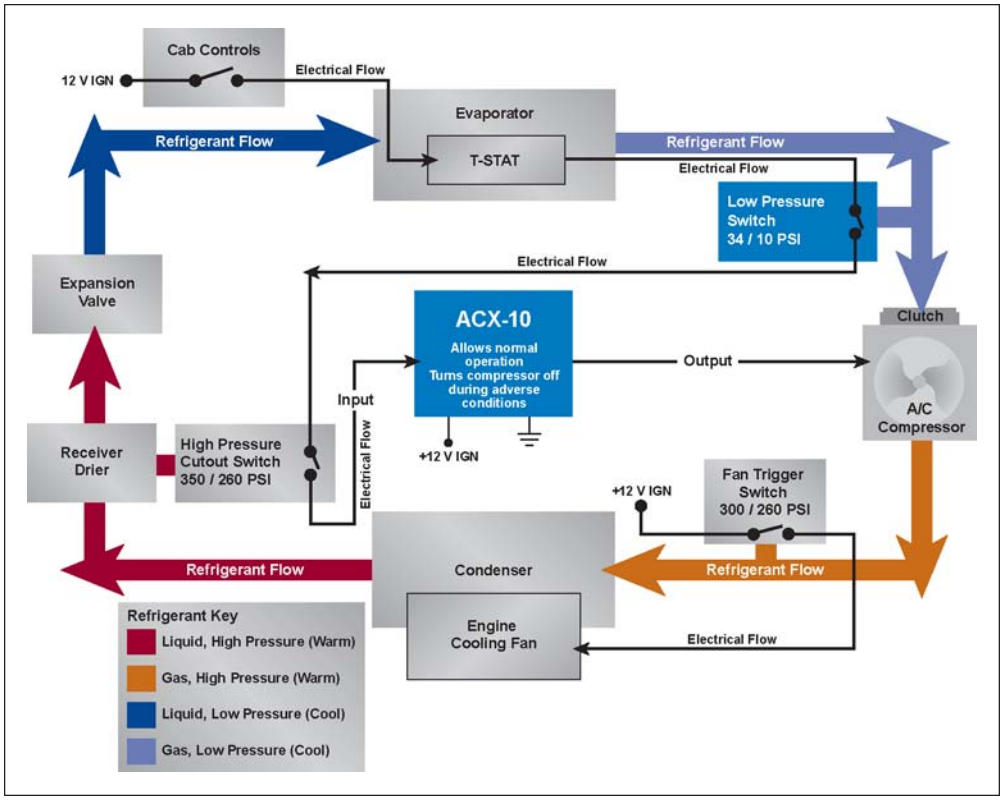
Improper system pressure can lead to rapid cycling. The ACX-10 limits system cycles to four engagements per minute, eliminating heat build-up.

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	Description	Notes
8041188	ACX-10	Weatherpack connector

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

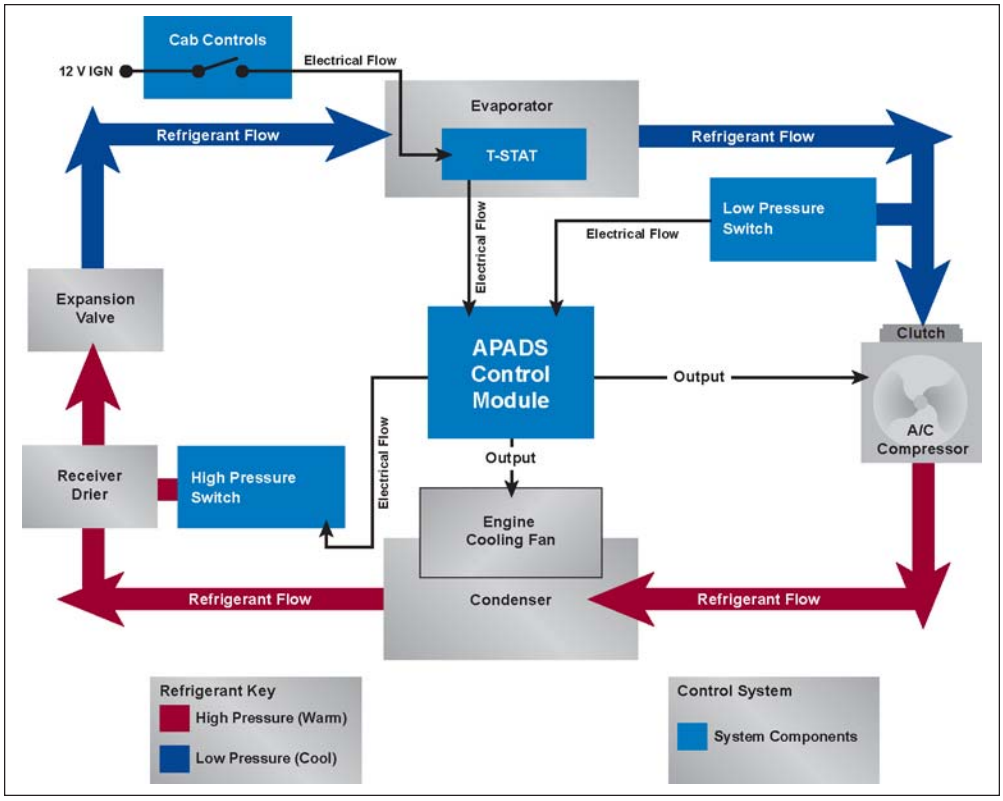
APAds™

Air Conditioning Protection and Diagnostics System

The APAds™ 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. APAds™ also aids in preventive maintenance and troubleshooting with its easy-to-read diagnostic fault codes. Specifying the APAds™ 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.

APAds™ 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 fault codes.
- Enhances preventive maintenance.
- Reduces expensive, unscheduled repairs.
- Detects A/C problems even when A/C is off.



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	8042103	8040189	8040135
		For Viscous Fan Drives	8042124	8040189	8040172
Kenworth	81040125		8042103	8040189	8040135
Peterbilt		Call Index for information			
Freightliner	702-009		8042103	8040189	8040135
Volvo	—		8042152	8040189	8040135

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.
- Special time delay and 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.

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 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	**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 wires	**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	Set Point (Rising Pressure)	Reset Point (Falling Pressure)	1/8" NPTF	1/4" NPTF	Connector	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 on page 4 and connector key on page 6.
Call Index for information about additional configuration options for pressure settings, thread sizes and connectors.

Universal Temperature Switch

Not Just a Switch, A Temperature Intelligence Center

- Two independently specifiable outputs.
- Specialized outputs: Switching, timed, linear, blinking, and others.
- Custom-tailored specs, economical for any volume level.
- High accuracy and very fast response for precise system control.
- Exceptional vibration resistance.
- Single sensing point assures proper function integration.
- Self-protected against short circuits and over-current.
- Compact, low profile for tight spaces and small ports.
- Cost-effective replacement of two devices.

The Index Universal Temperature Switch brings advanced temperature switching and control to all sizes and types of industrial vehicles, engines, and equipment

A New Standard in Flexible, Customized Temperature Control

Industrial equipment and vehicles are getting smarter each day to meet customers' increasing expectations. Index's Universal Temperature Switch provides new options for easily adding more intelligence and functionality to your equipment's control system.

It's far more than a simple on-off switch. The Universal Temperature Switch's two functions can be custom-programmed to your system's specific needs.

New Possibilities for Combination Outputs

Whether you need on-off switching, or a more specialized output, the Universal Temperature Switch offers remarkable specifying flexibility. Example applications:

- Two independent switch temperature settings, close together or far apart, with similar or dissimilar differentials (degrees of hysteresis).
- A switch output for control at one temperature, and a blinking output for warning at another.
- Time-delayed switching to avoid nuisance responses to normal, transient temperature changes.
- Timed switch outputs, which can vary by temperature, e.g. varying the "heater on" time with temperature.

UTS parts are custom-programmed — please call Index for part numbers

Bottom-line Contributor

The Universal Temp Switch brings a combination of economic benefits, too. Replacing two devices with one saves component, inventory control, and installation costs. The Universal Temp Switch's advanced options provide a "nearly free" way to add functionality— an alternative to expensive traditional programming and development. This product is a boon for low-volume applications, too. Finally, you can get the customized specs you need without paying prohibitive setup, short run, or tooling fees.

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 ± 1.5° F.
- Will function from -20° F to 230° 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, and Fan 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	Mode	Function 2 Set Point	Mode	Sourcing	Sinking	Connector	Part Number	Description	OEM	OEM P/N
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 (continued)

Single and Dual Function Temperature Switches

Function 1 Set Point	Mode	Function 2 Set Point	Mode	Sourcing	Sinking	Connector	Part Number	Description	OEM	OEM P/N
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 Set Point	Mode	Function 2 Set Point	Mode	Sourcing	Sinking	Connector	Part Number	Description	OEM	OEM P/N
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 somthing 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.

		Housing Thread		Terminals or Connector					
Set °F	Mode	1/2" NPTF	3/8" NPTF	8-32 Screw	Weatherpack Shroud	Metripack Shroud	Part Number	Description	Equivalent
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.

		Housing Thread		Terminals or Connector				
		1/2"	3/8"	8-32	Weatherpack	Metripack		
Set °F	Mode	NPTF	NPTF	Screw	Shroud	Shroud	Part Number	Description
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

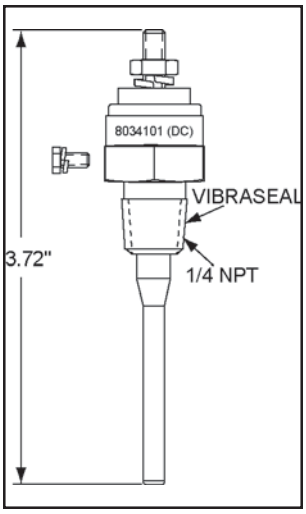
All temperatures in degrees fahrenheit. Call Index for information on additional temperatures and configurations.
See definitions on page 4 and connector key on page 6.

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.

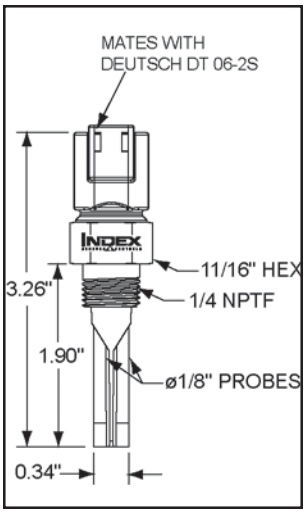
Standard Fittings: 1/4" NPT, 3/8" NPT, and 9/16" UNF

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 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.

Custom Products

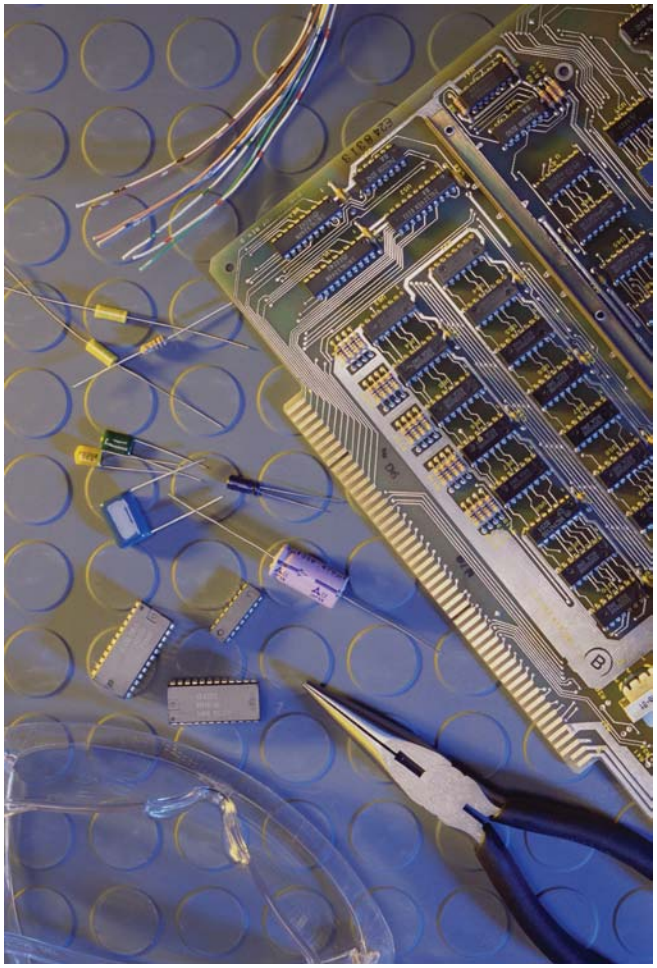
Index offers custom-specification of products and custom-designed products not listed in this catalog. We are happy to work with you to develop and manufacture products to fit your specific application.

Our capabilities include:

- Multi-function control systems.
- Electronic controls.
- Mechanical and electrical temperature sensing and switches.
- Liquid probes.
- Continuous flow manufacturing process.
- Automated testing equipment.
- Electronic data interchange.
- Bar-coded packaging.
- Just-in time delivery.

Engineering Capabilities

- Product design (custom & proprietary).
- Applications engineering.
- System analysis.
- Control algorithm design.
- Hardware design.
- Software development.
- User interface design.
- Mechanical design.
- Design testing.
- Reliability engineering.
- Project management.
- Test engineering.



We deliver solutions that make sense. Call us today.

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 superceded 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**
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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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Limited Product Warranty

Index Sensors & Controls, Inc. warrants all of its products to be free from defects in material and workmanship under normal use and service. Any part which 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. 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 authorization has been granted 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, 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 designated 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 Earranty 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).

This Limited Warranty is in lieu of all other Warranties, express, 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 or 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.

Index shall not be liable under any circumstances for any incidental of consequential damages, as those terms are defined in the uniform commercial code. The foregoing shall constitute the sole and exclusive liability of Index in connection with its products.

Warranty Periods

Unless otherwise documented, Index products are warranted for a period one (1) year from the date installation. If date of installation cannot be determined, the date of installation will be assumed to be 90 days after the manufacturing date coded on the product.

INDEX
SENSORS & CONTROLS

7112 265th Street NW
Stanwood, WA 98292

t: 800-726-1737

f: 360-629-0838

w: www.indexsensors.com