



**HOLSTEIN**  
· PARTS ·

PARTS THAT PERFORM. SERVICE THAT DELIVERS.



## ABOUT HOLSTEIN

The Holstein brand represents a blend of advanced technological innovation and exacting European craftsmanship that stretches back over half a century. This tradition of precision engineering, rigid standards, and optimum performance guides us as we continually strive to enhance our offerings and adapt to continuing challenges in the marketplace.

We enhance the tradition of quality products with exceptional customer service that focuses on getting you the parts you need when you need them. Your Holstein representative is a highly trained professional who will work with you to determine your goals and exactly what you need to achieve them. Our streamlined structure and internal processes allow us to be nimble and respond quickly when our customers need extraordinary service.

As manufacturers continually innovate, the Aftermarket must identify and source new parts and get them into the supply chain. Holstein relies on the experience and knowledge of our staff to monitor shifts in the industry and stay ahead of the curve. All Holstein Sensors are built to meet or exceed OEM specifications and provide an outstanding value at any level. Holstein Parts – Parts that perform, Service that delivers.





## TABLE OF CONTENTS

<b>FEATURES &amp; BENEFITS</b>	<b>4</b>
<b>INNOVATIVE PACKAGING</b>	<b>6</b>
<b>SHIPPING &amp; MARKETING</b>	<b>8</b>
<b>CUSTOMER STOCKING RECOMMENDATION AND INVENTORY GAP ANALYSIS</b>	<b>10</b>
<b>ABS SENSORS</b>	<b>14</b>
<b>BLOWER MOTOR RESISTORS</b>	<b>16</b>
<b>BRAKE WEAR SENSORS</b>	<b>18</b>
<b>CAMSHAFT POSITION SENSORS</b>	<b>20</b>
<b>CRANKSHAFT POSITION SENSORS</b>	<b>22</b>
<b>KNOCK SENSORS</b>	<b>24</b>
<b>VVT SOLENOIDS</b>	<b>26</b>
<b>VEHICLE SPEED SENSORS</b>	<b>28</b>



## FEATURES & BENEFITS

- Holstein utilizes only the highest quality materials while manufacturing to exacting OEM quality standards
- All SKU's are cataloged in WHI, Epicor, MAM and are ACES compliant.
- Orders are shipped within 48 Hours with an average fill rate of 95%
- Drop Ship Program Available with FTP Inventory Updates
- All Products are packaged in Anti-Static Bags and Labels can be customized to specific customer needs
- Fully EDI Capable
- 3 Year / 36 Month Warranty on all Holstein Sensors
- Less than 1/10th of 1% Warranty Rate across all categories







## INNOVATIVE PACKAGING

All Holstein Parts products are packaged in Zip-Loc style Anti Static Bags that protect the electronic circuitry and components and substantially reduce the amount of space needed to warehouse the product.

We also offer custom labeling options whereby we are able to print your internal part number or a competitor's cross number on the label, to allow for a smoother transition to Holstein Parts.

**5 Sensors in Competitors Packaging vs. 5 Each of the Same Sensor in Our Packaging**







# ***CUSTOMER STOCKING RECOMMENDATION AND INVENTORY GAP ANALYSIS***

Holstein's Team utilizes a system which tracks actual parts sold across all manufacturers and then ties it back to the OE number and then to our part number to give you a stocking recommendation based on your actual market area. We can then cross in your existing inventory and sales numbers creating a GAP Report that shows you exactly where you may be missing out on sales.

- Customized sales data based on a view as large as the US or Canada or as small as a specific zip code.
- No generic POP Codes - We show you what is failing in your own backyard.
- Competitor Crosses listed to show you how much we can save you per part or across entire category.



***INDUSTRY LEADING COVERAGE!***  
***ACROSS 8 PRODUCT CATEGORIES***

# ***ABS WHEEL SPEED & VEHICLE SPEED SENSORS***

1.1 BILLION VIO COVERED

# ***BLOWER MOTOR RESISTORS***

180 MILLION VIO COVERED

# ***BRAKE WEAR SENSORS***

35 MILLION VIO COVERED

# ***CAMSHAFT POSITION SENSORS***

510 MILLION VIO COVERED

# ***CRANKSHAFT POSITION SENSORS***

480 MILLION VIO COVERED

# ***KNOCK SENSORS***

80 MILLION VIO COVERED

# ***VARIABLE VALVE TIMING SOLENOIDS***

138 MILLION VIO COVERED



## **ABS SENSORS**

Anti-lock Braking, ABS Systems allow the driver to maintain control of the car in an emergency braking situation. The ABS system relies on sensors to monitor the speed of the wheel and communicate with the ABS computer to ensure ideal performance. The data from the ABS sensor allows the computer to balance the speed of each wheel to prevent the brakes from locking up and avoiding dangerous skidding situations.





## ABS SENSORS

- Holstein focuses on using only the highest quality materials, manufactured to exacting standards for an aftermarket product that is truly built to match or exceed the OE part
- Holstein ABS sensor line has superior coverage for domestic and import applications
- Over 2100 ABS numbers available covering 93% of the North American Market
- 3 Year / 36,000 Mile Warranty on Holstein Parts ABS Sensors



## **BLOWER MOTOR RESISTORS**

The Blower Motor Resistor is an electrical component that is a part of the vehicle's interior heating and air conditioning system. It is responsible for controlling the blower motor's fan speed. When the fan speed is changed via the dash controls the blower motor resistor is what changes the speed of the blower motor. A failed blower motor resistor can cause issues with the operation of the entire heating and air conditioning system. Usually a bad or failing blower motor resistor will produce a few symptoms that can alert the driver of a potential issue.





## BLOWER MOTOR RESISTORS

- Holstein uses only the highest quality materials and engineering for parts that are truly built to match or exceed the OE part
- Holstein Blower Motor Resistors offer superior coverage for domestic and import applications.
- 3 Year / 36,000 Mile Warranty on all Holstein Parts Blower Motor Resistors



## **BRAKE WEAR SENSORS**

Brake Wear Sensors are used to warn the driver of a vehicle that the brake pads are in need of replacement. Brake Wear Sensors are installed into a vehicles brake pads and wired into the vehicles notification system. When the brake pads wear to the predetermined level the driver is notified that it is time to have the brake pads and wear sensors replaced. Brake Wear Sensors have been historically used on European Imports and more recently on higher end Asian and Domestic Models.





## BRAKE WEAR SENSORS

- Holstein Brake Wear Sensors are manufactured utilizing the highest-quality reinforced plastics able to withstand temperatures up to 400 degrees C.
- With more than 300 part numbers covering over 99% of applications throughout North America, Holstein Parts is sure to have the sensor you need when you need it.
- 3 Year / 36,000 Mile Warranty on Holstein Brake Wear Sensors.



## CAMSHAFT POSITION SENSORS

The Camshaft Position Sensor monitors the rotating position of the camshaft relative to the crankshaft position. This data is sent to the vehicle's ECU where it is used to adjust the spark timing and the operation of the fuel injectors. There are two types of Camshaft Sensors, Magnetic and Hall-effect. The Magnetic type produces its own AC (alternate current) signal (a sine wave), and you can identify it by its two wires. The Hall-effect type uses an external power source to produce a digital signal (a "square wave," on-or-off) and has three wires. For the engine to operate properly, the rates of the crankshaft and the camshaft need to be in sync with each other.





## CAMSHAFT POSITION SENSORS

- Holstein focuses on using only the highest quality materials, manufactured to exacting standards for an aftermarket product that is truly built to match or exceed the OE part
- Holstein Camshaft Position Sensor line has superior coverage for domestic and import applications
- More than 240 SKUs covering 98% of the North American Market
- 3 Year / 36,000 mile warranty on all Holstein Camshaft Position Sensors



## CRANKSHAFT POSITION SENSORS

The Crankshaft Position Sensor is an electronic device that monitors the position and/or rotational speed of the crankshaft. This sensor communicates with the vehicle's ECU to control ignition timing and fuel injection parameters. Crankshaft Position Sensors work in conjunction with the Camshaft Position Sensor to monitor the position of the valves and pistons. The Crankshaft Position Sensor also measures engine speed in revolutions per minute.



## CRANKSHAFT POSITION SENSORS



- Holstein focuses on using only the highest quality materials, manufactured to exacting standards for an aftermarket product that is truly built to match or exceed the OE part
- Holstein Crankshaft Position Sensor line has superior coverage for domestic and import applications
- More than 320 SKUs covering 98% of the North American Market
- 3 year / 36,000 Mile Warranty on all Holstein Crankshaft Position Sensors

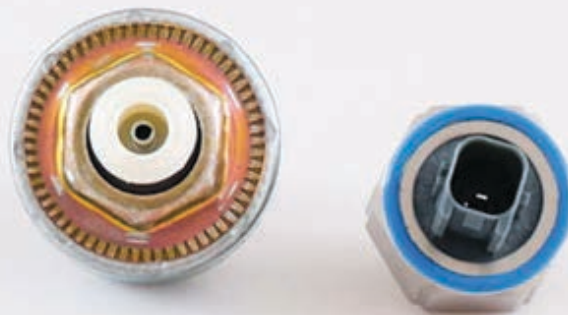


## **KNOCK SENSORS**

The knock sensor is able to detect mechanical stress and produces a voltage when the car knocks or pings. Under heavy acceleration, it sends signals to the ECU and the ECU retards the ignition timing to compensate for the knocking, which in effect protects the pistons and rings from damage. Knocking also occurs when using low-grade fuel and having the knock sensor allows you to use different grade fuels without causing engine damage.



## KNOCK SENSORS



- Holstein utilizes only premium materials to ensure durability and reliable service
- Global coverage of European, Asian, and Domestic vehicles
- Tested to ensure voltage specifications align with OE standards
- 3 Year / 36,000 Mile Warranty on all Holstein Knock Sensors

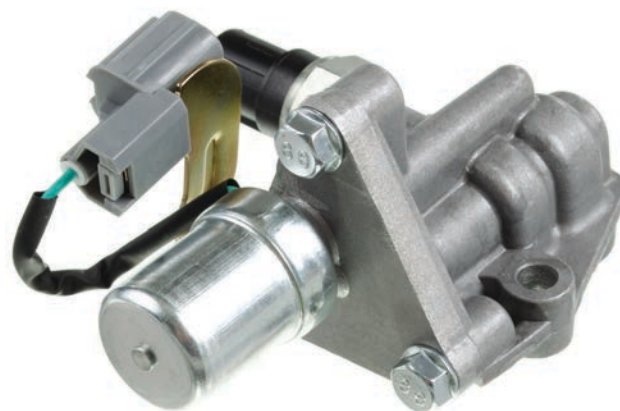


## **VARIABLE VALVE TIMING SOLENOIDS**

The Variable Valve Timing Solenoid alters the supply of oil pressure to the camshaft depending on the speed and load of the engine and can either advance or retard cam position which provides several benefits, including improved engine operation, increased engine power reduced fuel consumption and decreased emissions.



## VARIABLE VALVE TIMING SOLENOIDS



- Holstein focuses on using only the highest quality materials, manufactured to exacting standards for an aftermarket product that is truly built to match or exceed the OE part
- Holstein's Variable Valve Timing Solenoid line has superior coverage for domestic and import applications
- More than 190 SKUs covering 97% of the North American Market
- Designed to maximize engine performance and fuel efficiency
- 3 Year / 36,000 Mile Warranty on all Holstein Parts VVT Sensors



## **VEHICLE SPEED SENSORS**

Vehicle Speed Sensors measure wheel speeds and provide this information to the vehicle's ECU (Electronic Control Unit). The ECU then calculates ignition timing, transmission shift points and air/fuel ratios for the vehicle. Data from the Vehicle Speed Sensor is also used in cruise control systems to maintain a constant speed.





## VEHICLE SPEED SENSORS

- Holstein utilizes only premium materials to ensure durability and reliable service
- All Holstein Vehicle Speed Sensors are rigorously tested to meet or exceed manufacturer's requirements for OE parts.
- Wide Market Coverage for European, Asian, and Domestic Vehicles
- 3 Years / 36,000 Mile Warranty on Holstein Vehicle Speed Sensors