



# Pressure Sensors and Switches

Solutions by Sensata



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## INTRODUCTION



Sensata Technologies provides leaders in the global automotive, appliance, aircraft, industrial and HVAC markets with sensing and protection solutions. Our mission is to improve safety, efficiency and environmental protection for millions of people. Although Sensata Technologies is headquartered in Attleboro, Massachusetts, our European customers are supported by the best application and quality engineering, sales and customer support team out of Sensata's European business and technology development center located in the Netherlands. Sensata Technologies has nine technology and manufacturing center in eight countries, and sales offices throughout the world.

### The world depends on sensors.

With more than 30 Sensata sensor and control devices in a typical home, Sensata Technologies is the world's leading supplier of sensors and controls. By listening to our customers, we understand their business.

## OUR FOCUS / TABLE OF CONTENT

Sensata is laying new focus on its non-automotive market segment by expanding its sales channels for pressure sensors and switches through distribution. Originally automotive engineerd, these products can be applied to a whole new range of industries. Together with EBV Sales and Marketing, our focus is to promote our sensor solutions in two major vertical segments – the Renewable Energies and Automotive segments.

### Renewable Energies



Sensata has a large portfolio of sensors and switches for various renewable-energies applications.

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### Automotive



The heavy-duty off-road, agricultural and construction equipment, marine, alternative fuels, and stationary diesel engines, among others, are all markets falling under the EBV Automotive vertical segment.

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## HEAT PUMPS

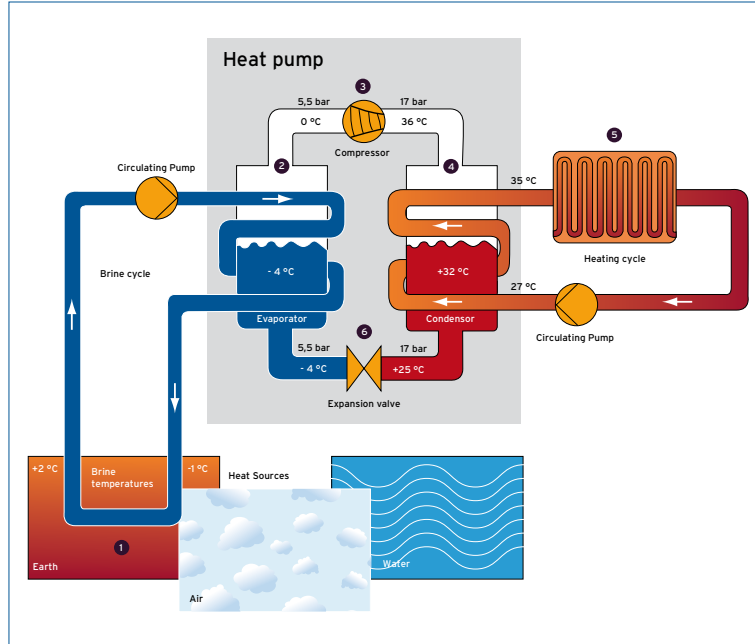
The acceptance of heat pumps as a renewable energy source recently highlighted its potential application in heating, cooling and industrial solutions. The application range is broad, varying from residential to commercial space and water heating or cooling, to heat recovery from refrigeration and industrial processes. Sensata's sensors and switches are ideally suited for these applications due to their robust design, long-term reliability and accuracy.



112CP P+T



2CP5/50



3PP8



## END MARKET

- Air conditioning or heating of environments either industrial or household.

## FEATURES & BENEFITS

### 112CP P+T Series

- Both pressure and temperature measurement in one package
- Fast In-stream temperature measurement
- Precise superheat measurement

### 2CP5/50 Series

- UL recognised
- Ceramic capacitive sensor
- Durable, compact design
- Low cost
- Over-voltage and short-circuit protected

### 3PP8 Series

- High Accuracy
- Stainless Steel Housing
- Hermetically Sealed
- Low Cost
- Capable of Pressure Ranges up to 3000 bar
- Small Size

## WINDMILLS

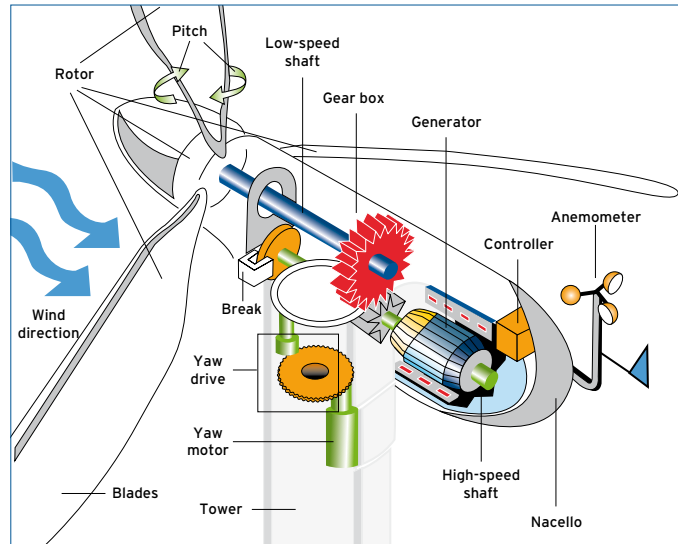
The power of wind energy provides an environmentally friendly alternative to traditional electricity generation. Windmills harvest wind energy and convert this into green electricity. Sensors are critical components in their operation, maintenance and safety due to the harsh environments in which they are located and harsh conditions to which they are exposed.



112CP P+T



1MPP



3PP8



xxCP



## END MARKET

- Wind Farms – turbines for electrical power generation

## APPLICATIONS

- Disc Brake Systems
- Gearboxes
- Cooling Systems for Hydraulic units and in Pitch cylinders
- Oil Pressure
- Filter Conditions

## FEATURES & BENEFITS

### 112CP P+T Series

- Both pressure and temperature measurement in one package
- Fast In-stream temperature measurement
- Precise superheat measurement

### 1MPP Series

- Linear output ratiometric with supply
- Total error band  $\pm 2\%$  full scale
- EMC protection to  $>200$  V/m
- EEPROM calibration and serialisation
- On-board error diagnostics

### xxCP Series

- Enhanced accuracy over wide operating range.
- Housing options are compatible with most media
- EMC protection to 100 V/m
- Broad operating temp. range ( $-40$  to  $+135^{\circ}\text{C}$ )
- Exceptional shake and vibration tolerance
- Over-voltage and reverse polarity protection
- Small size and simple installation

### 3PP8 Series

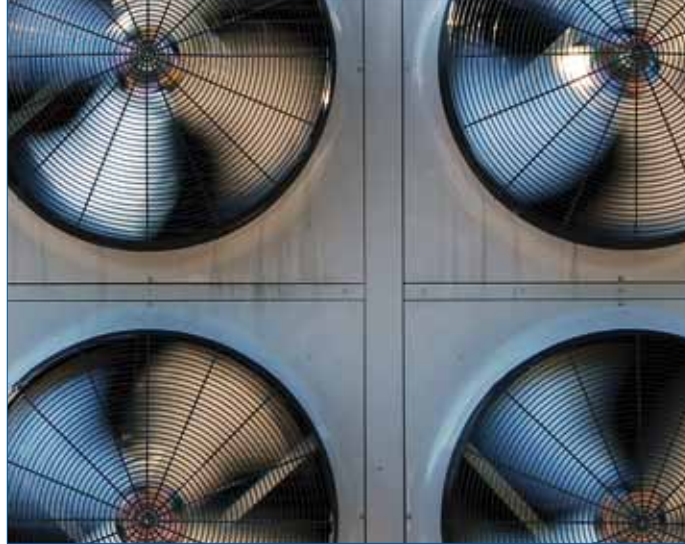
- High Accuracy
- Stainless Steel Housing
- Hermetically Sealed
- Low Cost
- Capable of Pressure Ranges up to 350 bar
- Small Size

## HVAC

Heating, ventilation and air conditioning applications refer to the technology of environmental comfort in indoor or automotive environments. Tall building and commercial building HVAC installations are a significant aspect of this industry, where climate control and air quality conditions are especially important and challenging. Sensata's sensors and switches are ideally suited for demanding HVAC applications due to their robust design, long-term reliability and accuracy.



112CP P+T



3PP8



2CP5/50



1MPP

## END MARKETS

### Building Heating and Ventilation:

- Tall buildings, Commercial & Public Buildings
- Industrial use air conditioning units
- Clean Spaces
- Data processing & Telecommunication Facilities
- Car Parks
- Cruise Ships/Boats

## APPLICATIONS

- Air Handling Units, Filter Control
- Constant/Variable Air Volume Systems
- Roof top units
- Air conditioning units for metros, trains and busses

## FEATURES & BENEFITS

### 112CP P+T Series

- Both pressure and temperature measurement in one package
- Fast In-stream temperature measurement
- Precise superheat measurement

### 1MPP Series

- Linear output ratiometric with supply
- Total error band  $\pm 2\%$  full scale
- EMC protection to  $>200$  V/m
- EEPROM calibration and serialisation
- On board error diagnostics

### 2CP5/50 Series

- UL recognised
- Ceramic capacitive sensor
- Durable, compact design
- Low cost
- Over-voltage and short-circuit protected

### 3PP8 Series

- High Accuracy
- Stainless Steel Housing
- Hermetically Sealed
- Low Cost
- Capable of Pressure Ranges up to 350 bar
- Small Size



## REFRIGERATION

Industrial refrigeration has become an essential part of modern life – from Food Retail to Temperature Controlled Supply Chain solutions and beyond. Current challenges in this industry are to develop more efficient, environmentally-friendly and safe refrigeration solutions. Sensata's wide range of products can meet these challenges by providing low-cost, broad range solutions for specific application requirements demanded in today's Refrigeration Industry.



**2CP5/50**



**3PP8**



**112CP P+T**

## END MARKETS

- Brewing Industry
- Chemical Processing/Production
- Cooling containers used in transport
- Food Freezing/Cooling/distribution/Storage
- General Cold Storage
- Refrigeration displays for grocery stores
- Soft Drink Production and vending machines

## APPLICATIONS

- Cooling/freezing cycle loop
- Container pressure measurement

## FEATURES & BENEFITS

### 112CP P+T Series

- Both pressure and temperature measurement in one package
- Fast In-stream temperature measurement
- Precise superheat measurement

### 2CP5/50 Series

- UL recognized
- Ceramic capacitive sensor
- Durable, compact design
- Low cost
- Accurate performance over wide temperatures
- Over-voltage and short-circuit protected

### 3PP8 Series

- High Accuracy
- Stainless Steel Housing
- Hermetically Sealed
- Low Cost
- Capable of Pressure Ranges up to 345 bar
- Small Size

## LPG AND CNG ALTERNATIVE FUEL

Many passenger cars and off-road vehicles utilise a variety of alternate fuels today, due to the consumer's growing demand for sustainable fuel choices driven by the movement for greener vehicles. This movement is expanding beyond the automotive industry into home heating, agriculture, and public transportation usage. Alternative fuel applications provide a low cost, low risk solution for customers. Sensata has various CNG/LPG certified sensors ideally suited for Alternative Fuels applications.



xxCP



510FCS



51CP P+T



3PP8

## END MARKETS

- Off road and Heavy vehicles
- Passenger Cars
- Public Transportation Vehicles
- Delivery Vehicles
- Home Heating
- Agriculture

## APPLICATIONS

- CNG/LPG fuel rail
- LPG Regulator
- CNG Regulator
- Tank Valve
- Diesel common rail
- Transmission
- Brake

## FEATURES & BENEFITS

### 3PP8 Series

- High Accuracy
- Stainless Steel Housing
- Hermetically Sealed
- Low Cost
- Capable of Pressure Ranges up to 345 bar
- Small Size

### 510FCS Series

- Unique magnet restrained mass inertia mechanism
- Rated at 10 Amps electrical load
- Manually resettable
- Shock calibration ranges available between 8g and 30g
- Stops fuel pump or electrical system operation
- Secondary circuit provides additional function
- Reduces the risk of fire following a crash
- Responsive to 360° impact
- Ability to trigger GPS distress signal
- Capable of carrying fuel-pump load
- Sensory feedback
- Customized for various installations

### xxCP Series

- Enhanced accuracy over wide operating range.
- Housing options are compatible with most media
- EMC protection to 100 V/m
- Broad operating temp. range (-40 to +135°C)
- Exceptional shake and vibration tolerance
- Over-voltage and reverse polarity protection
- Small size and simple installation

### 51CP series

- Both pressure and temperature measurement in one package
- Similar features and benefits to the xxCP series

## ENGINES

The diesel sector: Rising fuel prices are encouraging more consumers to look for more fuel-efficient solutions, driven by changes in legislation for cleaner engines. Modern diesel engines are growing in popularity not only in Europe but globally. Experts predict that this growth will increase even more in the future. To allow for the best control in this system, sensors are needed that can meet the highest requirements while monitoring all needed system parameters.



1MPP



3PP8



xxCP

## END MARKETS

- Gasoline and Diesel Engines eg. for Commercial vehicles, Construction Machines, Passenger Cars, Motorbikes, Stationary Machines, Marine Motors

## APPLICATIONS

- Engine control (Euro 5/Euro 6 requirements)
- Common Rail (Pressure) Management
- Exhaust Gas cleaning (SCR)
- Pressure Temperature control (as well as for electrical Motor Systems)

## FEATURES AND BENEFITS

### xxCP Series

- Enhanced accuracy over wide operating range
- Housing options are compatible with most media
- EMC protection to 100 V/m
- Broad operating temp. range (-40 to +135°C)
- Exceptional shake and vibration tolerance
- Over-voltage and reverse polarity protection
- Small size and simple installation

### 3PP8 Series

- High Accuracy
- Stainless Steel Housing
- Hermetically Sealed
- Low Cost
- Capable of Pressure Ranges up to 345 bar
- Small Size

### 1MPP Series

- Linear output ratiometric with supply
- Total error band  $\pm 2\%$  full scale
- EMC protection to  $>200$  V/m
- EEPROM calibration and serialisation
- On-board error diagnostics



## OFF-ROAD EQUIPMENT

Off-road vehicles are vehicles that do not travel on streets or highways and include tractors, forklifts, cranes, excavators, farm and construction equipment, gasoline-powered lawn and garden equipment, power boats, and more. As in the automotive industry, emissions control is a very important issue for off-road engines.



3PP8



xxCP



2CP5/50

## END MARKETS

- Construction Equipment
- Agricultural Equipment
- Forestry Equipment
- Forklifts

## APPLICATIONS

- off road engines
- brakes
- steering
- transmission
- climate control and safety

## FEATURES AND BENEFITS

### xxCP Series

- Enhanced accuracy over wide operating range
- Housing options are compatible with most media
- EMC protection to 100 V/m
- Broad operating temp. range (-40 to +135°C)
- Exceptional shake and vibration tolerance
- Over-voltage and reverse polarity protection
- Small size and simple installation

### 3PP8 Series

- High Accuracy
- Stainless Steel Housing
- Hermetically Sealed
- Low Cost
- Capable of Pressure Ranges up to 345 bar
- Small Size

### 2CP5/50 Series

- UL recognised
- Ceramic capacitive sensor
- Durable, compact design
- Low cost
- Accurate performance over wide temperature range
- Over-voltage and short-circuit protected

## AIR COMPRESSORS

Many industries rely on the power of compressed air, gas or fluid for powering their manufacturing processes. Compressor manufacturers are faced with an increasing industrial demand requiring them to provide economical, versatile, reliable, and very importantly, environmentally-friendly compressors. Sensata can help address these requirements together with these manufacturers to find sustainable solutions for improved customer productivity.



xxCP

## END MARKETS

- Industrial Manufacturers
- Process Technology

## APPLICATIONS

- Air pumps
- Air compressors for industrial use
- Industrial Refrigeration
- Hydraulic compressors
- Pneumatic Conveying
- Truck Pressure & Vacuum applications
- Condensate Management
- Air Treatment
- Air Audits & System Control

## FEATURES AND BENEFITS

### xxCP Series

- Enhanced accuracy over wide operating range
- Housing options are compatible with most media
- EMC protection to 100 V/m
- Broad operating temp. range (-40 to +135°C)
- Exceptional shake and vibration tolerance
- Over-voltage and reverse polarity protection
- Small size and simple installation

## SENSATA'S PRESSURE SENSORS BY APPLICATIONS

### Renewable Energies

#### Heat Pumps/Refrigeration

Part Number	Port	Port Material	MOQ	Pressure range	Connector Type*	Supplier	Connector Part-Number
<b>112CP (P+T) Series: Combined Pressure + Temperature Sensor</b>							
112CP3-6	1/4 NPT male	Brass	50	bar 1.00 - 10.00	MQS	Tyco	1-968981-1
112CP3-8	M12x1.25 male	Plated steel	50	bar 1.00 - 35.00	MQS	Tyco	1-968981-1
112CP3-9	1/4 NPT male	Brass	50	bar 1.00 - 35.00	MQS	Tyco	1-968981-1
<b>2CP5/50 Series: Pressure Sensor</b>							
2CP50-71-1	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 1.00 - 46.00	Packard	Delphi	12065287
2CP5-20-2	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 1.20 - 29.20	Packard	Delphi	12065287
2CP5-71-13	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 0.00 - 8.00	Packard	Delphi	12065287
2CP5-71-14	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar 1.00 - 35.00	Packard	Delphi	12065287
2CP5-71-3	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 1.20 - 29.20	Packard	Delphi	12065287
2CP5-71-42	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 0.00 - 11.00	Packard	Delphi	12065287
2CP5-71-43	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar 0.00 - 35.00	Packard	Delphi	12065287
2CP5-71-45	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 1.00 - 35.50	Packard	Delphi	12065287
2CP5-71-46	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 0.00 - 10.30	Packard	Delphi	12065287
2CP5-71-47	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar 0.00 - 35.00	Packard	Delphi	12065287
2CP5-71-49	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 0.00 - 13.80	Packard	Delphi	12065287
2CP5-71-52	1/4 SAE Female flare (7/16-20UNF)	Brass	250	bar (abs) 0.00 - 5.00	Packard	Delphi	12065287
2CP5-71-64	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 0.00 - 30.00	Packard	Delphi	12065287
2CP5-71-66	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 1.00 - 18.30	Packard	Delphi	12065287
2CP5-71-7	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 0.12 - 1.05	Packard	Delphi	12065287
<b>3PP8 Series Micro-Fused Strain Gauge Pressure Sensor</b>							
3PP8-9	M12x1.5 male	Stainless steel	180	bar (g) 0.00 - 34.50	Packard	Delphi	12065287
53PP01-01	M12x1 male	Stainless Steel	1080	bar (g) 0.00 - 170.00	MQS	Tyco	2-967642-2

#### HVAC

Part Number	Port	Port Material	MOQ	Pressure range	Connector Type*	Supplier	Connector Part-Number
<b>112CP (P+T) Series: Combined Pressure + Temperature Sensor</b>							
112CP3-6	1/4 NPT male	Brass	50	bar 1.00 - 10.00	MQS	Tyco	1-968981-1
112CP3-8	M12x1.25 male	Plated steel	50	bar 1.00 - 35.00	MQS	Tyco	1-968981-1
112CP3-9	1/4 NPT male	Brass	50	bar 1.00 - 35.00	MQS	Tyco	1-968981-1
<b>1MPP2 Series: Differential Pressure Sensor</b>							
1MPP2-1	Other	Housing PPS	220	kPa (diff) 0.00 - 35.00	AMP seal	Tyco	1717888-1
1MPP2-2	Other	Housing PPS	220	kPa (diff) 0.00 - 100.00	AMP seal	Tyco	1717888-1
<b>2CP5/50 Series: Pressure Sensor</b>							
2CP50-71-1	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 1.00 - 46.00	Packard	Delphi	12065287
2CP5-20-2	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 1.20 - 29.20	Packard	Delphi	12065287
2CP5-21-2	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 1.20 - 29.20	Packard	Delphi	12065287
2CP5-71-13	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 0.00 - 8.00	Packard	Delphi	12065287
2CP5-71-14	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar 1.00 - 35.00	Packard	Delphi	12065287
2CP5-71-3	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 1.20 - 29.20	Packard	Delphi	12065287
2CP5-71-42	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 0.00 - 11.00	Packard	Delphi	12065287
2CP5-71-43	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar 0.00 - 35.00	Packard	Delphi	12065287
2CP5-71-45	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 1.00 - 35.50	Packard	Delphi	12065287
2CP5-71-46	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 0.00 - 10.30	Packard	Delphi	12065287
2CP5-71-47	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar 0.00 - 35.00	Packard	Delphi	12065287
2CP5-71-49	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 0.00 - 13.80	Packard	Delphi	12065287
2CP5-71-50	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 1.00 - 21.70	Packard	Delphi	12065287
2CP5-71-52	1/4 SAE Female flare (7/16-20UNF)	Brass	250	bar (abs) 0.00 - 5.00	Packard	Delphi	12065287
2CP5-71-64	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 0.00 - 30.00	Packard	Delphi	12065287
2CP5-71-66	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 1.00 - 18.30	Packard	Delphi	12065287
2CP5-71-7	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 0.12 - 1.05	Packard	Delphi	12065287
<b>3PP8 Series: Micro-Fused Strain Gauge Pressure Sensor</b>							
3PP8-9	M12x1.5 male	Stainless steel	180	bar (g) 0.00 - 34.50	Packard	Delphi	12065287
53PP01-01	M12x1 male	Stainless steel	1080	bar (g) 0.00 - 170.00	MQS	Tyco	2-967642-2

## Windmills

Part Number	Port	Port Material	MOQ	Pressure range	Connector Type*	Supplier	Connector Part-Number
3PP8 Series: Micro-Fused Strain Gauge Pressure Sensor							
53PP01-01	M12x1 male	Stainless Steel	1080	bar (g) 0.00 - 170.00	MQS	Tyco	2-967642-2
xxCP Series: Pressure Sensor							
52CP34-03	3/8-24 UNF	Plated steel	240	bar (abs) 1.00 - 30.00	Packard	Delphi	12065287
112CP (P+T) Combined Pressure + Temperature Sensor							
112CP3-6	1/4 NPT male	Brass	50	bar 1.00 - 10.00	MQS	Tyco	1-968981-1
112CP3-8	M12x1.25 male	Plated steel	50	bar 1.00 - 35.00	MQS	Tyco	1-968981-1
112CP3-9	1/4 NPT male	Brass	50	bar 1.00 - 35.00	MQS	Tyco	1-968981-1
1MPP2 Series: Differential Pressure Sensor							
1MPP2-1	Other	Housing PPS	220	kPa (diff) 0.00 - 35.00	AMP seal	Tyco	1717888-1
1MPP2-2	Other	Housing PPS	220	kPa (diff) 0.00 - 100.00	AMP seal	Tyco	1717888-1

## Automotive

### LPG and CNG alternative fuels

Part Number	Port	Port Material	MOQ	Pressure range	Connector Type*	Supplier	Connector Part-Number
510FCS Series: Interia Switch							
500FCS01-01	n/a	n/a. Housing: PBT-GF15, Celanex 3200-2	240	0.00 - 0.00	AMP seal	Tyco	344273-1
510FCS01-01	n/a	n/a. Housing: PBT-GF15, Celanex 3200-2	240	0.00 - 0.00	AMP seal	Tyco	344273-1
520FCS01-01	n/a	n/a. Housing: PBT-GF15, Celanex 3200-2	240	0.00 - 0.00	AMP seal	Tyco	344273-1
3PP8 Series: Micro-Fused Strain Gauge Pressure Sensor							
3PP8-9	M12x1.5 male	Stainless steel	180	bar (g) 0.00 - 34.50	Packard	Delphi	12065287
43PP7-1..A	M12x1.5 male	Stainless steel	180	bar (g) 0.00 - 196.00	MQS	Tyco	2-967642-2
45PP10-1	1/2-20 UNF male	Stainless steel	1080	bar (g) 0.00 - 35.00	MQS	Tyco	2-967642-2
51CP (P+T) Series: Combined Pressure + Temperature Sensor							
51CP17-01	M12x1.25 male	aluminum	180	bar (abs) 0.50 - 4.50	MQS	Tyco	1-968981-1
51CP26-01	M12x1.25 male	aluminum	180	bar (abs) 0.50 - 12.00	MQS	Tyco	1-968981-1
3PP8 Series: Micro-Fused Strain Gauge Pressure Sensor							
55PP31-01	M12x1 male	Stainless steel	1080	bar (g) 0.00 - 250.00	Sicma	AVNET	211PC032S7061
55PP32-01	M12x1 male	Stainless steel	1080	bar (g) 0.00 - 250.00	MQS	Tyco	2-967642-2

## Engines

Part Number	Port	Port Material	MOQ	Pressure range	Connector Type*	Supplier	Connector Part-Number
xxCP Series: Pressure Sensor							
100CP2-47	M10x1.25 female flare	Brass	144	bar (abs) 0.00 - 6.00	Packard	Delphi	12065287
100CP7-1	1/8 NPT male	Brass	140	bar (g) 0.00 - 6.90	Packard	Delphi	12065287
50CP09-02	M14x1.5 male	Brass	320	bar (abs) 0.00 - 3.00	MQS	Tyco	1-967642-1
51CP12-02	M10x1 male	Brass	320	bar (abs) 1.00 - 11.00	MQS	Tyco	1-967642-1
63CP0320150AFNA0C	1/4 NPTF -2A Male	Stainless steel	250	bar 0.00 - 10.00	Packard	Delphi	12065287
67CP0220150GFNA0C	1/8 NPTF -2A Male	Brass	250	bar 0.5 to 4.5V	Packard	Delphi	12065287
67CP3220150GFNA0C	1/8 NPTF -2A Male - Hex on body	Brass	250	bar 0.5 to 4.5V	Packard	Delphi	12065287
3PP8 Series: Micro-Fused Strain Gauge Pressure Sensor							
55PP35-01	M12x1.5 male	Stainless steel	1080	bar (g) 0.00 - 2200.00	VDA	Herth & Buss	50-290-932
45PP4-1	M18x1.5 Male	Stainless steel	1080	bar (g) 0.00 - 2000.00	AMP seal	Tyco	2-174357-2
1MPP2 Series: Differential Pressure Sensor							
1MPP2-1	Other	Housing PPS	220	kPa (diff) 0.00 - 35.00	AMP seal	Tyco	1717888-1
1MPP2-2	Other	Housing PPS	220	kPa (diff) 0.00 - 100.00	AMP seal	Tyco	1717888-1

## Off-Road Equipment

Part Number	Port	Port Material	MOQ	Pressure range	Connector Type*	Supplier	Connector Part-Number
3PP8 Series: Micro-Fused Strain Gauge Pressure Sensor							
43PP7-1..A	M12x1.5 male	Stainless steel	180	bar (g) 0.00 - 196.00	MQS	Tyco	2-967642-2
45PP10-1	1/2-20 UNF male	Stainless steel	1080	bar (g) 0.00 - 35.00	MQS	Tyco	2-967642-2
xxCP: Pressure Sensor							
52CP34-03	3/8-24 UNF	Plated steel	240	bar (abs) 1.00 - 30.00	Packard	Delphi	12065287
63CP0320150AFNA0C	1/4 NPTF -2A Male	Stainless steel	250	bar 0.00 - 10.00	Packard	Delphi	12065287
63CP0420250SVNA0	1/4SAE tube fitting; 7/16-20UNF-2A Male	Stainless steel	250	bar 0.5 - 4.5V	Packard	Delphi	12065287
65CP0421000SVNA0	1/4SAE tube fitting; 7/16-20UNF-2A Male	Stainless steel	250	bar 0.5 to 4.5V	Packard	Delphi	12065287
67CP0220150GFNA0C	1/8 NPTF -2A Male	Brass	250	bar 0.5 to 4.5V	Packard	Delphi	12065287
67CP3220150GFNA0C	1/8 NPTF -2A Male - Hex on body	Brass	250	bar 0.5 to 4.5V	Packard	Delphi	12065287
2CP5/50 Series: Pressure Sensor							
2CP50-71-1	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 1.00 - 46.00	Packard	Delphi	12065287
2CP5-20-2	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 1.20 - 29.20	Packard	Delphi	12065287
2CP5-21-2	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 1.20 - 29.20	Packard	Delphi	12065287
2CP5-71-13	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 0.00 - 8.00	Packard	Delphi	12065287
2CP5-71-14	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar 1.00 - 35.00	Packard	Delphi	12065287
2CP5-71-3	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 1.20 - 29.20	Packard	Delphi	12065287
2CP5-71-42	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 0.00 - 11.00	Packard	Delphi	12065287
2CP5-71-43	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar 0.00 - 35.00	Packard	Delphi	12065287
2CP5-71-45	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 1.00 - 35.50	Packard	Delphi	12065287
2CP5-71-46	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 0.00 - 10.30	Packard	Delphi	12065287
2CP5-71-47	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar 0.00 - 35.00	Packard	Delphi	12065287
2CP5-71-49	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 0.00 - 13.80	Packard	Delphi	12065287
2CP5-71-50	1/4 SAE female flare (7/16-20UNF)	Plated steel	250	bar (abs) 1.00 - 21.70	Packard	Delphi	12065287
2CP5-71-52	1/4 SAE Female flare (7/16-20UNF)	Brass	250	bar (abs) 0.00 - 5.00	Packard	Delphi	12065287
2CP5-71-64	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 0.00 - 30.00	Packard	Delphi	12065287
2CP5-71-66	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 1.00 - 18.30	Packard	Delphi	12065287
2CP5-71-7	1/4 SAE female flare (7/16-20UNF)	Brass	250	bar (abs) 0.12 - 1.05	Packard	Delphi	12065287

## Industrial

### Air Compressors

Part Number	Port	Port Material	MOQ	Pressure range	Connector Type*	Supplier	Connector Part-Number
xxCP Series: Pressure Sensor							
100CP2-70	R1/4-19BSPT	Brass	100	bar (abs) 0.00 - 17.20	Packard	Delphi	12065287
50CP09-02	M14x1.5 male	Brass	320	bar (abs) 0.00 - 3.00	MQS	Tyco	1-967642-1
51CP12-02	M10x1 male	Brass	320	bar (abs) 1.00 - 11.00	MQS	Tyco	1-967642-1
52CP34-03	3/8-24 UNF	Plated steel	240	bar (abs) 1.00 - 30.00	Packard	Delphi	12065287

\* For more information about the connectors, please contact our sister company ABACUS



## SENSATA'S PRESSURE SWITCHES

### Industrial Markets/HVAC/Heat Pumps/Refrigeration

Part Number	Description	Temperature Range	Cycle Life	Electrical rating
PS80	Automatic reset pressure switches for static applications	UL Rating: -29°C to 80°C	> 100,000 Cycles	6A @ 240 VAC ; 2A @ 28 VDC
PS80-2x	Automatic reset pressure switch for R744 (CO2) static applications	UL Rating: -29°C to 80°C)	> 100,000 Cycles	6A @ 240 VAC; 2A @ 28 VDC
20PS	Automatic reset pressure switch	UL Rating: -29°C to 65°C	> 100,000 Cycles	3A @ 240 VAC; 2A @ 28 VDC
29PS	Manual reset pressure switch	UL Rating: -29°C to 65°C	> 10,000 Cycles	3A @ 240 VAC
25PS	Automatic reset pressure switch	UL Rating: -29°C to 65°C	> 100,000 Cycles	10A @ 240 VAC; 15A @28 VSC
40PS and 41PS	Automatic reset pressure switch	UL Rating: -40°C to 120°C	> 250,000 Cycles	10A @ 240 VAC; 15A @28 VSC

Contact your local Sales office for customised specifications

### KEY FEATURES

- Hermetically sealed
- Small and lightweight
- Multiple configurations
- Suitable for harsh environments
- High current or low current
- Proven reliability

### APPLICATIONS

- Air Conditioning & Refrigeration
- Engine Oil
- Compressors & Pumps
- Process Controls
- Automation
- Construction & Ag Equipment



20PS/40PS/41PS



PS80

## DEFINITIONS, ACRONYMS AND ABBREVIATIONS

### Acronyms and abbreviations used in this brochure:

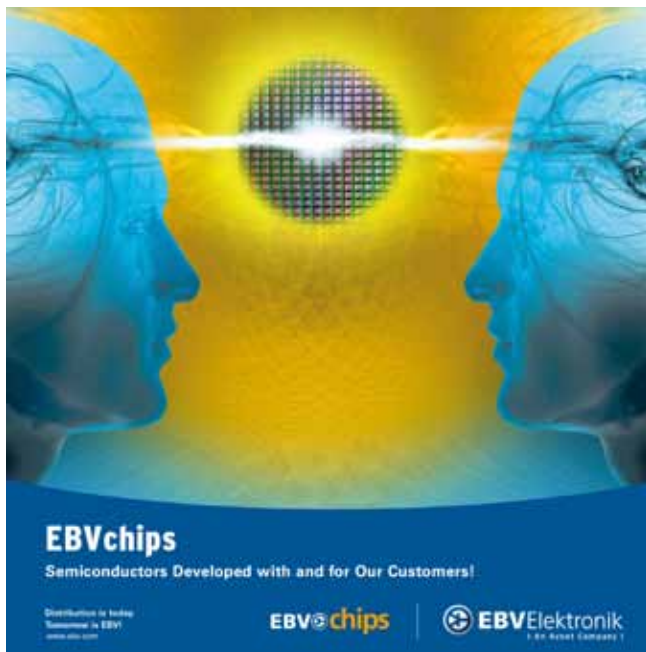
Amps	Ampere
CNG	Compressed Natural Gas
CP	Ceramic Pressure Transducer CP
CPT	Ceramic Capacitive Pressure Transducer
DPS	Differential Pressure Sensor
EMC	Electromagnetic Compatibility
FCS	Interia Switch
GPS	Global Positioning System
HVAC	Heating, Ventilation, and Air Conditioning
LPG	Liquefied Petroleum Gas
MEMS	Micro-Electro-Mechanical-Systems
MPP	Differential Pressure Sensor
MQS	Micro-Quadlock System
MSG	Microfused Strain Gauge pressure sensor
PP	Micro-Fused Strain Gauge PP
PS	Pressure Switch
PSI	Pounds per Square Inch
PVC	Polyvinyl Chloride
SAE	Society of Automotive Engines
SCR	Selective Catalytic Reduction: Catalyst to speed up the reaction for reducing of NO and NO2 by injecting NH3
UL	Underwriter Laboratory

## ABOUT SENSATA

*Sensata Technologies is a world leader and early innovator in mission-critical sensors and controls. On average, Sensata manufactures 20,000 different products and ship over 1 billion units a year under the familiar brand names Klixon®, Airpax®, Dimensions™, Qinx™ and Sensor-NITE. Our devices are used in automotive, appliance, aircraft, industrial, military, heavy vehicle, heating, air conditioning, data and telecommunications, recreational vehicle and marine applications. We help satisfy the world's growing need for safety, energy and a clean environment. Our business centers and manufacturing sites are located in Belgium, Brazil, Bulgaria, China, the Dominican Republic, Japan, Korea, Malaysia, Mexico, The Netherlands and the United States with additional Sales & Marketing offices worldwide. Globally, Sensata employs 12,500 people.*

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