



Order from: **C A Briggs Company**

622 Mary Street; Suite 101; Warminster, PA 18974

Phone: 267-673-8117 - Fax: 267-673-8118

[Sales@cabriggs.com](mailto:Sales@cabriggs.com) - [www.cabriggs.com](http://www.cabriggs.com)



## **PRODUCT BROCHURE**

Whitman Controls is an established leader in the manufacture of pressure, vacuum, liquid level, and temperature sensor solutions.

PRESSURE | VACUUM | LIQUID LEVEL | PROXIMITY | TEMPERATURE SWITCHES & SENSORS

**Whitman Controls** is a leader in the pressure, vacuum, temperature, and level sensor industry, a position we have held for over 40 years. The Whitman Value is built on our differentiated offering of high quality switches and sensors, and the ability to deliver custom products to exact customer specifications in highly competitive lead times. Off the shelf products limit an application's functionality and versatility - why choose a competitor solution at a higher price point that results in inferior performance? Our team of engineers deeply studies your application and media environment to provide a switch or sensor solution that will meet your performance needs while exceeding your expectations. High quality sensors, designed to exact customer specifications, and an unrelenting focus on superior service - Together they add up to the Whitman Value.

### **Service-Disabled Veteran-Owned Small Business**

As a Service-Disabled Veteran-Owned Small Business, we believe in applying the same principles of military service to our every day practices: tireless dedication, rigorous standards of quality, and faithfulness to our values and mission. This translates into providing a high quality product to exact specifications that always exceeds performance expectations.

### **ISO 9001 Certified – We Hold Ourselves, and Our Products, to the Highest Standards.**

Whitman Controls is ISO 9001:2015 Certified, which gives our customers the confidence that we hold our internal processes, and products, to the highest standards of quality and rigorous testing requirements. You can be confident that the product you receive has met all necessary regulatory requirements and will outperform your desired expectations.

### **Experience and Knowledge, That's Invaluable.**

Whitman Controls directs its years of design and manufacturing experience toward providing value-added services to our customers. These services can help you lower costs and increase efficiency. Our engineering team will work intimately with you and your team to design a switch that will maximize application performance no matter what the environment. In addition, our exceptional mechanical abilities allow us to perform additional assemblies and deliver more complete tested systems and subassemblies.

### **Diversified Product Offering – More Choices and More Savings.**

We offer the most extensive pressure, vacuum, temperature and liquid level switch selection in the industry. What does this mean for you? The ability to identify a switch that is suited perfectly for your application at a price that doesn't break your budget. At Whitman, we are constantly evaluating our input prices to identify savings we can pass along directly to the buyer. And we do all of this without sacrificing performance and quality.

Ongoing investment in research and development ensure we stay on the leading edge of sensor technology while consistently offering new models to meet the demands of any application. Plus we do it all at a price that will save you money.



# PRODUCT OFFERINGS

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## PRESSURE & VACUUM SWITCHES

We manufacture a wide range of pressure, vacuum, and compound switches to meet the needs of any industrial application and operating environment. Each of our switches is highly customizable with numerous pressure ranges, fittings, electrical connections, and wetted materials available for selection. The Whitman name was built on our switch products over 40 years ago, and we pride ourselves on the quality and diversity of our offering.

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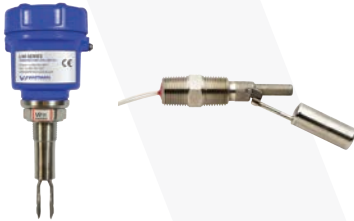
## PRESSURE TRANSMITTERS / TRANSDUCERS

Our full line of pressure transmitters and transducers provide an alternative for OEMs looking for continuous pressure measurement across a range of environments. These switches can be used in compact, low pressure environments, and in more hazardous, higher pressure applications. Like all of our products, these units are highly customizable to meet specific end-user needs.



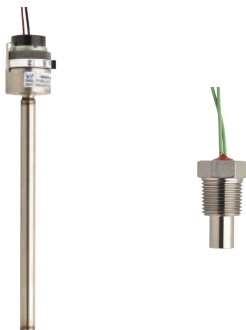
## POINT LEVEL SWITCHES & SENSORS

We provide a highly diversified offering of level switches and sensors, ranging from simple single and multi-level liquid level switches to more advanced sensor technologies used in the measurement of liquids and solids across more rugged media applications. These devices come in numerous sizes and materials, with our more advanced vibrating forks and rods providing numerous electrical settings, fittings, and various enclosures for more hazardous environments.



## LEVEL TRANSMITTERS

Our full line of level transmitters provide continuous level and distance measurement up to 50 feet, and for pressure ranges up to 200 meters of water. These devices are ideal for continuous liquid level measurement, or for proximity measurement in process monitoring applications. Numerous options are available for desired output signals, custom lengths, and more rugged environments.



## TEMPERATURE SWITCHES & SENSORS

Our temperature switches and thermostats are ideal for applications where the end user is looking for highly accurate control across a wide range of operating temperatures. These sensors are adjustable and highly responsive, affording use across a number of OEM processes.

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# PRESSURE & VACUUM SWITCHES



**P88G Economical P/V/C Switch**



**P90 Off-Road NEMA 6 Pressure Switch**



**P95 Off Road NEMA 6 Pressure Switch**




**P100 Low Pressure P/V/C Switch**



**P117 Stainless Steel P/V Switch**

Key Attributes	Economical switches for electrical ratings from 1 - 25 Amps	Ideal in harsh environments, weatherproof and briefly submersible	Ideal in harsh environments, resiliency against high pressure spikes up to 4,000 PSIG	Light pressure applications where precision of set point must be high	Stainless steel switches with high durability and diversity of set points
Available Switch Types	Pressure Vacuum Compound	Pressure	Pressure	Pressure Vacuum Compound	Pressure Vacuum
Proof Pressure	29.9 InHg VAC 600 PSIG	600 PSIG	4,000 PSIG	11.0 InHg VAC 15 PSIG	29.9 InHg VAC 750 PSIG
Set Point Ranges	28.2 InHg - 500 PSIG	0.75 to 400 PSIG	0.75 to 400 PSIG	11.0 InHg - 15 PSIG	28.2 InHg - 500 PSIG
Electrical Rating	Up to 25 Amps SPDT or SPST Availability	1 to 11 Amps SPDT or SPST Availability	1 to 11 Amps SPDT or SPST Availability	1 to 5 Amps SPDT or SPST Availability	1 to 5 Amps SPDT or SPST Availability
Temperature Range	-31°F to +185°F (-35°C to +85°C)	-40°F to +257°F (-40°C to +125°C)	-40°F to +257°F (-40°C to +125°C)	-65°F to +190°F (-54°C to +88°C)	-65°F to +225°F (-54°C to +107°C)
Sensor Element	Diaphragm	Diaphragm	Diaphragm	Diaphragm	Capsule
Standard Fittings (Custom fittings available)	1/4" NPTM 1/8" NPTM 1/8" BSPT Male	1/8" NPTM 12-20 SAE	1/8" NPTM 12-20 SAE	1/8" NPTM	1/8" NPTM 1/4" NPT Male 7/16-20 UNF Male
Wetted Parts	Diaphragm: Buna N & Brass Body: Zinc Alloy, Chromate Finish	Diaphragm: Viton Lower Body: Zinc Alloy, Chromate Finish	Diaphragm: Viton Lower Body: 303 SS	Diaphragm: Buna N with 316 SS Body: Anodized Aluminum	Capsule: 17-7 PH Body & Fitting: 303 SS
Corrosive Environment	Yes - P88LG	Yes	Yes	No	Yes - P117LG

# PRESSURE & VACUUM SWITCHES

					
	<b>W117 Ultra Pure P/V Switch</b>	<b>P119 Miniature P/V Switch</b>	<b>J205G High Pressure P/V Switch</b>	<b>P605 High Pressure OEM Switch</b>	<b>J705 High Pressure / Set Point Switch</b>
<b>Key Attributes</b>	High purity switches with all stainless steel welded interiors that are helium leak checked to pass 4 x 10 <sup>-9</sup> Std CC/Sec	Compact switches with Zinc die-cast bodies, ideal for tight spaces	High pressure ranges with low set points make this among most versatile offerings	Severe application controls suitable for numerous OEM systems specifically those with high pressure spikes	Durable high set point switches for more severe environments where switch integrity is critical
<b>Available Switch Types</b>	Pressure Vacuum	Pressure Vacuum	Pressure Vacuum	Pressure	Pressure
<b>Proof Pressure</b>	29.9 InHg VAC 750 PSIG	29.9 InHg VAC 750 PSIG	29.9 InHg VAC 5,000 PSIG	9,000 PSIG	9,000 PSIG
<b>Set Point Ranges</b>	28.2 InHg - 500 PSIG	28.2 InHg - 500 PSIG	28.2 InHg - 800 PSIG	200 to 6,000 PSIG	500 to 6,000 PSIG
<b>Electrical Rating</b>	1 to 5 Amps SPDT or SPST Availability	1 to 5 Amps SPDT or SPST Availability	1 to 5 Amps SPDT or SPST Availability	1 to 5 Amps SPDT or SPST Availability	1 to 5 Amps SPDT or SPST Availability
<b>Temperature Range</b>	-65°F to +225°F (-54°C to +107°C)	-65°F to +225°F (-54°C to +107°C)	-65°F to +225°F (-54°C to +107°C)	-65°F to +225°F (-54°C to +107°C)	-65°F to +225°F (-54°C to +107°C)
<b>Sensor Element</b>	Capsule	Capsule	Diaphragm	Piston	Piston
<b>Standard Fittings (Custom fittings available)</b>	1/8" NPTM 1/4" NPTM 1/4" VCR Male	1/8" NPTM 1/4" NPTM	1/8" NPTM 1/4" NPTM 7/16-20 SAE Male 1/4" VCR Male	1/8" NPTM 1/4" NPT Male 7/16-20 UNF Male	1/8" NPTM 1/4" NPTM 1/4" VCR Male
<b>Wetted Parts</b>	Capsule: 17-7 PH, Electron beam welded Body & Fitting: 303 SS	Capsule: 17-7 PH Body & Fitting: Anodized aluminum, ZA8 chromate finish	Diaphragm: 316 SS Body & Fitting: 303 SS	Limp Diaphragm: Kapton Body & Fitting: 303 SS	Piston: 17-4 PH Body & Fitting: 303 SS
<b>Corrosive Environment</b>	Yes - W117LG	Yes - P119LG	Yes - J205LG	Yes - P605L	Yes - J705L

# PRESSURE TRANSMITTERS / TRANSDUCERS



**P802 Rugged OEM  
Pressure Transducer**



**P805 Industrial Use  
Pressure Transducer**

<b>Key Attributes</b>	All-welded stainless steel pressure transducers that are highly configurable with pressure ranges up to 20,000 PSIG	Rugged pressure transmitters with silicon piezoresistive sensors capable of measurement up to 8,700 PSIG
<b>Measurement Range</b>	-14.7 to 20,000 PSIG	-14.7 to 8,700 PSIG
<b>Burst Pressure</b>	Varies by Pressure Range	1.5 x FSO
<b>Pressure Types</b>	Gauge Compound	Absolute Gauge Sealed Gauge
<b>Operating Temp Range</b>	-40°F to +257°F (-40°C to +125°C)	-4°F to +185°F (-20°C to +85°C)
<b>Output Signal</b>	4 - 20mA 0.5 - 4.5V (ratiometric) 0 - 5V 1 - 5V 0 - 10V 1 - 6V 1 - 10V	4 - 20mA 0 - 5Vdc 1 - 5Vdc 0 - 10Vdc 0.5 - 4.5Vdc (ratiometric)
<b>Power Supply</b>	9 - 36Vdc (4-20mA output) 9 - 36Vdc (Voltage outputs) 5Vdc (0.5-4.5V outputs)	12 - 36Vdc 15-36Vdc (0 - 10Vdc output) 5Vdc (0.5 - 4.5Vdc output)
<b>Electrical Connectors</b>	DIN 43650 M12 Pigtail Packard MetriPack Hirschmann G Series DT04-3P DTM04-3P Amp Superseal	DIN 43650A M12 x 1 2 wire (current) 3 wire (voltage)
<b>Fittings Available</b>	1/8" NPT Male 1/4" NPT Male 7/16-20 SAE #4 Male 9/16-18 SAE #6 Male 1/4-19 BSP Male 3/8-24 SAE #3 Male 3/8-24 UNJF3A 7/16-20 UNJF3A European Threads (Various)	1/4" NPT Male G1/4 Male G1/2 Male G1/4 Female M20 x 1.5 Male
<b>Wetted Materials:</b>	Diaphragm: 17-4PH Stainless Steel Connection: 304 Stainless Steel	Diaphragm: 316L SS Housing: 304 SS
<b>Accuracy</b>	+/-0.25% of span	+/- 0.25% of span
<b>Protection</b>	IP67	IP65 IP66 (only for cable outlet)
<b>Shock</b>	100gs, 6ms	100gs, 6ms
<b>Vibration</b>	20g	20g

# LIQUID LEVEL SWITCHES



<b>Key Attributes</b>	Side-mounted switches for use as high or low indicators available in several materials	Multi-Station stainless steel or Brass/ Buna Level switches with as many as six level points and up to 72" in length	Vertical Mount stainless steel and Brass/Buna switches available in various sizes designed for high performance and versatility
<b>Available Materials</b>	316 Stainless Steel Polypropylene CPVC Plastic Kynar	316L SS Stem & Floats Brass stem / Buna Floats	316L SS Stem & Floats Brass stem / Buna Floats Polypropylene CPVC Kynar
<b>Min Liquid Specific Gravity</b>	0.70 - 1.00	0.70 - 0.85	0.70 - 1.00
<b>Temperature Range</b>	-40°F to +180°F (+257°F in SS)	-40°F to +300°F	-40°F to +180°F (+300°F in SS)
<b>Electrical Switch Rating</b>	50 VA	50VA	50VA
<b>Fitting</b>	1/2" NPT 1/2" BSPT	1/8" NPT 1/2" NPT 1" NPT 1 1/2" NPT 2" NPT 3" Flange	1/8" NPT
<b>Crush Pressure</b>	100 PSI (500 PSI in SS)	1,000 PSI (Stainless Steel) 160 PSI (Brass / Buna)	100 PSI (Plastic) 160 PSI (Brass / Buna) 1,000 PSI (Stainless Steel)



<b>Key Attributes</b>	Bent stem stainless steel level switches allowing for insertion into the sides of tanks and for vertical actuation	Rugged version of the L40 for use in more severe operating environments	Miniature and economical vertical mount switches available in polypropylene
<b>Available Materials</b>	316L Stainless Steel	316L SS Stem & Floats Brass stem / Buna Floats	Polypropylene & Buna Float
<b>Min Liquid Specific Gravity</b>	0.9	0.75 - 0.80	0.77
<b>Temperature Range</b>	-40°F to +257°F	-40°F to +180°F (+257°F in SS)	-40°F to +176°F
<b>Electrical Switch Rating</b>	50VA	50 VA	50VA
<b>Fitting</b>	1/8" NPT 3/8-24 UNF 2A Thread	1/4" NPT	1/8" NPT 3/8 - 16 UNC
<b>Crush Pressure</b>	900 PSI	975 PSI (Stainless Steel) 160 PSI (Brass / Buna)	100 PSI

# VIBRATING FORK & ROD LEVEL SENSORS



**L90 Vibrating Fork Level Switch**



**L91 Vibrating Rod Point Level Switch**



**L92 Vibrating Fork Point Level Switch**

<b>Key Attributes</b>	Heavy duty tuning fork for measuring liquids across a range of media and applications	Heavy duty stainless steel vibrating rod ideal for measuring the presence of solids and powders	Heavy duty vibrating fork ideal for measuring the presence of solids and powders
<b>Max Viscosity Minimum Density</b>	10,000 cStokes	>= 350 gram/litre	15 gram/litre (150mm Fork Length) 75 gram/litre (125mm Fork Length) 500 gram/litre (100mm Fork Length)
<b>Process Temp. Range</b>	-22°F to +392°F	-22°F to +482°F	-22°F to +392°F
<b>Process Pressure</b>	218 PSI Max	218 PSI Max	218 PSI Max
<b>Available Wetted Parts</b>	316/316L SS PTFE PFA TEFZEL HALAR	316/316L SS PTFE PFA TEFZEL HALAR	316/316L SS PTFE PFA TEFZEL HALAR
<b>Vibration Test</b>	As per IEC 60068 part 2 - 6	As per IEC 60068 part 2 - 6	As per IEC 60068 part 2 - 6
<b>Available Process Connections</b>	1" NPT / BSP 1 1/4" NPT / BSP 1 1/8" NPT / BSP 2" NPT / BSP Flange	1" NPT / BSP 1 1/4" NPT / BSP 1 1/8" NPT / BSP 2" NPT / BSP Flange	1" NPT / BSP 1 1/4" NPT / BSP 1 1/8" NPT / BSP 2" NPT / BSP Flange
<b>Available Electronics (Supply &amp; Output)</b>	15 to 80VDC, DPDT Output 12 to 60 VDC, PNP Output 15 to 80VDC, SPDT Output Two Wire 18 to 260 VAC, Series Relay Two Wire DC 8 - 16 mA & 4 - 20 mA PFM Source Powered	15 to 80VDC, DPDT Output 12 to 60 VDC, PNP Output 15 to 80VDC, SPDT Output Two Wire DC 8 - 16 mA & 4 - 20 mA	15 to 80VDC, DPDT Output 12 to 60 VDC, PNP Output 15 to 80VDC, SPDT Output Two Wire DC 8 - 16 mA & 4 - 20 mA
<b>Available Enclosures</b>	Aluminum IP66-68 Rated Aluminum Flameproof IIa, IIb, IIc Stainless Steel Polycarbonate Plastic Customer Specified	Aluminum IP66-68 Rated Aluminum Flameproof IIa, IIb, IIc Stainless Steel Polycarbonate Plastic Customer Specified	Aluminum IP66-68 Rated Aluminum Flameproof IIa, IIb, IIc Stainless Steel Polycarbonate Plastic Customer Specified
<b>Insertion Length</b>	50 - 3,000mm	250 - 3,000mm	125 - 3,000mm
<b>Explosion Proof</b>	Yes	Yes	Yes



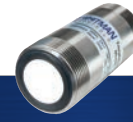
# LEVEL TRANSMITTERS



**L96 Capacitance Level Transmitter**



**L95 Hydrostatic Pressure Level Transmitter**



**Toughsonic Ultrasonic Level Sensor**



**Toughsonic PVDF Housing Ultrasonic Level Sensor**

**Key Attributes**

Highly customizable capacitance level probe with numerous output options ideal for measuring liquid level in various tanks and other enclosures.

Stainless steel IP68 Rated devices for measuring vertical depth of a liquid

Ruggedized piezoelectric ultrasonic transducers for measuring level and distance through the air at distances up to 30 feet

Ruggedized piezoelectric ultrasonic transducers stored in PVDF housings for use in diesel fuels and chemical applications in closed and open tanks. Measurement options up to 20 feet

**Measurement Range**

Customizable

0.5 - 200m H2O

0 - 30 ft  
(0 - 9.1m)

0 - 20 ft  
(0 - 6m)

**Operating Temp Range**

-22°F to +392°F  
(-30°C to 200°C)

+32°F to +158°F  
(0°C to +70°C)

-40°F to +158°F  
(-40°C to +70°C)

-40°F to +158°F  
(-40°C to +70°C)

**Output Signal**

0-5V, 1-5V,  
0-10V, 4-20mA,  
Latching Relay

4 - 20mA

Voltage, 4 - 20mA,  
or combination

Five selectable,  
plus serial data

**Power Supply**

Varies with  
Output

12-36Vdc

10-30Vdc  
@60 mA Max

10-30Vdc  
@60 mA Max

**Wetted Materials**

304 / 316 SS,  
PTFE,  
Ceramic

304 SS  
316L  
SS PTFE,  
Ceramic

316 Stainless Steel

316 Stainless Steel

**Protection**

IP68

IP68

IP68  
NEMA - 4X  
NEMA - 6P

IP68  
NEMA - 4X  
NEMA - 6P

# TEMPERATURE SWITCHES & SENSORS



**L10 Temperature Level Switch**



**T150D Temperature Switch**



**TP Series Temperature Probe Switch**



**T3 Capillary Thermostat**

Key Attributes	Temperature and level measurement in fluids up to 225°F	Adjustable temperature switches with set points up to 510°F and media applications up to 800°F	Creep action thermostat / thermal protector switch designed for use up to 250°F in 25°F increments	Capillary bulb stainless steel thermostat with 39" capillary tubes, stainless steel construction, use up to +190°F
<b>Max System Temperature</b>	+225°F (+107°C)	+800°F (427°C)	+225°F (+107°C)	+190°F (+88°C)
<b>Max System Pressure</b>	160 PSIG	1,000 PSIG	1,000 PSIG	1,000 PSIG
<b>Set Point Ranges</b>	+100°F to +225°F in 25° Increments -40°C to +107°C	-45°F to +510°F in 25° Increments -43°C to +266°C (+230°F / +110° in oil)	+50°F to +250°F in 25° Increments -40°C to +121°C	+30°F to +190°F (-1°C to 88°C)
<b>Ambient Temperature Range</b>	-40°F to +225°F in 25° Increments (-40°C to +107°C)	-65°F to 225°F (-54°C to 107°C)	-40°F to +250°F in 25° Increments (-40°C to +121°C)	+30°F to +190°F (-1°C to 88°C)
<b>Electrical Rating</b>	50VA	12" Wire Leads	-40°F to +250°F in 25° Increments (-40°C to +121°C)	10 Amps
<b>Sensor Element</b>	Reed Switch	Limit filled, saturated vapor sensor	Creep action thermostat	Capillary Bulb
<b>Fittings Available</b>	1/8" NPT	1/2" NPT Fitting adapter available	1/2" NPT Male	None
<b>Wetted Parts</b>	Brass stem, Buna Float	316L Stainless Steel	316 Stainless Steel	316 Stainless Steel
<b>Corrosive Environment</b>	Yes	Yes	Yes	No



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