

**WINTERS**



*We're There.*



**POWER GENERATION**

# Power Generation Selection



### PPC Process Gauge

The PPC is a durable gauge with a phenolic solid front and pressure relief back safety case. Use the PPC in situations where user safety is a must such as in the presence of contaminated media

<b>Dial Size</b>	4.5"
<b>Case</b>	Black phenolic with pressure relief back, solid front, integral back flange
<b>Accuracy</b>	±0.5% ANSI/ASME Grade 2A
<b>Range</b>	Vac to 20,000 psi
<b>Connection</b>	1/4" or 1/2" NPT bottom or back, brass* or SS



### PPC-ZR StabilizR® Process Gauge

The PPC-ZR StabilizR® gauge dampens movement and minimizes the effects of pulsation and vibration without liquid filling. Ideal for processes where chemical compatibility and vibration are a concern

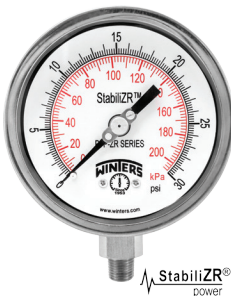
<b>Dial Size</b>	4.5"
<b>Case</b>	Black phenolic with pressure relief back, solid front, integral back flange
<b>Accuracy</b>	±0.5% ANSI/ASME Grade 2A
<b>Range</b>	Vac to 20,000 psi
<b>Connection</b>	1/4" or 1/2" NPT bottom or back, brass* or SS



### PPF Premium Stainless Steel Liquid Filled Gauge

This gauge features a pulsation resistant, liquid filled stainless steel case with either brass or stainless steel internals. Ideal for use outdoors or in severe ambient and process conditions

<b>Dial Size</b>	2.5", 4", 4.5" or 6", panel mount
<b>Case</b>	AISI 304 SS
<b>Accuracy</b>	2.5": ±1.5%, 4", 4.5", 6": ±1% ANSI/ASME Grade 1A
<b>Range</b>	Vac to 40,000 psi
<b>Connection</b>	1/4" or 1/2" NPT bottom, centre and lower back, 1/2" BSP(G) or 9/16" autoclavable, brass* or SS



### PPF-ZR Premium Stainless Steel StabilizR® Gauge

PPF-ZR utilizes a precision designed dampening mechanism to minimize the effects of pulsation and vibration. The gauge is suited for applications where corrosiveness and pulsation are a concern

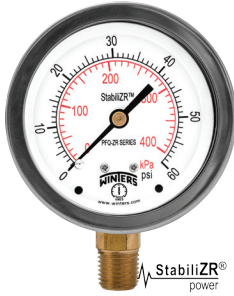
<b>Dial Size</b>	2.5", 4" or 6"
<b>Case</b>	AISI 304 SS
<b>Accuracy</b>	2.5": ±1.5% of full scale, 4" and 6": ±1% ANSI/ASME Grade 1A
<b>Range</b>	Vac to 20,000 psi
<b>Connection</b>	2.5": 1/4" NPT, 4" and 6": 1/4" or 1/2" NPT, SS



### PFQ Stainless Steel Liquid Filled Gauge

PFQ is a durable stainless steel gauge that can withstand pulsation and vibration, making it an ideal choice for pumps, compressors and motors operating in harsh environments

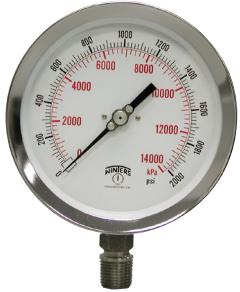
<b>Dial Size</b>	1.5", 2", 2.5" or 4"
<b>Case</b>	AISI 304 SS
<b>Accuracy</b>	1.5" and 2": ±2.5% of full scale, 2.5" and 4": ±1.5% of full scale
<b>Range</b>	Vac to 15,000 psi
<b>Connection</b>	1/8", 1/4" and 1/2" NPT bottom or back or 7/16"-20 SAE bottom, brass*, lead free brass* or SS



## PFQ-ZR StabilizR® Stainless Steel Gauge

PFQ-ZR's dry StabilizR® dampening can withstand pulsation and vibration, making it an ideal choice for pumps, compressors and motors operating in harsh environments

<b>Dial Size</b>	2.5" or 4"
<b>Case</b>	304 SS
<b>Accuracy</b>	±1.5% of full scale
<b>Range</b>	Vac to 15,000 psi
<b>Connection</b>	1/4" and 1/2" NPT bottom or back, brass*



## PSC Safety Case Gauge

Winters' PSC Safety Case gauge is constructed of a solid front and blowout back for the ultimate in gauge safety. PSC has full rotary movement and micrometer pointer for ease of calibration

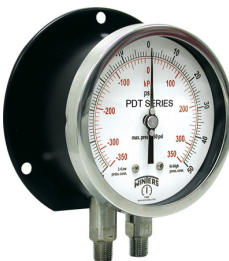
<b>Dial Size</b>	2.5", 4", 4.5" or 6"
<b>Case</b>	304 SS with blowout back
<b>Accuracy</b>	2.5": ±1.5%, 4" and 6": ±1% ANSI/ASME Grade 1A, 4.5": ±0.5% ANSI/ASME Grade 2A
<b>Range</b>	Vac to 20,000 psi
<b>Connection</b>	1/4" or 1/2" NPT bottom or back, SS



## PLP Low Pressure Gauge

PLP provides a highly accurate reading of low pressure corrosive and non-corrosive gaseous media. It is used to measure natural gas pressure as well as air flow indication and leak detection

<b>Dial Size</b>	2.5", 4", 4.5" or 6"
<b>Case</b>	AISI 304 SS, aluminum (black), steel (black) or cast aluminum (black)
<b>Accuracy</b>	SS: ±1.6% of full scale, brass*: ±3-2-3% ANSI/ASME Grade B
<b>Range</b>	0 to 10 psi
<b>Connection</b>	1/4" NPT bottom or back, brass* or SS



## PDT Differential Gauge

This gauge uses brass or stainless steel wetted parts and is available with conventional or balanced scales. The PDT is typically used to measure pressure drops across filters, pumps or other equipment

<b>Dial Size</b>	4.5" or 6"
<b>Case</b>	Aluminum, painted black
<b>Accuracy</b>	±1% ANSI/ASME Grade 1A
<b>Range</b>	0 to 600 psi
<b>Connection</b>	1/4" NPT bottom or back, brass* or SS

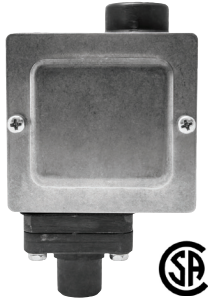


## PDX Duplex Gauge

The PDX is a heavy duty, highly accurate gauge that uses two separate bourdon tubes and pointers to compare two separate process pressures at the same time

<b>Dial Size</b>	4.5" or 6"
<b>Case</b>	Aluminum, painted black
<b>Accuracy</b>	±1% ANSI/ASME Grade 1A
<b>Range</b>	0 to 600 psi
<b>Connection</b>	1/4" NPT bottom or back, brass* or SS

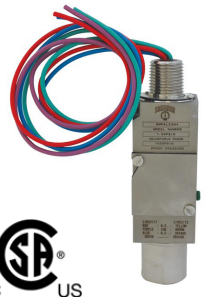
# Power Generation Selection



### 2WPS General Purpose Pressure Switch

The 2WPS has a NEMA 4, IP65 enclosure rating with the option of a NEMA 4X rating. It is typically utilized for pump and compressor monitoring and general industrial applications

<b>Housing</b>	Anodized aluminum
<b>Wetted Parts</b>	Aluminum and Buna-N (PTFE O-ring or FKM diaphragm optional)
<b>Range</b>	Vac to 500 psi
<b>No. of Contacts</b>	One, SPDT
<b>Accuracy</b>	±2% of the adjustable range



### 9WPS Explosion Proof Compact Pressure Switch

Designed for hazardous locations where an explosion proof switch is required

<b>Housing</b>	316 SS
<b>Wetted Parts</b>	Vacuum and low pressure – seals: FKM diaphragm High pressure – piston: SS with PTFE backup ring and FKM o-ring
<b>Range</b>	Vac - 10,000 psi
<b>No. of Contacts</b>	1 x SPDT, DPDT (2 x SPDT, DPDT optional)
<b>Accuracy</b>	±2% of full scale



### LE3 General Purpose Transmitter

Suitable for all process and automation control, hydraulics and pneumatic sensing, pump and compressor monitoring, refrigeration and HVAC

<b>Output Signal</b>	Standard 2-wire: 4-20 mA / Vs = 8-32 Vdc (CSA) Optional 3-wire: 0-10 V / Vs = 14-30 Vdc Optional 3-wire ratiometric: Vsig = 0.5-4.5 Vs / Vs = 5 ± 0.5 Vdc
<b>Range</b>	Vac to 5,000 psi
<b>Accuracy</b>	±0.5% FSO
<b>Wetted Parts</b>	304 SS port with Ceramic sensor
<b>Allowable Temperatures</b>	Medium: -13°F to 257°F (-25°C to 125°C)   Storage: -40°F to 185°F (-40°C to 85°C) Electronics environment: -13°F to 185°F (-25°C to 85°C)



### LIS Intrinsically Safe Transmitter

Appropriate for all hazardous areas where an intrinsically safe rating is required, including oil & gas and chemical installations

<b>Output Signal</b>	Standard 2-wire: 4-20 mA / Vs = 8-32 Vdc   I.S. protection: Vs = 14-28 Vdc Optional 3-wire: 0-20 mA / Vs = 14-30 Vdc   0-10 V / Vs = 14-30 Vdc
<b>Range</b>	Vac to 8,700 psi
<b>Accuracy</b>	±0.5% FSO IEC 60770
<b>Wetted Parts</b>	304 SS port with Ceramic sensor
<b>Allowable Temperatures</b>	Medium: -40°F to 257°F (-40°C to 125°C) Electronics environment: -13°F to 185°F (-25°C to 85°C) Storage: -40°F to 212°F (-40°C to 100°C)



### LXP Explosion Proof Transmitter

Suitable for a variety of hazardous applications where the added security of an explosion proof enclosure is required

<b>Output Signal</b>	Standard 2-wire: 4-20 mA / Vs = 12-28 Vdc Optional 3-wire: 0.5-5.5 Vdc / Vs = 9-28 Vdc   3-wire: 1-11 Vdc / Vs = 14-28 Vdc Note: Other output signals available
<b>Range</b>	Vac to 10,000 psi
<b>Accuracy</b>	±0.25% BFSL / ±0.5% for vacuum only
<b>Wetted Parts</b>	304 SS port with welded sensor
<b>Allowable Temperatures</b>	Operating: -40°F to 160°F (-40°C to 71°C) Compensating: 30°F to 160°F (-1°C to 71°C) Storage: -40°F to 185°F (-40°C to 85°C)





### WinSMART™ LY16 Pressure Transmitter

LY16 is a high-powered smart transmitter with hazardous approvals and broad accuracy classes, able to handle all pressure measurement requirements

<b>Output</b>	4/20mA, 1/5VDC, Modbus RS485, HART®
<b>Housing</b>	Die-cast aluminum, painted blue
<b>Accuracy</b>	0.2%, 0.5%, 0.1%, 0.075%, 0.05%
<b>Range</b>	-14.5 psi up to 14,500 psi
<b>Sensor</b>	316 SS



### WinSMART™ LY36 Differential Pressure Transmitter

LY36 smart differential pressure transmitter can handle low and high pressure requirements and is equipped with hazardous approvals. Differential pressure transmitters measure pressure drops across orifices and can also monitor flow and level

<b>Output</b>	4/20mA, 1/5VDC, Modbus RS485, HART®
<b>Housing</b>	Die-cast aluminum, painted blue
<b>Accuracy</b>	0.05%, 0.075%
<b>Range</b>	-24"H <sub>2</sub> O up to 1,450 psi
<b>Sensor</b>	316 SS



### WinSMART™ TY52 Temperature Transmitter

Equipped with a PT100 RTD, TY52 can handle many different smart temperature reading applications from hazardous to general purpose areas

<b>Output</b>	4/20mA, 1/5VDC, Modbus RS485, HART®
<b>Housing</b>	Die-cast aluminum, painted blue
<b>Accuracy</b>	0.5%
<b>Range</b>	-50 up to 400°C / -58 up to 752°F
<b>Stem</b>	316 SS



### TER Industrial RTD

RTDs highly accuracy and dependable temperature sensors used in a variety of industrial applications. Areas include refineries, petrochemical plants and gas-to-liquid processes

<b>Head</b>	Aluminum (standard) or stainless steel
<b>Element</b>	TER: Platinum 100 Ohm Class A as per IEC751
<b>Accuracy</b>	TER: ±0.5°C at 0°C
<b>Range</b>	-328°F to 2,192°F (-200°C to 1,200°C)
<b>Connection</b>	Process: 1/2" NPT (3/4" NPT with well) male, Conduit: 1/2" NPT female



### TET Industrial Thermocouple

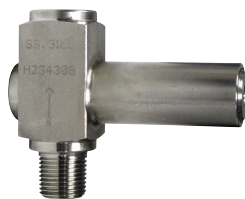
Thermocouples are electronic temperature sensors capable of measuring high temperatures. Areas include storage tanks, power plants, paper mills and food & beverage processes

<b>Head</b>	Aluminum (standard) or stainless steel
<b>Element</b>	TET: Type J & K standard
<b>Accuracy</b>	TET: ±0.4% Class 1
<b>Range</b>	-328°F to 2,192°F (-200°C to 1,200°C)
<b>Connection</b>	Process: 1/2" NPT (3/4" NPT with well) male, Conduit: 1/2" NPT female

# Power Generation Selection

## SOP Overpressure Protector

SOP utilizes an external adjusting screw to automatically shut off pressure to an instrument once the adjustable pressure is exceeded. This overpressure protector is available in Bellows and piston types



<b>Body</b>	316 SS with or without NACE
<b>Burst</b>	10,000 psi/kPa
<b>Temperature</b>	-40°F to 248°F (-40°C to 120°C)
<b>Connection</b>	1/4" NPTM x 1/4" NPTF or 1/2" NPTM x 1/2" NPTF

## NVA Needle Valve (Straight Body, Hard Seat)

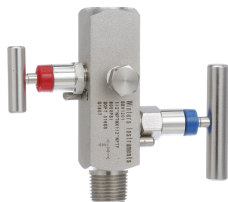
The one-piece body construction provides strength and safety while the slow opening handle prevents sudden pressure surge. The hard seat provides durability against high flow/velocity and corrosive media



<b>Body</b>	Carbon steel, carbon steel NACE tip, stainless steel or stainless steel NACE
<b>Connections</b>	1/4", 3/8", 1/2", 3/4" or 1" NPTM x NPTF or NPTF x NPTF
<b>Pressure</b>	6,000 psi (41,368 kPa) or 10,000 psi (68,947 kPa)
<b>Needle/Needle Tip</b>	Stainless steel or stainless steel NACE
<b>Gland Packing</b>	PTFE/Graphite (Graphite used for high temperature applications)
<b>Screw</b>	304 SS

## BBV Block & Bleed Valve Two Handles

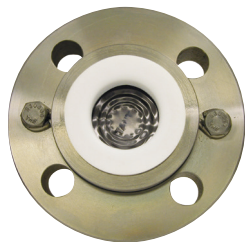
The two handle block & bleed valve allows controlled media bleed off without disturbing the permanent piping installation, allowing safe and easy removal or replacement of instruments



<b>Body</b>	Carbon steel, stainless steel or stainless steel NACE
<b>Connections</b>	1/4", 1/2" or 3/4" NPTM x NPTF or NPTF x NPTF
<b>Pressure</b>	6,000 psi (41,368 kPa) (soft seat) or 10,000 psi (68,947 kPa) (hard seat)
<b>Needle/Needle Tip</b>	Stainless steel or stainless steel NACE
<b>Stem O-rings</b>	FKM

## D44 Flanged Diaphragm Seal

D44 series two-piece flanged diaphragm seal is available in a variety of sizes and housing materials. A backing plate prevents the diaphragm from rupturing if the pressure sensing instrument fails



<b>Upper Housing</b>	Nickel plated carbon steel, 316 SS
<b>Lower Housing</b>	316 SS, Hastelloy® B & C, Monel®, PTFE, other
<b>Diaphragm</b>	PTFE for increased compatibility, sensitivity and versatility
<b>Min/Max Pres.</b>	0-2,500 psi
<b>Connection</b>	1/4" or 1/2" NPTF
<b>Process Flange</b>	1", 1.5" or 2" and #150 or #300 pressure rating

## D70 Diaphragm Seal

The D70 is found in applications where process fluids are corrosive or viscous and could damage instrumentation. An optional flushing connection is available to prevent clogging of the seal



<b>Housing</b>	316L SS, Monel®, Hastelloy® C
<b>Diaphragm</b>	316L SS, Monel®, Hastelloy® C, FKM
<b>Min. Pressure</b>	30 psi
<b>Max. Pressure</b>	2,500 psi
<b>Connection</b>	1/4", 1/2", 3/4" and 1" NPT bottom, 1/4" and 1/2" top



### TBM Bi-Metal Thermometer

This industrial grade thermometer uses a bi-metallic sensing element for reliable temperature readings. All models are hermetically sealed and fully moisture and water proof

<b>Dial Size</b>	1" to 6"
<b>Case</b>	AISI 304 SS
<b>Accuracy</b>	±1% of full scale
<b>Range</b>	-100°F to 1,000°F (-70°C to 550°C)
<b>Connection</b>	1/4" or 1/2" NPT bottom, back or adjustable angle



### TRR Remote Reading Thermometer

TRRs are heavy duty gas or vapour filled thermometers for remote reading installations. This product is available for immediate delivery off-the-shelf and non-standard configurations are made-to-order

<b>Dial Size</b>	2.5", 3.5", 4", 4.5", 6" or 8.5"
<b>Case</b>	2.5": 316 SS, 3.5" and 4": steel painted black, others are aluminum painted black
<b>Accuracy</b>	Gas ±1% of full scale value, Vapour ±2% of full scale value
<b>Range</b>	-40°F to 1,000°F (-40°C to 537°C)
<b>Connection</b>	1/2" bulb diameter, brass* or SS



### TBR Bi-Metal Threaded Thermowell

The TBR is standard in a "stepped construction" and available in a variety of custom configurations. Use to protect TBM thermometers from media or to allow for maintenance without shutting down a system

<b>Material</b>	Brass*, AISI 304 SS, AISI 316 SS, other materials available upon request
<b>Bore</b>	.260" standard
<b>Length</b>	2.5", 4", 6", 9", 12" or 15"
<b>Process Connect.</b>	3/4", 1/2" or 1" standard, other thread sizes available upon request
<b>Therm. Connect.</b>	1/2" NPT female, other thread sizes available upon request



### TWF Flanged Bi-Metal Thermowell

The TWF thermowell is designed for use on a closed system. It is used to protect thermometers from process media and to allow for thermometer replacement without requiring shut-down of the system


<b>Material</b>	304 SS or 316 SS
<b>Bore</b>	.260"
<b>Length</b>	4", 6", 9", 12" or 15"
<b>Process Connect.</b>	1", 1.5" or 2" flange
<b>Therm. Connect.</b>	1/2" NPT female



### TWW Weld-in Threaded Thermowell

Where high pressure or high flow of media is present (i.e. pipes)

<b>Material</b>	304 or 316 SS
<b>Bore</b>	0.260" (6.5mm) standard
<b>Therm. Connect.</b>	1/2" NPT
<b>Other</b>	1.5" connection pipe size standard

\*  **WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

# WINTERS INSTRUMENTS

MANUFACTURER OF INDUSTRIAL INSTRUMENTATION



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