

V550 Spring Lock – Flanged Connection with Packing Gland

The Most Accurate and Reliable Technology for Measuring Gas, Liquid and Steam...

Developed from aerospace technology, the VERIS Verabar® averaging pitot flow sensor provides unsurpassed accuracy and reliability. With its solid, one-piece construction and bullet shape, the VERIS Verabar® makes flow measurement leak resistant and precise.

The unique sensor shape reduces drag and flow induced vibration.

The location of the low-pressure ports significantly reduces the potential for clogging and improves signal stability.



V550

V550 Flanged Spring Lock	
Pipe Connection	Flanged
Mounting Type	Spring loaded sensor mounted on flange with packing gland
Features and Benefits	<ul style="list-style-type: none"> • Blow-out and leak resistant design • Preloads sensor to opposite wall • Four times stronger than conventional mountings • Eliminates need for opposite end support • Compensates for changes in pipe diameter due to pressure, temperature or mechanical force • Can mount to existing flanges
Applications	<ul style="list-style-type: none"> • Air • Natural gas • Water (raw, cooling, feedwater) • Hydrocarbon liquids and gases • High velocity fluids • Hazardous fluids • Steam
Special Designs — Consult Factory	<ul style="list-style-type: none"> • Custom mounting, lengths, materials, instrument connections, etc. • Short straight run

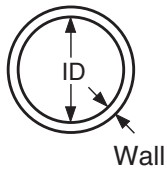
Temperature Pressure Limits (ANSI Class)*
150#
275 psig @ 100°F (19 bar @ 38°C)
80 psig @ 800°F (5.5 bar @ 426°C)
300#
720 psig @ 100°F (49.6 bar @ 38°C)
410 psig @ 800°F (28.3 bar @ 426°C)
600#
1440 psig @ 100°F (99.3 bar @ 38°C)
825 psig @ 800°F (56.9 bar @ 426°C)

Model Specifications	V550		
Sensor Code	05	10	15
Sensor Diameter	7/16" (11mm)	7/8" (22mm)	1-3/8" (35mm)
Accuracy	±1% of flow rate; up to +/-0.5% if calibrated		
ANSI Class*	150#, 300# and 600#		
Pipe Size	2" - 6" (50mm-150mm)	6" - 42" (150mm-1050mm)	12" - 60" (300mm-1500mm)
Instrument Connection	1/2" NPT or Direct Mount		
Components Furnished	Spring lock mounting assembly, weld coupling, weldneck flange, gasket, studs & nuts		
Weld Coupling Size	1" NPT	1-1/2" NPT	2" NPT

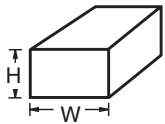
* DIN and JIS flanges available. Consult factory.



1. Enter Pipe Dimensions or Duct Dimensions



Pipe Size _____ Sch _____
 Pipe ID _____ and
 Wall _____ Pipe Material _____

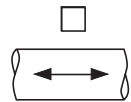


Height (H) _____
 Width (W) _____
 Wall _____
 Duct Material _____

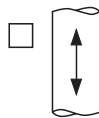
Dimension
 Verabar® spans
 (H) or (W)

2. Pipe or Duct Orientation

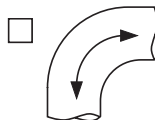
(Check one box)



(H) Horizontal



(V) Vertical



Short
 Straight Run
 Consult Factory

3. Enter Flow Conditions

Fluid Name:		Maximum	Nominal	Minimum	Units
Flow Rate					
All Fluids	Pressure @ Flow				
	Temperature @ Flow				
Gas	Specific Gravity, or Molecular Weight				
Liquid	Specific Gravity				
Steam	VeraCalc Program can calculate Density from Temperature and Pressure				

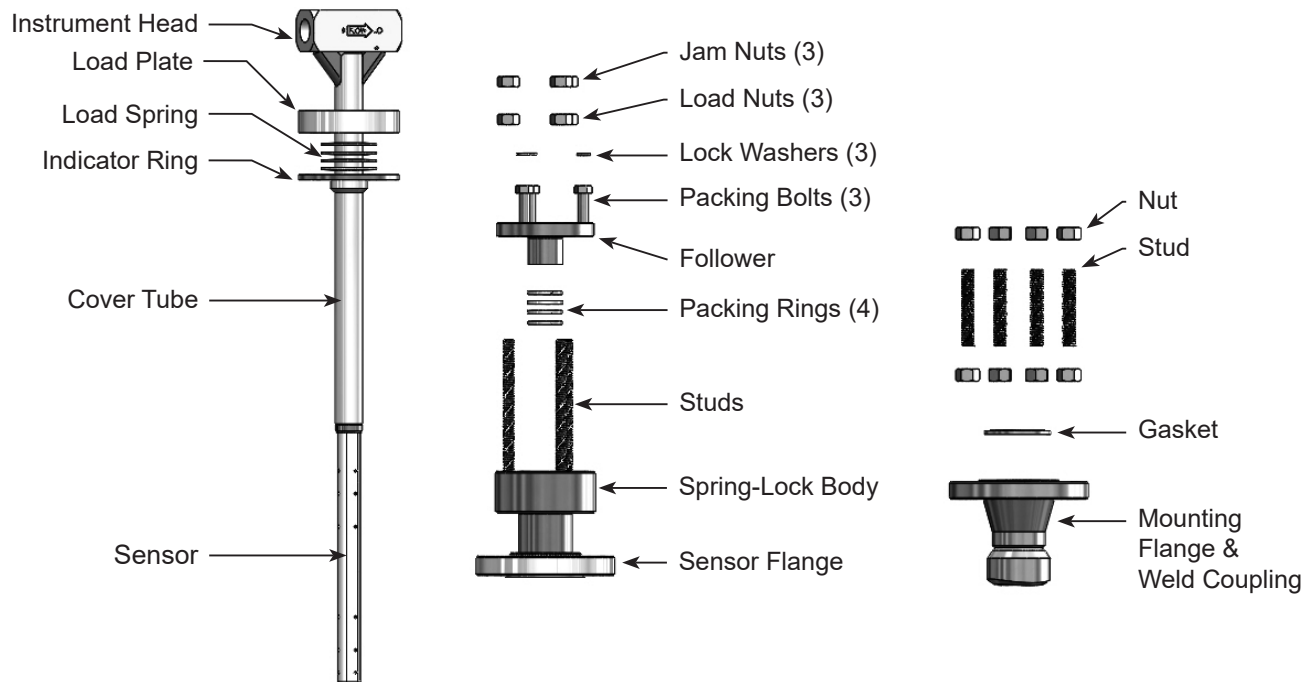
4. Select Model

(From Page 3)

Use the Ordering Information table on Page 3 to determine your model number.

5. Flow Calculation





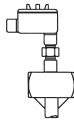
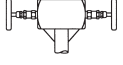
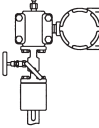
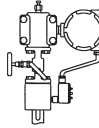
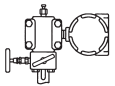


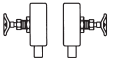
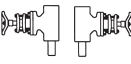
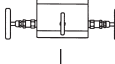
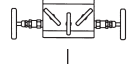
All VERIS Verabar® applications require a flow calculation to verify the DP, pressure and temperature limits, structural limits and to size the transmitter. VeraCalc is for use by representatives and end users. It is easy to operate and includes steam tables.



Verabar® V550 Spring Lock

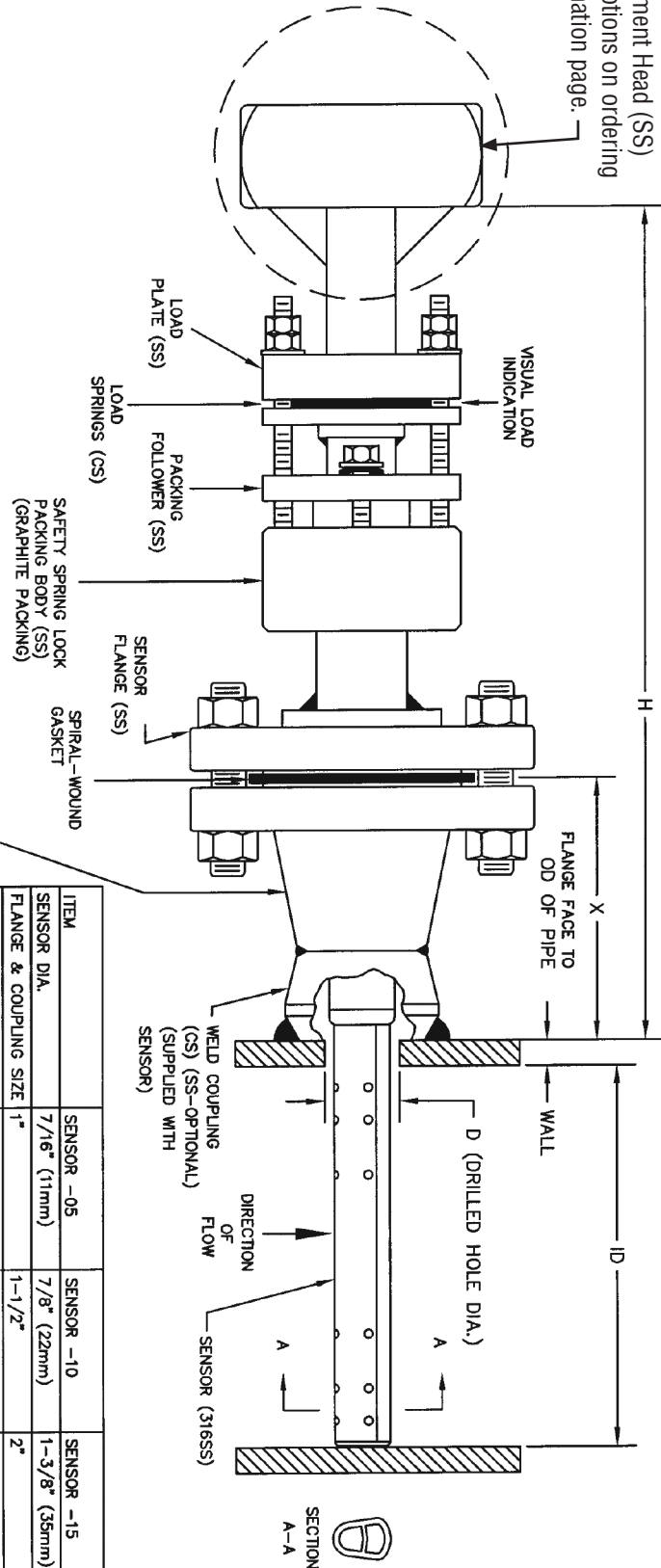
Spring Lock Mount

- Design ensures the sensor is sealed, locked and pre-loaded to the opposite wall, regardless of changes in pipe diameter due to pressure, temperature or mechanical vibrations.
- Leak resistant...compensates for differential in packing and body growth rates due to increased temperatures.
- Increases sensor strength (eliminates the need for an opposite wall support). A locked, pre-loaded sensor is four times stronger than a non pre-loaded, cantilevered sensor.
- By loading the sensor and packing independently, the sensor can move axially to maintain a precise load on the pipe wall.

Model	Flanged					
V550	Spring Lock					
Pipe Size and Schedule or Exact ID and Wall Thickness						
Code	Sensor Pipe Size Range					
05	2" to 6" (50mm to 150mm)					
10	6" to 42" (150mm to 1050mm)					
15	12" to 60" (300mm to 1500mm)					
Code	Pipe Orientation					
H	Horizontal					
V	Vertical					
Instrument Connections (Select Remote or Direct Mount) (Transmitter sold separately)						
 Remote Mount Transmitter (1/2" NPT)				 Direct Mount Transmitter (Flanged 450°F/232°C Max.)†		
Parallel	Regular	RTD*	Valve	Transmount	Mass Transmount	Manifold
			 Integral		 Integral RTD	 Integral
P	R	D	T	F	G	M
Instrument Valves (Opt.)			Manifolds (Optional)			
 Remote Mount			 Direct Mount			
Needle	Gate		3-Valve		5-Valve	
 1/2" NPT	 1/2" NPT		 Soft Seat Hard Seat		 Soft Seat Hard Seat	
C2NC (CS) C2NS (SS)	C2GC (CS) C2GS (SS)		F3SC (CS) F3SS (SS)	F3HC (CS) F3HS (SS)	F5SC (CS) F5SS (SS)	F5HC (CS) F5HS (SS)
Optional						
Mounting Assembly — Select Material & Rating (Includes SS sensor flange, WN flange, weld coupling, spiral-wound gasket, studs & nuts)						
Sensor (Valve Size NPT)			Mating Flange Material & ANSI Class			
05 (1")	10 (1-1/2")	15 (2")				
Code						
F415C F415S	F615C F615S	F815C F815S	CS 150# SS 150#			
F430C F430S	F630C F630S	F830C F830S	CS 300# SS 300#			
F460C F460S	F660C F660S	F860C F860S	CS 600# SS 600#			
V550	8"sch40	10	H	R	C2NC	F615C
Typical Model Number						

* For high pressure (>500psig) or high temperature (>500°F), remote mount RTD in a thermowell is preferred.
† Assuming adequate heat dissipation for transmitter.

Instrument Head (SS)
See options on ordering
information page.



ITEM	SENSOR -05	SENSOR -10	SENSOR -15
FLANGE & COUPLING SIZE	7/16" (11mm)	7/8" (22mm)	1-3/8" (35mm)
DIM "D" DRILLED HOLE DIA.	1/2" (13mm)	1" (26mm)	1-1/2" (39mm)
DIM "H" ANSI CLASS 150#	11.4" (289mm)	14.5" (368mm)	16.8" (427mm)
DIM "H" ANSI CLASS 300#	12.0" (305mm)	15.1" (383mm)	17.4" (441mm)
DIM "H" ANSI CLASS 800#	12.5" (317mm)	15.7" (399mm)	18.1" (460mm)
DIM "X" ANSI CLASS 150#	3.31" (84mm)	3.81" (97mm)	4.06" (103mm)
DIM "X" ANSI CLASS 300#	3.56" (90mm)	4.06" (103mm)	4.31" (110mm)
DIM "X" ANSI CLASS 600#	3.81" (97mm)	4.38" (111mm)	4.69" (119mm)

* "H" & "X" DIMENSIONS ARE APPROXIMATE (FOR SIZING PURPOSES ONLY)



VERIS Flow Measurement Group
armstronginternational.com/veris

VERIS Verabar® V550
Spring Lock,
Flanged

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Scale: NTS		Page 1 of 1



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