



## 'INTELLIGENT' PRESSURE AND LEVEL TRANSMITTERS "All Stainless Steel"

### Series 9000



▶ ALL STAINLESS HOUSING

▶ EASY PROGRAMMING  
BY 3 PUSHBUTTONS AND DISPLAY

▶ ACCURACY: 0.2% (OPTION: 0.1%)

▶ TURN DOWN 4:1

▶ ACTIVE TEMPERATURE COMPENSATION

▶ ALL INDUSTRIAL PROCESS CONNECTIONS

▶ OPTION: HART PROTOCOL



### Description

The series 9000 is a complete line of pressure and level transmitters with Stainless Steel electronics housings. The set up and programming is easy using the standard three button display, with no pressure source required. Choose from a wide variety of engineering units on the display that comes with every unit. The series 9000 is fully temperature compensated, and has over 40 process connections available, including most proprietary designs. HART protocol is available as an option.



*Stainless steel electronics housing*

HART is a registered trademark of the HART Communication Foundation.

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# Series 9000

## Specifications

Accuracy	: 0.2% of adjusted span
Ranges	: 0 - 1.45 psi to 0 - 1160 psi (0 - 0.1 bar to 0 - 80 bar)
Turn down	: 4:1
<b>Adjustment</b>	<b>: by 3 pushbuttons and local display (no pressure source required)</b>
Output	: 4-20 mA (option: HART Protocol)
Supply	: 12 – 36 Vdc
Electrical connection	: PG9 (Option: M12 or ½”NPTf)
Protection	: NEMA 4X / IP66 (option: IP68)
Process temperature	: -4°F to +176°F (Option: 212°F)
Material wetted parts	: AISI 316L (option: Hastelloy C )
Electronic housing	: AISI 304 (option: AISI 316)
Process connections	: See ordercode on page 4

## DESCRIPTION SERIES 9000:

The series 9000 is designed for pressure measurement in the Pulp & Paper industry and similar industries **where clogging is a problem**. The process connections for the series 9000 are smaller than those for the 9000-SAN series, and are ideal for pressure measurements in pipelines. **The flush diaphragms are small and very strong**, and are based on the Klay Flush Diaphragm technology.

## Pressure Spike protection

All Klay series 9000 transmitters with a range greater than 14.5 PSI are protected by internal pressure dampers to guard against pressure spikes.



Code N



Code W33

## Adjustable points

P101	Zero adjustment (ZERO / 4 mA)
P102	Span adjustment (SPAN / 20 mA)
P103	Cancel mounting position effect
P104	Adjustment pressure unit
P105	Output 4-20 mA* or 20-4 mA
P106	Damping adjustment (0 - 25 sec.)
P107	Temperature read out: FAHR °F* or CELC °C
P108	Device setup
P109	Read out on display: Current, pressure unit, temp. or %.

\* = Factory setting

*Easy Programmable*



*Display with 3 pushbuttons  
(Standard)*

The standard series 9000 will be delivered with two stainless steel covers, providing protection for the 3 push buttons and displays.

A transparent cover can be ordered as an option (I), allowing for local indication.

# Series 9000 SAN



## Specifications

Accuracy	: 0.2% of adjusted span
Ranges	: 0 - 0.6 psi to 0 - 1160 psi (0 - 0.04 bar to 0 - 80 bar)
Turn down	: 4:1
<b>Adjustment</b>	<b>: by 3 pushbuttons and local display (no pressure source required)</b>
Output	: 4-20 mA (option: HART Protocol)
Supply	: 12 – 36 Vdc
Electrical connection	: PG9 (Option: M12 or ½”NPTf)
Protection	: NEMA 4X / IP66 (option: IP68)
Process temperature	: -4°F to +212°F (293°F / 45 min.)
Material wetted parts	: AISI 316L (option: Hastelloy C or Tantalum )
Electronic housing	: AISI 304 (option: AISI 316)
Process connections	: <b>More than 40!</b> See ordercode on page 4



Code X1

## DESCRIPTION SERIES 9000-SAN:

The series 9000-SAN is designed for pressure and level measurement in the Food & Dairy, Chemical and Pharmaceutical industries. All hygienic process connections are available (more than 40!) and all are according to the 3A, FDA and EHEDG regulations

**Our transmitters are EHEDG and 3A certified.**

The transmitters are fully temperature compensated and have very strong flush mounted diaphragms. They are both CIP and SIP cleanable.



Code W

## Active Temperature Compensation:

All Klay transmitters with a flush diaphragm use our unique **Klay Flush Diaphragm Technology**. These transmitters are fully temperature compensated. (Detailed brochure available).



## Separate (remote) electronics

Series 9000 and 9000-SAN are both available with remote electronics.

Type: **9000-SAN-Cable(...ft)-range-...**

Always specify the cable length, range and process connection. (See ordercode on page 4).

## Improved Klay connection, 3A and EHEDG certified:

The specific Klay Hygienic process connection code W(85) W(3.35”) is now also available in a new improved 3A/EHEDG certified version. In that case the diaphragm is fully flush with the inside tankwall and has an o-ring sealing. It can also be installed in existing Klay W85 weld spuds! Add option code **G150** at the end of the ordercode in combination with code W(85)



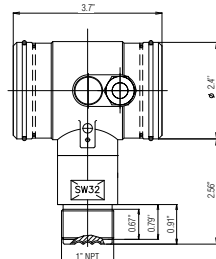
Code W85 with option G150



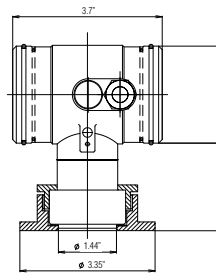


# Ordering codes Series 9000 and 9000-SAN

<b>SERIES 9000</b>		Orderingcode for standard transmitter:	9000 -					
(info on page 2)		Orderingcode with cable:	9000-Cable ( ....ft) -					
Adjustable span range PSI / bar	Max. overpressure (psi)							
0 - 1.45 to 0 - 5.8 psi / 0 - 0.1 to 0 - 0.4 bar	93 psir	▲	▲	▲	▲	▲	▲	▲
0 - 5.8 to 0 - 23 psi / 0 - 0.4 to 0 - 1.6 bar	150 psi	B						
0 - 14.5 to 0 - 58 psi / 0 - 1 to 0 - 4 bar	232 psi	D						
0 - 29 to 0 - 145 psi / 0 - 2 to 0 - 10 bar	435 psi	E						
0 - 87 to 0 - 350 psi / 0 - 6 to 0 - 24 bar	1450 psi	F						
0 - 290 to 0 - 1160 psi / 0 - 20 to 0 - 80 bar	2900 psi	G						
		H						
PROCESS CONNECTIONS:								
- Weld-on nipple diam. 33 mm. (flush diaphragm / pulp & paper) Equal to PMC 1-inch flush.		W						
- 1"NPT threaded connection (flush diaphragm)		N						
- M44 x 1,25 (PMC, Rosemount 1.5 inch flush (Pulp & Paper)		X2						
- PASVE 1" connection (Valmet/Satron / pulp & paper)		X12						
- Other process connections, specify X code (Ask for Klay X code list)		X..						
OPTIONS:								
- Transparent cover, display functions as local indicator					I			
- Vacuum Ranges (Specify Relative or absolute) Compound ranges available (example -1 / +1 bar)						V		
- HART® Protocol							H	



9000 - code N



9000-SAN - code W85

<b>SERIES 9000-SAN</b>		Orderingcode for standard transmitter:	9000-SAN					
(info on page 3)		Orderingcode with cable:	9000-SAN-Cable ( ....ft) -					
Adjustable span range:	Max. overpressure (psi)							
0 - 0.6 to 0 - 1.45 psi / 0 - 0.04 to 0 - 0.1 bar	45 psi	▲	▲	▲	▲	▲	▲	▲
0 - 1.45 to 0 - 5.8 psi / 0 - 0.1 to 0 - 0.4 bar	93 psi	A						
0 - 5.8 to 0 - 23 psi / 0 - 0.4 to 0 - 1.6 bar	150 psi	B						
0 - 14.5 to 0 - 58 psi / 0 - 1 to 0 - 4 bar	232 psi	D						
0 - 29 to 0 - 145 psi / 0 - 2 to 0 - 10 bar	435 psi	E						
0 - 87 to 0 - 350 psi / 0 - 6 to 0 - 24 bar	1450 psi	F						
0 - 290 to 0 - 1160 psi / 0 - 20 to 0 - 80 bar	2900 psi	G						
		H						
PROCESS CONNECTIONS:								
- Tri-Clamp 1", 1 1/2", 2" or 3" (Specify size)		L..						
- Klay Sanitary weld spud, diameter 3.35" (85mm) for tankmounting. Other diameters on request		W..						
- Milk coupling DIN 11851, DN 25 till DN 50 (Specify size)		M..						
- Flange ANSI 1 1/2", 2" or 3" or DIN DN 25, 40, 50 or 80. (Specify size)		F..						
- E+H Universal process adapter (short version, code 00)		X1						
- GEA Tuchenhagen Varivent 2" (65mm)		X4						
- 2" IDF coupling		X5						
- Anderson Negele Type SL Flush mount <b>Short</b>		X25						
- 1 1/2" NPT threaded connection		X20						
- Other process connections, specify X code (Ask for Klay X code list)		X..						
OPTIONS:								
- Transparent cover, display functions as local indicator					I			
- Vacuum Ranges (Specify Relative or absolute) Compound ranges available (example -1 / +1 bar)						V		
- High Temperature version with cooling fins. Always specify Process Temperature						HT		
- HART® Protocol							H	
- Electrical connection: 1/2" NPTf								G1
- Electrical connection: M12 connector								G107
- Process connection W, 3A and EHEDG certified with full 'Flush' diaphragm								G150

We reserve the right for technical modifications without prior notice.