



Low Pressure 3A Sanitary Pressure Transmitters

Type SA-11 - 100 INWC to 100 PSI with integral cooling extension

Tronic

(Previous model numbers 891.13.525, 891.13.527 S-11-3A, S-11-3A-C)

- Meet 3A sanitary criteria for food and pharmaceutical applications
- Available with 1.5" or 2" Tri-Clamp® connections
- Pressure ranges include vacuum, compound, and gauge ranges as low as 100 inches water column
- 4-20 mA 2-wire output signal, others available
- Designed for media temperature to 150°C (300°F)



WIKAI SA-11 pressure transmitters meet 3A and EHEDG sanitary criteria for pressure and level measurement in the food, pharmaceutical, cosmetic, and beverage industries. They feature 0.25% accuracy, rugged stainless steel construction, and a wide operating temperature range.

The SA-11 features an integral cooling extension between the Tri-Clamp connection and transmitter body. This design increases the maximum permissible media temperature to 150°C (300°F).

The 316L stainless steel flush diaphragm minimizes product buildup. The permanently sealed sensing system includes food grade liquid fill and is designed for "clean in place" (CIP) and "sterilize in place" (SIP) maintenance procedures. The transmitters are available with industry standard 1.5" or 2" Tri-Clamp® connections. They can be ordered with an optional NEMA 6P (IP 68) cable assembly for additional protection in washdown areas.



Type SA-11

STANDARD RANGES

RANGE	MAXIMUM*	BURST**
0-100 INWC	30 PSI	30 PSI
0-150 INWC	30 PSI	30 PSI
0-250 INWC	60 PSI	60 PSI
0-400 INWC	70 PSI	70 PSI
0-25 PSI	145 PSI	145 PSI
0-50 PSI	250 PSI	250 PSI
0-100 PSI	500 PSI	500 PSI

Other ranges are available



Type SA-11 with optional IP 68 cable

Tri-Clamp® is a registered trademark of Tri-Clover Inc.

Notes:

* Pressure applied up to the maximum rating will cause no permanent change in specifications

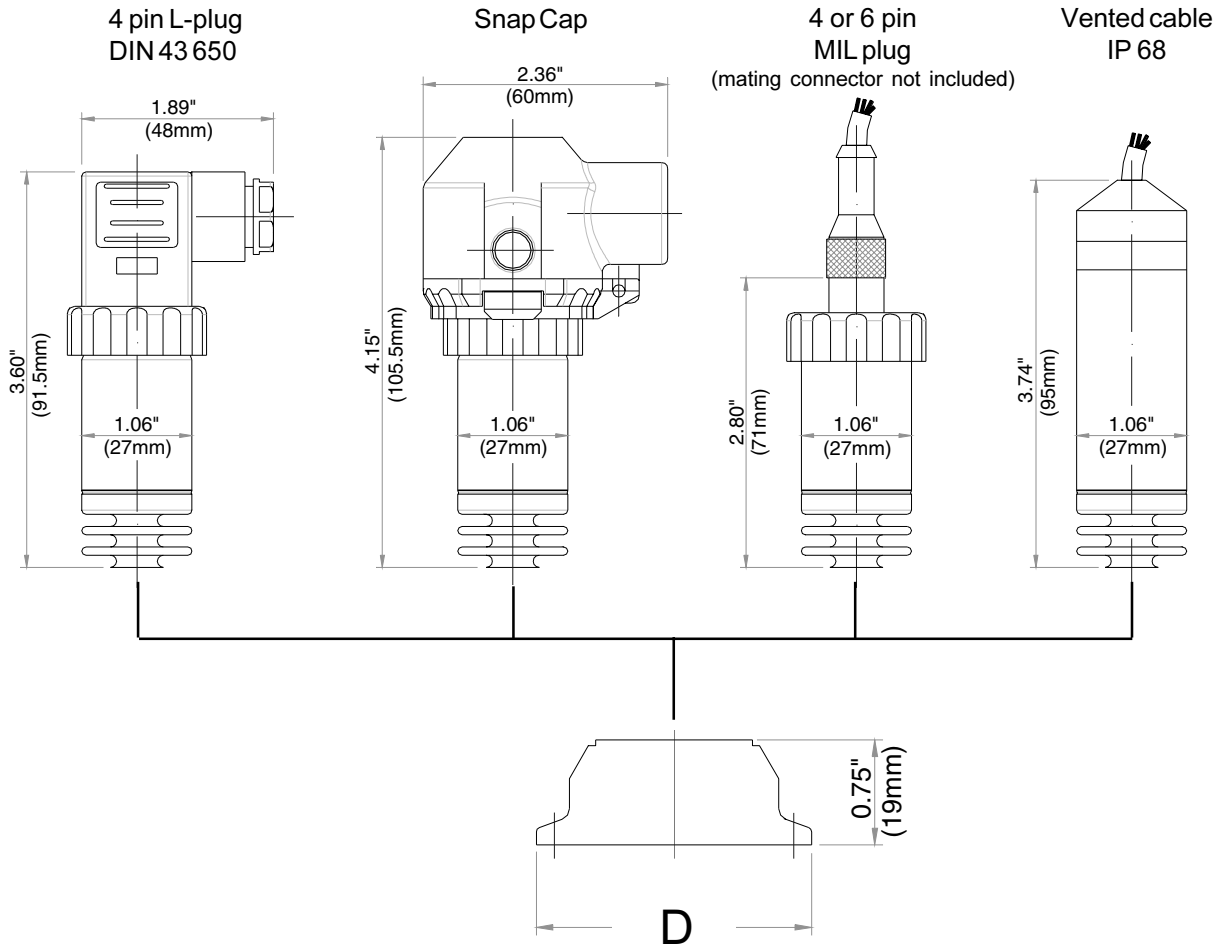
** Exceeding the burst pressure may result in destruction of the transmitter and loss of media.

APE SA-11

Specifications	Units	Type SA-11 Sanitary
Sensing principle Pressure ranges Pressure reference	PSI	piezoresistive standard ranges as listed {custom ranges available} relative pressure {absolute}
Pressure connection Material: -wetted parts -case -internal transmitting liquid		1.5" or 2" Tri-Clamp connection {other connections available} 1.4435 (316L ss) stainless steel 1.4301 (316 ss) stainless steel Synthetic oil KN 77, FDA approved
Supply voltage U_B Output and load limitations: Output signal and maximum load Response time (10...90%) zero and span adjustment	DC Volts milliseconds %	10 - 30 (14 - 30 for 0 - 10 V output signal) 4-20 mA 2-wire system $R_A[\text{Ohm}] \leq (U_B[\text{V}]-10\text{V}) / 0.02 \text{ A}$ {0-20 mA 3-wire system} $R_A[\text{Ohm}] \leq (U_B[\text{V}]-10\text{V}) / 0.02 \text{ A}$ {0-5 V 3-wire system} $R_A > 5 \text{ kOhm (min)}$ {0-10 V 3-wire system} $R_A > 10 \text{ kOhm (min)}$ {other signal outputs available} ≤ 10 Approximately ± 10
Accuracy (linearity, including hysteresis and repeatability) Repeatability Hysteresis 1 year stability	% of span % of span % of span	$\leq 0.25\%$ (B.F.S.L.) (Calibrated in vertical mounting position with process connection down) ≤ 0.05 ≤ 0.1 ≤ 0.2 (under reference conditions) ($\leq 0.4\%$ for ranges ≤ 50 INWC)
Temperature Media Ambient Storage Compensated range Temperature error (reference 70°F) on zero per 18°F (10°C) on span per 18°F (10°C)	 % %	-4°F to +302°F (-20°C to +150°C) -4°F to +176°F (-20°C to +80°C) -40°F to +212°F (-40°C to +100°C) +32°F to +176°F (0°C to +80°C) ≤ 0.2 (≤ 0.25 for 0-150 INWC; $\leq 0.40\%$ for 0-100 INWC) ≤ 0.2
CE conformity		Interference emission and immunity per EN 61 326
Electrical connection Weight Dimensions Electrical protection Environmental protection	 lb	4-pin L-plug per DIN 43 650 with solderless screw terminal and PG 13 fitting {4- pin L-plug with 1/2" female conduit opening} {5 foot vented flying lead} {4 or 6 pin MIL plug} {Snap Cap} approximately 1.0 (0.5 Kg) see drawing protected against reverse polarity, short circuit, and overvoltage IP 65 (NEMA 5) with 4 pin L-plug, MIL plugs {IP 67 (NEMA 4) with 5 foot flying lead, Snap Cap} {IP 68 (NEMA 6P) with vented cable and non-accessible zero and span}

Note: Items in curved brackets { } are available as special order options

Dimensions



Key	Description	Dimension
D	1.5" Tri-Clamp	1.97" dia.
	2.0" Tri-Clamp	2.52" dia

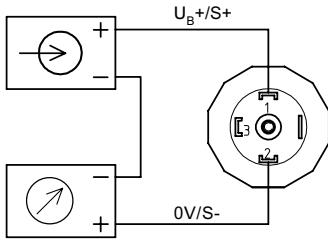
Electrical connections

	Standard				
Type	DIN 43 650 plug	Snap Cap™ with terminal block	MIL plug	Vented cable with free ends	Vented cable with free ends
Protection	IP 65 / NEMA 5	IP 67 / NEMA 4	IP 65 / NEMA 5	IP 67 / NEMA 4	IP 68 / NEMA 6P
Description and part numbers	PG9 cable gland (standard) Part # 1006711 1/2" NPT female conduit opening Part # 1632159	PG 11 cable gland, 4-20 mA Part # 2130017 1/2 NPT female conduit, 4-20 mA Part # 4260261	4 - pin PT02E-8-4P Part # 8990935 6 - pin PT02E-10-6P Part # 9744460	5 foot - #9744479 10 foot - 9838915 20 foot - 4239904 30 foot - 4239921 50 foot - 4293348	Order using description "IP 68 vented cable", specify cable length

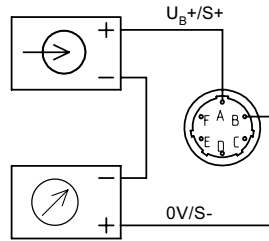
Wiring

2-wire system

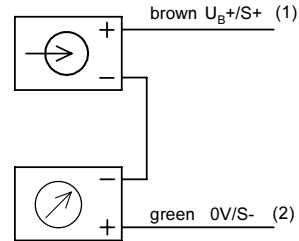
DIN 43 650 plug



MIL-plug PT 02 E-10-6P

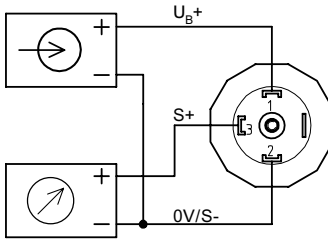


flying lead

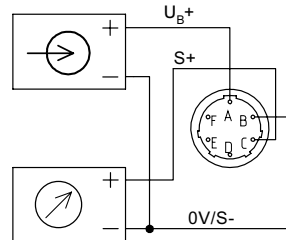


3-wire system

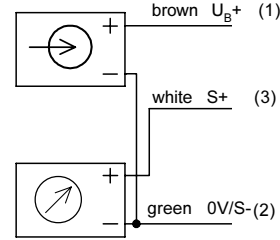
DIN 43 650 plug



MIL-plug PT 02 E-10-6P



flying lead



2-wire system

Wire	Coding	DIN Plug	Wire Color
Supply +	$U_B+ / S+$	pin 1	brown
Signal -	$0V / S-$	pin 2	green

3-wire system

Wire	Coding	DIN Plug	Wire Color
Supply +	U_B+	pin 1	brown
Supply - Signal -	$0V / S-$	pin 2	green
Signal +	$S+$	pin 3	white

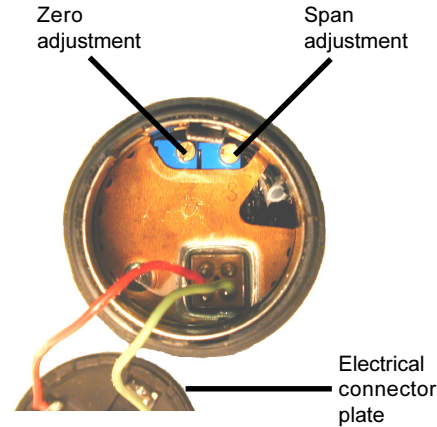
Loop powered attachable indicator is available for 4-20 mA transmitters equipped with the DIN plug.
Part # 4210069



Calibration

Note: zero and span access is not available with the IP 68 cable option

Remove the external electrical connection and retaining ring. Carefully lift the connector plate away from the transmitter body. Attach a meter and power supply to the electrical connector. For gauge ranges the zero potentiometer can be adjusted to produce a null output when no pressure is applied. Span adjustment requires the use of a reference pressure source. Compound and absolute ranges require a vacuum and pressure source. When calibrated, reassemble connector, taking care not to pinch the wires between the case and connector plate.



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Total Performance™

Ordering Information:

State computer part number (if available) / type number / range / output / process connection / electrical connection / other required options.

Specifications given in this data sheet represent the state of engineering at the time of printing. Modifications may take place and the specified materials may change without prior notice.

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